Franjieh, Michael James (2012) Possessive classifiers in North Ambrym, a language of Vanuatu: explorations in Semantic classification. PhD Thesis. SOAS, University of London

http://eprints.soas.ac.uk/16808

Possessive Classifiers in North Ambrym,
a Language of Vanuatu:
Explorations in Semantic Classification

Michael James Franjieh

A thesis submitted for the degree of Doctor of Philosophy in

Field Linguistics

Department of Linguistics

The School of Oriental and African Studies

University of London

September 2012

Declaration

I have read and understood regulation 17.9 of the Regulations for students of the School of Oriental and African Studies concerning plagiarism. I undertake that all the material presented for examination is my own work and has not been written for me, in whole or in part, by any other person. I also undertake that any quotation or paraphrase from the published or unpublished work of another person has been duly acknowledged in the work which I present for examination.

Signed: Date:

Abstract

North Ambrym, an Oceanic language spoken in Vanuatu, exhibits the two common Oceanic possessive construction types: direct and indirect. This thesis focuses on the indirect construction which occurs when the possessed noun refers to a semantically alienable item. In North Ambrym the indirect possessive construction is marked by one of a set of possessive classifiers. The theory within Oceanic linguistics is that the possessive classifiers do not classify a property of the possessed noun but the relation between possessor and possessed (Lichtenberk 1983b). Thus, it is the intentional use of the possessed by the possessor that is encoded by the possessive classifier, such that an 'edible' classifier will be used if the possessor intends to eat the possessed or the 'drinkable' classifier will be used if the possessed is intended to be drunk. This thesis challenges this theory and instead proposes that the classifiers act like possessed classifiers in North Ambrym and characterise a functional property of the possessed noun. Several experiments were conducted that induced different contextual uses of possessions, however this did not result in classifier change, which would be expected in the relational classifier theory.

Each classifier has a large amount of seemingly semantically disparate members and they do not all share the semantic features of the central members, thus an analysis using the classical theory of classification is untenable. Instead the classifier categories are best analysed using prototype theory as certain semantic groups of possessions are considered to be more central members. This hypothesis is supported by further experimentation into classification which helps define the centrality of classifier category members. Finally an analysis using cognitive linguistic theory proposes that non-central members are linked to central members via semantic chains using notions of metaphor and metonymy.

All languge data from this project has been deposited at the Endangered Language Archive (ELAR) at SOAS, University of London.

Acknowledgements

I wish to express my profound gratitude to the people of Ambrym, without whose help this work would not have been completed. I am most grateful to the people of Ranvetlam village who made me feel welcome so far from home. My sincere thanks go to Willie and Anna Tangou who adopted me into their family, fed and looked after me. I wish to extend my deepest thanks to my first language teacher, Isaiah Bong, my friend from the start. He worked patiently and tirelessly almost every night with me, even when he came back exhausted from working in the gardens. Isaiah also accompanied me on my trips across the island and introduced me to his friends and family who told me many stories. I wish to thank my other language consultants, Ephraim Hari, David Tasso and George Andrew who spent countless hours answering my inane questions about North Ambrym. My friend Saksak Batukon of Fansar village taught me so much about his culture and whose vitality is inspiring. I wish to thank the boys of the stringband for the many jokes we shared and fun we had from dancing on the edge of the volcano, jumping off the cliffs to chilling out with a shell of kava at night.

Many people helped me during my stay in the capital Port Vila. I wish to thank Sam Jung, whose guesthouse became my base. Here I met many friends who I wish to thank, such as Hugo DeBlok with whom I have had many discussions over Ambrym's rituals and customs; Kristine Sunde Fauske, Hildur Thorarenson and Tom Bratrud for their entertainment; Oliver Wehbe for his hospitality and for shipping beer to me on Ambrym; Mathilde Assouad for my stay on the lagoon; Daniella Kraemer for her friendship and anthropological insights; Kilu Von Prince and Manfred Krifka for their collaboration and support and

Contents Overview

1

Contents

List of Tables

8

List of Figures

Abbreviations

1	first person
2	second person
3	third person
ACC	accusative
APPL	applicative
ART	article
ASS	associative
AVE	avertive
CL	classifier
CNSM	consumable
COM	comitative
COMP	comparative
CONJ	conjunction
CONT	continuous aspect
COP	copula
CTF	counterfactual
DAT	dative
DEF	definite
DEM	demonstrative
DISJ	disjunction
DIST	distal
DL	dual
EX	exclusive
FEM	feminine
GEN	genitive

IMM	immediate aspect
IN	inclusive
IND	indefinite
INSTR	instrumental
INTJ	interjection
INTS	intensifier
IRR	irrealis
LOC	locative
M	masculine
MED	medial
NEG	negation
NH	non-human
NMLZ	nominaliser
NOM	nominative
NREC	nonrecent
NSP	non-specific
OBJ	object
P	pronoun
PART	particle
PC	paucal
PL	plural
POSS	possessive
POT	potential
PREP	preposition
PROX	proximal
PST	past tense
PURP	purposive
REC	recent
RED	reduplication
SBJ	subject
SG	singular
SUB	subordinator
TOP	topic
TR	transitive

Chapter 1

Introduction

This chapter serves as a general introduction to Vanuatu and Ambrym island, along with its languages, which will be introduced in section 1.1. The sociolinguistic situation is explored in section 1.2. Finally the scope of this thesis and research methodology is explained in 1.3.

1.1. VANUATU AND NORTH AMBRYM

Some background information on Vanuatu and Ambrym is given in section 1.1.1. Section 1.1.2 discusses the different languages of Ambrym and finally section 1.1.3 looks at language classification.

1.1.1. Background

The Republic of Vanuatu, formerly known as the Anglo-French Condominium of the New Hebrides, is a rough Y-shaped archipelago consisting of about 80 islands over a distance of 800km. Vanuatu is located in the South Pacific Ocean, west of Fiji, south of the Solomon Islands and north east of New Caledonia. Vanuatu gained independence in 1980. As a legacy of joint rule, French and English are still spoken widely and also taught in schools. Bislama, an English lexifier creole, is the lingua franca among the islands and is one of the national languages of Vanuatu, along with French and English. Vanu-

atu is considered the most linguistically dense country in the world[1] (Crowley 1990: 4). It is estimated that there are around 100 different languages, with ethnologue giving 108 living languages[2] and Lynch & Crowley (2001) citing 106 languages, though this total includes 8 extinct languages. Vanuatu has a current population, according to the most recent national survey, of 234,023 (Census 2009).
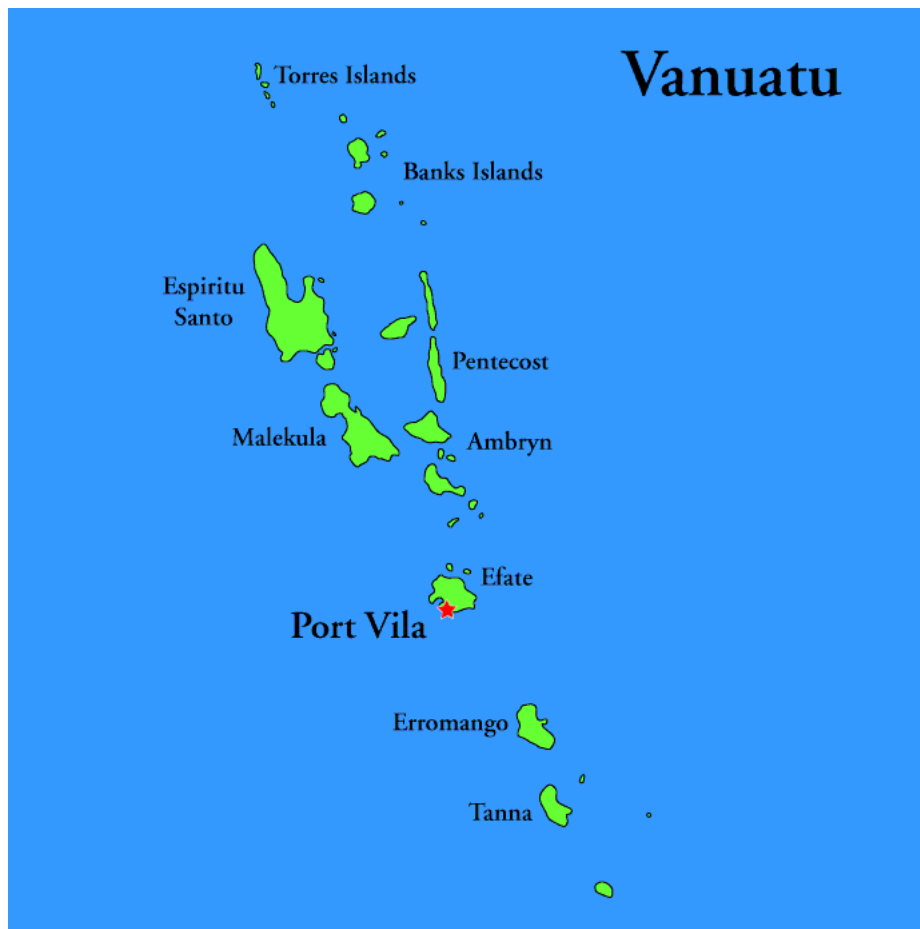
Figure 1.1: Vanuatu

The island of Ambrym is situated roughly in the centre of the archipelago as shown in figure 1.1[3] and covers an area of 680km^2 and is the fifth largest island

---

[1]This is calculated by dividing the geographical area (12,274km^2) by number of living languages (108) which gives a total of 114km^2 per language. An even higher density could be given if using just total landmass area (4,700km^2) giving a language density of around 44km^2 per language.

[2]http://www.ethnologue.com.

[3]Map source: www.maps-pacific.com.

in Vanuatu. Ambrym, along with the islands of Malakula, Paama and a few smaller islands make up the province of Malampa.

Different sources have given rough population estimates over the last fifty years for Ambrym. Paton (1971) estimated a total population of 4,200 in 1956. Haberkorn (1985) states that the population on Ambrym in 1979 was 6,176 with a population growth of 1.94%. However more recent population information comes from the Vanuatu National Statistics Office, which suggests the population on Ambrym to be 7,300 with a population growth of only 0.5% in 1999. According to the latest census quotes Ambrym's population stands a little lower at 7,275 (Census 2009). North Ambrym is the most densely populated area and Manfred Krifka (p.c.) estimates the population in the North to be around 3,000.

The main geographical features of Ambrym are the two active volcanoes situated in the centre of the island. The twin craters of Marum and Benbow are one of only a handful of volcanoes in the world to have continuous lava lakes. Surrounding the volcanic region is a large 12km wide caldera consisting of a desolate ash plain. The volcanoes on Ambrym are highly active and have played a destructive part in the history of Ambrym. There have been several major eruptions over the last century. The 1913 eruption led to the destruction of the Presbyterian mission and hospital in the South-west of the island. This site had previously been chosen by the condominium government to be the capital city of Vanuatu, but because of the eruption the capital was changed to Port Vila. A further eruption in 1953 resulted in the south-eastern village of Maat to be relocated to Paama island. More recently ash plumes caused by the volcanoes have resulted in severe acid rain which has led to the destruction of crops. There are clear health problems associated with the volcano such as the possibility for chronic dental and skeletal fluorosis caused by volcanic ash settling in the drinking water (Cronin & Sharp 2002). Originally the shape of Ambrym would have been quite different with a giant tuff cone centre, similar to the shape of the Lopevi volcano near Paama. Around 2,000 years ago a major eruption occurred which lasted months, if not years that led to the subsidence and creation of the caldera (Robin *et al.* 1993: 235).

There are three main settlement areas; the North, the South-West and the

South-East. There are no roads linking these areas and large tracts of uninhabited coastline and the central ash-plain lie between them. There are two airstrips on Ambrym, located in Craig-Cove (South-West) and one in the South-East. North Ambrym is only reachable by 'speed' boat from Craig Cove or by foot through the jungle paths and across the ash plain which takes about a day. Crossings by foot in this way between the North and the West or South-East occur fairly regularly, especially when people journey to other areas for a wedding. An alternative and more cheaper option than flying is to take one of the weekly cargo ships to either the capital Port Vila or the second town of Luganville in Santo, both are about a days journey away. North Ambrym has two health clinics, one at Nobul and one at Ranon, with a further aid-post in Ranvetlam village. North Ambrym has two secondary schools, one French medium, in Tobol village and one English medium, in Ranon village. There are also six primary schools.

1.1.2. The Languages of Ambrym

According to Lynch & Crowley (2001) Ambrym has four languages named after their respective geographical locations, which are North, South, West and Southeast. Also included in their survey is the moribund language of Orkon, which they say has only two speakers. More recent documentation of the languages of West and South Ambrym by Manfred Krifka and Kilu Von Prince have resulted in more detailed language boundaries and Von Prince (2012) states that there are actually five languages in the South and West of the island. This gives a total of eight distinct languages on Ambrym. Lynch & Crowley underestimated the number of speakers of Orkon at just two but there are perhaps thirty based in Ranvetlam, Faramsu and Konkon villages.

Historically, there have been few publications on the languages of Ambrym. The first documentation was conducted by Gabelentz (1861). Later Codrington (1885) produced a short grammar, based on the language spoken in West Ambrym. During the early part of the twentieth century, Ray (1926) produced another grammar of West Ambrym. A one page report on the different names of breadfruit appears to be the first documentation of North Ambrym and was collected by Murray (1894) at the village of Rauon near Rodd's anchorage.

The only major documentation that exists on any language of Ambrym came from Pastor Paton who submitted his work on Lonwolwol as part of his PhD thesis for the University of Melbourne in 1956. A collection of his unedited work was published after his death in the 1970s and included a dictionary, grammar, text collection and ethnographical data on the Lonwolwol language (1971, 1973, 1979b, 1979a). The main source of information on the North Ambrym language was collected by Paton. Word lists and some paradigms can be found in his grammar and dictionary (1971, 1979a). Paton's work also shows that within the geographical area of North Ambrym there are pronunciation differences (c.f. section 2.1). Tryon (1976) has also collected wordlists that he has used in his classification study of the languages of Vanuatu.

Paton (1971) and Tryon (1976) both state that North Ambrym, Lonwolwol, Dakaaka and Port Vato are closely related, sharing roughly 70% similarity based on a basic word list. Krifka's initial findings suggest that there is a dialect continuum starting with North Ambrym and including Politbetakever, Craig Cove, Baiap, Sesivi and Port Vato. The two ends of this continuum constitute separate languages (Manfred Krifka p.c). One further finding of Krifka is that Lonwolwol, the language Paton describes in his work, only has one speaker left. Krifka (p.c) believes this loss is due to the relocation of the speakers after the volcanic eruption in 1913. This is also supported by Paton's definition of Lonwolwol in his dictionary (1973: 119).

> "Lonwolwol - among the mangroves; the name of the tribal area, and tribe near the northwestern 'corner' of Ambrym, near Dip Point, - whose dialect this work seeks to record; the area was destroyed by volcanic eruption in December 1913"

The volcano has a continuing affect on the languages of Ambrym. In fact the dialect continuum from the North to the South is not a contiguous settlement area as the large tracts of land have been left uninhabitable by the lava flows. Previously, there would have been a continuous settlements across this area.

Figure 1.2[4] shows a map of Ambrym which shows the relevant villages mentioned in this section. The language of North Ambrym is spoken between

---

[4]Map adapted from https://maps.google.co.uk.

Ranvetlam and Konkon. The moribund language of Orkon/Fanbak was originally spoken around Fanbak but is now spoken in Ranvetlam (and neighbouring Faramsu) and Konkon. South East Ambrym is spoken between Endu and Bowe. Daakie is spoken around Port Vato and Maranata. Daakaka is spoken around Baiap and Sesivi and also inland. Dalkalein is spoken around the Craig Cove and Dip Point area. Originally Lonwolwol was also spoken near Dip Point.
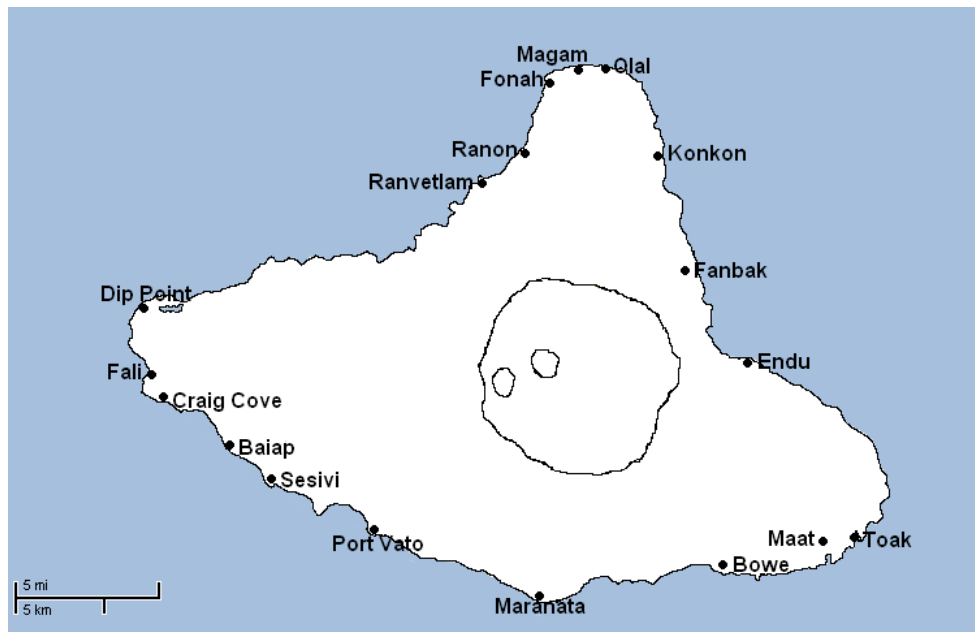
Figure 1.2: Map of Ambrym

Many languages in Vanuatu do not have names but simply locations (Lynch & Crowley 2001: 2). North Ambrym then refers to the location where the language is spoken. Asking for the name of the language gives varying responses and most people say that there isn't one. Sometimes *Taha* or *Tasa* was given, though this is actually the name for the area of North Ambrym itself in the language of West Ambrym. *Tumburin* was also given by one speaker in Magam and this is the name given in a book of children stories from North Ambrym too (Bangdor 2009), though this apparently was a political party at one point. *Ralfefe* is the name that appears in Alpi & Laan (1995) who discuss the history of politics in Ambrym. *Ralfefe* comprises of the word *rral* 'word, language' and a reduplication of *fe* 'to say'. At other times *rral ta rin* was given as a name and means 'language from here'. The languages of West and South Ambrym

20

all have similar reflexes of 'language' in their names, such that for *dalkalein*, *dakaaka* and *daakie* the *dal* or *da* part means 'language'. Due to the inconsistency of language names, North Ambrym shall refer to the language forthwith.

1.1.3. Internal Subgrouping

All the languages of Vanuatu belong to the Austronesian phylum and more narrowly to the Oceanic subgroup. The languages of Vanuatu belong to the Southern Oceanic linkage of the Central/Eastern Oceanic subgroup. Internally the languages of Vanuatu can be split into roughly three major subgroups, those of the North Vanuatu Linkage (NVL), Central Vanuatu Linkage (CVL) and those belonging to the South Efate/Southern Melanesian Linkage (SML) (Lynch *et al.* 2002: 112). These last two linkages are part of the Nuclear Southern Oceanic Linkage.

The languages of Ambrym belong to the CVL languages, as shown in figure 1.3 adapted from Lynch *et al.* (2002). The languages of the West and North of Ambrym are considered to be closely related to each other (Paton 1971). Whereas the South East Ambrym language is related to Paamese and less related to the other varieties. According to Paton (1971: vii), North Ambrym and Lonwolwol are 70% cognate. Language chaining is a common occurrence in Vanuatu. These chains extend over large distances and across islands and the existence of overlapping chains is also common (Tryon 1976). The languages of Ambrym are included in these overlapping chains and Tryon (1976: 80) puts North Ambrym, Lonwolwol, Dakaka, Port Vato and South East Ambrym as an island-wide language chain, with South East Ambrym being part of an overlapping dialect chain with Paamese. North Ambrym is also included in a different overlapping language chain to the north, combining with Sa, the language of southern Pentecost. Table 1.1[5] shows the results of Tryon's research concerning the dialects of Ambrym. Tryon (1976) also states that North Ambrym is itself multi-dialectal with two main dialects found in the villages of Olal and Magam, though for a more in-depth analysis of North Ambrym's dialects see section 2.1.

---

[5] Adapted from Tryon (1976: 111-151).

Sa	North Ambrym		Lonwolwol	Daakaka		Daakie	South East Ambrym	
Sa								
57.3/218	**Ranon**							
52.7/118	93.2/221	**Fonah**						
48.5/237	71.8/216	72.5/240	**Fali**					
46.8/237	63.3/215	65.4/240	74.9/231	**Baiap**				
46.2/234	62.7/212	62.4/237	71.9/231	81.9/232	**Sesivi**			
44.8/230	60.3/214	62.0/234	67.5/228	76.6/231	77.3/225	**Port Vato**		
41.8/239	50.7/217	49.6/249	47.8/232	532/233	48.7/228	51.5/227	**Toak**	
43.8/240	51.4/218	50.0/244	49.1/234	53.4/238	48.7/232	50.9/232	88.1/236	**Maat**

Table 1.1: Dialectal comparison of Ambrym languages

Table 1.1 shows the different cognate values of the languages of Ambrym (including Sa, spoken in southern Pentecost, the island located about 10km north of Ambrym). The column labels in the first row represent the language names. The village names where the word lists were gathered are on the diagonal, except for Sa, for which Tryon gives no village name. The village names correspond to those shown on the map in figure 1.2. The figures are in couplets with the first figure before the forward slash representing the cognate value in percentage and the figure after the slash representing the number of words on which the comparison was based. The highest percentage shared by any of these varieties is 93.2% between the word lists collected in Ranon and Fonah. However, these are both from the same dialect of North Ambrym and a high shared cognate score is expected. The discrepancies between these two villages can be put down to the fact that for some items on the word list used by Tryon more than one lexeme can occur in North Ambrym. This is not to do with dialectal variation but with noun class. Sometimes a free noun was given and other times a bound noun was given (c.f. section 2.3.1). For example the word for body hair was given as [woulu-ŋ] (bound noun) in Ranon but [woβül] (free noun) in Fonah, similarly the word for penis was given as [popo] (free noun) in Ranon but [wa-ŋ] (bound noun) in Fonah.

The most closely related language to North Ambrym is Lonwolwol and they share between 71.8% and 72.5% of their lexicon. The percentage of shared cognates between North Ambrym and the other languages on the island fall as the languages become more geographically removed, typical of language chaining. An interesting point is that the North Ambrym dialects share a

higher cognate value with Sa, the language from southern Pentecost, rather than with the language of South-East Ambrym.
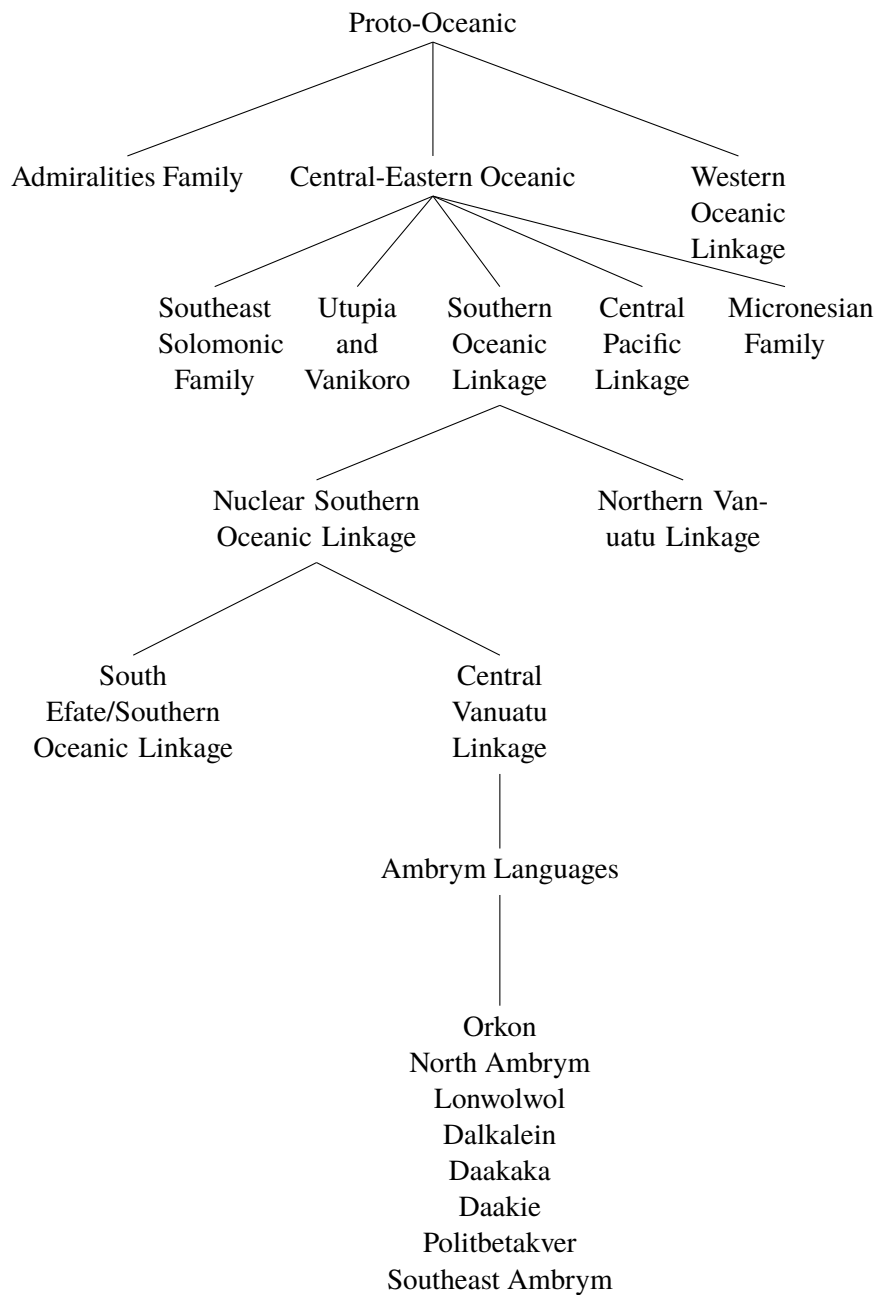
Figure 1.3: Sub-grouping of Ambrym Languages

1.2. SOCIOLINGUISTICS

This section gives a brief introduction to North Ambrym society. It is not my intention to write an ethnographic account of life in North Ambrym and in fact several in-depth anthropological studies exist by Patterson (1976), Rio (2007) and Eriksen (2007). The social structure is looked at next, in section 1.2.1, the economy of the island is discussed briefly in section 1.2.2. Religion is looked at in section 1.2.3 and education in section 1.2.4. Finally language endangerment concludes this section in 1.2.5.

1.2.1. Social Structure

The kinship system of North Ambrym is one of the most well studied aspects of the culture in the field of Anthropology. W.H.R Rivers, one of the founding fathers of kinship studies and of British anthropology itself, was the first to discuss the system of North Ambrym (Rivers 1915). Since then other anthropologists such as Deacon (1927) and Lane & Lane (1956) have tried to interpret the kinship and marriage system. Though, it was not until Patterson's (1976) thesis that an in-depth analysis based on long term fieldwork[6] aligned the kinship system with other Melanesian systems (Rio 2007: 16). More recently anthropological studies have turned away from kinship and though Rio's (2007) work is on agency and social ontology in Ambrym it relies heavily on kinship. Other research by Eriksen (2007) has looked at women and social movement in Ambrym. The most recent research is being conducted by Hugo DeBlock for his PhD thesis on the context of production and performance of art objects for sale. Finally Rochelle Lieber is working on the New-Zealand migrant workers programme and its economical impact on local development for her PhD.

An attempt will not be made here to explain the kinship system here as it is rather complex, though kinship terms will be looked at in sections 4.1.4 and 8.1. One point will be mentioned here about taboo relationships. There are certain kinship members with whom one is taboo to and should not joke around

---

[6]Patterson learned the language of North Ambrym.

with. This especially applies to your *metauno* who can be your father-in-law or your sister's son. You cannot be physically higher than or approach them silently from behind. This taboo relationship is also encoded in a different linguistic register. For instance *neng le*, the informal greeting, is composed as the following:

(1)   *Neng le*
        2sgP med
        'hello (lit. 'you there')'

This form cannot be used with taboo kin, but instead *gomoro le* must be used, where the 2sg pronominal is replaced by the 2dl pronominal form, resulting in 'you-two there'. Similarly, when you invite your taboo relative to sit down and eat you cannot say the following:

(2)   *O   me   ngene meyee ge   a*
        2sg.[irr] come eat.tr food   sub prox
        'Come and eat this food'

The above sentence is far too direct and instead a more indirect speech act must be used as shown below.

(3)   *Gomoro le   moro   me   lngi gomoro li   ran siliye   ge*
        2dlP   med 2dl.[irr] come put 2dlP   prox on.3 log.nsp sub
        a   a   moro   rrwene meyee ge   a
        prox conj 2dl.[irr] make.tr food   sub prox
        'you-two there, you-two put yourselves on this stool and make the food'.

This taboo register is also endangered and the younger generation are simply using the 2sg forms instead.

1.2.2. Economics

Ambrym, like most other islands in Vanuatu, is heavily reliant on subsistence farming. Copra is one of the main cash crops, though the price per kilo fluc-

tuates wildly and the work is extremely hard. Copra was first exported via the plantation at Ranon, run by the Mitchell family. People would come from neighbouring villages to sell copra (Alpi & Laan 1995). People even came from Orkon village in East Ambrym to sell copra, which entails a 2 day hike while carrying 70-80 kilos of copra on their backs. More recently men from Ambrym have been participating in migrant workers trials in New Zealand and Australia. Approximately 180 have been involved in this migrant working scheme where they earn up to 7000 NZD. The money is used to pay for school fees, for bridal payments and for building concrete houses. A tithe is also paid to the local church and those who reside in Lolihor area also pay money to the Lolihor Development Council who are currently building a new school in Linbul. Apart from that they also buy solar panels, mobile telephones and other consumer goods (Rochelle Lieber, p.c).

1.2.3. Christianity

The first mission on Ambrym was built near Ranon by the Presbyterians in 1883. Ten years later the Catholics arrived and set up their mission at Olal (Alpi & Laan 1995: 323). The Catholics still have a strong presence among the francophone Ambrymese in the North and their church is more like a cathedral in size compared to the other smaller church buildings in Ambrym. The Presbyterians are still the largest church in Ambrym with a 51% membership, whereas the Catholic church has 23.9% and the Seventh Day Adventists with 16.2% (Alpi & Laan 1995). There are several other Christian denominations in Ambrym, with the Neil Thomas Ministry based in Ranvyuu in the hills above Ranon; the Christian Mission based in the Orkon enclave of Ranvetlam village and there is also a Pentecostal church in Fansar village. However Ambrym is reputed to have strong *kastom*[7] beliefs and *kastom* rituals whose ceremonies are still performed. As recently as 1999 the people of Ranon blamed sorcery for ill-health, death and failing crops and were considering abandoning the village (Eriksen 2007). And even during my stay *abyeu* 'sorcery' was blamed

---

[7]*Kastom* is a Bislama word that encompasses all aspects of traditional culture, including religion, economy, traditional land use and art.

for an alleged sexual assault on a girl in the high school in Ranon[8].

Currently the pastor of the Presbyterian Church in Ranon is from Port Vato in South Ambrym and delivers his sermons in Bislama. Though the Presbyterian church in Ranvetlam is run by local church elders and is mostly conducted in the North Ambrym language. A member of the Presbyterian Church in Magam had even produced a hymn book in North Ambrym, shown in figure 1.4 which is still in use, though people do have trouble reading it. Normally bible readings are in English and then translated into North Ambrym. Houghton Richards, affiliated with the Summer Institute of Linguistics, has recently moved to Ranvetlam village with his family and has started the task of translating the bible into North Ambrym which will fully integrate the church as a speech domain.

---

[8]It turned out that the girls had made up the story in order for the school to be closed down in protest against the water well being too far and there being no night guard.

61. "Take Time to be Holy"

S. 608. Lev. 20:7.

1. Orwene neng fokon, sur bane Yafu
   Krine wobung bonga, O rongne tolon
   Orwene bulbulan bane genti God
   Forlon nelngingi God mnan wuan melam.

2. Orwene neng fokon lon menam muran
   Durongrong tamtama, krine Yesu nga
   Terba lehe Yesu Nge ebhalku neng
   Mnam bulbulan gerwu onga valhe Nge.

3. Orwene neng fokon, Nge eblimhi neng
   Forlon nemku mone lon menam oman
   Lon kwaran a helan, oruto Yafu
   Terba lehe Yesu rinkete tolon.

4. Orwene neng fokon, mnam muran ewu
   Dindinan hakbe nyer, lingilngi beva
   Ninmuran ge mokon Nge eblimhi neng
   Neng efo nga varu krine Yesu nga.

   E Joseph Tungon.

62. "Oh Sons and Daughters Let Us Sing"

John 20:19-29.

1. Menangken yafu ge Nge temar
   Nge mototor rubur lonle
   Nge tolo nga rubur lon bulbul
   Halleluya!

2. Nge tetotormol entabungbung
   Menange nyer erva a valhe
   Ul ge temar a tefer ru lon
   Halleluya!

3. Angel tesur tere mene nyer
   Mnami Yafu mototormol bur
   Nge murumo rupa kalele
   Halleluya!

Figure 1.4: A page from the North Ambrym hymn book

29

1.2.4. Language and Education

There are three national languages of Vanuatu, English, French and Bislama. English and French are remnants of over 70 years of joint condominium rule. Vanuatu was under the colonial administration of England and France; however the archipelago was not simply split into two administrative halves but kept as one. Both Britain and France ruled over the island chain; institutions and administrative offices were simply duplicated. Two courts settled disputes, a French and a British one, whose rulings would generally differ, leading to unresolved cases. This haphazard system was also duplicated in the education system and both French and English schools were introduced, thus a village may have a French school and the neighbouring village would have an English one.

Bislama, an English lexifier creole, is also one of the national languages of Vanuatu and is used as a lingua franca throughout the country. Bislama originated as a trade jargon that was picked up from the whale traders as they moved westwards from Polynesia and into the Melanesian seas (Tryon 1987). Its usage increased as the sandalwood industry boomed in southern Vanuatu during the mid 1800s and the name Bislama is believed to originate from the sea-slug (bêche-de-mer) trade with China that originated around the same time. Bislama really took hold during the indentured labour trade when boats full of Ni-Vanuatu were shipped off to Queensland to work on the sugar-cane plantations in the latter part of the 19th Century. The trade jargon increased in usage on the plantations and over half a century a Melanesian pidgin English formed that was passed on to their respective villages when they returned home at the end of their term (Tryon 1987). After independence, Bislama was enshrined as one of the national languages of Vanuatu, alongside English and French, and is used as the language of the government and its institutions. The Constitution of the Republic of Vanuatu states that English, French and Bislama are the national languages and English and French are the languages of Education (Lynch 1996a).

There has been some discussion that Bislama should be introduced into the school system but as of yet nothing has come of it (Siegel 1996). There is varying opinion of its current usage in education and according to Siegel (1996),

Bislama is already being used unofficially in some schools. However, in other schools, pupils who use Bislama are punished (Lynch 1996a). At the moment the use of Bislama in formal education is seen as a hindrance to the acquisition of English due to its similarity, yet new research from the use of Tok Pisin in schools (Papua New Guinea's variety of the Melanesian creole) has shown that it has a positive affect on the acquisition of English if taught first and this research may affect future education policy (Siegel 1996). Sometimes local vernacular languages are used in education and this has received formal approval, especially when teaching *kastom* and traditional topics. In fact proposals have been made to introduce local vernacular language as a subject in the first two years of formal education (Lynch 1996a). Section 5.4 of the National language policy (Council 2005) states that indigenous languages should be used as the medium for instruction in early education up to primary level and the use of indigenous languages should be encouraged. However, many indigenous languages are unwritten and teachers are generally not speakers of the local language.

One of the outcomes of this documentation and description project has been to produce a standardised alphabet, devised through alphabet workshops with two primary schools. I have received a grant from the Christensen Fund to work on literacy development in the schools and to create a North Ambrym language curriculum. This project will start in 2013.

1.2.5. Language Endangerment

Though nearly all inhabitants of North Ambrym speak the local vernacular, and some elderly women are still monolingual speakers, North Ambrym's viability is still threatened by various factors. There are three main factors that are endangering the language of North Ambrym: dialect levelling through increased contact between speech communities, the influence of Bislama and the volcanoes.

Bislama, an English lexifier creole, is used throughout the islands as a lingua franca and is the first language of many of the capital's residents, while those living in rural communities use it as a second language. This language is in-

creasingly being used in different speech domains within the community. It is prevalent in church services, public meetings and other community events. It is also being increasingly used in family situations as marriage between peoples from different language communities occur regularly and Bislama is passed on to the children instead.

In June 2008 the first mobile phone mast was erected on the island and mobile phones are now ubiquitous. There are now two masts in North Ambrym, one near Tobol and one in Ranon. Previously, some of the villages had a landline that was shared by the whole village, though these often fell into disrepair - the one in Ranvetlam stopped working several years ago after a bad storm and the telecoms company never came to fix it. It is possible that due to the current ease of communication between the different speech communities that dialect leveling may occur (Krifka p.c.).

During the last century, Ambrym's volcanoes have had several devastating eruptions. The 1913 eruption led to the destruction of the Presbyterian mission and hospital in the South-West of the island. A further eruption in 1953 resulted in the south-eastern village of Maat to be relocated to Paama. More recently the ash plumes sent up by the volcanoes have caused severe acid rain which has led to the destruction of crops. Large tracts of land have been left uninhabited by lava flows between the North and South of the island and the dialect chain has been broken, where once a contiguous settlement area existed. The only previously documented language of Ambrym, Lonwolwol, is now all but extinct due to displacement caused by the volcano in 1913.

1.3. RESEARCH

The final section of this chapter looks into the main research objectives and questions of the thesis (1.3.1). A methodological overview is given in section 1.3.2 and finally a brief overview of the fieldwork is given in section 1.3.3

1.3.1. Research Questions

This thesis focuses on the semantics of the indirect possessive construction. This construction is employed when someone possesses an alienable item and must choose one of the five possessive classifiers (c.f. chapter 4). The main theory in Oceanic linguistics is that these possessive classifiers encode the intentional use of the possessed by the possessor (Lichtenberk 1983b). North Ambrym's five classifiers are *an*, *man*, *bon*, *ton* and *mwenan*[9]. Under a relational hypothesis each possessed free noun should be able to occur with any of these different classifiers, only restricted of course by the imagination of the speaker (see section 2.3.1 for a distinction between free and bound nouns). Each classifier embodies a semantic relation between possessor and possessed such that the *an* classifier in North Ambrym encodes an intention of eating, *man* encodes drinking or liquids, *bon* refers to a relationship of fire and flammability, *ton* encodes that the possessed item will be used as a basket and finally *mwenan* is a general classifier used to denote a generic relationship between possessor and possessed not covered by the other classifiers.

Initial findings from North Ambrym have shown that some nouns can only ever occur with one classifier, e.g. *bàrrbàrr* 'pig' can only ever occur with the *an* classifier denoting edibility, though in other Oceanic languages this should be able to occur with the general classifier if the intention of the possessor is perhaps to sell the pig. The main research question is as follows:

- Are the possessive classifiers in North Ambrym relational classifiers?

Do the classifiers denote the intentional use of a possessum by the possessor? Using experiments that are described in the methodology section (1.3.2) it will be shown that the relational classifier hypothesis does not stand up to close scrutiny and that the possessive classifiers in fact characterise a semantic feature of the possessed noun (c.f. chapter 6). Thus the classifiers act like possessed noun classifiers (c.f. section 3.3) with a more rigid membership. This leads onto the next research question:

- Do the classifiers represent categories with prototypical members?

---

[9]The classifiers here all occur with the 3SG pronominal possessor suffix *-n*.

33

The results of further experimentation show that classifiers do have a core prototypical meaning associated with them, yet include some rather deviant items that do not, at least superficially, appear to fit in with their canonical meaning. For example the *an* classifier includes not just all food items but some kinship members and tools, while the *man* classifier also includes houses and liquids. The underlying schematic nature of the classifiers is explored in chapter 8 to answer the following question:

- Are all members of the classifiers semantically linked?

The answer is a complex underlying schema based on certain similar semantic features and actual usage of items that link them together.

1.3.2. Methodology and Research Framework

This thesis will be using the broad framework of cognitive semantics to analyse the underlying meaning of the possessive classifiers. Cognitive semantics is not a unified theory but involves bringing together several different ideas of how language is based upon the mind's conceptual structure (Evans & Green 2006). This thesis is about linguistic categorisation and how speakers of North Ambrym use the possessive classifiers to categorise their possessions into meaningful semantic domains. This thesis argues that it is the functional properties of the possessions that are classified. And as people interact with these items on a daily basis, the continual use of an item becomes embodied as a concept in the speakers' minds. As semantic structure is based on the concepts, language use reflects conceptual structure. Chapter 5 introduces cognitive linguistics in more detail, but this section looks at why it is the best theory for the analysis of possessive classifiers in North Ambrym.

Possessive classifier constructions are quite limited and the size of the corpus is also small (currently around 30,000 words). For example the *an* classifier occurred just 28 times, hardly enough to construct an adequate theory of usage. The collocation of the an classifier with possessed nominals is shown in table 1.2. Though not enough to constitute a well formed theory, inspecting the corpus nevertheless hints at a non-relational system. Under a relational classifier hypothesis, the classifier *an* should be used to classify the intention to

eat an item. Disregarding non-canonical instances of possession, such as kinship members and years (c.f. sections 3.4.3 and 4.2.4), other instances where the classifier occurs with an edible item does not actually encode an intention to eat the possessed item. For example *womul* 'orange' was given in a story about the first time oranges were given to the people of North Ambrym and they didn't know what to do with them. Instead they pinched and smelled them and threw them away. All along there was never any intention to eat them as they didn't realise oranges were edible, yet the edible classifier is consistently used. The speaker knows they are edible but if the classifiers are relational the speaker should have used the *mwenan* general classifier as the possessor in the story does not know they are edible. This is evidence against the relational classifier theory.

Lexeme	Gloss	Count
mama	mother	7
beta	breadfruit	4
tutu	grandfather	3
bwehel	bird	3
meyee	food	2
womul	orange	2
taata	father	2
vii	banana	1
bàrrbàrr	pig	1
bu	castrated pig	1
mel	dragon plum	1
huwo	year	1

Table 1.2: *An* classifier corpus count

If a few speakers of the language were consulted and asked if certain collocations between classifiers and lexical items were grammatical then varying results may occur as there is a large amount of variation across speakers, especially for marginal examples (Wasow & Arnold 2005). The field of cognitive psychology has offered an alternative methodology that yields analyses based on empirical data. Wasow & Arnold (2005) argue that the generative tradition has for too long relied on intuition alone and not on robust experimentation to define their theories. This thesis holds the view that experimentation can yield reliable results which can act as a basis for repeated studies on other lan-

guages. It is because "many generative grammarians appear to regard primary intuitions as more direct evidence of linguistic competence than other types of data" (Wasow & Arnold 2005: 1484) that different, comparable experiments were conducted to test the different research questions stated in section 1.3.1.

All experiments used the same participants. They were all male and from Ranvetlam village, bar one who was from neighbouring Lonoror village. They were aged between 16 and 60. This ensured a large enough set to withstand analytical scrutiny. The participants were not told why they were being asked to participate and all experiments were conducted away from the other participants. Every experiment used a list of stimuli that was randomised so as not to group similar contexts together (Weller & Romney 1988, Wasow & Arnold 2005).

The first two experiments tested the relational classifier hypothesis (c.f. chapter 6). If the possessive classifiers encode the intentional relation between possessor and possessed then different contextual cues would trigger a change in classifier. For the first experiment 75 video clips were created, 70 of those were filmed and edited in Ranvetlam itself, and a further five videos were sourced from www.youtube.com. The videos depicted different interactions with everyday objects, such as eating, drinking and kicking coconuts or setting different things on fire. The second experiment was a translation based context question list. This was designed to complement the first experiment and ask for different interactions that were not included in the video experiment. The experiments used the cognitive linguistic notion of frame (c.f. section 5.1.1) which states that in order to understand a word a contextual frame is evoked that links its meaning to other words, much like an encyclopaedic as opposed to a strict dictionary-like view of the lexicon. Thus context will highlight different frames that should evoke different classifiers. The experiments revealed that different contexts do not evoke classifier change. Thus the classifiers do not encode the intentional use of the possessor on the possessed.

Different lexemes tend to occur only with one classifier regardless of the intentional use, and thus act like possessed classifiers. Therefore the classifiers themselves must pick out some semantic feature of the possessed nominal. Two other experiments were conducted to find out what nouns occur with the

different classifiers and to find the underlying meaning of the classifiers (c.f. chapter 7). Cognitive psychologists have argued that categories are not made up of necessary and sufficient features but have graded membership where some members are considered more central than others (Rosch *et al.* 1976a) (c.f. section 5.2). A free-listing experiment was conducted and the participants were asked to list all members of the different classifiers. Free-listing of category members helps to find central members of the categories and those that are mentioned first and most often by all participants are taken to be category prototypes (Weller & Romney 1988). The next experiment took a list of 133 free nouns and the participants were asked to classify them. This tested the hypothesis that central members of the classifier categories would always occur with the same classifier, whereas non-central members would be harder to classify and thus occur with different classifiers. Reaction times for classification were also recorded as it has been shown that central members are quicker to classify than non-central members (Rosch 1973). The results found that central members did occur with just one classifier and were classified quickly and that these conformed to the results of the free-listing experiment, showing that the results from both experiments support each other.

As these classifier categories have graded membership whose boundaries are fuzzy, an analysis of membership is best advanced using cognitive linguistic theory which is based on general cognitive principles and uses evidence from cognitive psychology to underpin the theory (Croft & Cruse 2004, Evans & Green 2006). The prototype theory as developed by Rosch does not reflect the internal make up of the categories themselves and so cognitive linguistics has developed the notion of schema that underpins internal category structures (c.f. section 5.1.1). A schematic analysis of the internal structure of two of the classifiers, *an* and *man*, will be developed in chapter 8 based on the experiments described to show how non-canonical possession (c.f. section 3.4.3) is integrated into the system.

1.3.3. Fieldwork

In total 15 months were spent in Vanuatu and around 11 months on Ambrym itself. In order to conduct research in Vanuatu a permit is acquired from the

Vanuatu Cultural Centre, who also forge links with a local host family. I stayed with Willie Tangou and his family, who own a small guesthouse in Ranvetlam village. I worked primarily in Ranvetlam with half a dozen different speakers of the language. I also worked for a while in Faramsu village, which is a 20 minute hike uphill to work with another speaker. I worked with these consultants on a daily basis for elicitation and for translation. I did not limit myself to working solely in these villages but embarked on many trips across the speech community to different villages to collect comparative word-lists, custom stories, meetings and ceremonies. The texts were all translated in Ranvetlam village by the language consultants. All textual recordings will be archived in the Endangered Language Archive (ELAR) at the School of Oriental and African Studies.

Chapter 2

Grammar Sketch

2.1. DIALECT VARIATION

At one time the people of North Ambrym distinguished between five and six different dialects of the North Ambrym language. What some North Ambrymese call the dialect of Orkon/Fanbak is actually a separate language as it is mutually unintelligible from North Ambrym itself. This language, itself comprised of two dialects of Orkon and Fanbak, named after their respective villages was originally spoken on the Eastern side of the island, further south of the last village, Konkon. Their inhabitants dispersed a few generations ago and moved to Konkon and to Ranvetlam and Faramsu on the western side of North Ambrym. This language is still spoken but should be considered highly endangered with around 30 active speakers and is expected to not be spoken in two to three generations time as many speakers are no longer passing this language on to their children. Some limited documentation has been completed on this language, by Terry Crowley, John Lynch and Robert Early (p.c), though nothing has been published. I have collected a word list and basic grammar elicitation from one speaker based in Ranvetlam village and Houghton Richards, a bible translator affiliated with SIL in charge of translating the bible into North Ambrym, also has some documentation.

There appears to be two main dialects of North Ambrym that are still spoken. Geographically the dialect boundaries roughly equate to the district bound-

ary between Lonhali and Wowan. There are no names for these dialects; they are simply referred to here as the Western and North-Eastern dialects. The North-Eastern dialect is spoken in Wowan district and begins just east of Olal village, starting in Harimal and reaching the last village on the eastern side, Konkon. The Western dialect is spoken in Olal and covers the remaining villages westward all the way down to Melto village (see figure 2.1 for relevant place names mentioned in this section). There are minor phonemic variations across the two dialects and some lexical differences too, which are explained in this section. In the district of Lolihor, which runs from Linbul to Melto and includes the village where I am based, Ranvetlam, there were at least two more dialects, one in the old plantation village at Ranon and another in the former bush village of Fanbo, whose former inhabitants moved down to Faramsu and Ranvetlam, along with the inhabitants of several other bush villages from the region. These dialects have all been lost and just the Western dialect prevails here. The main reason that affected the population dynamic was the coming of the missionaries who built the first churches on the coast. Contact between inhabitants of different villages of the islands has increased in the last fifty years because of the building of dirt roads prior to independence in 1980 and motorised 'speed boats' that transport people to the different coastal villages, though the eastern villages of Fantùngtùng and Konkon remain unreachable by road and are often inaccessible by boat. The reason for the loss of the Ranon dialect is presumably due to its position as the plantation base, which brought workers in from different regions, especially West Ambrym. A final reason for population movement is that when a woman marries, she moves to the village of her husband. These prior stated factors have presumably led to dialect levelling and loss throughout North Ambrym to the extent that there are only two main dialects which are detailed below.

In the Western and North-Eastern dialects the word for 'sea, saltwater' is [te:] and [tʰe:] respectively and in the Fanbo dialect it was [tʃe:]. Similarly [teo] 'slice' in the Western dialect was [tʃeo] in the Fanbo dialect[1]. However due to the lack of evidence I am unable to say whether this represents a phonemic or phonetic difference. There was also a difference in the past and continuous

---

[1] In the Western and North-Eastern dialects [tʃeo] means 'to excrete' and has led to humorous encounters between the few people who still use a few words of the Fanbo dialect.

Figure 2.1: North Ambrym map

marking of the dialects thus 'They are happy' (3PL.REC.PST CONT happy) in the Western dialect is *em rro kuarr* yet in the Fanbo dialect is was *en de kuarr*. The recent past marker is realised as [m] in the Western dialect and previously [n] in the Fanbo dialect. The continuous marker is realised as [ro] in the Western dialect and previously [de] in the Fanbo dialect. The initial consonant differentiation may be explained by allophonic variation as the phoneme /r/ in the Western dialect has an allophonic variant which occurs in certain environments as /dˀ/ or /tˀ/ (c.f. section 2.2.1.4).

2.1.1. Consonantal Differentiation

The main difference between the two dialects is that the North-Eastern dialect has two less consonant phonemes as it does not have the affricate phoneme /tʃ/ nor the palatalised nasal /nʸ/.

First the affricate shall be looked at and some examples are shown in 2.1.

Some derivational morphology shows the dialectal differences between these two areas, for instance the suffix that attaches to the roots denoting trees, leaves and fruit and turns it into a generic item is [-je] in the Western dialect and simply [-e] in the North-Eastern dialect (c.f. section 4.1.4.3), as shown in table 2.2.

41

Gloss	Western	North-Eastern
mosquito	[bæŋtʃɛn]	[bæŋkɛn]
foam	[tʃɛɾɛɾ]	[kɛɾɛɾ]
sharp	[tʃɛn]	[kɛn]
sweet	[tʃe:]	[ke:]
sea almond	[wɛtʃe]	[wɛke]
bite/itch	[tʃɛr]	[kɛr]
excrete	[tʃɛtʃeo]	[kɛkeo]

Table 2.1: /tʃ/ - /k/ alternation

Gloss	Western	North-Eastern
tree	[li-je]	[li-e]
fruit	[wo-je]	[wo-e]
flower	[wɪŋi-je]	[wɪŋi-e]
root	[lɪbʷi-je]	[lɪbʷi-e]
seed	[kutu-je]	[kutu-e]

Table 2.2: /j/ - ∅ alternation

This is not just a morphological difference in derivational suffixation as it occurs in the lexeme for 'table', where no suffix is present, which is realised as [sije] in the Western and [sie] in the North-Eastern dialect. The palatal approximant /j/ sometimes changes to /l/ in the villages of Farereo and Fansar, located in the Western dialect area. 'Nine' is [lafɛr] in these two villages as opposed to [jafɛr] (c.f. section 2.3.5.2). Clearly there is an overlap between the dialect boundaries and some features from the North-Eastern dialect occur in the Western dialect area too. Finally, in the Western dialect in some instances the initial phoneme /j/ may occur as /l/ with a following vowel change also occurring such as the alternation [jɛn]-[lɪn] shown in table 2.3. Word medially the phoneme /j/ in the Western dialect corresponds to the phoneme /l/ in the North-Eastern dialect.

There are some examples where the /j/ phoneme occurs in both dialects: [mærija] 'rib' in the Western and [mɛrija] in the North-Eastern dialect, though notice the vowel change which will be looked at later on. Similarly [je:] 'fire ant' is the same in both dialects. Again 'sun' is [jæl] in both dialects, likewise [jɛm]

Gloss	Western	North-Eastern
ax	[tɛje]	[tɛle]
spider	[ræmje]	[ræmle]
food	[mɛje:]	[mɛle:]
SE Ambrym	[fæntæbje]	[fæntæble]
climb	[fʷije]	[fle]
black magician	[æbjeu]	[æbleu]
slippery	[mje:]	[mle:]
marry	[je]	[le:]
open eyes/wake up	[je]	[le]
walk	[jɛl]	[lɛl]
bread	[bɛtæmje:]	[bɛtæmle:]
megapod	[mɛje]	[mɛle]
mud	[tɛbæjɛm]	[tɛbælɛm]
cyclone	[jɛŋmæl]	[lɛŋmeal]
east wind	[jɛŋfæn]	[lɛŋfæn]
west wind	[jɛŋsɪɾ]	[lɛŋsɪɾ]
leg.3sɢ	[jɛn]	[lɪn]

Table 2.3: /j/ - /l/ alternation

'firewood' and [jafu] 'man' do not change.

The palatalised alveolar /nʲ/, found in the Western dialect, is absent in the North-Eastern dialect. 'Yellow' is [nʲonʲo], in the Western dialect and [nono], a simple alveolar nasal, in the North-Eastern Dialect before the high back vowel. More examples are shown in table 2.4.

Gloss	Western	North-Eastern
yellow	[nʲonʲo]	[nono]
intestines	[tɛnʲæ]	[tɛnæ]
arrow	[tɛnʲæm]	[tɛnæm]
his mat	[tʊnʲʊn]	[tonon]

Table 2.4: /nʲ/ - /n/ alternation

There are some examples of the palatalised alveolar nasal /nʲ/ occurring as the velar nasal /ŋ/ in the North-Eastern dialect as shown in table 2.5. Note these are all pronominal forms. There is also one example of the semi-vowel /j/ phoneme occurring as /ŋ/ in the North-Eastern dialect. [jɛn] 'eat' in the Western and [ŋɛn] in the North-Eastern dialect.

Gloss	Western	North-Eastern
3PL	[nʲɛɾ]	[ŋɛɾ]
3DL	[nʲɛɾo]	[ŋoɾo]
3PC	[nʲɛsul]	[ŋɛsul]

Table 2.5: /nʲ/ - /ŋ/ alternation

Aspiration is another feature that solely seems to occur in the North-Eastern dialect. [we] 'water' in the Western dialect is [wʰe] in the North-Eastern dialect. [mɛje:] 'food' in the Western dialect is [mɛlʰe]. Finally, there is one example of the Western /s/ occurring as /h/ in the North-Eastern dialect in 'miss' [bæsɛl]-[bæhɛl].

2.1.2. Vowel Differentiation

There is differentiation in the front vowels between dialects; /æ/ in the western dialect can become the phoneme /e/ in the North-Eastern dialect and be realised as either of its allophonic variants, [e] or [ɛ]. I am not sure as to the extent of this change or as to whether it occurs in certain phonological environments. Some examples are shown in table 2.6.

Gloss	Western	North-Eastern
rib	[mærijæ]	[mɛrijæ]
body.3SG	[tæblɪn]	[tɛblɪn]
dead	[kæbnu]	[kɛbnu]
digging stick	[ækɪn]	[ɛkɪn]
PROX	[a]	[e]
ear	[ræln ʲɛn]	[rɛln ʲɪn]
my brother	[tæ:læŋ]	[tæ:lɛŋ]
walking stick	[ærwun]	[ɛrwun]
firebrand	[bærni]	[bʷɛrni]
jungle	[bæsɪl]	[bʷɛsɪl]
scratch	[kærmu]	[kɛrmu]
before	[mæɾɪn]	[mɛrɪn]

Table 2.6: /æ/ - /e/ alternation

Table 2.6 shows the dialectal differences of 'firebrand' and 'jungle' that also have labialised initial stops in the North-Eastern dialect. Front mid vowels can

be higher in the North-Eastern dialect as shown in table 2.7.

Gloss	Western	North-Eastern
leg.3sɢ	[yɛn]	[lɪn]
something	[sɛse]	[sɪsi]
1ᴘʟ.ɪɴ	[kɛn]	[kɪn]
3sɢ.ɴʜ	[-te]	[-ti]
his sister	[iunʲɛn]	[iunʲɪn]
ear	[rælnʲɛn]	[rɛlnʲɪn]

Table 2.7: /e/ - /i/ alternation

There are many examples where the change in vowel height does not occur and this leads to the assumption that these are lexicalised differences, as shown in table 2.8:

Gloss	Western	North-Eastern
mosquito	[bæŋtʃɛn]	[bæŋkɛn]
sharp	[tʃɛn]	[kɛn]
adze/clam	[teje]	[tɛle]
food	[meje:]	[mɛlʰe:]
water	[we]	[wʰe]
3ᴘʟ	[nʲɛɾ]	[ŋɛɾ]

Table 2.8: Vowel stability

Two other examples also show vowel change, though these are different to the ones described before. 'Yesterday' is [næne] in the Western but [nɪno] in North-Eastern dialect. 'Rat' is [tomo] in the Western and [tɛmʷe] in the North Eastern dialect. Some lexical differentiation exists in the two dialects as shown in table 2.9

Gloss	Western	North-Eastern
bamboo	[bwɛlæbo]	[wæji]
owl	[lulfæɾ]	[bailul]
crocodile needle-fish	[ræsu:]	[wormehau]
its side	[tæhɪte]	[bɛrɛte]
kingfisher	[hɛbroɾ]	[bo:he]

Table 2.9: Lexical differentiation

At this stage I do not have enough evidence to give a full account of the dialectal differences and as to whether the differences are consistently conditioned by certain phonological environments. In general, there are higher vowels along with aspiration and one less phoneme in the North-Eastern dialect

2.2. PHONOLOGY

The North Ambrym language has twenty four consonant phonemes. As explained in the dialectal variation section 2.1.1, the North-Eastern dialect only has twenty two consonant phonemes as the affricate and the palatalised nasal are not distinguished. The consonant phonemes are described in section 2.2.1. Seven vowels are distinguished in both dialects and are described in section 2.2.2. Phonotactics will be described in 2.2.3. Morphophonological processes are looked at in 2.2.4. Finally, clitics and affixes are described in section 2.2.5.

Below the Western dialect will be described as this is the dialect that has been more fully documented. Unless otherwise stated the Western dialect is described in this thesis. All examples from the North-Eastern dialect are labelled as (NE).

2.2.1. Consonants

Table 2.10 conveys the consonant phonemes that are found in North Ambrym.

One areal feature are the labialised consonants. Minimal pairs have been found to distinguish /m/ from /mʷ/, /b/ from /bʷ/ and /f/ from /fʷ/. /b/ and /bʷ/ are distinguished by the minimal pairs /be/ 'where' and /bʷe/ 'yet'; also from the pairs /bɪl/ 'lightning' and /bʷɪl/ 'pray'. /m/ and /mʷ/ are distinguished by the minimal pairs /mel/ 'nakamal[2]' and /mʷe l]/ 'namele[3]'. /f/ and /fʷ/ are distinguished by the following minimal pair /fen/ 'to shoot' and /fʷen/ 'to whistle'.

The labialised consonants are restricted to certain phonological environments. They may only precede some front vowels. /mʷ/ and /fʷ/ only precede /i/ and

---

[2]A nakamal is the mens meeting hut.

[3]The namele is a tree species that is used as a symbol for high ranking chiefs and can be found on the Vanuatu coat of arms.

	Bilabial	Labio-dental	Alveolar	Palatal	Velar	Glottal
Stop	b		t		k	
Affricate			tʃ			
Labialised stop	bʷ					
Palatalised stop	bʲ					
Nasal	m		n		ŋ	
Labialised nasal	mʷ					
Palatalised nasal			nʲ			
Trill			r			
Tap/flap			ɾ			
Fricative	β	f	s		ɣ	h
Labialised fricative		fʷ				
Palatalised fricative	βʲ	fʲ				
Approximant	w			j		
Lateral approximant			l			

Table 2.10: Consonant chart

/e/. /bʷ/ precedes /i/, /e/ and /æ/ vowels.

Palatalised consonants also occur. Minimal pairs distinguish between /n/ and /nʲ/, /f/ and /fʲ/, /b/ and /bʲ/ and finally between /β/ and /βʲ/. /n/ and /nʲ/ are distinguished by the minimal pair /nu/ 'nest' and /nʲu/ 'crown of thorns[4]'. /f/ is distinguished from /fʲ/ by the minimal pair /fæŋ/ 'under.1sɢ' and /fʲæŋ/ 'fire'. /b/ and /bʲ/ are distinguished by /bulbul/ 'canoe' and /bʲulbʲul/ 'brother, friend'. Finally, /β/ and /βʲ/ are distinguished by the following pair /βæ/ 'lined bristle-tooth[5]' and /βʲæ/ 'go'.

The palatalised consonants also occur in restricted phonological environments and only appear before certain vowels. /nʲ/ precedes /a/, /e/ /u/ and /o/. /fʲ/ precedes /i/, /a/, /u/ and /ʊ/. /bʲ/ precedes /i/, /e/, /a/ /u/ and /ʊ/. Finally /βʲ/

---

[4]A venemous starfish - scientific name: acanthaster planci.

[5]A type of fish of the genus Ctenochaetus and in the Acanthuridae family.

precedes /a/, /u/ and /ʊ/ only.

The non palatalised and non labialised consonants are not restricted to these environments and may precede all vowels.

2.2.1.1. Stops

The bilabial stop has no voicing distinction and has two realisations of [b] and [p]. Therefore, 'pig' may either be realised as [parpar] or [barbar]. The bilabial stop also occurs word medially in 'grub' [tæblɪr]. This phoneme may occur word finally as in [tub] 'shake'. Frequently, the bilabial stop is realised as [b] and thus the phoneme is represented by /b/. There is no specific environment where the realisation differs and appears to be simply speaker dependent.

Again there is no distinction in voicing for the alveolar stop and it can be realised as both [t] and [d]. Thus 'ground' may be either [tæn] or [dæn]. This phoneme occurs word medially in 'spear' [mɛtæ:]. This phoneme does not occur word finally, however the allophonic variant of /r/ can be realised as /tˀ/ and this does occur both syllable and word finally, though this will be discussed in the trill section in 2.2.1.4. The alveolar stop frequently occurs as [t] and only depends on speaker variation and not phonological environments, thus it is represented by the phoneme /t/.

Voicing is not distinguished in velar stops either and 'dog' may be both [kulɪ] or [gulɪ]. Word medially this phoneme occurs in 'broken' [hækbe] and 'digit' [boko]. Word finally it occurs in [bætɪk] 'a man's name' and [sak] 'banana species'. The velar stop is frequently realised as [k] and thus is represented by the phoneme /k/ and again the variation is only due to speaker differentiation.

All three stops can be distinguished by the following minimal triplet: /bu/ 'castrated pig', /tu/ 'hit' and /ku/ 'remove'.

2.2.1.2. Affricates

The affricate /tʃ/ is present word initially in [tʃɛn] 'sore', word medially in [bæŋtʃɛn] 'mosquito' and in [wɛtʃe] 'sea almond'. This phoneme does not

occur word finally. This phoneme occurs in restricted phonological environments and only ever precedes the phoneme /e/, though one example exists of it occurring before /u/: *chuubo* 'an exclamation'.

2.2.1.3. Nasals

The bilabial nasal /m/ is present word initially in [mæ:lo] 'fish', word medially in [tomo] 'rat' and word finally in [rɛm] 'yam'.

The alveolar nasal /n/ is present word initially in [no:] 'snapper', word medially in [næne] 'yesterday' and word finally in [tæn] 'ground'.

The velar nasal /ŋ/ is present word initially in [ŋi] 'native almond', word medially and word finally in [ælŋoŋ] 'blue tailed skink'.

All three nasals can be distinguished by the following minimal triplet: /mi/ the 2PL preverbal subject marker, /ni/ the 1SG independent pronoun and /ŋi/ 'native almond'

2.2.1.4. Trill

The alveolar trill /r/ is present word initially in [ru] 'to stay', word medially in [bʷɛræ] 'white-flying fox'. An allophonic variant, the alveolar stop with no audible release can be realised as [t˺] or [d˺] and occurs syllable or word finally. So 'pig' can be [barbar] or [bad˺bad˺]. The back vowel /o/ is slightly raised before the allophonic variant [d˺] so [lonor] vs. [lonọd˺]. This variant never occurs word initially. Borrowings from Bislama also undergo this allophonic variation. For example 'hat' is either realised as [hæd˺] or [hær].

2.2.1.5. Tap

The alveolar tap /ɾ/ is present word initially in [ɾu] 'two', word medially in [ɾɪɾɪ] 'octopus' and [hoɾou] 'sweat' and word finally in [ɾuɾ] 'earthquake'. The tap can be distinguished from the trill in the following minimal pairs: /ɾu/ 'two' and /ru/ 'stay' and also with /oɾ/ 'freshwater prawn' and /or/ 'place'.

2.2.1.6. Fricatives

The voiced bilabial fricative /β/ is present word initially in [βiː] 'banana' and word medially in [hɪβɪɾ] 'rainbow lorikeet'.

The voiceless labiodental fricative /f/ occurs word initially in [fe] 'say' and word medially in [jæfɛr] 'nine'.

The voiceless alveolar fricative /s/ occurs word initially in [sæŋul] 'ten' and word medially in [tælsɪl] 'snake' and [fæsɪmɾe] 'wall'.

The voiced velar fricative /ɣ/ occurs word initially in [ɣɛɾe] 'flying fox' and word medially in [toɣuɾ] 'sago'.

The voiceless glottal fricative /h/ occurs word initially in [homoɾ] 'lobster' and word medially in [mɛho] 'star'.

These phonemes are all distinguished by the following minimal quintuplet: /βæ/ 'lined bristle-tooth', /fæ/ 'under', /sæ/ 'a type of black magic', /ɣæ/ 'to fly' and /hæ/ 'what'. All fricatives are unable to occur word finally.

2.2.1.7. Approximants

The bilabial approximant /w/ occurs word initally in [womul] 'orange' and word medially in [towel] 'down'. This phoneme does not occur word finally.

The palatal approximant /j/ occurs word initially in [jæl] 'sun' and word medially in [ɾejæm] 'whitewood'. This phoneme does not occur word finally.

The following minimal pair distinguishes the approximants /w/ and /j/ from each other: /wæl/ 'fruitless' /jæl/ 'sun'.

2.2.1.8. Lateral Approximants

The alveolar lateral approximant /l/ occurs word initially in [læŋ] 'fly', word medially in [woulun] 'his hair' and word finally in [læl] 'trochus[6]'.

---

[6]Trochus are sea snails of the family trochidae.

2.2.1.9. Consonant Minimal Pairs

Table 2.11 shows minimal pairs contrasting the different consonant phonemes.

Consonant Contrast	Example 1	Example 2
/r/ and /ɾ/	/ræn/ 'blood.3sɢ'	/ɾæn/ 'on.3sɢ'
/m/ and /β/	/mur/ 'fall down'	/βur/ 'sneeze'
/l/ and /t/	/læ:/ 'steal'	/tæ:/ 'sit'
/l/ and /h/	/læl/ 'trochus'	/hæl/ 'road'
/ɣ/ and /j/	/ɣæl/ 'green lizard'	/jæl/ 'sun'
/m/ and /t/	/meje/ 'incubator bird'	/teje/ 'ax'
/k/ and /n/	/ko/ 'trap'	/no/ 'snapper'
/bʲ/ and /βʲ/	/bʲur/ 'parcel'	/βʲur/ 'cough'
/l/ and /n/	/ol/ 'coconut'	/on/ 'sand'
/m/ and /mʷ/	/mel/ 'nakamal'	/mʷel/ 'namele'
/b/ and /bʷ/	/bil/ 'lightning'	/bʷil/ 'pray'
/w/ and /j/	/wæl/ 'fruitless'	/jæl/ 'sun'

Table 2.11: Consonant minimal pairs

2.2.2. Vowels

The following chart conveys the vowel phonemes found in North Ambrym.
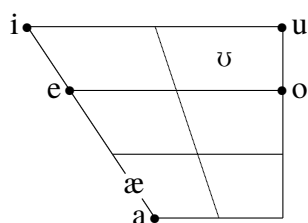
Though minimal pairs have been found to show a contrast in vowel length, the length distinction is not phonemic and in fact represents inter-syllabic vowel sequences. This will be discussed in section 2.2.3.4.

2.2.2.1. Close Front Unrounded

The phoneme /i/ consists of the allophones [i] and [ɪ]. The allophonic variant [ɪ] occurs in closed syllables, for example [ŋɪl] 'edible part of coconut palm

trunk', whereas the variant [i] occurs in open syllables such as in [ŋi] 'native almond'.

2.2.2.2. Close Mid Front Unrounded

The phoneme /e/ consists of the allophones [e] and [ɛ]. Similar to the close front unrounded allophonic variants, [e] occurs in open syllables and [ɛ] in closed syllables. Thus [e] occurs in [fe] 'tell' and [ɛ] occurs in [mɛl] 'nakamal'.

2.2.2.3. Open Slightly Mid Front Unrounded

The phoneme /æ/ does not have any allophones and can be found in the following examples: [bæ] 'shell' [fæn] 'under'.

2.2.2.4. Open Front Unrounded

A contrast between the open slightly mid front unrounded /æ/ and the open front unrounded vowel /a/ occurs. Two minimal pairs which show this contrast, /barbar/ 'pig' and /bærbær/ 'shelter'. The second minimal pair is /temær/ 'spirit' and /temar/ 'peace'.

2.2.2.5. Close Back Rounded

The phoneme /u/ occurs in the following example: [kutu] 'take'.

2.2.2.6. Near Close Mid Rounded

The phoneme /ʊ/ occurs in the following words /tʊ/ 'limpet' and is distinguished from /u/ in /tu/ 'hit'.

2.2.2.7. Close Mid Back Rounded

The phoneme /o/ occurs in [sirorou] 'cloud' and [tomo] 'rat'.

2.2.2.8. Vowel Minimal Pairs

Table 2.12 contains minimal pairs contrasting the vowels.

Vowel Contrast	Example 1	Example 2
/ʊ/ and /u/	/mʊr/ 'be afraid'	/mur/ 'fall down'
/u/ and /o/	/buɾ/ 'clear'	/boɾ/ 'boil'
/o/ and /ʊ/	/to/ 'fowl'	/tʊ/ 'limpet'
/u/ and /ʊ/	/tu/ 'hit'	/tʊ/ 'limpet'
/e/ and /i/	/βer/ 'stone'	/βir/ 'four'
/æ/ and /u/	/hæl/ 'road'	/hul/ 'mat'
/æ/ and /o/	/læŋ/ 'fly'	/loŋ/ 'laplap'
/æ/ and /a/	/bærbær/ 'shelter'	/barbar/ 'pig'

Table 2.12: Vowel minimal pairs

2.2.3. Phonotactics

The transcription method is looked at in section 2.2.3.1, lexical stress in 2.2.3.2, the syllable structure in 2.2.3.3 and vowel sequences in 2.2.3.4.

2.2.3.1. Orthography

There is no previous orthography for North Ambrym and table 2.13 is a proposed orthography that has been devised in consultation with teachers from Ranon and Ranmuhu primary schools.

There are two main features of the orthography. Firstly the use of digraphs for the velar nasal, the trill, palatalised and labialised consonants and long vowels. Secondly, the use of the grave accent to signal a lower vowel from a higher vowel, thus /a/ being lower in the vowel space than /æ/ is written with the grave accent as *à*. Similarly the phoneme /ʊ/, being a lower vowel than /u/

Graph	Phone	Graph	Phone
a	/æ/	mw	/mʷ/
à	/a/	n	/n/
b	/b/	ny	/nʲ/
bw	/bʷ/	ng	/ŋ/
by	/bʲ/	o	/o/
ch	/tʃ/	r	/ɾ/
e	/e/	rr	/r/
f	/f/	s	/s/
fw	/fʷ/	t	/t/
fy	/fʲ/	u	/u/
g	/ɣ/	ù	/ʊ/
h	/h/	v	/β/
i	/i/	vy	/βʲ/
k	/k/	w	/w/
l	/l/	y	/j/
m	/m/		

Table 2.13: Orthography

is written with the grave accent as *ù*. This orthography will be used throughout this thesis.

54

2.2.3.2. Stress

A preliminary account of stress is given in this section. Stress is not lexically contrastive and appears to be weight sensitive. Stress appears on syllables that have a coda. The following examples show stress falling on the heavier syllable, regardless as to whether the heavier syllable is word final or not:

ˈbæɾ.hu	'bone'
mɛˈ.rɛr	'eel'
ti.je.ˈ.jɛɾ	'fantail (bird)'

When all syllables of a root are either light or heavy, stress falls on the penultimate syllable as shown in the following examples:

ˈku.li	'dog'
ˈwe.tʃe	'sea almond'
ti.ˈlæ.læ:	'white-eye (bird)'
ˈlul.fæɾ	'owl'
ˈmen.min	' Malay apple'
ˈtæl.sil 'snake'	

The analysis of stress in North Ambrym is only preliminary and needs further analysis.

2.2.3.3. Syllable Structure

The minimal permissable syllable is a nuclear vowel. Permissable vowel sequences are looked at in section 2.2.3.4. The onset and coda position are optional. The onset may be filled with any consonant but only one consonant cluster can be found in the onset position and its occurrence is infrequent in the lexicon: /bliŋ/ 'to overnight'. Other consonant clusters are permissable but are allowed only after an intervening vowel has been deleted after the morphophonemic rule of vowel elison is applied and this will be explained in section 2.2.4. The coda position is more restricted and only the stops (except for /t/), the nasals, the tap, the trill and the lateral approximant can occur syllable finally. Consonant clusters do not occur intra-syllabically but may occur

inter-syllabically and will be looked at in section 2.2.3.4. The syllable can be formulated as:

Syllable $\Rightarrow$ (C)V(C)

The following list shows the different permutations of the of the syllable structure:

V	*o*	'or'
CV	*tu*	'hit'
VC	*im*	'house'
CVC	*ken*	1PL.INP

By combining the permissable syllable structure given above disyllabic and trisyllabic roots can also be found in North Ambrym. For example, /tæl.sil/ 'snake' and /be.sæ.ɾe/ 'close to' are examples of disyllabic and trisyllabic roots respectively.

2.2.3.4. Vowel Sequences

This section looks at inter-syllabic vowel sequences. Sequences of $V_1 V_2$ are attested where V_1 can be the same as V_2 for all phonemic vowels, except for /a/. The following list shows examples of these:

bii	'bead tree'
tee	'saltwater, sea'
taa	'sit'
oo	'rain'
vyùù	'green coconut'
tuu	'draw'

Surface level diphthongs are also permissable which are underlyingly a sequence of two phonemic vowels. Sequences where front vowels are followed by back vowels are shown below:

basiu	'sharp arrow'
leùru	'seven'
leo	'tooth'
taù	'door'
ao	'reef crab'

Sequences where front vowels are followed by a lower front vowel, which can include an optional glide realised between the two vowels, are shown below:

tiese	'piglet'
mean	'his tongue'

Finally, sequences where front vowels are followed by a higher front vowel are shown below:

kekei	'baby'
kakài	'small'

These surface long vowels and diphthongs are analysed as vowel sequences due to evidence from CV reduplication (c.f. section 2.2.4.3). CV reduplication copies the onset and nucleus of a root and preposes it. If long vowels and diphthongs were phonemic and thus monosegmental, CV reduplication would result in the long vowel or diphthong being copied. However as they are actually inter-syllabic two vowel sequences only the initial vowel is copied. The following examples show this:

Root	Gloss	Reduplicated
taa	'sit'	*tataa*
tuu	'draw'	*tutuu*
gau	'stand'	*gagau*
yau	'block'	*yayau*
reo	'pull'	*rereo*
seo	'cut'	*seseo*

Further evidence that these are surface level diphthongs and long vowels comes from looking at lexical reconstructions of Proto North Central Vanuatu (PNCV). Rehg (2007: 127) uses lexical reconstructions as evidence to show that Hawaian diphthongs are actually vowel sequences as the Proto Eastern Oceanic and Proto Oceanic reconstructions reveal that originally there were consonants in

between the vowel sequences. Table 2.14 contrasts a few lexical items with either long vowels or diphthongs from North Ambrym to their PNCV reconstructions from Clark (2009).

North Ambrym	PNCV	Gloss
taa	*toka*, *toko*	'sit'
loloo	*loso-vi*	'swim'
kakai	*kiki*, *kekei*	'small'
balaa	*balase*	'jawbone'
reo	*rave*, *reve*	'pull'
tau	*katama*, *katava*	'door'
melau	*malava*	'twins'
tuu	*tusi*	'draw'
bii	*bisu*	'bead tree'

Table 2.14: Reconstruction of North Ambrym lexemes with long vowels and diphthongs

Table 2.14 represents a brief look at some reconstructions, yet these suport the claim that long vowels and diphthongs in North Ambrym are vowel sequences. The reconstructions show that at some point in their development, the North Ambrym lexemes deleted a consonant and underwent a vowel change. The exact changes that took place will need to be further investigated along with a comprehensive comparison with all lexemes that have long vowels and diphthongs.

2.2.4. Morphophonological Processes

Several morphophonological processes occur in North Ambrym, such as initial syllable mutation 2.2.4.1, vowel assimilation 2.2.4.2 and reduplication 2.2.4.3.

2.2.4.1. Initial Syllable Mutation

This phonological process affects initial syllable word roots of the type CV. The vowel segment may be deleted and the process under which this occurs is shown in section 2.2.4.1.1. The vowel segment may be deleted and if the

consonant segment is a labial consonant it can delabialise as well (2.2.4.1.2). The vowel segment may be deleted and if the inital consonant segment is the alveolar stop /t/, the consonant segment will be realised as its allophonic variant [ɾ] (2.2.4.1.3). Some initial consonants can be deleted and will be looked at in section 2.2.4.1.4. Finally some intitial consonants can be deleted and the vowel segment altered as shown in section 2.2.4.1.5.

2.2.4.1.1. Simple Vowel Elision.   The first type of initial syllable mutation to be looked at is simple vowel elision. This process occurs when only the initial vowel is elided. For example *lehe* 'see' occurs as *lhe* in the following example.

(1)   *Ma   me   **lhe***
        REC.PST[3SG] come see
        'He came and saw'

This process is triggered when a preceding word ends in an open syllable. Thus, as *me* 'come' in (1) does not end in a consonant then the following word *lehe* loses its initial vowel.

There are phonotactic restrictions on the word that undergoes this process. The first restriction is that the word must be at least disyllabic with the initial syllable being an open syllable of the type CV, that is in the initial syllable the onset and nucleus position must be filled. For instance *besau* 'see' has the syllable structure CV.CV.V and thus in the following example the vowel of the initial syllable is elided as the preceeding word *bya* 'go' ends in a vowel.

(2)   *Ngate em   la   mol bya **bsau***
        then   3PL.REC.PST walk back go   home
        'Then they returned home'

Thus the initial syllable of a polysyllabic root must have an unfilled coda position for vowel elision to occur. Vowel elision does not affect the initial syllable of the compounded verbal auxiliary *kabnu* 'dead' in (3) as the coda position

is filled and when this auxiliary is preceded by a verb ending with an open syllable the initial vowel of *kabnu* is not elided.

(3)   *Mwe   ta **kabnu** Lieseu*
        REC.PST[3SG] cut dead   Lisepsep
        'He cut Lisepsep[7] dead'

The second rule for vowel elision is that the vowel to be elided must not be the initial vowel of a vowel sequence. So for instance the verb *saaro* 'to tell a story' has a vowel sequence and is not elided in (4).

(4)   *Long mwe   cheene   na   **saarone** rrin hu*
        in.1SG REC.PST[3SG] sweet.TR 1SG[IRR] tell.story story IND
        'I want to recount a custom story'

Enclitics that attach to the ends of monosyllabic words do not affect the syllabic structure of the verb root and thus these verbs do not undergo vowel elision. For instance *sene* 'give' is actually comprised of the verb root *se* and the transitive suffix *-ne*. Thus in the following example *sene* will not undergo vowel elision as it is treated as a monosyllabic verb root.

(5)   *E   mro   **sene** tiese te hu mene   ni*
        POT 2DL[IRR] give.TR piglet NSP IND come.TR 1SGP
        'You two will give one piglet to me'

This is in direct contrast to other verbs that appear to have a transitive suffix attached that do undergo vowel elision such as *fwene* 'burn/roast' and *ngene* 'eat' which undergo vowel elision as shown in (6).

(6)   a. *Fo   a harive krukru honghong te   fo   **fne***
            IRR.2SG go heap   together dirt   CONJ IRR.2SG burn
            'You go and heap together the dirt and you burn it'

---

[7]Lisepsep is a type of evil spirit that dwells in the bush in many central Vanuatu islands. It is said to have large teeth and straggly hair. *Liseseu* or *Lieseu* are the North Ambrym terms for this creature.

b. *Te   masum   rro **ngne** rrem vi bemo bwe*
   CONJ 1PC.IN.REC.PST CONT eat   yam new first still
   'And we are still eating the new yams first'

Note that *ngene* in example (6-b) is not reduced to *ngne* but to *ngəne* as explained in section 2.2.3. This shows an interesting contrast between these two types of transitive verbs, in that on the one hand *sene* is treated as a monosyllabic root with a transitive suffix attached and thus does not undergo vowel elision, whereas *ngene* and *fwene* are both treated as disyllabic roots and do undergo vowel elision. The transitive suffix in the latter two examples has become fused with the verb root itself and thus been reanalysed as a disyllabic root, whereas the former example with *sene* is still analysed as the root *se* with the transitive suffix *-ne* attached to it. Further evidence of this fusion comes when these lexemes occur as the head verb in a verbal compound, the transitive suffix occurs verb phrase finally after the dependent element, as in *se mol-e* 'give back' (give back-TR), but not so in *ngene mol* 'to gift food (lit. eat back)' (c.f. section 2.4.8).

Partially reduplicated verbs do not undergo initial vowel elision. When partial reduplication occurs the initial two phonemes of the verb root are preposed to the root such that the verb *kou* 'throw' can be partially reduplicated and preposed by the initial two phonemes of the root i.e. /k/ and /o/.

(7) *Tesu   **kokou**   ge le burr*
     NREC.PST.3PC RED.throw SUB MED already
     'They had already thrown them away there'

So in the above example the preverbal subject marker ends in a vowel but does not trigger vowel elision. The reason for this is that presumably it would be pointless as if the initial vowel was elided it would result in *k.kou* and then as geminates (c.f. section 2.2.4.1.4) are not allowed, the verb would simply be the unreduplicated *kou* thus losing the semantic marking of a plural object.

Finally the 3SG avertive marker *ne* (c.f. section 2.4.7.3.4) can induce vowel elision in verbs as in (8). If the verbs structure is CV.CV then it is able to undergo vowel elision and interestingly the avertive marker will change from

61

n to *ne* to induce vowel elision.

(8) a. *Vanten marr   tolo ngre ngre **ene**   mnu mi*
         person everywhere NEG able able 3PL.AVE drink REC.PST.[3SG]
         yi   le   nge
         like MED TOP
         'People everywhere are unable to drink like that'

     b. *Eya long sa   mo **en**   vya bamne mweneng teere!*
         INTJ in.1SG NEG.want that 3PL.AVE go spoil.TR CL.1SG   child
         'Hey I don't want them to hurt my child!'

The two examples in (8) contrast the form of the counterfactual marker *n*, if it precedes a verb with CV.CV structure then it is *ne* and induces vowel elision in the verb so that *munu* 'drink' changes to *mnu*. If the verb is simply CV such as *vya* 'go' then the form of the counterfactual is simply *n*.

2.2.4.1.2. Vowel Elision and Delabialisation.   In example (9) the verb *bwiti* 'pluck' is reduced to *bti* after the open syllable aspectual clitic *rro* 'continuous' precedes it.

(9) *Te   son   rro **bti** **bti** bwehel*
     CONJ other.one CONT pluck pluck bird
     'And the other one plucked the bird'

Not only is the initial vowel elided but the initial consonant also loses its labialised quality and is reduced simply to /b/.

2.2.4.1.3. Vowel Elision and Allophonic Change.   One phonological process affects word initial syllables of the type /tV/, where V is a vowel. This segment changes to the trill /rr/ when an open syllable precedes the /tV/ syllable. The following example shows the change in the initial verb segment of *tewe* 'to make'.

(10) *Ma   **rrwe**=ne*
      REC.PST[3SG] make-TR

62

'He made sth.' (Elicited)

So *tewe* becomes *rrwe* after a word ending in an open syllable. Vowel elision is not restricted to verbs but also to other word classes. Bound nouns (c.f. section 2.3.1.2) ending with an open syllable also trigger vowel elision in their complement nominal.

(11) a. *Tubu*
          bushnut
          'Bushnut' (Elicited)

      b. *Li rrbu*
          tree bushnut
          'Bushnut tree' (Elicited)

Tubu changes to *rrbu* in example (11). Finally the purposive adverbial clause marker *teban* 'for' also undergoes initial syllable mutation.

(12) *Yim   taa rru rrban*
      1PL.IN.REC.PST sit stay for
      'We are sitting for (it)'

It has already been described that the trill /rr/ has a syllable final allophonic variant /tˀ/ in section 2.2.1.4. Here the separate phoneme /t/ alternates to /rr/ word initially. The trill phoneme changes to [tˀ] syllable finally showing that perhaps these two phonemes are merging.

2.2.4.1.4. Consonant Elision.   The initial consonant of the associative preposition *ne* and the transitive suffix, also *ne*, is lost when the preceding word is closed syllable ending in /r/ or /l/.

(13) a. *Wobur e   ye-ng*
          ankle ASS leg-1SG
          'My ankle'

      b. *Ema   rrya rom vya wil=e*
          3PL.REC.PST take rom go dance-TR

'They take the rom[8] and go dance it'

Geminate consonants are not allowed and when two identical consonant segments appear juxtaposed, one is deleted and thus no gemination occurs. For example, *onon=ne* in (14) is pronounced [onone] and not *[ononne].

(14)　*Tero*　　*rro susur **onon-e***
　　　NREC.PST.3DL CONT RED.talk crazy-TR
　　　'Those two were talking rubbish'

This process does not just occur with the transitive suffix, but wherever two identical consonants are juxtaposed, thus *na-m man* '1SG-R laugh' is pronounced [na man].

2.2.4.1.5. Consonant Elision and Vowel Change.　Initial syllables of the type /hV/ may lose their initial glottal consonant and the vowel also shifts as shown in (15) with the verb *hoyo* 'pluck a breadfruit from a tree using a pronged stick'.

(15)　*Ma*　　***iyo* *bta*　　*ge hu burr***
　　　REC.PST[3SG] pluck breadfruit that one already
　　　'He already plucked a breadfruit'

The initial syllable mutates from /ho/ to /i/ results from the open syllable 3SG recent past morpheme *ma* occuring in the verbal complex before *hoyo* 'pluck' resulting in loss of /h/ and a process of diphthongisation occurs and combines /a/ and /o/ to /ai/. However, when *mo=* the 3SG recent past marker precedes the verb *hote* 'touch' but deletion of the initial /h/ does not occur: *mo hote* 'he/she touched it'. Thus not every lexeme of CVCV starting with the glottal /h/ undergoes diphthongisation. The loss of a word initial consonant and subsequent diphthongisation also occurs with word initial /w/, for example *wehe* 'to hit' as shown in (16).

---

[8]*Rom* refers to a special mask used in the rom ceremony, which is a traditional secret society dance.

(16)   *Ma*   ***uhe***
        REC.PST[3SG] hit
        'He hit' (Elicited)

Examples not including the recent past marker are: *na uhe* 'I will hit' and *fo uhe* 'you will hit'. Interestingly when *te*, the third person singular nonrecent marker occur the resulting diphthong is /eo/ as in *te ohe* 'he hit'.

Finally, word initial /vV/ also undertakes this process as the bound noun *vera* 'hand of' also undergoes initial consonant elision and the initial vowel mutates as in (17).

(17)   *Bamto ne* ***ora-ng***
        right   ASS hand-1SG
        'My right hand'

Similarly the adverb *vere* 'outside' undergoes initial consonant elision, but this time the final vowel of the verb rru 'to stay' is lengthened as in (18).

(18)   *E   b-lon   ge   nga nge rru* ***ure***
        POT IRR[3SG]-NEG SUB only TOP stay outside
        'He will not just stay outside'

The consonants /h/, /w/ and /v/ are elided if preceded by an open syllable. Depending upon the combination of the final vowel of the preceding open syllable and the initial vowel of the affected stem, different diphthongs or long vowels occur. The following combinations occur:

- a + e → au
- a + u → au
- a + o → ai
- e + e → eo
- u + e → uu

2.2.4.2. Vowel Assimilation

The *mwe* 3sg recent past marker, undergoes vowel assimilation according to the initial vowel of the verb root it occurs with. it can either be realised as *mwe*, *me*, *mu*, *mo*, *mi*, *mwi* and *ma*.

Mwe occurs before verbs, whose initial vowels are /a/ or /e/, for example in *la* 'walk', *ngen* 'eat[9]', *yen* 'eat[10]', *yen* 'the same as', *rreng* 'cry', *sene* 'give' *lam* 'be.big' *ye* 'wake up', *ta* 'cut' and *rranga* 'NEG.exist'.

Mwe is realised as *me* when some initial verb root vowels are /e/. for example *me fe* 'he says' and *me neneo* 'it is blue'. Though at this stage I am unsure as to why *mwe* is sometimes *me* as both forms can appear before verbs with initial *e*. *Mwe* is realised *mu* when the initial verb root vowel is /u/. For example *mu rru* 'he stays' and *mu hubsine* 'he shows'. *Mwe* may be realised as *mo* when the initial verb root vowel is /o/. for example *mo bo* 'it stinks' and *mo hote* 'he touches'. *Mwe* may be realised as *mi* or *mwi* when the initial verb root vowel is /i/. For example *mi singrurr* 'he kneels' and *mwi ling* 'she gives birth'. At this stage I do not know why the recent past marker is sometimes *mwi* and sometimes *mi*. *Mwe* may be *ma* when a consonant cluster blocks vowel assimilation as shown in (19).

(19)   a.   ***Ma***   *rrmane (temane)*
               REC.PST[3SG] let
               'He lets, allows'

       b.   ***Ma***   *mto (meto)*
               REC.PST[3SG] ripe
               'It's ripe'

In these cases the actual consonant clusters have resulted from vowel elision as explained in 2.2.4.1.1. The words in brackets next to the examples in (19) are the verb root before the initial syllable change. What is interesting is that the recent past marker naturally ends in a vowel and thus triggers initial vowel elision in verbs with CV.CV structure, thus vowel elision is triggered result-

---

[9]NE dialect.
[10]Western dialect.

ing in a consonant cluster which then forces the recent past marker to change morphological shape to *ma*. An example of this is shown below contrasting the two recent past forms of the verb *ling* 'to give birth' in its intransitive form and *lingi* 'give birth to', its transitive form.

(20)   a.   ***Mwi***   *ling*
                  REC.PST[3SG] give,birth
                  'She gave birth'

        b.   ***Ma***   *lngi*
                  REC.PST[3SG] give.birth.to
                  'She gave birth to X'

One verb *me* 'come' appears to work differently than expected. As this verb has the /e/ vowel it is expected to induce vowel assimilation in the recent past marker to *me*, however *mwe* instead changes to *ma* as shown in (21).

(21)   *Ma*   *me*
        REC.PST[3SG] come
        'He came'

Verbs of motion are often reiterated (c.f. section 2.2.4.3) as shown below and thus show motion over a longer distance, either spatially or temporally. If the recent past marker was also *me* then there would be confusion as to whether the event had already taken place or is the reiteration of the verb itself.

(22)   ***Me me me*** *te*   *te*   *rro* *verr* *on* *orr* *ge*
        come come come CONJ NREC.PST[3SG] CONT stone at place SUB
        a
        PROX
        '(He) was coming and anchored in this place'

Table 2.15 summarises the different vowel assimilation rules of the recent past marker.

Recent Past Marker	Before verbs whose initial vowels are:
mwe	e
me	e
mu	u
mwi/mi	i
ma	elided or changed due to other phonological processes

Table 2.15: Vowel assimilation

2.2.4.3. Reduplication and Reiteration

Both reduplication and reiteration of verbs are distinguished in this section. Reduplication only occurs partially on many verbs and takes the initial two phonemes of the verb and preposes them to the unreduplicated stem. *Ter* 'to look' may be reduplicated in this manner as shown in (23).

(23) *Rro* **teter** *fon* *beta*
   CONT RED.look above.3 breadfruit
   '(They) were looking for breadfruit'

Other examples of partial reduplication are shown in the table 2.16.

Verb	Reduplicated	Gloss
kou	*kokou*	throw
torr	*totorr*	cut
kur	*kukur*	gather
ta	*tata*	cut
ter	*teter*	look
ker	*keker*	scratch
yel	*yeyel*	walk
fou	*fofou*	bury
hurrmi	*huhurrmi*	light a fire
koote	*kokoote*	break
saaro	*sasaaro*	tell a story
fungon	*fungofungon*	collect shellfish
fugor	*fugofugor*	rustle

Table 2.16: Partially reduplicated verbs

Verbs which have the syllable structure CVC (*ter*), CVV (*kou*) or CV (*ta*) and their increments, such as CVC.CV (*hurrmi*) CVV.CV (*saaro*) are able to be reduplicated. Verbs of the type CV.CV tend to be reiterated as explained further below, yet one verb *lehe* 'see' is reduplicated as *lelhe*. The final examples, *fungon* and *fugor*, in the table above are both CV.CVC and all apart from the word final /n/ or /r/ are reduplicated. As shown previously partial reduplication does not react to the rules of vowel elision and partial reduplication is thus prefixed onto the verb root. Reiteration is different from partial reduplication, in this case the full verb root is repeated. A reiterated verb root is treated as two separate words and thus is reiteration and not reduplication. In the following example *tewe* 'make' is reiterated and both iterations undergo vowel elision.

(24)   *Ema*   **rrwe rrwe** *kya*
          3PL.REC.PST make make try
          'They were trying to make him'

As the verb *tewe* has the initial syllable *te* the vowel is elided and the consonant changes to /rr/ as the previous preverbal subject marker ends in a vowel. The verb is reiterated and as the verb root ends in a vowel the reiterated verb also undergoes vowel elision. Verbs of the type CV.CV and CVC are reiterated: *lam* 'big' can be *lam lam* but never *lalam*. *Fen* 'shoot' is reiterated as *fen fen* but never *fefen*. *Muku* 'run' is reiterated as it undergoes vowel elision in (25).

(25)   *E*   *na*   *ari*   *te*   *ro*   **mku mku**
          POT 1SG[IRR] descend CONJ 1DL.IN[IRR] run   run
          'I will climb down and we will run'

Similarly *leva* 'tie up' is reiterated as *leva lva*. Both CVC and CV.CV verbs can be reiterated and partially reduplicated and at this juncture more research is needed to see why some verbs are partially reduplicated and others are reiterated. At this stage of the documentation it appears that no verb can undergo both reduplication and reiteration.

2.2.5. Clitics and Affixes

The difference between clitics and affixes can be distinguished in the way they interact with the different phonological processes described in section 2.2.4. Affixes are more tightly bound to words in North Ambrym and thus if a suffix attaches to a root and the resulting word has a syllable structure of CV.CV then this word can undergo vowel elision (c.f. section 2.2.4.1). Clitics are bound at the phrase level and do not affect the internal syllable structure of the word they cliticise to. Consequently, the resulting clitic and root combination will not trigger initial syllable mutation.

The 3SG recent past morpheme is analysed as a particle because it induces vowel elision and thus acts as a free word would do (c.f. section 2.2.4.1.1), as shown in (26), wheere the verb *goro* 'chase' reduces to *gro*.

(26)   *Liseseu **ma**   **gro**   ni*
    L.   REC.PST[3SG] chase 1SGP
    'Lisepsep chased me'

However, there is evidence to show that it can also be a prefix as sometimes it also undergoes vowel elision as if it were the initial syllable of a polysyllabic root:

(27)   *Na-m   rru nga **m-yi**   le*
    1SG-REC.PST stay IMM REC.PST[3SG]-like MED
    'I stayed just like that'

Normally the recent past marker on the verb *yi* 'be like' would be *mi* due to vowel assimilation rules but in the above example the vowel has been elided and it is simply *m*. Another example follows:

(28)   *Angken   mel   nge **m-ho**   lon we   ge   a*
    CL.1PL.IN dragon.plum TOP REC.PST[3SG]-stay.PL in   water SUB PROX
    'Our dragon plums are in this water'

The verb *ho* 'stay' is a single syllable verb stem and when the recent past

marker for 3sg precedes it it must be analysed as a prefix due to the vowel elision as it is treated as a polymorphemic root now. Another example follows.

(29) *Lo **m-se**   mol mon*
      then rec.pst[3sg]-sing again again
      'Then he sang again'

The morphosyntactic status of the recent past marker is dependent upon the phonological structure of the verb it precedes. If the verb is monosyllabic the recent past marker is a prefix and if the verb is polysyllabic it is a particle.

Similarly the status of the nonrecent tense marker *te* also sits in somewhat of a grey area morphosyntactically. On the one hand it acts like a particle and induces vowel elision in the verbal root as shown in its first occurrence in (30), where *kutu* 'take' changes to *ktu*. On the other hand it acts like a prefix and undergoes initial syllable mutation by losing the vowel and the phoneme /t/ to its allophonic variant [r] when preceded by a word ending in an open syllable as shown in its second occurrence in (30).

(30) ***Te***   **ktu** *sese   hu ge* **rr-yen**   *bwetesur*
      rempst[3sg] take something ind sub [pst[3sg]-like black.magic
      'He took something like black magic'

Again, this shows that the morphosyntactic status of the nonrecent marker is dependent upon the phonological structure of the verb root, just like the recent past marker shown previously. Another good example is when the nonrecent marker occurs with a verb with an initial *te* syllable such as *tewe* 'make'. When the 1sg irrealis morpheme precedes this verb root, the initial syllable loses its vowel and the initial consonant changes to the allophone [r], represented orthographically as *rr*:

(31) *Na   rrwe-ne*
      1sg[irr] make-tr
      'I will make it'

When the nonrecent prefix attaches then this is analysed as part of the verb and thus it itself undergoes the vowel elision and allophonic variant change, whereas the initial syllable of the verb stem no longer undergoes this transformation:

(32) *Na* **rr**-*tewe-ne*
      1SG NREC.PST-make-TR
      'I made it'

On the other hand it acts as a particle similar to the recent past marker as when the subject indexing particle is the non overt 3SG marker then the nonrecent marker induces vowel elision and allophonic change as in (33).

(33) ***Te***   *rrwe-ne*
      NREC.PST[3SG] make-TR
      'He made it'

The transitive marker is a neutral suffix as it does not affect the phonology of the verb it attaches to. For example it was explained before that *sene* 'give' does not undergo vowel elision even though it is of the form CV.CV. This is because the transitive marker *ne* is a neutral suffix. When a verbal compound occurs (c.f. section 2.4.8), the transitive marker occurs after this verb as in: *se mole* 'give back, where the final *e* is the transitive suffix.

In summary clitics are not part of the morphological word but suffixes are. Some grammatical markers can be both particles and suffixes depending upon the verb root.

2.3. NOUNS AND NOUN PHRASES

2.3.1. Nominals

Simply put, nouns in North Ambrym refer to entities in the world. Syntactically they can appear as the subject of an intransitive verb, or subject and object of a transitive verb and as the object of a preposition. Nominals may

occur as the subject of an intransitive verb as shown in (34-a). Nominals may occur as the subject and object of a transitive verb as in (34-b) and nominals may occur as the argument of a preposition in (34-c). Finally, nominals can occur both in the subject position of a copula and as the predicate in a copula construction, both of which are shown in (34-d).

(34)   a.   *[**Teere**] rro   fwerr*
                      child   CONT sleep
                      'The child is sleeping' (Elicited)

     b.   *[**vanten** nyer] rro   rrno [**rrem**]*
                      person 3PLP CONT plant yam
                      'The people are planting yams'

     c.   *Liseseu bya bwi   lon [**bulu-n**]*
                      Lisepsep go squeeze in.3 hole-3SG
                      'Lisepsep went and squeezed into his hole'

     d.   *[**Wunu**] em   be [**vanten**] ge em   yi le*
                      fool   3PL.REC.PST COP person   SUB 3PL.REC.PST like MED
                      'fools are people who are like that'

Two noun classes are distinguished in North Ambrym, these are free nouns 2.3.1.1 and bound nouns 2.3.1.2. Alternations between the two can occur and sometimes the same noun stem can act as both a free noun and a bound noun. This is explained in section 2.3.1.3

2.3.1.1. Free Nouns

Free nouns are an open class of nominals as all borrowings are always free nouns. Borrowings either originate from Bislama, the main contact language or from English which Bislama itself tends to borrow from. Free nouns can either be common nouns such as *tomo* 'rat' or proper nouns such as names of people like *Saksak* or *Tangou*. Free nouns can also be derived nouns (c.f. section 2.3.3.

2.3.1.2. Bound Nouns

The closed class of bound nouns must always occur in a direct possessive construction (c.f. section 4.1), either with the set of possessive pronominal suffixes attached or occur with a possessor nominal.

(35) a. *Lu-ng*
          skin-1sɢ
          'My skin'

      b. *Lu   Massing*
          skin Massing
          'Massing's skin'

It is ungrammatical to have a bound noun that does not have its possessor argument position filled.

2.3.1.3. Bound and Free Noun Alternation

Some bound nouns may occur without being marked for a possessor and thus act as free nouns. *Bulu* when acting as a bound noun has the meaning of 'hole for', for example *bulu rrem* means 'a hole for planting yams in' (lit. hole yam). Its most often incarnation is when it is followed by a phonologically reduced free noun form of itself *bul* 'depression', *bulubul* simply means 'hole' in its most generic sense. *Bul* 'depression' also forms the basis of the reduplicated nominal *bulbul* 'canoe', presumably because a canoe is essentially a depression in a log. Similarly, *bul* also occurs in the complex locational adverb *tolabul* and *helabul* both having the meaning of 'creek'. *Bulu* may also be suffixed by the set of possessive pronominals, but when it occurs as a bound noun it has a very specific sense as *bulu-ng* 'my grave' (lit. hole-1sɢ), though *bulu-n* appears in the corpus means 'his hole' in where the possessor is one of the spirit Lisepseps and the hole is his house. Finally *bulu* may also occur in bound noun compounds suffixed by the third person cross referencing suffix *-n* (c.f. section 4.3) and preceding the head noun of the bound noun compound in such instances as *bulu-n se-n* 'his anus' (lit. hole-3 excrement-3sɢ) or *bulu-n meta-n* 'his eye socket' (lit. hole-3 eye-3sɢ).

Another example is *bu* and has the opposite meaning of *bulu* in that it means a peak or a protruding part and is found in *bu koko* 'hill' (lit. protrusion of the hill) and in *bubu vere* 'island' (lit. protruding land) and in *bu liye* 'knot of a tree'. When occurring in complex bound noun phrases referring to body parts it has the meaning of a joint in *bun veran* 'his knee' (lit. joint.3 leg.3sɢ).

Some bound nouns do not occur with the full set of possessive pronominals but may occur with in bound noun phrases qualified by a full nominal possessor such as *bari vanten* 'the origin of man', however **bari-ng* is unacceptable and would not mean 'my origins'. When preceding inanimate nominals it means the origin such that *bari rrem Konkon* 'the origin of the yam is Konkon' or simply *bari rrem* may mean 'the start of a row of yams'. Interestingly *bari* may occur in one bound noun compound *bari-n se-n* 'his anus' (start-3 excrement-3sɢ) and has the same referent as *bulun sen* shown before.

Another example is *marri* 'hole' this generally collocates with nouns referring to trees such as *marri bru* 'hole of the softwood' this is not a hole in the softwood tree but a hole in the ground left by a dead or fallen over tree. It can occur with the generic human animate noun *vanten* 'person' in *marrin vanten* 'hole of a person' and the meaning of this is the sunken ground found at a grave after the body and mats have rotten and thus the ground has formed a depression. **Marri-ng* is ungrammatical and though marri is a bound noun it is unable to occur with the set of possessor pronominals.

Binsi 'bottom of' is a bound noun that occurs with inanimate nouns in phrases such as *binsi bul* 'bottom of a hole (lit. bottom depression)'. This bound noun may be used with any kind of entity that has a hole in it like cups and barrels. It may also occur in a bound noun compound *binsin boton* 'top of head (lit. Bottom.3 head.3sɢ)'. Obviously this lexeme has an interesting meaning here and no longer means bottom but means top! Many bound nouns have their meanings specified by their free noun argument and not just the bound noun

In summary there are different levels of alternation between bound and free nouns and a lexical item could be found in some or all of the constructions with the features listed below:

- All pronominal suffixes.

- 3sɢ pronominal suffix only.
- Compound bound noun phrase.
- Inanimate possessor bound noun phrases.
- Animate possessor bound noun phrases.

2.3.2. Pronouns

A set of free independent pronouns are found in North Ambrym, these distinguish between singular, dual, paucal and plural number and also between inclusive and exclusive function. The set of pronouns may occur in any syntactic nominal position, subject, object or in the argument of an oblique phrase. Table 2.17 shows these pronouns.

	Singular	**Dual**	**Paucal**	**Plural**
1.INC	—	*kerong*	*kesul, kensul*	*ken*
1.EX	*ni*	*gemaro*	*gemasul*	*gema*
2	*neng*	*gomoro*	*gomosul*	*gimi*
3	*nge*	*nyero*	*nyesul*	*nyer*

Table 2.17: Independent pronouns

The dual pronouns in table 2.17 have the multiplicative numeral *ro* 'twice' fused on the end. Similarly the paucal pronouns have the numeral *sul* 'three' fused onto them, though these pronouns denote paucal and not trial.

Generally, an independent pronoun does not occur in subject position as the obligatory subject indexing particl also inflects for person and number. However, when a pronoun does occur in subject position it either shows emphasis or that the referent is contrary to expectations. In (36-a) the speaker disagrees with his illocutionary partner and offers a solution contrary to the expectations of the hearer and thus this is reinforced by the independent pronoun *neng*. Example (36-b) is similar in that the speaker reinforces his demand with the independent pronouns *neng* and *ni* which emphasise who will do what.

(36)   a.   *Ehee **neng** o   fafa ni   te   ro   lala kor*
              no   2sɢP 2sɢ[ɪʀʀ] carry 1sɢP ᴄᴏɴᴊ 1ᴅʟ.ɪɴ[ɪʀʀ] scurry about
              'No, you, you will carry me and we will scurry through the trees'

b. ***Neng** o fo   tno rrem a **ni** e na   uhe*
   2sgP POT IRR.2SG plant yam CONJ 1sgP POT 1SG[IRR] hit
   atingting na-n
   slit.drum ASS-3SG
   'You, you will plant the yams and I, I will hit this slit drum'

Occurrence of pronouns in subject position are rare but are more likely to occur in object position where they act as referential pronouns.

(37) *Lung   rro mùrrne liseseu ne gro **ni***
      skin.1SG CONT afraid.TR L.   AVE chase 1sgP
      'I was afraid that lisepsep would chase me'

In subject position they are emphatic and referential but in object position they are just referential. One interesting use of the 3DL pronoun is its use as an NP co-ordinating device and links two nominals, as shown in (38) (c.f. section 2.3.6).

(38) *Rrin   sameyene [tomo **nyero** bweya]*
      custom.story about   rat   3DLP rail
      'The custom story is about the rat and the rail'

In object position the pronominals can be co-referential with the subject and have a reflexie reading. There are no special reflexive pronouns in North Ambrym. (39) shows the object pronominal being co-referential with the subject indexing particle:

(39) *Nam   rre ni*
      1SG.REC.PST cut 1SG
      'I cut myself'

Similarly, the independent pronouns can give a reciprocal reading as shown in (40),

77

(40) *Moro   e   bad fren   ne   **nyero***
      3DL.REC.PST COP bad friend ASS 3DLP
      'The two of them are bad friends with each other'

The 3DL pronoun in (40) encodes reciprocity and shows that the dual subject referents are not friends with each other. The pronoun could also encode non co-reference with the subject but it is the context of the story that helps identify co-referentiality.

The 3DL, 3PC and 3PL pronouns also act as nominal quantifiers as shown in (41):

(41) a. *Ale [mwenan teere **nyero**] nga ro me   ho*
          ok CL.3SG child 3DLP   only 3DL come stay.PL
          'Ok just his two children came and stayed'

      b. *Fo   ce [am   tutu   **nyesul**] [mùsom   **nyesul**] e*
          IRR.2SG call CL.2SG grandfather 3PcP   uncle.2SG 3PcP   POT
          bsu   me   nga me   kuru mwena-m worwor
          IRR.3PC come imm come heap CL-2SG   sacrificial.stone
          'You call your grandfathers and your uncles and they will come
          and heap up your ceremonial pig killing altar stones'

      c. *Te   buten ge e   bya lon buk te   [teere **nyer**] fe*
          CONJ good that POT go in book CONJ children 3PLP   IRR.3PL
          nga rro lhe
          IMM CONT see
          '...and it is good that it will go in a book and all the children will
          just see it'

The third person paucal and plural pronouns can also be used to quantify proper nouns as shown in (42).

(42) *Te   Tokon te   totor   nga en tabungbung te   rro fe*
      CONJ T.   PST[3SG] wake.up only at morning   CONJ CONT say
      *byane [Leslie **nyesul**]*
      go.TR L.   3PcP
      'And Tokon woke up in the morning and was saying to Leslie and
      company'

This usage does not denote referents with the same name but a group of people associated with the referent of the proper noun. In summary pronouns have the following properties:

- Have emphatic meaning in subject position.
- Have referential meaning in object position.
- Have reflexive or reciprocal meaning.
- 2DLP can act as a comitative.
- 3DLP, 3PCP and 3PLP can act as nominal quantifiers.
- 3PCP and 3PLP can quantify proper names.

2.3.3. Nominal Derivation

There are two different ways to derive nominals from verbs, either by using the instrumentalising proclitic *a=* 2.3.3.1 or the abstract noun deriving clitic *=an* 2.3.3.2.

2.3.3.1. Instrumental Noun Derivation

The proclitic *a=* attaches to reduplicated or reiterated verbs to form instrumental nouns. Some examples of this are shown in table 2.18.

Verb		Instrumental Noun	
tuu	'draw'	*a=tutuu*	'pen/pencil'
taa	'sit'	*a=tataa*	'seat'
ta	'hit'	*a=tata*	'pig killing club'
him	'suck'	*a=himhim*	'cigarette'
fwiye	'climb'	*a=fyefye*	'ladder'

Table 2.18: Instrumental nouns

The instrumental noun marker is considered to be a proclitic rather than a prefix as it induces vowel elision in stems that are CV.CV such as *fwiye* 'climb' becomes *afyefye* and loses its initial vowel and the initial consonant /fʷ/ loses its labial quality and is realised as [f].

This process is productive and modern uses can be found such as *arorongta* 'headphones' which derives from the verb *rongta* 'listen' and *ateter* 'glasses'

79

from *ter* 'to look'. Restrictions apply to the productivity of instrumental nominal derivation in that stative verbs can never produce instrumental nouns, such that *magal* 'be clean' can not be *amgal* and *mehar* 'be clear' can not be *amhamhar*. Similarly not all transitive and intransitive verbs can undergo this operation as *kutu* 'take, carry' is thought to be ungrammatical when formed as *aktutku*. With some instrumental nouns the stem is left unreduplicated as shown in the following example.

(43)   a.   *A=for*
               INSTR=blow
               'Blowpipe'

        b.   *A=kin*
               INSTR=pinch
               'Digging stick'

Also several instrumental nouns occur where the original verb is unknown such as *abol* 'wooden tongs' and *arrbol* 'basket'.

2.3.3.2. Abstract Noun Derivation

The enclitic =*an* turns a verb into an abstract nominal.

(44)   *Na*   *saarone*   *saaro=**an***   *hu*
           1SG[IRR] tell.story.TR tell.story=NMLZ IND
           'I will tell a story'

The result of the enclitic in (44) is a cognate object construction. The first instance of the verb *saaro* occurs with a subject marker and transitive suffix indicating its verbal properties, whereas the second instance occurs in object position with the nominalising clitic and is modified by the indefinite article and thus shows nominal properties.

2.3.4. The Noun Phrase

The only obligatory element of the noun phrase is the head noun, either a bound or free noun. The most simple noun phrase consists of a nominal. As bound nouns are also direct possessive constructions (c.f. section 4.1) they may have a nominal possessor, thus one possible noun phrase combination is shown in (45).

(45)   *John tolo ngene **boto-n maalo***
        J.   NEG eat   head-3 fish
        'John did not eat the fish's head' (Elicited)

Nominal modifiers generally occur on the right of the nominal head. A noun can be followed by an adjective as in (46).

(46)   *Ete   vya rro   kil **meyee vi***
        3PL.NREC.PST go CONT dig food   new
        'They went and were digging the new food'

Adjectives are described in section 2.3.5.1. Nominals can be directly followed by the numeral one which functions as an indefinite article.

(47)   ***Vanten hu** te   rro   gomgom womul*
        person IND NREC.PST[3SG] CONT RED.pick orange
        'A person was picking oranges'

Marking of all first mention indefinites within a text appears to be obligatory. Articles are looked at in section 2.3.8. Some free pronouns can modify a nominal and act as a quantifier in (48).

(48)   ***Vanten nyer** tolon ye   kya Yafu bwe*
        Person 3PLP NEG open.eye know god yet
        'All the people did not know god yet'

Quantifiers and numerals are looked at in section 2.3.5.2. A schema of the
noun phrase is shown below.

[NOUN ADJECTIVE QUANTIFIER]

The schema represents the relative order of the elements of the noun phrase.

2.3.5. Nominal Modification

Several different ways of modifying a nominal occur. Modification by ad-
jective is shown in section 2.3.5.1, numerals and quantifiers in 2.3.5.2 and
relativisation in section 2.3.5.3.

2.3.5.1. Adjectives

Adjectives comprise a separate word class distinct from nouns as they are
unable to occur alone in the nominal syntactic slots shown in section 2.3.1.
Adjectives may act attributively by directly modifying a nominal. Adjectives
occur to the right of the nominal as shown in (49-a). They also occur pred-
icatively and occur after the copula verb (49-b) or can be realised as a stative
verb and thus can be preceeded by subject indexing particles (49-c).

(49)   a.   *Vanten **vivi***
           person RED.young
           'A young person'

       b.   *Nam   be **vivi***
           1SG.REC.PST COP RED.young
           'I am young'

       c.   *Nam   **vivi***
           1SG.REC.PST RED.young
           'I am young'

For the most part adjectives are manifested as stative verbs. For instance *lam*
'big/plenty' occurs as a stative verb around 70 times in the corpus, as shown
in (50).

(50)   *Nam*   *tewene oman*   *mwe*   **lam**
           1SG.REC.PST make   work.NMLZ REC.PST[3SG] big
           'I made big work'

Alternatively, the stative verb occurs in a relative clause and modifies the head noun as in (51).

(51)   *Tesu*   *nga ktu verr ge* **tlam**
           NREC.PST.3PC IMM take stone SUB NREC.PST.big
           'They took a stone which was big'

This adjective only occurred twice attributively and its basic form was reduplicated, which denotes intensity, as in (52).

(52)   *A*   *tuu*   **lamlam** *wor hu lo*   *te*   *rrwunean*
           CONJ drawing big   some one then NREC.PST[3SG] start.NMLZ
           marin me   *me*   *me*   *tongve lonle ge*   *a*
           before come come come until   today SUB PROX
           'And some really big drawings that started long ago continue until now'

As verbal elements they can also appear as the dependent verb in a verbal compound as shown in bold font in (53)

(53)   *Har*   *vi*   *ge*   *mwe*   *nga rrwe* **vivi**-*ne=an*   *nga*
           nasara new SUB REC.PST[3SG] imm make RED.new-TR=NMLZ only
           towel bya ye
           down go   PROX
           'The new nasara[11], it was made new down there'

In (53) *vi* 'new' occurs attributively first and modifies the head noun *har* 'nasara'. It then occurs as the dependent element in a verbal compound with the verb *tewe* 'make' (c.f. section 2.4.8).

---

[11]A nasara is a ceremonial ground

As stative verbs they can also be nominalised by the *an* enclitic and thus occur as the head of a nominal phrase and be modified themselves by nominal quantifying elements as in (54).

(54) *Yi   nga ktu [**vivi=an   nyer**] te   yi*
      1PL.IN[IRR] IMM take RED.new=NMLZ 3PLP CONJ 1PL.IN[IRR]
      sortemaot
      sort.it.out
      'We will take the new and we will sort it out'

In (54) the stative verb is nominalised and then the 3PL free pronoun occurs immediately after which also acts as a noun quantifier. It would be fair to say that adjectives are really stative verbs that take verbal morphology, however without any morphology they can occur attributively and directly modify nominal elements and also occur predicatively after the copular verb.

2.3.5.2. Numerals and Quantifiers

The cardinal numerals are shown in table 2.19. Alternative North-Eastern dialect pronunciations are shown after the forward slash.

hu	one
ru	two
sul	three
virr/yirr	four
lim	five
liuse/liisa	six
liuru	seven
liusul/liisul	eight
yaferr/laferr	nine
sangul/sangil	ten
sangul a hu	eleven
wingil be ru	twenty

Table 2.19: Cardinal numerals

Lynch *et al.* (2002: 39) states that the majority of Oceanic languages are a decimal based system but that:

84

"However, in Vanuatu and New Caledonia, as well as in a wide scattering of locations further west, quinary systems are often found, with numbers higher than 'five' expressed as compounds based on 'five' or some other word. Some languages have a combination of quinary and decimal systems, with the numbers 'six' to 'nine' being compounds involving the form for 'five', along with a separate lexeme for 'ten'."

North Ambrym falls into the latter category as the forms for 'six' to 'nine' appear to be compounded with the form *li* which appears in *lim* 'five' with a separate lexeme for 'ten'. The cardinal numeral *hu* 'one' can directly follow a nominal and in this instance acts as an indefinite article (c.f. section 2.3.8). All numerals are unable to directly modify a nominal but must be introduced by the copular verb:

(55) a. *Ma   geyene bu   **be hu** nga*
          REC.PST[3SG] pay   castrated.pig COP one only
          'You pay only one pig for it'

      b. *Ma   geyene bu   **be lim***
          REC.PST[3SG] pay.TR castrated.pig COP five
          'He paid five pigs for it'

Example (55) comes from a story about how many pigs must be paid for different ranks of the *mage* 'men's graded society'. Example (55-a) shows the numeral *hu* 'one' introduced by the copular verb and thus it is distinguished from the indefinite article *hu* which occurs without it. The numeral *hu* is also followed by the adverbial *nga* and adds the meaning 'just one'. Example (55-b) shows the numeral *lim* 'five' also occurring with the copular verb. Even borrowed numerals above one must be introduced by the copula verb as shown in (56).

(56) *Yeng   huwo **be   seventi seven***
      CL.1SG year   COP seventy seven
      'I am 77 years old'

The copula may occur in its nonrecent tense form *te e*[12] when introducing numerals, though the sense is still the same as when it is not in its nonrecent tense form.

(57)　*Yeng　huwo **te**　　**e**　seventi seven*
　　　　CL.1SG year　NREC.PST COP seventy seven
　　　　'I am 77 years old'

The numeral *ru* 'two' can also occur simply with the nonrecent tense marker and thus seems to have verbal properties. *Ru* is contrasted with *sul* 'three' in (58) where *ru* can be preceded by the nonrecent tense marker *te* but *sul* 'three' must be preceded by the nonrecent tense form of the copular verb *te e*.

(58)　　a.　*Fo　　　nga rro　vya rrya mangrong we　**te**　　**ru***
　　　　　　　IRR.2SG IMM CONT go　take CL.1DL.IN　water NREC.PST two
　　　　　　　me
　　　　　　　come
　　　　　　　'You go and steal us some drinks'
　　　　b.　*Tesu　　rrya rrem **te e**　**sul***
　　　　　　　PST.3PC carry yam　PST COP three
　　　　　　　'They carried three yams'

When occurring solely with the nonrecent tense marker the numeral *ru* 'two' has the meaning 'a few'. In order to disambiguate the two meanings of *ru* another particle can precede the nonrecent tense marker. *Wa* thus adds the meaning of specifically two entities in (59).

(59)　*Rrun　　　ne teere **wa**　**te**　　**ru***
　　　　custom.story ASS child PART NREC.PST two
　　　　'A custom story about two children'

In the North-Eastern dialect the form of this particle is *wo* and precedes not the nonrecent tense marker *te* but another particle *su*.

---

[12]The nonrecent tense copular form is pronounced as a long vowel [te:].

(60)   *Te lhe maalo **wo** **su ru***
             PST see fish   PART SU two
             'He saw two fishes'

The nonrecent tense marker in the North-Eastern dialect is also *te* and thus the *te* marker that precedes *ru* 'two' in the Western dialect may simply be a different particle that has accidental homonymy. Often the numeral *ru* is not used but the 3DL free pronoun occurs after a nominal to show that there are two referents:

(61)   *Lite*   ***nyero** ge   nge nge te*   *rru li*
             tree.3SG.NH 3DLP SUB TOP TOP NREC.PST stay PROX
             'Those two trees which were here'

When introduced by the general subordinate clause marker *ge* (c.f. section 2.3.5.3) the cardinal numerals take on a partitive meaning as in (62).

(62)   ***Ge hu*** *kutu rrem **ge hu***
             SUB one take yam SUB one
             'One of them took one of the yams'

In example (62) the construction of the subordinate marker plus numeral can also be used as syntactic pronominal as shown by its occurrence in the subject position. The use of the subordinate clause marker with other numerals introduces an ordinal meaning:

(63)   ***Ge sul*** *nan*   *mon te*   *selulu*   *nga mon*
             SUB three ASS.3SG again NREC.PST[3SG] dive.head.first only again
             bya lon we
             go in water
             'The third one of them too just dived into the water'

The ordinal sense can also be introduced by the copular verb:

(64) **_Be virr_** _nan_   _mon te_   _fe_
     COP four ASS.3SG too   NREC.PST[3SG] say
     'The fourth one of them also said'

During elicitation, larger numerals appeared not to be known to all speakers and they gave differing answers. 100 was given as either *wingil merom* or *wingil lamlam be sangul. Wingil* is the lexeme used in the term for twenty, *wingil be ru*, and is said to mean 'a bunch/handful' and seems to be groups of ten as shown in the following examples:

(65) a. *Wingil ne nyer monve ru o monve sul*
         tens   ASS 3PLP perhaps two DISJ perhaps three
         'Tens, perhaps twenty or thirty'

     b. *Wingil huwo nan   be ru*
         tens   year ASS.3SG COP two
         'Two decades'

Though larger numbers are normally expressed by using Bislama loanwords the numerals 1-10 can be used to express larger numbers, for instance *lim* means 'five' but could also mean 'five hundred' or 'five thousand' depending on context. this occurs quite regularly as payment in large sums of Vatu[13] for things are common.

The distributive numeral *hohoù* occurs and has the meaning 'go one by one' or 'separate' as shown in (66).

(66) a. *Yim   rro chen chene ran mwenangken vere*
         1PL.IN.REC.PST CONT pain pain.TR on.3 CL.1PL.IN   village
         hohoù *nyer*
         separate 3PLP
         'We are causing problems in our separate villages'

     b. *Masum   yel **hohoù***
         1PC.IN.REC.PST walk one.by.one
         'We went our separate ways'

---

[13]Vatu is the currency of Vanuatu.

Finally a multiplicative numeral *ro* 'twice' occurs.

(67) *Leo bàrrbàrr ma   tleose be   bya ro*
      tooth pig   REC.PST[3SG] circle COP go   twice
      'The pig's tusk circles twice' (Elicited)

The multiplicative numeral also occurs fused in the dual forms of the free pronouns as shown in 2.3.2. Quantification can also be achieved by pronouns acting as quantifiers as explained in section 2.3.2. One other quantifier, *bonga*, meaning 'all' can occur in the quantifier position as shown in (68).

(68) *te   lhe ge [an   obwerr bonga] mon te*
      NREC.PST[3SG] see SUB CL-3SG taro   all   again NREC.PST[3SG]
      hakbe
      destroy
      'He saw again that all his taro were destroyed'

Bonga contrasts with *nyer* 3SGP as a quantifier as *bonga* means all but *nyer* can pick out a subset of entities.

2.3.5.3. Relativisation

Relative clauses are introduced by the general subordinator *ge* (c.f. section 2.6) which directly follows a nominal in the matrix clause and introduces the relative clause which modifies the noun. Thus the structure is as follows.

- [N [*ge* REL.CLAUSE]]

The structure of the relative clause is the same as for main clauses except that the argument of the relative clause predicate can not be a nominal but is only expressed by a preverbal subject indexing particle as show in (69).

(69) *Lo   vya lhe [temarr [ge te   rro   taa]]*
      then go see spirit   SUB NREC.PST[3SG] CONT sit
      'Then he went and saw a spirit who was sitting down'

Thus the object of the matrix clause *temarr* 'spirit' is also the subject of the relative clause but is only referenced by the 3SG.PST marker *te* in the relative clause and not by a repetition of the nominal itself. However this does not mean that the subject position of a relative clause must be empty but that it may be filled if referencing a part-whole relationship to the referent of the lexeme in the matrix clause as in (70).

(70) *Ge li   metan ma   breu mi   yi li*
      SUB PROX eye.3SG REC.PST[3SG] large REC.PST[3SG] like PROX
      *mwe   yen   **au**   [ge metan ma   breu*
      REC.PST[3SG] like.TR ghost.crab SUB eye.3SG REC.PST[3SG] large
      mi   yi le nge nge]
      REC.PST[3SG] like MED TOP TOP
      'This, its eyes are large like this, like the ghost crab whose eyes are large like that'

Thus, it is the eyes of the ghost crab that appear in the subject position of the relative clause and not the ghost crab itself. Direct objects in a relative clause which are co-referential with the subject of the matrix clause can be elided as shown in (71).

(71) ***Sese hu** [ge om   rro rrwene...]*
      thing IND SUB 2SG.REC.PST CONT make.TR
      'Something which you are making...'

A matrix clause argument can be referenced in the oblique phrase of the relative clause. Example (72) shows that the oblique argument of the matrix clause is co-referential with the elided oblique phrase argument of *en* 'at' in the embedded relative clause.

(72) *Tesu   a rrno rru i   **en orr** [ge mweng im*
      NREC.PST.3PC go plant stay DIST at place SUB CL.1SG house
      *mu   rru **en** le]*
      REC.PST[3SG] stay at MED
      'They went and planted them at the place where my house is at'

Orr 'place' in example (72) is co-referential with the argument of the preposition *en* 'at' and if this was a matrix clause it would appear here before the clausal locative adverbial *le*. *Ge* does not just introduce entire clauses, but may simply introduce numerals (73-a) or demonstratives (73-b):

(73)   a.   *Om   bya lhe [[orr [ge hu]] [ge ma   mto kii]]*
                 2SG.REC.PST go see place SUB one SUB REC.PST[3SG] old good
                 'You go look for a place that is dark bush'

        b.   *Ni   nam   me   lhe [[li **womul** [ge le]] [ge*
                 1SGP 1SG.REC.PST come see tree orange SUB PROX SUB
                 te   rru en]]
                 NREC.PST[3SG] stay at
                 'I came and saw that orange tree which stood at that place'

Ge therefore introduces relative clauses that include just numerals or deictic demonstratives where no verb is present and thus are verbless relative clauses. These should still be considered relative clauses as they delimit the referent by either number or space. Example (73) also shows that relative clauses can be stacked recursively by type, where the verbless relative clauses modify the matrix nominal first. Finally the relative clause can occur post verbally rather than post nominally but still function as a nominal adjunct:

(74)   *Bu nan   mu   rru [ge nam   uu burr lon*
            song ASS.3SG REC.PST[3SG] stay SUB 1SG.REC.PST blow already in
            li   blabo]
            tree bamboo
            'Its song exists, that I already blew on the bamboo (flute)'

In (74) the relative clause modifies the subject of the matrix verb. The subject of the matrix clause is coreferential with the elided object of the relative clause.

2.3.6. NP Coordination

The conjoining of two NPs either occurs verbally with *kirine* 'be with' or the 3DLP free pronoun *nyero* (c.f. section 2.3.2) links two nouns as shown in (75):

(75) a. *Bweya **nyero** tomo moro   rro   rru myi*
          rail   3DLP rat   REC.PST.3DL CONT stay REC.PST.[3SG].like
          le
          MED
          'The rail and the rat were living like that'

      b. *Yafu **kirine**   mwenan yamarr*
          chief be.with CL.3SG   wife
          'A chief and his wife'

The disjunctive *o* can be used to link two or more NPs together:

(76) *Byane metahal nyer **o**   teere ge nyer ge ar   taata*
      go.TR sister   3PLP DISJ child SUB 3PLP SUB CL.3PL father
      *me   marr **o** yamarr ge nyer ge mwenar yafu*
      REC.PST[3SG] die   DISJ woman SUB 3PLP SUB   husband
      me   marr marr
      REC.PST[3SG] die   die
      '(It will be shared) with the sisters or children whose fathers are dead
      or women whose husbands are dead'

The disjunctive can also link two clauses together (c.f. section 2.6.3) , whereas
kirine and *nyero* only link two NPs together.

2.3.7. Demonstratives

The set of deictic demonstratives may modify noun phrases and also occur
post verbally where they function as locational adverbs as described in section
2.5.2.2. In this section their function as nominal modifiers will be explained.
Demonstratives modify the head noun of the NP but must be introduced by the
topic marker *nge* or the general subordinate clause marker *ge*.

(77) *Yamarr meto **ge a**   me   fe byanen   ge "hey*
      Woman old   SUB PROX REC.PST[3SG] say go-TR.3SG SUB INTJ
      *tenya   kon **nge a**"*
      intestine taboo TOP PROX
      'This old woman said to him "hey these are taboo intestines"'

92

The first use of the proximal demonstrative is introduced by the subordinator *ge*, whereas the second use is introduced by the topic marker *nge*. At this stage there is no evidence to suggest a difference in usage between the topic marker and the general subordinator for introducing a deictic demonstrative. Only when used anaphorically as demonstrative pronouns are they able to be preceded by the topic marker and not the subordinator as in (78):

(78)   a.   *Ha* **nge le***?*
              what TOP MED
              'What is that?'

    b.   *Tutu*   *bwete si*   **nge li***?*
              grandfather head   who TOP PROX
              'Grandfather, whose head is this?'

There are four deictic demonstratives shown below.

li   proximal
a   proximal
le   medial
i   distal

At this stage I am unsure as to the distinction between the two proximal demonstratives and this requires further analysis. The following example contrasts some of their usages:

(79)   *Rro* *tuune ran bwetete ge* *i* *bwetete ge* *li* *bwetete ge*
        CONT plant on point   SUB DIST point   SUB PROX point   SUB
        a   *bya* *le*
        PROX go MED
        'He planted it on that point, at this point and this point over there'

The second proximal demonstrative *a* above is also modified by a medial demonstrative which acts as an adverb as it is preceded by the verb *bya* 'go'. With the set of spatial demonstratives it is hard to find exact limits of spatial use, though roughly *a* and *li* seem to be more proximally orientated and close to the speaker, where *le* is closer to the hearer and *i* is neither near the speaker or hearer. Therefore, the spatial boundary of *i* is quite infinite and can mean

anywhere that is not close to the speaker and the hearer. In natural discourse people have used this while talking to me in utterances such as *maro bya i ten*? 'we two will go over there?' and in this sense the spatial demonstrative actually refers to the house situated next door and was therefore neither near I nor the speaker and yet not a long way off either. On another occasion the following utterance was used to explain in which saucepan the food was *meyee mu rru lon i ten*[14] 'the food is in (the one) over there' where there were at least three saucepans on the ground by the fire and the one with the food was the furthest away from the speaker and at least one saucepan away from myself.

2.3.8. Articles

Bare common nouns can have a generic meaning and are thus often found as objects of semitransive verbs, which allow non-referential objects (c.f. section 2.4.3.2). There are no definite articles, but a combination of the relative clause marker *ge* and one of the deictic demonstratives can act as a definite article as shown in section 2.3.5.3. Indefiniteness is marked and when the numeral *hu* 'one' occurs directly after the nominal it lends an indefinite specific reading (c.f. section 2.3.5.2). On the other hand non-specific indefinites are marked by *te hu* and only occur in negative or irrealis marked clauses as shown in (80).

(80)   a.   *Tesu*   *tlone ktu vyuu **te**   **hu***
           NREC.PST.3PC NEG   take rifle   NSP IND
           'They did not take any muskets'

     b.   *E   mro   sene tiese **te**   **hu** mene   ni   te   na*
           POT 2DL[IRR] give piglet NSP IND come.TR 1SG CONJ 1SG[IRR]
           *nga   sene rrem **te**   **hu** byane gomoro*
           IMM give yam NSP IND go.TR 2DLP
           'You two will give a piglet to me and I will give a yam to you two'

Indefinite specific *hu* then occurs in clauses marked for the past tense:

---

[14]*Ten* is an intensifier and thus *i ten* really means a long way away.

(81) *Te   moro   sene tiese **hu** byanen*
      CONJ REC.PST.3DL give piglet IND go.TR.3SG
      'And they gave a piglet to him'

The indefinite non-specific *te hu* can act as a pronominal in (82).

(82) ***Te hu** tlo haara mene   ni*
      NSP IND NEG explain come.TR 1SGP
      'No-one explained it to me'

Te hu in (82) can be interpreted as 'no-one'. In summary definite specifics are marked by a relative clause introducing a deictic demonstrative as opposed to a definite-non specific which is just the bare nominal. Indefinite specific is marked by the numeral one and indefinite non-specific is marked by the numeral one and a non-specific marker.

2.4. VERBS AND THE VERBAL COMPLEX

The verb is looked at in 2.4.1. Verbless clauses are discussed in 2.4.2. Section 2.4.3 looks at verb classes; valency increasing processes in 2.4.4; pluractionals in section 2.4.5; subject indexing particles in 2.4.6; tense, aspect, mood and negation in 2.4.7 and verbal compounds in 2.4.8.

2.4.1. Verbs

Verbs are the head of the verbal complex and are preceded by subject indexing particles that can be prefixed by a tense marker, or suffixed by tense or mood suffixes, or alternatively followed by a tense, mood or negation morpheme. Aspectual morphemes occur before the verb. The optional valence increasing suffix attaches to the right edge of the verb or to a verbal compound, which itself is to the right of the main verb. The verb complex can be summarised by the following schema:

(POTENTIAL) SUBJECT INDEXING PARTICLE (TENSE/MOOD/NEGATION) (ASPECT) VERB (COMPOUND) -(VALENCE)

No one example from the corpus is sufficient to show all manifestations of
the verbal complex shown above, though the following two examples show
different combinations.

- POTENTIAL TENSE-SUBJECT ASPECT VERB

(83)   *Teere nyer [e f-e   nga rro lhe]*
        child 3PLP POT IRR-3PL IMM CONT see
        'The children will just be seeing (it)'

In the verb complex the potential morpheme precedes the subject indexing
particle, here marked for 3PL irrealis, which precedes the immediate and con-
tinuous aspect markers. The transitive verb is on the right edge of the complex.

- SUBJECT.TENSE/MOOD VERB COMPOUND-VALENCE

(84)   *[Mwe   he mol-e] mon*
        REC.PST[3SG] sing back-TR again
        'He sung (it) back again' (NE)

Above the recent past marker, which also indicates a 3SG subject precedes the
main verb *he*[15] 'sing' which is the head verb of the verbal compound, which
includes the auxiliary *mol* 'back' and to which the transitive suffix attaches.

2.4.2. Verbless Clauses

Non-verbal predicates occur as topic-comment constructions and include the
topic marker *nge*.

(85)   a. *Sam   **nge** si?*
           name.2SG TOP who
           'What is your name?'

    b. *Ni   sang   **nge** Saksak Batukon*
         1SGP name.1SG TOP S.   B.
         'Me, my name is Saksak Batukon'

---

[15]This is the NE dialect form, the Western dialect is *se*.

96

Verbless clauses can also occur with constructions denoting locations.

(86) a. *Mwena-m vere* **nge** *be?*
          CL-2SG   village TOP where
          'Where is your village?

      b. *Mweneng vere* **nge** *i,   orr   nan   ge   le*
          CL-1SG   village TOP DIST place ASS.3SG SUB MED
          'My village is over there, its place is there'

These are the only types of verbless clauses found in North Ambrym.

2.4.3. Verb Classes

Verbs can be divided into two main classes: intransitive and transitive. Section 2.4.3.1 will deal with intransitives and section 2.4.3.2 will deal with transitive verbs.

2.4.3.1. Intransitive Verbs

Intransitive verbs can be of two main types: dynamic and stative/inchoative.

• Dynamic Intransitive Verbs

The subject of a dynamic intransitive verb can have various thematic roles. For example the subject of *rrorr* 'jump' is an agent; the subject of *marr* 'die' is a patient; the subject of *vyurr* 'cough' is an experiencer. Table 2.20 gives some examples of dynamic intransitive verbs with varying semantic roles.

rrorr	'jump'
farr	'stand'
fwerr	'sleep'
rreng	'cry'
vya	'go'
non	'be afraid'
wulu	'to grow'
murr	'to fall'

Table 2.20: Dynamic intransitive verbs

As intransitive verbs, they do not allow direct objects and only a subject is allowed (87-a) but oblique arguments can be included by the addition of a prepositional phrase (87-b).

(87)   a.   *E   tlo   rro **fwerr***
                 3PL NEG CONT sleep
                 'They were not sleeping'

        b.   *Tero   me   vya* **farr biri nyesul**
                 NREC.PST.3DL come go   stand close 3PLP
                 'Those two came and went and stood close to the three of them'

A subset of the dynamic intransitive verbs can undergo a valence increasing process by adding the applicative suffix *-Ci* and this will be discussed in section 2.4.4.1.

- Stative/Inchoative Intransitive Verbs

There are two types of stative/inchoative intransitive verbs in North Ambrym. Word initial /m/ stative/inchoative verbs and all other stative/inchoative verbs. Stative intransitive verbs subcategorise for subject with a patient thematic role. The difference between stative and inchoative depends upon the aspectual marking of the verb. Table 2.21 gives a few examples of these verbs.

kutau	'be open'
kon	'be taboo'
ye	'be married'
fyang	'be hot'
non	'be afraid'
nyonyo	'be yellow'
lam	'be big'

Table 2.21: Stative/inchoative intransitive verbs

The non-recent past marker acts as a perfective when use in conjunction with stative verbs, whereas the recent past marker is used to encode the imperfective and thus gives an inchoative meaning to stative verbs (c.f. section 2.4.7.1.2).

A subset of these stative/inchoative intransitive verbs can be transitivised by the addition of the transitive suffix *-ne*. Though, when this happens the subject

is no longer a patient but becomes an agent. This process will be looked at in section 2.4.4.2.

Some stative/inchoative verbs begin with word initial /m/ and are shown in table 2.22.

Verb	Gloss
mgal	'be transparent'
mhar	'be clear'
mlang	'be cracked'
msul	'be thick'
mleng	'be black/dirty'
mgor	'be fallen down'
mrrin	'be cold'
mter	'be torn'
mtom	'be snapped'
mseo	'be ripped'
mfa	'be sliced'
mkar	'be peeled'
mlang	'be peeled'
myeyeo	'be smashed'

Table 2.22: Stative/inchoative *m* initial verbs

The word initial /m/ is a reflex of the POc stative verb prefix **ma-*. This prefix occurs productively in some Oceanic languages and in others is simply fossilised (Evans & Ross 2001: 270). In North Ambrym it has become fused with the verb itself as it is no longer productive and does not attach to transitive verbs to form statives. However one of these stative/inchoative verbs does have a counterpart in another part of speech. The stative/inchoative *mter* 'be torn' in (88-a) can appear as *ter* when occurring as the dependent element in a verbal compound in (88-b) where the compound verb allows a direct object (c.f. section 2.4.8). However, *ter* can not function as a transitive verb in its own right, and instead the transitive verb *rre* 'cut/tear' occurs (88-c). The following were elicited using video stimuli from Bohnemeyer *et al.* (2001).

(88) a. *Ul   rro   **mter***
          calico CONT be.torn
          'The calico is being broken'

99

b. *Rro faa **ter** ul*
   CONT stick tear calico
   '(He) is sticking and is breaking the calico (with a branch)'

c. *rro **rre** ul*
   CONT tear calico
   '(She) is tearing the calico'

In fact for all other stative/inchoative verbs, no lexically related compounded form occurs. Also, all other stative/inchoative verbs do not have a lexically similar transitive verb form. Finally verb initial /m/ stative/inchoatives are unable to undergo any of the valency increasing processes outlined in section 2.4.4.

2.4.3.2. Transitive Verbs

This section makes a distinction between transitive and semitransitive verbs. There is a small group of underived transitives. There is a large group of marked transitive verbs which are derived from semitransitives. Both these types are explained below,

- Transitive Verbs

A small set of verbs occur that are morphologically unmarked transitives, a few of which are shown in table 2.23

lehe	'to see'
wehe	'to hit'
barhe	'to stamp'
bihi	'to fasten'
bwete	'to weave'
kete	'to bite'
kutu	'to take'

Table 2.23: Lexical transitive verbs

The majority of verbs shown in 2.23 subcategorise for object with a semantic role of patient. However, some verbs can have a stimulus object, such as *lehe* 'to see', and therefore also an experiencer subject. Other verbs, such as *kutu* 'to take' subcategorise for an object with a theme semantic role.

100

- Semitransitive Verbs

The term 'semitransitive' was first introduced by Sugita (1973) after his survey of several Micronesian languages. Similar constructions were found in other Oceanic languages by Margetts (2008), such as in Manam and Saliba. Von Prince (2012) has also analysed similar constructions in Daakaka, a language closely related to North Ambrym. Semitransitive verbs are those that have a transitive meaning, are morphologically unmarked and either have a derivationally related transitive form, a lexically related transitive form or a suppletive transitive form. Semitransitive verbs do allow objects but these are restricted and will be explained below.

First, as commented on by Sugita (1973: 395), semitransitive and transitive verbs are found in pairs.. Table 2.24 shows the subgroup of semitransitives that can be fully transitivised by the transitive suffix *-ne*.

Semitransitive	Transitive	Gloss
fifi	*fifi-ne*	'to share'
tewe	*tewe-ne*	'to make'
birrbo	*birrbo-ne*	'to cover'
besa	*besa-ne*	'to paint'

Table 2.24: Tansitive verbs derived from semitransitives by *-ne*

Several semitransitive verbs have different lexical forms that distinguish between transitive and intransitive and are shown in table 2.25.

For the most part the semitransitive forms in table 2.25 have an initial syllable structure of CVC. The related transitives are usually distinguished by a copy of the vowel of the intransitive form appearing syllable final. As a consequence this results in different syllabic boundaries as intransitive forms are monosyllabic CVC and transitive are polysyllabic CV.CV and not CVC.V as evidenced by the fact that vowel elision may occur on transitive forms (c.f. section 2.2.4.1.1. Other verbs above have undergone the same process but have lost palatalisation in their initial consonants, as in the distinction between *myun-munu* and *tyun-tunu*. The rest represent varying degrees of suppletion. *Kil-gili* and *kor-goro* also undergo initial consonant mutation from /k/ to /g/. *Raa-rahe* shortens its vowel and adds *he*. *Fo-fou* simply suffixes *u*. Finally

Semitransitive	Transitive	Gloss
ton	*tono*	'to plant'
bur	*buru*	'to clear'
gom	*gomo*	'to pick'
ling	*lingi*	'to give birth'
him	*himi*	'to suck'
myun	*munu*	'to drink'
tyun	*tunu*	'to set alight'
kil	*gili*	'to dig'
kor	*goro*	'to chase'
raa	*rahe*	'to rub'
fo	*fou*	'to bury'
yen	*ngene*	'to eat'
soo	*hove*	'to catch'

Table 2.25: Transitivity alternation

ter-lehe and *soo-hove* represent the most suppletive forms.

The object of a semitransitive verb can be non specific and non referential. Example (89-a) shows that the semitransitive verb *kil* is used when there is no specific referent in mind. Whereas *gili*, the transitive form, is used in (89-b) when a specific entity is in mind.

(89)   a.   *Bwerang Mwel te   rro **kil bwehel***
            B.   M.   NREC.PST[3SG] CONT dig bird
            'Bwerang Mwel was digging for birds'[16]

       b.   *Liseseu rro   gili   tomo*
            L.   CONT dig.TR rat
            'Lisepsep was digging out the rat'

In (89-a) *bwehel* 'bird' does not represent a specific instance of a bird, whereas *tomo* has the specific referent of the actor in the story. When a semitransitive verb has a bare noun object, the reading will be a partitive one, whereas when a transitive verb has a bare noun object the reading will be exhaustive:

---

[16]The bird *bwehel ne tan* 'ground dove' lives in holes in the ground and thus Bwerang Mwel was trying to dig some out.

(90)   a.   *Nam   myun we*
             1SG.REC.PST drink water
             'I drank some water' (Elicited)

       b.   *Nam   munu   we*
             1SG.REC.PST drink.TR water
             'I drank the water' (Elicited)

As the object of a semitransitive verb must be non-referential, it cannot be
modified by a demonstrative pronoun, thus (91-a) is ungrammatical. How-
ever, the transitive *gli* (underlyingly *gili*) does allow an object modified by a
demonstrative pronoun as in (91-b).

(91)   a.   **Mwi   kil bwehel **ge** **le***
             REC.PST[3SG] dig bird   SUB MED
             'Intd: He dug that bird' (Elicited)

       b.   *ma   gli   bwehel **ge** **le***
             REC.PST[3SG] dig.TR bird   SUB MED
             'He dug that bird'

Similarly, objects marked by the indefinite specific article *hu* 'one' or by ordi-
nal numerals render the object specific and thus it cannot occur as objects of
semitransitive verbs.

(92)   a.   **Mwi   kil bwehel **hu***
             REC.PST[3SG] dig bird   IND
             'Intd: He dug a bird' (Elicited)

       b.   **Mwi   kil bwehel **be** **ru***
             REC.PST[3SG] dig bird   COP two
             'Intd: He dug two birds' (Elicited)

Whereas, both the indefinite specific article and ordinal numerals can modify
an object of a transitive verb:

(93)   a.   *Ma   gli   bwehel **hu***
             REC.PST[3SG] dig.TR bird   IND
             'He dug a bird' (Elicited)

103

b. *Ma gli bwehel **be ru***
REC.PST[3SG] dig.TR bird COP two
'He dug two birds' (Elicited)

Interestingly independent pronouns can appear as objects of semitransitive verbs:

(94) a. *Ale aro mama mo **kor nyero***
ok CL.3DL mother REC.PST[3SG] chase 3DLP
'Ok their mother chased the two of them'

b. *Te a **kor nyero***
PST[3SG] go chase 3DLP
'He went and chased the two of them'

Though the above pronouns refer to specific entities, they are less individuated than singular pronouns. I have not tested specifically for singular pronouns and the above examples come from corpus data. However, further evidence for objects that are less individuated comes from (95), where the object of the semitransitive *bsa* 'paint' occurs with the bound noun *bongo-* 'lip of' denoting inalienable possession, yet inflected for a less individuated paucal possessor.

(95) *Sum rro bsa **bongo-ngsul** nga*
3PC.REC.PST CONT paint lip-3PC only
'We are just painting our lips'

Semitransitive verbs can be nominalised by the =*an* abstract noun deriving clitic (c.f. section 2.3.3.2), whereas when this clitic occurs attached at the end of a transitive verb phrase a kind of pseudo passive occurs as shown in (96):

(96) *Ma fli-ne ni=an*
REC.PST[3SG] bake-TR 1SGP=PASS
'I was baked'

Note that in (96) the subject indexing partilce *ma* still occurs, but the particle will always be third person and a nominal does not occur in the subject

104

position.

Finally, semitransitive verbs, rather than transitive verbs, will always occur as the head verb in a verbal compound, where the dependent element is marked for transitivity rather than the main verb (c.f. section 2.4.8).

In summary, the data in this section matches the criteria identified by Margetts (2008: 43) as good identifiers for transitivity discord (her label for semitransitives), which are possessive morphemes and plural modification of objects. Margetts also claims that singular modifiers, determiners indicating definiteness/specificity are less likely to occur in discord constructions.

2.4.4. Valency Increasing Processes

There are two different valency increasing processes. The applicative suffix -CI, where C represents a consonant, can occur on some intransitive verbs and is explained in section 2.4.4.1. The transitive suffix -ne attaches to intransitive verbs and to semitransitive verbs is explained in section 2.4.4.2.

2.4.4.1. Applicative Suffix

This process is not highly productive and cannot occur on all intransitive verbs. This process occurs on some intransitive verbs that have an agentive subject. This process results in a two place predicate where the subject still has the semantic role of agent and introduces a direct object which can have varying semantic roles such as theme, patient or locative. The applicative suffix takes the form *-Ci*, where C represents a consonant. Several allomorphs of *-Ci* occur: *-hi*, *-bi* and *-ti*, all of which are discussed below.

The allomorph *-hi* has been found to attach to the verbs in table 2.26.

Intransitive	Gloss	Transitive	Gloss
rreng	'cry'	*rrenghi*	'cry for'
lim	'trick'	*limhi*	'to trick someone'

Table 2.26: *-hi* applicatives

Interestingly, many forms appear to have a fossilised *-hi* suffixed to them as there is no intransitive form: *finghi* 'to whip/beat someone or something', *nunghi* means 'ask for something', *bihi* 'to bearhug someone' and *kilhi* 'to turn something around' all have no corresponding intransitive form without the applicative suffix.

The allomorph *-bi* occurs attached to the verbs in table 2.27. An example is given in (97) of *manbi*.

Intransitive	Gloss	Transitive	Gloss
man	'laugh'	*manbi*	'laugh at'
mihumhu	'urinate'	*mihumhubi*	'urinate on'

Table 2.27: *-bi* applicatives

(97) *Ha   nge om   rro   **man-bi?***
      what TOP 2SG.REC.PST CONT laugh-APP?
      'What are you laughing at?'

Two verbs that appear to have this suffix attached but have no intransitive form are *kiibi* 'spit on' and *karbi* 'mix two kinds of food/mix two languages'.

Finally, the allomorph *-ti* occurs with the verb in table 2.28

Intransitive	Gloss	Transitive	Gloss
kin	'pluck/pinch'	*kinti*	'pinch/pluck sth.'
kibwirr	'break'	*kibwiti*	'break sth.'

Table 2.28: *-ti* applicatives

The intransitive verb *kin* 'pluck/pinch' can also have the suffix *-bi* attach to it which adds an excessive meaning in that the plucking/pinching is done a lot and can be lethal:

(98) a. *Te   **kin** bya*
          NREC.PST[3SG] pluck go
          'He was plucking'

      b. *Vya **kin-ti**   rate   be ru*
          go   pluck-APP leaf.3SG.NH COP two

'He went and plucked a few leaves'

c. *Om   rro **kin-bi**   ti   kuli!*
2SG.REC.PST cont pinch-APP baby dog
'You are pinching the puppy a lot!' (Elicited)

Thus in (98-c) the pinching of the puppy is excessive and may kill it. Again there are some verbs that appear to have this suffix fused and have no intransitive form: *bwiti* 'defeather something', *unti* 'mix something' and *fwilingti* 'peel something'.

2.4.4.2. Transitive Suffix

The transitive suffix attaches to the immediate right of the main verb or to the right of a verbal compound (c.f. section 2.4.8). Its occurrence on semi-transitive verbs was covered in section 2.4.3.2. The transitive suffix can also attach to patientive and agentive intransitive verbs. When this process occurs on a patientive intransitive verb it results in a transitive verb whose subject has the semantic role of agent and the patient now occurs in the subject position. Therefore the *-ne* clitic acts as a causative marker. For example, a patientive intransitive verb *kutau* 'be open' occurs in (99-a). When transitivised by *-ne* the resulting verb *kutaune* in (99-b) shows the subject is an agent and the object becomes the patient.

(99)   a. *Ogis   vya vya vya mo   tongve Maj   mwe*
August go go go REC.PST.[3SG] until   March REC.PST[3SG]
*nga **kutau***
IMM open
'From August up until March it is just open'

   b. *Vanten hu te   me a lon im   man vehen*
person IND NREC.PST[3SG] come go in   house CL.3 woman
*nyer vya **kutau-ne** mar   im*
3PLP go open-TR   CL.3PL house
'A person came into the girls' dormitory, he went and opened their house'

Another example is shown with *kon* 'be taboo' and *kone* 'to make something taboo'. Here the transitive marker appears as its allomorph *-e*, as geminites are not allowed in North Ambrym (c.f. section 2.2.4.1.4).

(100) a. *Mo   kokor   goro orr letee mo   kon*
           REC.PST[3SG] RED.close block place coast REC.PST[3SG] taboo
           'They close the coast, it is taboo'

     b. *Masum   nga kutu musik ge nyer te   nga me*
          1PL.EX.REC.PST IMM take music SUB 3PLP CONJ IMM come
          kon-e Haworr teban   ge yim   rro tno
          taboo-TR H.   because SUB 1PL.IN.REC.PST CONT plant
          rrem
          yam
          'We are taking the music and making it taboo in Haworr as we
          are planting yams'

The transitive suffix also occurs on agentive intransitive verbs, such as *vya* 'go' in (101).

(101)   *Fangren   yi   vya-ne*
        Tomorrow 1PL.IN[IRR] go-TR
        'Tomorrow we will go (for him)'

Some verbs appear to have the transitive suffix attached to it, but have been in fact lexicalised as they are unable to act as intransitive verbs without the clitic. With the verbs *ngene* 'to eat' and *fwene* 'to roast' the transitive suffix has been fused with the verb stem as both can undergo initial vowel elision due to their phonological shape of CV.CV (c.f. see section 2.2.4.1.1). *Fwene* has the lexical intransitive alternative of *funun* and *ngene* has the lexical intransitive of *yen*[17]. Intransitive verbs of the form CV with the attached transitive suffix are unable to undergo simple vowel elision. Thus *sene* 'to give' never undergoes vowel elision. Interestingly there is no intransitive form and it always occurs with the transitive suffix[18]. The only time *se* occurs without the transitive form is when it occurs as the head verb accompanied of a verbal compound such as

---

[17]In the North-Eastern dialect the verb *ngen* 'eat' is both transitive and intransitive.
[18]There is a verb *se* but this means 'to sing'.

108

se mole 'to return' (lit. give back.TR).

2.4.5. Pluractionals

The term pluractional was first coined by Newman (1980) and is used to describe derived verbs that encode a plurality of events or participants as opposed to inflectional agreement marking on the verb (Newman 1990: 53). There are two types of pluractionals in North Ambrym. Firstly, there are lexical pluractionals, as explained in section 2.4.5.1 and secondly, there are reduplicated pluractionals, as explained in section 2.4.5.2.

2.4.5.1. Lexical Pluractionals

There are several verbs that distinguish between plurality of subject, if the verb is intransitive, and plurality of object, if the verb is transitive. The following examples show the different lexical choice between *rru* and *ho*, both meaning 'stay, live'. The verb *rru* is an intransitive verb that is inherently singular and agrees in number with a singular subject in (102-a). The verb *ho* is an intransitive pluractional verb that agrees with a plural subject in (102-b).

(102)   a.   ***Neng*** *burr* ***om***   ***rru***   *li*   *a*   *na*   *yel*
             2SGP already 2SG.REC.PST stay.SG PROX CONJ 1SG[IRR] walk
             tam
             past
             'You are already living here so I will just walk on"

       b.   ***Nyer*** *em*   *ho*   *hatin metenen*
             3PLP 3PL.REC.PST stay.PL far   from.3SG
             'They are living far from it'

In the above two examples the different verbs of staying agree with the number inflection of the subject indexing particle, with *rru* agreeing with the subject indexing particle - 2SG.REC.PST *om* and the second person singular pronoun *neng*, which occurs in subject position. The pluractional *ho* agrees with the 3PL.REC.PST *em* subject indexing particle and the plural pronoun *nyer*, which occurs in subject position.

Pluractional transitive verbs infer that the object is plural as the following examples depicting *kutu/ktu* 'carry.SG' and *teya/rrya*[19] 'carry.PL' show.

(103)   a.   *Ma*   ***ktu***   *[liye hu]* *san*   *nge*   *li tor*
               REC.PST[3SG] take.SG tree   IND   name.3SG natora
               'He took a tree called natora'

          b.   *Mwe*   *la*   *mol* *bya* *Wou* *ma*   ***rrya***
               REC.PST[3SG] walk back go   W.   REC.PST[3SG] carry.PL
               [bwele lil   *be*   *yirr]*
               shell   turban COP four
               'She returned to Wou, she was carrying four turban shells'

Table 2.29 shows the full list of lexical differences between singular and plural verbs elicited so far.

Verb	Tr./Intr.	Sg./Pl.	Meaning
rru	INTR	SG	stay, live
ho	INTR	PL	stay, live
kutu	TR	SG	carry
teya	TR	PL	carry
murr	INTR	SG	fall down
goo	INTR	PL	fall down
geye	TR	SG	buy, exchange
foo	TR	PL	buy, exchange

Table 2.29: Lexical plurality

There are not many examples of lexical pluractionals as most verbs reduplicate to show plural arguments as will be discussed in the next section.

2.4.5.2. Reduplicated Pluractionals

The phonology of reduplication was looked at in 2.2.4.3. Here the semantics of verbal reduplication will be looked at. If the reduplicated verb is intransitive it can show event duration, as in (104).

---

[19]The two differing surface forms of *kutu* and *teya* are due to initial syllable mutation as shown in section 2.2.4.1.

(104)   a.   *Liseseu bya vya **tataa** bon   bulute*
                 L.   go go RED.sit close.3 hole.3SG.NH
                 myi   *li*
                 REC.PST.[3SG].like prox
                 'Lisepsep went and sat close to its hole like this for a while'

Thus in (104) the reduplication of the verb *taa* 'sit' encodes a longer period of time than the unreduplicated form.

Reduplicated transitive verbs can either infer object plurality and event reiteration. The contrasting examples in (105) show that the verb must be reduplicated if the object is plural and is considered ungrammatical if it is not reduplicated.

(105)   a.   *Nam   **fingfinghi** teere nyer*
                 1SG.REC.PST RED.whip child 3PLP
                 'I whipped the children' (Elicited)

        b.   **Nam   **finghi** teere nyer*
                 1SG.REC.PST whip   child 3PLP
                 'Intd: I whipped the children' (Elicited)

Thus reduplicated verbs that mark object plurality must agree with their objects plurality similar to lexical pluractionals verbs as shown in section 2.4.5.1.

The reduplication of transitive verbs can show event iteration as shown in (106) where *uhe* 'to hit' (underlyingly *wehe*) is reduplicated:

(106)   *Nam   rro **uheuhe** bya le to ge taem ge li*
          1SG.REC.PST CONT RED.hit.TR go MED until SUB time SUB PROX
          ge ne   libung
          SUB through night
          'I am hitting (it) there until the night'

Finally there are some semitransitive verbs that look as if they are reduplicated, yet no undreduplicated form exists. The verbs *bangbang* 'play', *loloo* 'swim, bathe', *fifi* 'share' and *kukur* 'gather' and *horooro* fit into this category. Only one of these forms has been reconstructed in Proto North Central Vanuatu

by Clark (2009: 130) and that is *loso-vi 'bathe', which is an unreduplicated form. It may be that the other verbs mentioned here were unreduplicated at some stage in their development, though further research is required.

In summary reduplication of verbs can show duration, iteration and object plurality.

2.4.6. Subject Indexing Particles

The subject indexing particles occur on the left edge of the verbal complex. Only the potential marker precedes them and recent past prefixes for 3DL and 3PC. These particles index the subject of the verb. They do not occur in the syntactic subject slot but are part of the verbal complex. Unlike other Oceanic languages in the region, North Ambrym does not mark objects in the verbal complex. Table 2.30 shows the different forms of the particles.

	Singular	**Dual**	**Paucal**	**Plural**
1.INC	—	*ro*	*su*	*yi*
1.EX	*na*	*maro*	*masu*	*ma*
2	*o*	*moro*	*musu*	*mi*
3	∅	*ro*	*su*	*e*

Table 2.30: Subject indexing particles

Similar to the free pronouns the dual and paucal show fused numerals for two and three. From the paradigm in table 2.30 the forms for 1DL.IN and 3DL; 1PC.IN and 3PC are identical. However, when these particles are inflected for recent past (c.f. section 2.4.7.1.1) then the difference between the forms becomes clear. Note that the form of the verb *bya* 'go' changes to its allomorph *a* when preceded by a vowel in (107-c).

(107)   a.   *Ro-m   bya*
              1DL.IN-REC.PST go
              'Us two went' (Elicited)

         b.   *Moro-m   bya*
              2DL-REC.PST go
              'You two went' (Elicited)

112

c. *Mo-ro   a*
   REC.PST-3DL go
   'Those two went' (Elicited)

The recent past marker appears suffixed in 1DL.IN and 2DL forms but is prefixed in 3DL forms. The same phenomena occurs for paucal subject indexing particles in (108).

(108) a. *Su-m   bya*
          1PC.IN-REC.PST go
          'Us few went' (Elicited)

       b. *musu-m   bya*
          2PC-REC.PST go
          'You few went' (Elicited)

       c. *Mu-su   a*
          REC.PST-3PC go
          'Those few went' (Elicited)

When a verb occurs with the nonrecent marker *te*, the order of inflection reflects that shown above, where 1PC.IN and 1DL.IN have the nonrecent markers suffixed to them and the 3PC and 3DL have the past tense markers prefixed to them. Irrealis is generally unmarked and 1PC.IN.IRR is simply *su-∅*. The Irrealis form can be marked as *bV*, where V is an adaptable vowel (c.f. 2.4.7.3.1). When the 3PC is inflected for irrealis it appears as *e b-su*, where he initial *e* is the potential marker and the *b* is the irrealis marker.The subject indexing particles always reflect person and number and act as hosts for the tense and mood affixes.

2.4.7. *Tense, Aspect, Mood and Negation*

Typologically, the languages of central Vanuatu deviate from the Oceanic norm of being unmarked for realis and marked for irrealis and generally leave irrealis as unmarked and realis as reflecting the proto form of **mV-* (Lynch *et al.* 2002: 44). North Ambrym does not deviate from this central Vanuatu trend in its marking, though I have glossed the categories differently. North Ambrym

distinguishes tense, aspect, modality and negation. For tense, a nonrecent *te* is distinguished from the recent past *mwe*, where the latter is the reflex of the Proto Oceanic realis form. Future events are a function of the irrealis mood, which is generally unmarked and thus is the reflex of Proto Oceanic irrealis. Tense is a complex category and also includes notions of aspect. Tense is discussed in 2.4.7.1. There are two aspectual markers, *rro* marks the continuous and *nga* marks immediacy, shown in 2.4.7.2. For the category of mood there is the irrealis 2.4.7.3.1 the potential marker *e*, the counterfactual conditional *to* and the avertive *ne*, as discussed in 2.4.7.3. Finally, the negative markers will be looked at in section 2.4.7.4

2.4.7.1. Tense

There are two grammatical tenses in North Ambrym: recent past 2.4.7.1.1, nonrecent past 2.4.7.1.2..

2.4.7.1.1. Recent Past *mwe*.

I have glossed the *mwe* marker as recent past but it also encodes certain notions of aspectuality, which will be looked at in this section. The recent past marker *mwe* has various allomorphs depending upon which subject indexing particle it occurs with. Table 2.31 shows the different allomorphs of the recent past marker attached to the subject indexing particles, where it can occur as a suffix *-m*, a prefix *mV-* or as the particle *mwe*, where it stands in as the subject indexing particle for 3SG recent past.

	Singular	Dual	Paucal	Plural
1.INC	—	*ro-m*	*su-m*	*yi-m*
1.EX	*na-m*	*maro-m*	*masu-m*	*ma-m*
2	*o-m*	*moro-m*	*musu-m*	*mi-m*
3	*mwe*	*mo-ro*	*mu-su*	*e-m*

Table 2.31: Recent past allomorphs

As there is no 3SG subject indexing particle, the recent past marker occurs as a particle with several allomorphs, such as *mu*, *mo*, *mi* and *ma*, the latter of which is shown in (109-a). When attaching to the 3DL and 3PC subject indexing

114

particles the recent past marker is a prefix and not a suffix as shown in (109-b) and (109-c).

(109)   a.   *Ma   rrwene*
            REC.PST[3SG] make.TR
            'He made it' (Elicited)

        b.   *Mo-ro   rrwene*
            REC.PST-3DL make.TR
            'Those two made it' (Elicited)

        c.   *Mu-su   rrwene*
            REC.PST-3PC make.TR
            'Those few made it' (Elicited)

Recent past marking in these instances all undergo vowel assimilation as described in 2.2.4.2. The 3SG recent past marker is omitted when a verb is also marked for continuous aspect as shown in (110) (c.f. section 2.4.7.2.1).

(110)   ***Rro*** *rrwene*
        CONT make.TR
        '(He) is making it' (Elicited)

According to my consultants, the recent past denotes events that have happened earlier that day and even the night before. The following examples show the recent past suffix *-m* attaching to the second person singular subject indexing particle in (111-a) and the first person subject indexing particle *na* in (111-b).

(111)   a.   ***o-m*** *   bya be   lonle?*
            2SG-REC.PST go   where today
            'Where did you go today?'

        b.   ***na-m*** *   bya Ranon*
            1SG-REC.PST go   R.
            'I went to Ranon' (Elicited)

The examples in (111) show that the time reference of the question and answer both refer to events that happened earlier that day. Many other central Vanuatu languages would also be able to interpret the meaning of (111-b) as being a

present as well as a past event. For instance, corresponding constructions in Araki (François 2002: 106) and Tamambo (Jauncey 2011: 297) both encode an event that has happened or is happening and are analysed as realis markers. However, North Ambrym *mwe* and its allomorphs only encode an event that has occurred earlier that day when used as an absolute tense marker.

The recent past marker can only show an ongoing event only if it occurs in conjunction with the continuous aspect *rro*. Thus compare example (112) with (111-b).

(112) a. ***Om   rro*** *a be?*
           2SG.REC.PST CONT go where
           'Where are you going?' (Elicited)

Thus the recent past shows present continuous when occurring with the aspectual *rro*, but on its own shows a completed event. The recent past marker is not just an absolute tense, but can be used relative to a more nonrecent past. For example, narratives are generally introduced with the nonrecent past tense marker *te* but the recent past marker can still be used in these narratives to show that an event has occurred relative to the nonrecent past time frame, as (113) exemplifies:

(113) *Sese   ge a **te**   eri   me **te***
       Something SUB PROX NREC.PST[3SG] descend come NREC.PST[3SG]
       *rrwene orr **te**   olu. **E-m**   nga me lhe*
       make   garden NREC.PST[3SG] grow 3PL.-REC.PST IMM come see
       'This thing, it came down and made the garden grow. They just came and saw it'

In (113) the event frame is situated in the nonrecent past as indicated by *te* in the first clause but the verb *me* 'come' is inflected for recent past in the second clause. The recent past marker encodes a more recent past relative to the nonrecent past and shows the sequential action encoded by the two clauses.

When the recent past marker occurs with a stative verb it shows that the state currently holds and shows an imperfective aspect, where the inception of the

state has already happened but the end point (if there is one) has not been reached.

(114)   *Teban mwenami had wok ge nga nge nge orr ge li*
         because CL.2PL   hard work SUB only TOP TOP place SUB PROX
         ***ma   mgal** rru bya i   ten*
         REC.PST[3SG] clean stay go DIST INTS
         'Because of your hard work this place is clean all over'

Note the construction *ge nga nge nge* in (114) appears to function as topic marker and adds emphasis on to the preceeding phrase.

The recent past is also used to signify that an event occurs habitually. In the following example the second clause is marked for recent past as the event portrayed by the verb is a habitual occurrence:

(115)   *Lonle ge li   lo   tengenean   gorran   tolo nga wuten*
         today SUB PROX then respect.NMLZ taboo.NMLZ NEG IMM good
         ten [ma   nga rro fona   bwe lon ge bone ge
         INTS REC.PST[3SG] IMM CONT be.little yet   in SUB when SUB
         *metauno **ma**   me   taa rru …]*
         nephew   REC.PST[3SG] come sit stay
         'Nowadays then respect and taboo is not so good. It is still here a little, when a nephew comes and sits down...'

The above utterance regards a general occurrence and the noun *metauno* 'nephew' which occurs in an adverbial clause introduced by *bone ge* 'when' does not have a specific referent but is non specific. Its meaning within the clause is 'when a nephew…'. The boldface *ma* in (115) appears before the verb without any aspectual marking. Another example is shown below, again the clause is introduced by the temporal adverbial *bone ge* 'when', and thus shows that this is a general or habitual occurrence.

(116)   *Bone ge **mu**   rru ra liye hu **me**   vya vya vya*
         when SUB REC.PST[3SG] stay on tree IND REC.PST[3SG] go go go
         *vya vya **mu**   mur saavi bweteye ge hu te   **ma***
         go go REC.PST[3SG] grow COMP point   SUB one CONJ REC.PST

117

> *lhe tee nga bya te   lun   **mu**   mùrr*
> see sea only go CONJ skin.3SG REC.PST afraid
> 'When it lives on a tree it goes and grows above the top and sees the
> sea then it is afraid'

The above excerpt comes from a story about the *auya*, a strong vine that grows in the jungle. When this vine grows too far upwards and grows over the top of a tree it dies. Therefore this is a habitual occurrence and again the recent past marker occurs with verbs without other aspectual marking. Thus the recent past marker does not just mark tense but also aspect.

In summary the recent past marker encodes completed events from earlier the same day; and completed events relative to a more remote time frame. The recent past marker also encodes the habitual aspect. Finally, when it occurs with stative verbs it encodes imperfective aspect.

2.4.7.1.2. Nonrecent Past *te*.   A more nonrecent past is distinguished from the recent past shown above. This tense is used for events that have taken place from yesterday evening and further in the past. Table 2.32 shows the different allomorphs of the nonrecent past marker, where it can occur as a suffix *-rr*, a prefix *te-* or as the particle *te*, where it stands in as the subject indexing particle for 3SG recent past.

	Singular	**Dual**	**Paucal**	**Plural**
1.INC	—	*ro-**rr***	*su-**rr***	*yi-**rr***
1.EX	*na-**rr***	*maro-**rr***	*masu-**rr***	*ma-**rr***
2	*o-**rr***	*moro-**rr***	*musu-**rr***	*mi-**rr***
3	***te***	***te**-ro.* ***to**-ro*	***te**-su*	*e-**rr***

Table 2.32: Nonrecent past allomorphs

Similar to recent past marking, nonrecent past tense markers are also prefixed to 3DL and 3PC subject indexing particles.

(117)   a.   *Te-ro   vya*
             NREC.PST-3DL go
             'Those two went' (Elicited)

118

b. *Te-su*   *vya*
    NREC.PST-3PC go
    'Those few went' (Elicited)

An alternative form of the nonrecent past marker when it prefixes to the 3DL subject indexing particle is *to-* and accordingly undergoes vowel assimilation with the vowel of the subject marker itself, as shown in (118).

(118) **To-ro**   *tlo   lhe lhe nyero*
       NREC.PST-3DL NEG see see 3DLP
       'Those two did not see each other'

As 3SG subjects are unmarked the nonrecent past tense marker occurs on its own, yet unlike the recent past marker the nonrecent past marker does occur if the verb is marked for continuous aspect as shown in (119).

(119) *Barkolkol **te***   ***rro*** *barhe vere   me*
       B.   NREC.PST[3SG] CONT stamp village come
       'Barkolkol was creating the villages'

When a verb is marked for both nonrecent past and for continuous aspect the event portrayed has already finished.

If the nonrecent past is used with a stative verb it encodes the perfective aspect, as shown in (120-a), where the 3SG nonrecent pat allomorph *t-* occurs. Thus the state is viewed in its entirety and the end product, the yams, will be big. This is in direct opposition to the use of the recent past marker, as shown in (120-b) where it encodes the imperfective aspect and the state of being big is viewed as ongoing (c.f section 2.4.7.1.1).

(120) a. *E b-sene   rrem ge **t-lam***   *byane neng*
           POT IRR-give.TR yam SUB NREC.PST[3SG]-big go.TR 2SGP
           'It will give big yams to you'
       b. *Teter   fon   bya vya vya **mwe***   ***lam***
           RED.look above.3SG go go go REC.PST[3SG] big
           '(He) looked after her until she was big'

119

A perfective/imperfective distinction has also been found in Abma by Schneider (2010: 172) who calls the *te* marker the perfective and the *mwe* marker the imperfective when used with stative verbs and the past and present when used with non-stative verbs. Similarly in North Ambrym, *te* encodes perfective aspect and *mwe* encodes imperfective aspect when used in conjunction with stative verbs. However, when used with non-stative verbs, *te* encodes the nonrecent past and *mwe* encodes the recent past.

2.4.7.2. Aspect

Two different aspects occur pre verb root, continuous, explained in section 2.4.7.2.1, and immediate, discussed in section 2.4.7.2.2.

2.4.7.2.1. Continuous Aspect *rro*. The continuous aspect is marked by *rro*. It always occurs to the immediate left of the verb root and after any other verbal marking, such as the subject indexing particles (121-a) and past tense markers (121-b). It may also occur on its own in when the verb is unmarked for third person (121-c).

(121)   a. *Nam*   ***rro*** *bangbang li* *nam*   ***rro***
           1SG.REC.PST CONT RED.play PROX 1SG.REC.PST CONT
           fenfen   *alongong*
           RED.shoot skink
           'I am playing here, I am shooting blue tailed skinks'

       b. *Te* *barkolkol te*   ***rro*** *barhe vere* *me*
           CONJ B.   NREC.PST[3SG] CONT stamp village come
           'And Barkolkol created the villages'

       c. *Tomo* ***rro*** *kil*
           rat   CONT dig
           'The rat was digging'

In summary *rro* marks the continuous.

2.4.7.2.2. Immediate Aspect *nga*. Immediate aspect is marked by the morpheme *nga*. Its meaning roughly equates to 'just' and occurs both in the past tense (122-a) and irrealis mood (122-b) and therefore can mean 'just having done something' or 'just about to do something'.

(122) a. *Ma*   ***nga*** *ho le*
           REC.PST[3SG] IMM stay MED
           'They just stayed there'

       b. *Na*   ***nga*** *lhe rru ure   ge ba li*
           1SG[IRR] IMM look stay village that go PROX
           'I will just look at this village'

In clauses marked for past (122-a) *nga* shows that something has just happened in reference to the event time. When occurring in clauses marked for irrealis as shown in (122-b) *nga* infers that another event is currently underway and the event marked with *nga* will occur directly after the first event has been completed. Thus in (122-b) the speaker will go to the village when he has finished talking. Likewise in the following example taken from a text about how to plant yams you must first wait for the yams to be ripe and then you dig them out. The first event must be complete before the second gets underway.

(123) *Bone ge rrem e   vya mto [fo   **nga** gili rrem ge   le]*
        when SUB yam POT go ripe IRR.2SG IMM dig yam SUB PROX
        'When the yams are ripe, you will just dig out these yams'

In summary, *nga* encodes the next event in a sequence of events.

2.4.7.3. Mood

Four different grammatical moods are discussed in this section: irrealis 2.4.7.3.1, the potential 2.4.7.3.2, the counterfactual conditional 2.4.7.3.3 and the avertive mood 2.4.7.3.4.

2.4.7.3.1. Irrealis *bV*.   Irrealis is also a complex category and encodes not only futurity, but also the conditional, habitual, and imperative. Irrealis is generally unmarked on the subject indexing particles, though can be realised by different allomorphs, which are shown in table 2.33.

	Singular	**Dual**	**Paucal**	**Plural**
1.INC	—	*ro-∅*	*su-∅*	*yi-∅*
1.EX	*na-∅*	*maro-∅*	*masu-∅*	*ma-∅*
2	*f-o*	*moro-∅*	*musu-∅*	*mi-∅*
3	***bV***	***b*-ro**	***b*-su**	*f-e*

Table 2.33: Irrealis allomorphs

For the most part, the irrealis allomorphs are all -∅. The two subject indexing particles that are only a single nuclear vowel, 2sG and 3PL, are prefixed by *f-* to mark irrealis. As the 3sG subject index is zero marked, irrealis is marked as *bV*, where V is an adaptable vowel dependent upon the verb root. Irrealis is also marked by the prefix *b-* for 3DL and 3PC. I have never been able to elicit these last two forms without the potential marker *e* preceding them. Being preceded by the potential marker would induce vowel elision as set out under 2.2.4.1.1 and thus we always find the *e bro* for 3DL and *e bsu* for 3PC. I would posit an underlying *bo-ro* and *bu-su*, which would mirror the recent past marking forms which are *mo-ro* and *mu-su* respectively. Thus the vowel of the irrealis prefix is adapted to the vowel of the subject indexing particle.

The irrealis can encode the simple future tense:

(124)   *Bu   ge   a   **na**   pleine   lon vyuu totou*
         song SUB PROX 1sG[IRR] play.TR in   bow strike
         'This song, I will play on the Jew's harp (lit. strike-bow)'

The complement clauses of verbs expressing wants, desires and abilities are all marked for irrealis. In the following examples, the subject indexing particles of the matrix clauses is suffixed by the recent past marker and as the verbs are stative they encodes imperfective aspect. The subject indexing particle of the complement clauses are unmarked and hence reflect irrealis.

(125) a. *[Na-m   teme lole [**na**   saarone   saaroan*
       1SG-REC.PST think inside 1SG[IRR] tell.story.TR tell.story.NMLZ
       hu]]
       IND
       'I want to tell a story'

     b. *[nam   keya [**na**   sene]]*
       1SG-REC.PST able 1SG[IRR] give
       'I am able to give (it)'

Irrealis also marks the habitual. In the following example, the subordinate clause introduced by *bone* is marked for the nonrecent past tense and the matrix (bracketed) clause is marked by the irrealis *bV* and encodes the habitual.

(126)   *Bone ge **te**   rro me faasine orr besau [e*
       When SUB NREC.PST[3SG] CONT come close   place home POT
       ba   *me ling nga o   e **b-tataa**   nga tobiila*
       IRR[3SG] come put IMM DISJ POT IRR[3SG]-RED.sit IMM along.side
       you en orr besau]
       fence at place Village
       'When she was coming near the village she would come and put her things down or just sit along the side of the fence at the village'

This utterance is taken from a text about old forms of respect where a woman, in particular the speaker's grandmother, would have to crawl along the ground as she approached her village in order to show respect for her brothers-in-law who were also residing there. In this case the speaker is not talking about one specific time when his grandmother did this but is talking about how in general this would happen. If there was no one in the village she would not have to crawl on the ground but only if she were to hear her brothers-in-law talking together she would have to crawl. The speaker then goes on to describe the one time he saw this form of respect being performed by his grandmother, in this case both clauses are in the nonrecent past tense because it is about one particular event.

(127)   *Bone **te**   a lonorr vya me **rr**-yi   le*
       when NREC.PST[3SG] go garden go come NREC.PST[3SG]-like med

> [*te   me   ling nga tobiila   you **te**   nga*
> PST[3SG] come put IMM along.side fence .NREC.PST[3SG] imm
> *kera nga]*
> crawl ONLY
> 'When she went to the garden and came back, she came along the
> side of the fence and just put her things down and she just crawled.'

Both the protasis and apodosis of a hypothetical conditional construction appear in the irrealis mood as shown in (128).

(128)   *[Bone ge **na**   yen ran mwenan vere] [lo **na***
        if   SUB 1SG[IRR] eat on.3 CL.3SG   village then 1SG[IRR]
        byangbyang byane nyesul]
        pay.fine   go   3PCP
        'If I were to eat in their village, I would pay a fine to them'

The apodosis of a counterfactual conditional construction is also marked for irrealis, whereas the protasis is marked by the counterfactual conditional marker (c.f. section 2.4.7.3.3) as in (129).

(129)   *[Ge he na-**to**   yi b-rru   en buk] [lo **ro**   mte***
        SUB if 1SG-CTF like IRR[3SG]-stay at book then 1DL.IN[IRR] unfold
        te   ridne]
        CONJ read.TR
        'If I were like a book then we will unfold and read (me)'

Finally, the *bV* marker is used to mark imperatives, as shown in (130).

(130)   a.   *Ah teere nyer **mi**   won!*
             INTJ child 3PLP 3PL[IRR] quiet
             'Ah children, be quiet!'

In summary the irrealis encodes:

- future
- complement clauses

- habitual
- conditional
- imperative

2.4.7.3.2. Potential Mood *e*.   Semantically the potential mood signifies that the speaker is more certain that a future event will happen or that they want it to happen, though it still may not actually come to pass. This mood is marked by the particle *e* and occurs before the subject indexing particles. This mood only occurs with verbs marked for the irrealis. The following example shows the potential marker preceding the irrealis marker *ba*.

(131)   ***E*   *ba*   *rrwene ge rrem* *e* *b-rru*   *on orr   Nan*
         POT IRR[3SG] make   that yam POT IRR[3SG]-stay at place ASS.3SG
         'It will make it so that yams will stay in this place'

Example (131) comes from an exposition on the right way to grow yams and the fact that the yams will stay in their place is more likely to happen because the hearer of this exposition will have followed the prior instructions and thus the clause contains the potential mood marker. In all person number combinations the potential mood marker occurs as *e*, however it changes to its allomorph *o* when the subject indexing particle is 2SG as shown in (132):

(132)   *Oh mo bu   nga rru neng* *o* *fo*   *rru li   e*
         INTJ CONJ IRR[3SG] IMM stay 2SGP POT IRR.2SG stay PROX POT
         na   ho tam
         1SG[IRR] pass over
         'Oh that's ok, you stay here and I will pass by'

The potential mood in conjunction with the irrealis appears to also encode disbelief of a realised state. The following comes from a story where two children avenged their father who was killed by a Lisepsep spirit and is encoded in the nonrecent past as it sets the scene.

(133)   *Marom   bya uhe Liseseu ge   te   nghe baba*
         1DL.IN.REC.PST go kill L.   SUB NREC.PST[3SG] chew father

125

'We went and killed the Lisepsep who ate father'

The above statement said by the two boys appears in the nonrecent past as according to the narrative it actually occurred. The following statement of disbelief, shown in (134), is uttered by one of their mothers as she believes they are too young and small to have killed a Lisepsep.

(134) *Ah gomoro nge **e** **mro** uhe liseseu ge a **e** **b***
       INTJ 2DLP TOP POT 2DL[IRR] kill L. SUB PROX POT IRR[3SG]
       yi be nge a?
       like how TOP PROX
       'Ah you two and just how did you two kill Lisepsep then?'

Literally, this should be translated as 'Ah you two, you two will kill this Lisepsep?, it will be like how?'. As it is a question that infers disbelief on the behalf of the speaker is marked for the potential mood. This requires further research as there is only one example in my corpus, though according to my consultants it is a grammatical utterance.

The potential is also used in conjunction with the hypothetical conditional reading of the irrealis tense to indicate an idealised future state as shown in (135).

(135) *Bone sum rro sur byane metauno o teoyan*
       when 1PL.IN.REC.PST CONT talk go.TR nephew DISJ brother.in.law
       *mi yi le [**su** sur e **ba***
       REC.PST[3SG] like PROX 1PL.IN[IRR] talk POT.IRR.[3IRR] straight
       konon]

       'When we are talking to our nephews and brothers-in-law like this we should talk good to them'

The previous example is taken from a text about respectful ways of talking to certain taboo family members, which is one aspect of the culture that is rapidly changing. The subordinate clause is inflected for present continuous (marked by the recent past marker and the continuous aspect marker) and does

not highlight a specific instance but means 'in general' because it is introduced by *bone* 'when'. The initial verb *sur* in the matrix clause (marked by square brackets) is marked only for irrealis and denotes a hypothetical action. The second verb is marked for both the potential and the irrealis. Here it means that 'we should talk respectfully (but we do not)', that is we should not joke or play around with these taboo members of the family but it is too late as this form of respect is being lost. Thus the future state is likely to be left unrealised but that it is the ideal situation that should happen and therefore the potential marks deontic modality as well.

In summary *e* marks the following:

- Potential.
- Disbelief.
- Deontic modality.

2.4.7.3.3. Counterfactual Conditional *to*. The counterfactual (glossed as CTF) is marked as a suffix on the subject indexing particle on all person number combinations excepte for 3SG, where it occurs as a particle in its own right as 3SG is unmarked. The counterfactual can occur in the protasis clause of a conditional sentence:

(136) *[Ge he na-**to** yi b-rru   en buk] [lo   ro   mte*
       SUB if 1SG-CTF like IRR[3SG]-stay at book then 1DL.IN[IRR] unfold
       te   ridne]
       CONJ read.TR
       'If I were like a book then we will unfold and read (me)'

The counterfactual can also occur in simple clauses. The following example occurs in a story where Wild Yam (an anthropomorphic yam) is being dreamed about by two women who are talking in their sleep. Wild Yam is not actually there, thus he cannot move to a different place to sleep and this is encoded by the counterfactual.

(137) *Rrem Virr **to**   nga fwerr rorou   bya i*
       Yam Wild CTF[3SG] IMM sleep move.RED go DIST

'Wild Yam, he should just sleep over there (but he does not)'

In summary, *to* marks the counterfactual conditional.

2.4.7.3.4. Avertive mood *ne*.   The avertive mood is suffixed on all subject indexing particles as *-n* except for the 3SG, when it occurs as a free morpheme as *ne*. The avertive mood (glossed as AVE) indicates an unsuccessful outcome or an outcome that is counter to expectations. The following example shows an unsuccessful outcome:

(138)   *e-**n**   vya uhe Liseseu*
          3PL-AVE go hit L.
          'They went to kill Lisepsep (but they didn't succeed)'

The intention to kill Lisepsep was there but the *-n* marks it as an unaccomplished intention. The following example shows that the event depicted by the stative verb *mrrin* 'be cold' is not true and thus counter to expectations:

(139)   *Taalang   te   rrme he we   **ne**   mrrin mrrin*
          brother.1SG NREC.PST[3SG] think that water [3SG].AVE cold   cold
          nane   te tolo e fetinan
          yesterday but NEG COP true.NMLZ
          'My brother thought that the water was cold yesterday but it isn't true' (Elicited)

In the following examples, both the school governors in (140-a) and the people of the village in (140-b) asked a question that they expect a negative answer to but are given a positive answer instead, thus the answer is counter to their expectations.

(140)   a. *Yafu ne skul   nyer te   uhe ni   he na-**ne***
              'chief ASS school 3PLP NREC.PST[3SG] ask 1SGP that 1SG-AVE
              uhure teere nyer huwo ne sul. Nate   rrma
              teach child 3PLP year ASS three 1SG.NREC.PST agree

128

'The school governors asked me if I would teach the children of year three. I agreed.'

b. *Mweneng orr besau te   uhe ni   ge he*
CL.1SG   place village NREC.PST[3SG] ask 1SGP SUB that
*na-**n**   ter fon oman   ne yut   lon jioj*
1SG-CTF look after work.NMLZ ASS youth in   church
'My village asked me if I would look after the youth work in the church'

The following example comes from a commentary from a video I recorded of a custom dance and the avertive encodes what the participants of the dance should have done and not what they actually did.

(141)   *Vanten ge nyer i   e-**n**   me farr **ne**   ho*
person SUB 3PLP DIST 3PL-AVE come stand AVE[3SG] stay.PL
***ne**   mo bwe lo   ge nyer e-**n**   nga mku me*
AVE[3SG] first yet   then SUB 3PLP 3PL-AVE IMM run   come
'The people there, they should stand there first then they should run forward'

In summary this marker encoded outcomes that are counter to expectation or unaccomplished intentions.

2.4.7.4. Negation

Negation can either be marked in the verbal complex by one of the three negative markers *tolo*, *telo* and *lon* or by a negative existential verb *rranga* which is explained at the end of this section. The negative also occurs preverbally but inside the verbal complex.

When negating a present sense the negative marker appears on its own as *tolo* or sometimes as *tlo* if it has undergone vowel elision as explained in section 2.2.4.1.1. This latter form also occurs with all other person number subject markers as they all end in a vowel as shown in (142).

(142)   a.   *Na **tlo** rro ngene yeng long*
                  1SG NEG CONT eat   CL.1SG laplap
                  'I am not eating my laplap' (Elicited)

        b.   *Bon   sese   ge a bon   **tolo**   u   rru*
                  smell.3SG something SUB PROX smell.3SG NEG[3SG] good stay
                  'The smell of this thing, its smell is no good'

Example (142-a) shows the vowel elided form *tlo* and (142-b) shows the full form *tolo* as 3SG is unmarked in the verbal complex so the negative particle appears on its own.

When negating events in the past the negative marker can be *telo* and thus appears fused with the nonrecent past marker *te* (c.f. 2.4.7.1.2). This form occurs when the subject of the verb is marked for 3SG (zero-marked).

(143)   a.   *Ehee te **telo**   e   nge a   bwe*
                  No   CONJ PST.NEG COP 3sGP PROX yet
                  'No, and it was still not him'

        b.   ***Telo**   ter menen*
                  PST.NEG look come.TR.3SG
                  'He did not look at him'

For the subject markers that are prefixed by the nonrecent past marker, this still occurs even though the negative is also fused with the nonrecent past marker. (144) shows the vowel elided form of the past negative marker *tlo*.

(144)   a.   ***to-ro**   **tlo**   lhe lhe nyero*
                  PST-3DL PST.NEG see see 3DLP
                  'They did not see each other'

All other person number combinations of the subject indexing particles induce vowel elision of the negative marker. On the surface the forms for present and past negation can appear the same as shown in (145).

(145)   a.   *Mike nge be? Na **tlo** lhe Mike!*
                  M.   TOP where 1SG NEG see M.

'Where is Mike? I can't see Mike!' (present negation)

b. *Te hu **tlo** haara mene ni*
NSP IND PST.NEG explain come.TR 1SGP
'No-one explained it to me' (past negation)

Above example (145-a) shows the present negative *tolo* reduced to *tlo* and similarly example (145-b) shows the past negative *telo* being reduced to *tlo*.

Sometimes the avertive suffix *-n* attaches to the negative marker and marks the event as against expectations (c.f. 2.4.7.3.4).

(146) *Te rru rru kya ge bwe yel te **telo-n** yel*
PST stay stay try SUB IRR[3SG] walk CONJ PST.NEG-AVE walk
'He tried waiting for her to leave (but she did not leave)'

Thus in example (146) the woman was expected to leave but she didn't and thus it is against expectations. Future negation is marked by *lon*, as shown in (147).

(147) a. *Fo **lon** vya*
IRR.2SG NEG.FUT go
'Do not go'

b. *E b-**lon** vya*
POT IRR-NEG.FUT go
'He will not go'

Example (147) shows that clauses marked for future negation must also be marked for irrealis.

In summary there are three negative forms *tolo* which marks present; *telo* which marks past negative contexts and *lon* which marks future negation. Finally negation can occur lexically as a negative verb *rranga*.

(148) a. *Te tawil te **rranga***
CONJ towel NREC.PST[3SG] NEG.exist
'And he did not have a towel'

131

b. *Marin lo hilngin vyu te* **rranga** *rru*
   before then thing-3 whiteman NREC.PST[3SG] NEG.exist stay
   bwe
   yet
   'Before the things of the whiteman did not exist'

Rranga marks negative existential clauses.

2.4.8. Verbal Compounds

Verbal compounds are compounds that have a verbal head, where the first element is the verbal head and the dependent element can be a verb, noun, preposition or auxiliary. The dependent element typically shows the result of the action of the verbal head or the manner in which the action of the verbal head is carried out. The verbal head must be an intransitive verb. The dependent element may be marked for transitivity, either lexically or by the addition of the transitive suffix *-ne* (c.f. section 2.4.4.2).

Example (149-a) shows a simple verb with the transitive marker cliticised to it. Whereas example (149-b) shows the compounded auxiliary *se* 'secure' occuring post head verb and pre transitive suffix[20].

(149)   a. *Fo* **larr-ne** *tivite*
           IRR.2SG fasten-TR end.3SG.NH
           'You will fasten its ends'

        b. *Fo* **larr se-ne** *tivite*
           IRR.2SG fasten secure-TR end.3SG.NH
           'You fasten securely its ends'

Example (150) shows a similar example where (150-a) shows the correct grammatical ordering of the verbal complex with a verbal compound; (150-b) shows that the compound's dependent is unable to occur post object position and (150-c) shows that the compound's dependent is unable to occur after the transitive suffix.

---

[20]Verbal compounds are written as seperate words in North Ambrym orthography.

(150) a. *Nam   **se mol-e** hul byane John*
          1SG.REC.PST give back-TR mat go.TR J.
          'I gave back the mat to John'

      b. **Nam*   **se**   hul **mol-e***
          1SG.REC.PST give mat back-TR

      c. **Nam*   **se-ne   mol***
          1SG.REC.PST give-TR back

What has been described as nuclear layer serialisation in other languages, such as Paamese (Crowley 2002), is in fact a compound verb in North Ambrym. Of the many criteria for serial verb constructions, Bril & Ozanne-Rivierre (2004: 3) states that "Lexical autonomy is a prerequisite for serialization". That is both verbs in a serial verb construction must be able to occur as a verb in a single predicate clause. For example, *funu* 'finish' in (151) is unable to function as a predicate in its own right and is thus analysed as the auxiliary-like dependent of the verbal compound's head expressing the result of the verbal head *yen* 'eat'.

(151) *Tesu   ngene a   yen **funu***
          PST.3PC eat.TR CONJ eat finish
          'They ate it and ate all of it'

This analysis conforms with Thieberger's (2006) analysis of these elements who shows that for South Efate these are verbal compounds. Verbal compounds in South Efate can be either symmetrical or asymmetrical where the symmetry is based on whether the syntactic status of both elements are the same or different. Thus for symmetric compounds both elements are verbs and for asymmetrical elements the second element could either be a noun, adverb or preposition. South Efate has many symmetrical compounds but North Ambrym has only a few symmetrical verbal compounds. The verb *mol* 'return' can occur infrequently in a single predicate clause as shown in (152-a). However, it occurs with a high frequency as a a compound's dependent as shown in (152-b) adjoined to the verb *rrin* 'think'.

(152) a. *Na   rro **mol** nga li*
           1SG[IRR] CONT return only PROX
           'I will be returning now'

       b. *Nam   rro **rrin mol-e** vanten*
           1SG.REC.PST cont think back-TR person
           'I am remembering a person'

Another adjunct *ku* 'remove' occurs as a main verb in (153-a) and as a compound's dependent in (153-b). Again the most frequent occurrence is when it appears as a compound's dependent.

(153) a. *E na   nga **ku** li   brrarrme ge le sirr*
           POT 1SG[IRR] remove tree kava SUB   MED now
           'I will just remove the kava now'

       b. *Te   me **tirr ku** tomo*
           NREC.PST[3SG] come untie out rat
           'He came and untied the rat'

In fact *mol* and *ku* are the only real symmetrical verbal compound dependent elements as all others are unable to occur as a single predicate. One exception occurs with *kabnu* 'kill' where you can say *kabnu tos* 'kill the torch' and acts as an imperative. It does not occur in any other predicative situations and can not be considered fully symmetrical. All other adjuncts are asymmetrical, the most simply being auxiliaries that never occur anywhere else. One dependent is nominal - *tau* is a noun meaning door (154-a) and is adjoined to *ku* 'remove' to mean 'open' as shown in (154-b).

(154) a. *Mi   kokor   sene   mami **tau**!*
           2PL[IRR] RED.close good.TR CL.2PL door
           'You lot barricade your doors!'

       b. *Vya **ku**   **tau-ne** mar im*
           go open door-TR CL.3PL house
           '(He) went and opened their house'

Dependents can also be bound prepositions:

(155)   a.   *rru* ***tù-n***
             stay behind-3sG
             'to follow him'

        b.   *rongta* ***fa-n***
             listen   down-3sG
             'to listen carefully to it'

The fact that *mol* and *ku* can act as predicates on their own does show that they could be nuclear serial verbs as no argument comes between themselves and the first verb and they share the same arguments and that they are also not inflected for subject or TAM and finally the *-ne* transitivising element does occur at the end of the nucleus after the second verb. The preferred analysis is that these are simply adjuncts as they are exceptions to the majority of the compounded elements that cannot occur as single predicates and that both *mol* and *ku* occur very infrequently on their own as single predicates. Table 2.34 lists several verbal compounds.

Compounded element	Gloss	Examples	Gloss
se	good/secure	*ling sene*	put sth. securely
		larr sene	fasten sth. securely
		fa sene	clean sth. good
		tewe sene	make sth. good (repair)
onon	crazy/rubbish	*sur onone*	talk rubbish to s.o.
kabnu	dead	*wehe kabnu*	hit dead
		tou kabnu	strike dead
		tu kabnu	bang dead
kote	break	*kin kote*	pinch break
		saaro kote	story break (cut a story short)
		flo kote	row break (row across)
kete	tight	*tom kete*	hold tight
		rin kete	believe tight (believe strongly)
		bisi kte	tie tight
		fo kte	fasten tight
		sur kete	tell strong (reprimand)
baba	split	*ta baba*	cut split
goro	block	*taa goro*	sit block (obstruct by sitting)
kibwiti	break	*taa kibwiti*	sit break
kuru	together	*ce kuru*	call together
mol	back	*sur mol*	talk back (answer)
		mku mol	run back
		bal mol	fight back
		se mole	give back
kere	miss	*soo kere*	catch miss
		fen kere	shoot miss
		hal kere	hold miss
		yel kere	walk miss (pass)
		sur kere	talk miss (misspeak)
funu	finish	*yen funu*	eat finish (eat everything)
keya	try	*hol keya*	carry try (try to carry)
fwelangte	around/about	*saaro fwelangte*	discuss
		foloo fwelangte	row all around

Table 2.34: Verbal compounds

2.5. ADJUNCTS

Two types of clausal adjuncts are described here; prepositions in section 2.5.1 and adverbs in section 2.5.2.

2.5.1. Prepositions

Prepositions introduce a noun phrase argument. Two types of prepositions are distinguished; free prepositions as shown in section 2.5.1.1 and bound prepositions as explained in 2.5.1.2.

2.5.1.1. Free Prepositions

Two free prepositions occur in North Ambrym. The general preposition *ne* and the locative preposition *en*. *Ne* is by far the most common preposition and has several meanings. When linking two noun phrases together a general associative relationship occurs between the two.

(156)   a.   *Mererr **ne** tee*
            eel   ASS saltwater
            'Saltwater eel'

        b.   *Mererr **ne** we*
            eel   ASS water
            'Freshwater eel'

The use of *ne* as a marker of association will be looked at in section 4.5. It can also introduce an adverbial reason clause as will be shown in 2.6.2.2. Though *ne* clearly has multiple syntactic functions, only its use introducing an oblique argument will be discussed here. Its most often occurrence designates an instrumental usage as in (157).

(157)   *Nam   rre liye **ne**   ayi*
            1SG.REC.PST cut tree INSTR knife
            'I cut the tree with a machete' (Elicited)

The argument of a preposition may be elided if it is recoverable from discourse as in (158).

(158) *Te   a kinti [ra bolva   te ru] nga te   gele*
       NREC.PST[3SG] go pick leaf cottonwood IND two only CONJ rub
       *fanon   **ne***
       face.3SG INSTR
       'He went and picked just two cottonwood leaves and rubbed his face with them'

Above the argument of *ne* should be the two cottonwood leaves, but as they have just been mentioned in the clause before they are not repeated and the argument of the preposition is left empty. The general preposition can also introduce an NP depicting a source, as in (159).

(159) *Te   me kla   ra mwel **ne**   ni*
       NREC.PST[3SG] come remove leaf namele SOURCE 1SGP
       'He came and removed the namele leaf from me'

Ne can introduce an NP depicting a goal as in (160).

(160) *Lo nga me mku **ne** en mwenamasul biri   ure   nan*
       then IMM come run GOAL at CL.1PL.EX   former village ASS-3SG
       'Then (he) just ran to our former village'

Finally it has a temporal meaning of 'through' as in *ne libung* 'through the night' and acts as a durative as shown in (161).

(161) *Rur   ma   genyi **ne** libung*
       earthquake REC.PST[3SG] shake through night
       'The earthquake shook through the night'

En 'at' introduces a nominal argument that marks a location or a time. Its use introducing a nominal depicting the time of an event is shown in (162).

(162) *Err   nga mol me   [**en** tabungbung]*
       3PL.NREC.PST IMM return come at   morning
       'They just returned in the morning'

Its use introducing a location is shown in (163).

(163) *Tesu   a rrno rru i   [**en** orr   [ge mweng im*
       NREC.PST.3PC go plant stay DIST at   place SUB CL.1SG house
       *mu   rru [**en** le]]]*
       REC.PST[3SG] stay at   MED
       'They went and planted it at the place where my house is situated at'

En also has an instrumental meaning in the following sentence.

(164) *Tesu   rro sur nga [**en** tolosul nga [**en** verasul*
       NREC.PST.3PC CONT talk only INSTR voice-3PC only INSTR hand-3PC
       [ge le]]]
       sub MED
       'They were just talking in their languages with their hands there'

In summary *ne* encompasses association, instrumental, ablative, goal and durative meanings whereas *en* encodes location in space or time and instrumentality.

2.5.1.2. Bound Prepositions

Bound prepositions are distinguished from free prepositions in that they must be attached by one of the set of possessive pronominals, and thus act similarly to bound nouns. They refer to locations centred around the referent of the nominal that occurs in their argument position. Table 2.35 shows the different bound prepositions.

The bound locatives can take as an argument one of the set of the pronominal possessor suffixes instead of a full nominal argument:

139

fa-	under
ra-	on
tù-	behind
fo-	above
bo-	close
lo-	inside

Table 2.35: Bound prepositions

(165)   a.   *Ma   mto mto **ra-ng***
               REC.PST[3SG] old old on-1SG
               'He is older than me (lit. he is older on me)'

         b.   *Mwenam yamarr e   brru   **tù-m***
               CL.2SG   wife   POT IRR[3SG]-stay behind-2SG
               'Your wife will follow you'

         c.   *Marran, malyel,   tarirr   ge li be disasta hu*
               die.NMLZ circumcision, marriage SUB PROX COP disaster IND
               *ge rro   rrwene ren sakbe **ra-ngken***
               SUB CONT make   time bad   on-1PL.IN
               'Funerals, circumcision, marriage, these are a kind of disaster that is bringing bad times on us'

Bound prepositions can also have a full nominal argument. When this happens the third person cross referencing suffix occurs dependent upon features of the nominal argument, and thus there is a similarity to nominal argument cross referencing in possessive constructions, but with a few differences. Section 4.3 deals with the cross referencing of the nominal argument on bound nouns and possessive classifiers. The most frequent pronominal suffix that occurs on bound prepositions is the third person cross referencing suffix when a nominal phrase serves as the object of preposition. The argument NP, similar to a possessor NP governs agreement with the cross referencing suffix. When the argument of a bound preposition is a proper noun, or a kinship term then no cross referencing suffix occurs (166-a) and (166-b) corresponding to the animacy constraints for bound nouns. What's interesting is that an independent personal pronoun can also appear as the argument of a bound preposition as in example (166-c) thus further differentiating bound prepositions from bound nouns.

(166)　　a.　*Mi　　　　ling barite　　nga **ra Velvel***
　　　　　　　REC.PST[3SG] put　start.3SG.NH just on Velvel
　　　　　　　'It started with Velvel

　　　　　b.　*Rruan　　ne wunu te　　ma　　　　nga rru **ra amasul***
　　　　　　　stay.NMLZ ASS fool　CONJ REC.PST[3SG] IMM stay on CL.1PC.IN
　　　　　　　***taata**　bwe*
　　　　　　　father　still
　　　　　　　'The way of the fools was still on our father'

　　　　　c.　*Mam　　　　　rro　me　lon liyal orr　rro　renren*
　　　　　　　1PL.IN.REC.PST CONT come in.3 sun　place CONT RED.dawn
　　　　　　　*faara orr　　**ra gma***
　　　　　　　clear　place on　1PL.inP
　　　　　　　'We are coming into the light, clarity is dawning on us'

Human (167-a) and non human animate (167-b) arguments of bound preposi-
tional phrases trigger agreement with the third person cross referencing suffix.

(167)　　a.　*Te　　　　　me　rro　fifine　　**ra-n** metahal nyer*
　　　　　　　NREC.PST[3SG] come CONT RED.share.TR on-3 sister　　3PLP
　　　　　　　'He came and shared it with the women'

　　　　　b.　*Lisieseu ma　　　　me　rro　kil rru **tù-n**　　tomo*
　　　　　　　Lisepsep REC.PST[3SG] come CONT dig stay behind-3 rat
　　　　　　　'Lisepsep came and was digging behind the rat'

This control constraint is the same as for possessive constructions. Inanimate
arguments of bound prepositions also trigger agreement with the third person
cross referencing suffix (168).

(168)　　a.　*Tesu　　　　ho　　bya nge le　rru rro teter*
　　　　　　　NREC.PST.3PC stay.PL go　top MED stay CONT RED.look
　　　　　　　***fo-n**　　tan　　ne asul mama*
　　　　　　　above-3 ground ass CL.3PC mother
　　　　　　　'They were living there and were looking after their mother's
　　　　　　　grave'

　　　　　b.　*Masu　　　　rrya rrem vi　me　me　lingi **ra-n** har*
　　　　　　　REC.PST.3PC carry yam　new come come put　on-3 nasara
　　　　　　　'They carried new yams and put them in the nasara'

This control constraint is different from possessive constructions and is another marker as to the difference in construction types of possessive and bound prepositional constructions. Bound prepositions are commonly found in place names, though the cross referencing suffix may or may not appear. ***Ran****verrgere* 'on the flying fox stone' and ***Ran****vetlam* 'on the big stone' both have the 3sG suffix as part of their names. However, ***Fa****ramenmen* 'under the Malay apple leaf' and ***Fa****libyur* 'under the byur tree'. These are fixed expressions and the cross referencing suffix is not motivated by the noun in the object position. Finally, the inanimate bound noun *li* 'tree of' seems to be an ambivalent controller of agreement with the cross referencing suffix on bound prepositions. *Li* can be qualified by the type of tree it is as in *li bolva* 'beach hibiscus tree' or the special non possessive suffix can attach to it as in *liye* 'tree'. The following examples contrast the occurrence of the cross referencing suffix on bound prepositions with an argument denoting a tree.

(169)   a. *Rro lelhe nonon Kitamol bya **ra-n** li unu*
              CONT see.RED shadow.3 K.   go on-3 tree navenu
              'She was seeing Kitamol's shadow going on the navenu tree'

        b. *Awa hu nga mu   rru **ra** li byang le*
              vine IND just REC.PST[3sG] stay on tree banyan MED
              'A vine was living on the banyan tree there'

Definiteness and specificity do not play a role as both definite specific and definite non-specific arguments are shown in (169) and indefinite specific and indefinite non-specific arguments are shown in (170),

(170)   a. *Te   me te rro flie **ra-n** liye hu*
              NREC.PST[3sG] come PST CONT climb on-3 tree IND
              'he came and was climbing on a tree'

        b. *Te   flie **ra** liye hu*
              NREC.PST[3sG] climb on tree IND
              'He climbed on a tree' (NE)

It is important to note that it is only the bound noun *li* that ambivalently control optional agreement of the cross referencing suffix on the bound preposition.

All other bound nouns, including those referring to other parts of trees must trigger agreement with the cross referencing suffix.

Two other prepositions seem to be bound preposition like. *Biri-* 'close to' and *besare-* 'next to' can take just the 3SG possessor suffix and no other suffix as in (171).

(171) *Teman   mwe   nga lingi biri-n*
       father.3SG REC.PST[3SG] IMM put close-3SG
       'His father married those two (lit. his father put (her) close to him)'

When arguments other than 3SG need to be stated then the one of the set of free pronouns occurs:

(172) *tero   me vya farr biri nyesul*
       NREC.PST.3DL come go stand close 3PCP
       'Those two came and went and stood close to the three men'

In summary the bound prepositions are cross referenced with common noun arguments with the exception of trees which show ambivalent cross referencing. Pronominals and proper noun arguments do not invoke cross referencing.

2.5.2. Adverbs

A distinct class of adverbs can be distinguished by their appearance in different positions within a clause. Adverbs in North Ambrym always occur in non-argument positions such as clause initially, before or after one of the set of the optional contrastive pronouns or after the object of a transitive verb and before or after its oblique argument. Some temporal adverbs may occur in all of these positions and are detailed in 2.5.2.1. Not all adverbs can occur in these positions and many are restricted syntactically. Section 2.5.2.2 relates locational adverbs, which have a more restricted occurrence within the clause. Section 2.5.2.3 discusses manner adverbs.

2.5.2.1. Temporal Adverbs

Table 2.36 shows the different temporal adverbs.

nane	yesterday
lonle	today
fangren	tomorrow
marin	before, a long time ago
ngamtù	all the time
sirr	Now
bwe	yet, still
burr	first, already

Table 2.36: Temporal adverbs

The first four time adverbials in the above table *nane*, *lonle*, *fangren* and *marin* can occur in the different syntactic positions as described below.

- Before a nominal subject.

(173)   ***Marin** [vanten wor   hu] [err   rro   bubur orr]*
       before person   some one 3PL.NREC.PST CONT clear   garden
       'A long time ago some people were clearing gardens'

- Before verbal complex and after nominal subject.

(174)   *Ok [yafu nyer] **lonle** ge   a   [ema   rrwe sese   ne*
       ok chief 3PLP today SUB PROX 3PL.REC.PST make something ASS
       rom]
       rom
       'OK the chiefs today are making things to do with the rom[21]'

- After object.

(175)   *[Yi   ngene rrem vi]   **fangren***
       1PL.IN[IRR] eat   yam new tomorrow
       'We will eat new yams tomorrow'

- Before oblique.

---

[21]The *rom* refers to a mask made for the rom dance, part of a secret male society.

(176)   *[Narr   vya] **nane**   [lon skul]*
        1SG.NREC.PST go   yesterday in   school
        'I went yesterday to school' (Elicited)

- After oblique.

(177)   *[Bàrrbàrr] [te   lam ho] [ran vere   ge   a]   **marin***
        pig   NREC.PST[3SG] big very on   village SUB PROX before
        'There were many pigs in the village before'

Temporal adverbs also occur after locational adverbs (c.f. section 2.5.2.2) as
shown in (178).

(178)   *Ma   me   tongve gemasul masum   rru Fonaa*
        REC.PST[3SG] come until   1PC.INP 1PC.IN.REC.PST stay Fonaa
        ***lonle** ge   a*
        today SUB PROX
        'It came and reached us in Fonaa today'

There are restrictions as to where the class of adverbs may occur and they are
unable to occur before an object.

(179)   *Nate lehe **nane** taala-ng
        1SG.NREC.PST see yesterday brother-1SG

Marin may also occur linked to a nominal by a special preposition *ta* 'from'.
In (180).

(180)   *Rrin   mwenan temto   nyer **ta**   **marin***
        custom.story CL.3   ancestor 3PLP from before
        'A custom story of the ancestors from before'

For more instances of the uses of *ta* see sections 2.5.2.2.

- *Burr* 'already'.

Similarly to the temporal adverbs described above *burr* occurs in all the syntactic positions explained before, except for the left clausal edge before the subject position. *Burr* seems to emphasise anteriority. In the example below the event described in the second clause has already taken place when the first clause occurred and *burr* emphasises this fact.

(181)　*Tolo*　　*nga lhe tem　nan.　　Liseseu　bya ktu　mwenan*
　　　　NEG[3SG] IMM see arrow ASS.3SG Lisepsep go　take CL.3SG
　　　　*tem　rru **burr***
　　　　arrow stay already
　　　　'He did not see that arrow. Lisepsep had already taken his arrow'

As *burr* must occur with an event that has already finished it is unable to occur in an irrealis marked clause such as the following.

(182)　**E　na　　nga yen **burr***
　　　　POT 1SG[IRR] IMM eat　already
　　　　INTD:'I will have already eaten'(Elicited)

Similarly *burr* is unable to occur in negative clauses that are in the present or future tense but may occur in clauses marked for negative past, as in (183).

(183)　*Na tlon　　nga yen **burr**　nane　　teban　ge*
　　　　1SG NEG.PST IMM eat　already yesterday because SUB
　　　　sute　　　myun tamne　　kava
　　　　1PL.IN.NREC.PST drink too.much.TR kava
　　　　'I did not eat yesterday because we drank too much kava' (Elicited)

However it is hard to interpret the meaning of *burr* in the above context and presumably it is here just to emphasise that eating did not take place yesterday. When *burr* modifies a verb that occurs with the continuous aspectual marker *rro* then this adverb emphasises that the event portrayed by the verb has already started:

(184)   *Musu   a rro   yen funu mel   **burr***
        REC.PST.3PL go CONT eat finish dragon.plum already
        'They have gone and are eating up the dragon plums already"

So in the above example the people have already started eating the dragon
plums. The interpretation of *burr* is the same when the temporal reference of
the verb is situated in the nonrecent past continuous:

(185)   *Te   te   nga me   fonhe Bungyam te*
        CONJ NREC.PST[3SG] IMM come EMPH B.   NREC.PST[3SG]
        *rro   taa **burr***
        CONT sit already
        'And he just came and to his surprise Bungyam was already sitting
        down'

When acting with a verb situated in the past tense, *burr* functions like a com-
pletive marker in that the event modified by it has already finished when an-
other event begins. Whereas when an event is situated in a continuous time
reference then it means that the event modified by *burr* has already begun when
another event starts and acts as an inchoative. Thus depending upon the tense
and aspect of the predicate *burr* either represents an inchoative or completive
adverb, both of these marking an event anterior to another. Other temporal
adverbials may occur before or after *burr*. In the following example the time
adverbial *marin* 'before' occurs after *burr* and situates the event far in the past.

(186)   *Te hol   krukru bweten vanten ge te   ngen ho*
        PST take.PL together head.3 people SUB NREC.PST[3SG] eat   stay.PL
        burr   marin
        already before
        'He collected together the heads of the people he had already eaten
        before'

So in (186) the eating of the people had already occurred long before by the
time one man collected the heads of the people. *marin* can also occur before
burr as shown in (187), where *marin* occurs with *konkon* emphasising the

147

remote past.

(187)   *Yi   ce siba byane jif nyer ete   ktu me*
          1PL.IN[IRR] call thanks go.TR chief 3PLP 3PL.NREC.PST take come
          marin konkon burr
          before long   already
          'We say thank to the chiefs who brought it long ago already'

The different word order does not yield any semantic differences. *Burr* also occurs before the subject indexing particle on the verb and after a (pro)nominal subject as shown in the following two examples.

(188)   a.   *Hey ni **burr*** *nam   rru rru li*
              INTJ 1sPP already 1SG.REC.PST stay stay PROX
              'Hey I am already living here'

        b.   *Tomo **burr** bya rro mnomno*
              rat   already go CONT RED.glad
              'The rat already went and was glad'

When *burr* occurs in this position it seems to add emphasis that the referent of the subject has already done something.

- *Bwe* 'first, still, yet'.

The time adverb *bwe* normally occurs clause finally and has three meanings 'first' 'yet' and 'still'. *Bwe* occurs in a more restricted position than the adverbs such as *lonle* 'today', *fangren* 'tomorrow' and *nane* 'yesterday' in that it may only occur clause finally or initially. The more syntactically free time adverbs may follow as in the following example.

(189)   *Mwe   nga rro koro **bwe lonle** ge a*
          REC.PST[3SG] IMM CONT go.ahead still today SUB PROX
          'It is still continuing nowadays'

In example (190) the initial clause is marked with *bwe* 'first' and the second clause is introduced by the adverbial clause marker *lo* 'then' showing the sequentiality of both the clauses, thus the event expressed in the initial clause

will occur first and those in the final clause second.

(190)   *[na   pleine **bwe**] [lo na   nga se mene   ken]*
        1SG[IRR] play.TR first then 1SG[IRR] IMM sing come.TR 1PL.INP
        'I will play it first then I will sing to us'

Bwe means 'yet' when it occurs in a negative clause as in (191).

(191)   *Bone ge vanten nyer e   tlon   yekya tolo Yafu **bwe***
        When SUB man   3PLP 3PL NEG.PST know voice God yet
        'When the people did not know the voice of God yet'

Bwe shows that the event/state has not been realised yet at the reference time.
Bwe also occurs in the negative construction *sa bwe* or *ha bwe* 'not yet' which
is generally used as an answer to a question. In the following example a boy
has been stolen by a Lisepsep spirit and is forcing the boy to drink water but
the boy wants to stop drinking and Lispesep says:

(192)   *[Sa **bwe**] [telo   telo   nong **bwe**] [o   myun **bwe**]*
        NEG yet   PST.NEG PST.NEG finish yet   2SG[IRR] drink still
        'Not yet! it's not finished yet, you must still drink'

Example (192) also shows *bwe* occurring in a negative clause and finally with
the meaning 'still'. *Bwe* has the meaning 'still' when used in clauses to mark
an ongoing time duration of a simultaneous event. The following example is
taken from a story about the discovery of the coconut palm where there were
five brothers, the first three drank some coconuts while the other two were still
in the garden.

(193)   *Te   tero   a ma   nga ho   lonorr **bwe***
        CONJ NREC.PST.3DL go REC.PST[3SG] IMM stay.PL garden still
        'And those two went and were still just in the garden'

Finally *bwe* occurs clause initially before the adverbial clause marker *lo* 'then'
in one example in the corpus and here it means 'first'.

(194)   ***Bwe lo***   *na*   *uhe uhe atingting*
          first then 1SG[IRR] hit   hit   slit.drum
          'First I will beat the slit drum'

Bwe also collocates with another time adverbial *burr* 'already' and the manner
adverbial *nga* 'only' (c.f. section 2.5.2.3) in the following example:

(195)   *Vya agene bwelaangite **nga burr**   **bwe***
          go   do.TR husk   only already first
          'They removed only its husk first already'

In (195) *bwe* occurs not only with *burr* but with adverbial *nga* too.

  • *Sirr* 'now'.

The adverb *sirr* 'now' occurs clause finally. It is used to emphasise that an
event is the last in a sequence of events that have already been completed and
that once all other events have been completed then this event will happen.

(196)   *Me   koune bya bsau te   [err   nga me   rrenghi en*
          come throw go   home CONJ 3PL.NREC.PST IMM came cry.for at
          sirr]
          now
          'They came and brought it (the head of their father) home and they
          just came and cried for him now'

In (196) the children put the head of their father down and then cried for him.
When co-occurring with a verb marked for recent past the previous event de-
scribed will have already finished before the event in the clause marked by the
adverb *sirr* started.

(197)   *Ol   ge hu mo   nong lo ge sum   nga vya*
          Month SUB one REC.PST[3SG] finish then SUB 3PC.REC.PST IMM go
          sirr lonorr
          now garden
          'One month passed then they just went now to the garden'

Similarly to *bwe*, *sirr* normally occurs clause finally but as seen in the above example the locative adverb *lonorr* 'garden' may occur after it (c.f. section 2.5.2.2). Though locative adverbs can occur before *sirr* as in (198)

(198)   *Ale tero*   *nga rro me*   **besau sirr**
         ok NREC.PST.3DL IMM CONT come home now
         'OK the two of them just came home now'

Sirr can occur after a nominal subject as in (199)

(199)   *Ok [ta   tobol nyer **sirr**] [em*   *nga tou ar   meta*
         ok from middle 3PLP now 3PL.REC.PST IMM strike CL.3PL first
         bu]
         castrated.pig
         'Ok the middle ones now, they killed their first pigs'

When *sirr* occurs post subject it has a similar emphatic meaning as does *burr* in that it emphasises the referent of the subject does the action.

- *Ngamtù* 'always'.

Finally *ngamtù* means 'always/all the time/every day'. Only a few examples occur in the corpus and they occur clause finally as in (200)

(200)   *Fo*   *rro larrne*   **ngamtù**
         IRR.2SG CONT fasten.TR every.day
         'You must be tying it up every day'

Similar to other time adverbials, locational adverbs can occur to the left or right of this adverb:

(201)   a. *Fo*   *larrne tivite e b-rro*   *rru* **mre**
            IRR.2SG fasten.TR shoot POT IRR[3SG]-CONT stay ontop
            ngamtù
            every.day
            'You will tie up the shoots so they will be staying ontop every

151

day'

    b. *Bàrrbàrr te rro fli fli* **ngamtù ye**
       pig   PST CONT bake bake every.day PROX
       'Pigs were being baked every day here' (NE)

In summary the different time adverbials are able to co-occur with each other and other adverb types. When doing so they exhibit a free word order.

2.5.2.2. Locational Adverbs

All village and place names are considered adverbs as they always occur in non-argument position, unlike temporal adverbs, they are more restricted syntactically and appear clause finally. Most often place names occur after motion verbs to designate source or goal of the movement and after the existential verb *rru* to show the referent of the subject has spent a duration of time at that location. The first of the following two examples shows *Ranon* 'village.name' occurring after the intransitive motion verb *vya* 'go' to show the goal of the motion event. In the second example the same adverb shows where someone lives.

(202)   a. *[Narr   vya* **Ranon***] te   tesu   sene we*
            1SG.NREC.PST go R.   CONJ NREC.PST.3PC gave water
            mene   ni
            come.TR 1SGP
            'I went to Ranon and they gave wine to me'
    b. *Limwe ma   lngi Tiwor rru* **Ranon**
            L.   REC.PST[3SG] bore T.   stay R.
            'Limwe bore Tiwor who lives in Ranon'

As adverbs they are unable to occur in any nominal syntactic slots:

(203)   **Fyang ma   ngene Ranvetlam*
         fire   REC.PST[3SG] eat   R.
         'intd: fire burned Ranvetlam' (Elicited)

152

Thus (203) shows that the village name is unable to occur in the object argument of the transitive verb. Similarly locational adverbs are prohibited from acting as a possessed noun in a possessive construction as shown in (204).

(204)   *Mwene-ng   Ranvetlam
          POSS.CL-1SG R.
          'Intd: my Ranvetlam' (Elicited)

Locational adverbs may function as part of a nominal phrase if preceded by the generic locative noun *orr* 'place' which acts as a nominalising element for the following adverb. Thus the following construction is perfectly formed.

(205)   *Fyang ma   ngene* **orr   Lonwolwol**
          fire   REC.PST[3SG] eat   place L.
          'Fire burnt the area of Lonwolwol'

(205) shows that the place name now functions as a nominal due to the generic locational noun *orr*. However the use of this nominalising element in a possessive construction with a place name locational adverb still results in an ungrammatical sense.

(206)   *Mweneng **orr   Ranvetlam**
          POSS.CL   place R.
          'Intd: my Ranvetlam area' (Elicited)

The special preposition *ta* links a place name adverb with its inhabitants and shows paternal lineage with a location.

(207)   *Bwerang Mwel* **ta   Fanbo**
          B.   M   from F.
          'Bwerang Mwel from Fanbo'

There are several other locational adverbs that are given in the table 2.37 and detailed explanations of each follow.

besau	home
lonorr	garden
mere	above, on top
fan	below, down
towel	below, down
merang	middle bush
rin	this place
li	proximal
a	proximal
le	medial
ham	medial
i	distal
hatin	distal

Table 2.37: Locational adverbs

The first two adverbs items in the table 2.37 behave similarly to place names in that they commonly occur after the motion verbs and the existential verbs. Example (208) shows that *Besau* and *lonorr* do behave differently than village and place names in that when preceded by the generic locative nominal *orr* they can occur in possessive constructions:

(208)   a.   *[Mweneng orr **besau**] te uhu ni*
                CL.1SG   place home NREC.PST[3SG] ask 1SGP
                'My village asked me'

        b.   *Te a rro omne [mwenan orr **lonorr**]*
                NREC.PST[3SG] go CONT work.TR CL.3SG   place garden
                'He was working in his garden'

Both *besau* and *lonorr* can also occur without *orr* in nominal syntactic slots.

(209)   a.   ***Lonorr** ge a tomo e tlone ngene*
                garden SUB PROX rat POT NEG eat
                'This garden, the rats will not eat'

        b.   *mam rro la la molne mwenama **besau***
                1PL.EX.REC.PST CONT walk walk back.TR CL.1PL.EX village
                'We are walking back to our homes'

In (209-a) *lonorr* occurs in the left dislocated object argument of the transitive verb *ngene* and occurs without the generic locative nominal *orr*. Similarly *besau* in (209-b) appears as the possessed noun in an indirect possessive construction without *orr*. More examples of *besau's* nominal qualities are shown in (210) where *besau* appears modified by an adjective in (210-a) and occurs in subject position of a stative verb in (210-b) and in the argument position of a preposition (210-c). *Besau* and *lonorr* are more nominal-like than place and village names.

(210)   a.   ***Besau*** *metomto*
             village RED.old
             'The old village' (Elicited)

        b.   ***Besau*** *mwe*   *lam*
             village REC.PST[3SG] big
             'The big village' (Elicited)

        c.   *Nam*   *rru* *lon* ***besau***
             1SG.REC.PST stay in   village'
             'I stayed at home' (Elicited)

The locational adverbial *mere* 'above/ontop' always occurs clause finally and predominantly after deictic verbs of motion to describe the direction of motion as in (211-a) or with *rru* to describe that the event occurred in a location above the deictic centre as in (211-b). Of course as an adverb it may simply occur after any verb to describe the location of the event and (211-c) depicts *mere* after the verb *taa* 'to sit' describing the location of the sitting. Note *mere* in (211) appears as *mre* after having undergone vowel elision.

(211)   a.   *Gemaro rru tùn   bya* ***mre***
             3DLP   stay behind.3SG go above
             'The two of them followed him and went above'

        b.   *Ma   fye   bya vya rru **mre***
             REC.PST[3SG] climb go go stay on.top
             'He climbed and went and stayed on top'

        c.   *A   bweya rro   taa* ***mre***
             CONJ rail   CONT sit above
             'And the rail was sitting above'

Fan 'under, down, below' a bound locative preposition (c.f. section 2.5.1.2) can occur as a locative adverbial that describes movement in a downwards direction as in (212).

(212)　　*Tesu　lngi womrral bya **fan***
　　　　　PST.3PC put　club　　go　down
　　　　　'They put the war clubs down'

Both *mere* and *fan* can occur as nominal modifiers if they occur alone in a relative clause introduced by the general subordinator *ge* as in (213).

(213)　　*Yafu mto nyer e　tlon　　ye　　kya　ge　mwenangken Yafu*
　　　　　chief old 3PLP 3PL NEG.PST open.eye know SUB CL.1PL.IN　chief
　　　　　*te　　　　　rrwene orr　ge　**mre**　tan　　ge　**fan***
　　　　　NREC.PST[3SG] make　place SUB above ground SUB below
　　　　　'The old chiefs did not know that our god made the heavens and the earth'

Towel 'down' is also an adverb that describes the location of an event that is located downwards or below from the deictic centre as in (214).

(214)　　*Mweng mel　　mu　　　rru **towel***
　　　　　CL.1SG　nakamal REC.PST[3SG] stay down
　　　　　'My nakamal is down'

Merang functions as locative adverb and combines the meaning of distal and up and means 'middle bush'. As the landscape of North Ambrym generally gets higher as you move inland due to the slopes of the active volcanoes in the centre of the island and the two large mountains of *Vetlam* and *Tovyo* further north. Thus to be in the middle bush is to be generally situated at a higher elevation. In the following excerpt from a story about the rat and the rail where the latter finds a fruitful breadfruit tree in somewhere in the bush:

(215)　　*Nam　　　lehe rru **merang***
　　　　　1SG.REC.PST see　stay DIST

'I saw it in the middle bush'

Merang may also occur in a nominal syntactic slot if introduced by the general locative nominal *orr* 'place' as in the following:

(216) *Orr ge le be **orr merang***
place SUB MED COP place DIST
'That place is in the middle bush'

Hatin means far away and is used adverbially in the following:

(217) *Nyer em   ho   **hatin** metenen*
3PLP 3PL.REC.PST stay.PL far   from.3SG
'They stayed far away from it.

The deictic demonstrative *ham* can also occur in nominal syntactic slots when preceded by the general locative noun 'orr' as in (218).

(218) a. *nam   bya lingi sese   hanglam rru en bwete **orr***
1SG.REC.PST go   put something evil   stay at point place
ham
MED
'I put something evil at the point over there'

Rin means 'this place' and its usage mirrors other locational adverbs as shown in (219). The first occurrence of *rin* occurs as a nominal as it is preceded by the generic locative noun *orr* whereas the second occurrence is adverbial and occurs clause finally after the verbal complex.

(219) *Meto   ne **orr rin**   mi   ling ling vanten*
old.person ASS place this.place REC.PST3SG] bear bear person
rin
this.place
'The ancestors of this place people-bore in this place'

The deictic demonstratives *li*, *a*, *le* and *i* can function as adverbs when occurring clause finally or as nominal modifier when introduced by the general subordinator *ge* as shown in (220).

(220)   *Taem **ge** **le** lo womul te   ranga   rru **li***
        time SUB MED then orang NREC.PST[3SG] NEG.exist stay PROX
        'At that time oranges did not exist here'

Above *le* modifies the Bislama borrowed temporal nominal *taem* 'time' and *li* acts as a locative adverbial. Their use as deictic demonstratives in nominal modificational clauses was looked at in section 2.3.7.

In summary locational adverbs can occur with the general locative noun which acts like a nominaliser, whereas *Besau* and *lonorr* are more nominal-like and can occur in nominal syntactic positions without it.

2.5.2.3. Manner Adverbs

Several adverbs depicting manner occur and are shown in table 2.38.

nga	only
bilbil	quickly
kebkeb	quickly
rongrong	slowly/quietly
mon	again
tùtù	very
konkon	very

Table 2.38: Manner adverbs

All manner adverbs occur post VP and function at the clausal level. *Nga* 'only' is homonymous with the aspectual *nga* as shown in 2.4.7.2.2 and may be diachronically related but synchronically functions at the clausal level rather than at the level of the verbal complex. Adverbial *nga* functions to either single out the event as the only one that happens and not another event or that the referent of the nominal in subject or object position were the only ones to do or

158

undergo or be affected by the event. *Nga* can occur clause finally as shown in the second sentence in (221).

(221)   *Te hu tlo   haara mene ni. [Nam   me **nga**].*
            NSP IND NEG.PST explain come.TR 1SGP 1SG.REC.PST come only
            Nam   rro   tata
            1SG.REC.PST CONT RED.cut
            'No-one explained it to me. Only I came. I am carving'

In (221) the text explains how the speaker learned to carve - no-one taught him, he just taught himself, thus *nga* shows that it was the referent of the subject of the verb *me* 'come' who simply came and started carving. *Nga* occurs clause finally after the object of a transitive verb and not before it as shown in (222)

(222)   a. **Nam   rre **nga** liye ge le*
              1SG.REC.PST cut only tree SUB MED
              '*Intd:I only cut this tree' (Elicited)

        b. *Nam   rre liye ge le   **nga***
              1SG.REC.PST cut tree SUB MED only
              'I only cut this tree' (Elicited)

The following example shows *nga* occurring before an elided VP which is recoverable from the previous clause.

(223)   *Telon nga e   vanten te hu vere   ge bwibwiine   nyer*
            PST   IMM COP person NSP IND outside SUB RED.squeeze.TR 3PLP
            *bya lon   im. [Nyer hobor **nga**]*
            go   inside.3sg house. 3PLP self.3PL only
            'It was not an outsider who squeezed into the house. It was only themselves'

Example (223) comes from a description of a local council hearing about a a break-in at the school where an outsider was presumed to have broken into the girls dormitory using black magic, but it turned out that the girls had made up the event and thus *nga* in the second sentence singles out the 3PL pronoun *nyer* as being the ones who broke into the building and not an outsider. Manner

159

adverbs can also occur with locative and temporal adverbs as in (224).

(224)　　*Nam*　　　*yen* **nga　burr**　　**Ranon**
　　　　　1SG.REC.PST eat　only already R.
　　　　　'I already just ate in Ranon' (Elicited)

Rongrong can mean 'quietly/patiently' or 'slowly' as shown in (225).

(225)　　a.　*Fo*　　　*nga saarone* **rongrong**
　　　　　　　IRR.2SG IMM tell.story slowly
　　　　　　　'Speak slowly!' (Elicited)

　　　　　b.　*Fo*　　　*nga taa* **rongrong**
　　　　　　　IRR.2SG IMM sit　quietly
　　　　　　　'Sit quietly!' (Elicited)

Mon 'again' often occurs with the verbal compounded element *mol* 'back' as in (226):

(226)　　a.　*Yi*　　　　*a te*　　*vya gurr* **mole**　　*bongken fyang* **mon**
　　　　　　　1PL.IN[IRR] go CONJ go　carry back.TR CL.1PL.IN fire　　again
　　　　　　　me
　　　　　　　come
　　　　　　　'We will go and go and carry back our fire again and return'

　　　　　b.　*Fangren em*　　　　*la*　**mol mon**
　　　　　　　tomorrow 3PL.REC.PST walk back again
　　　　　　　'The next day they returned again'

Mon occurs preverbally in (227).

(227)　　*Lo*　*nyer* **mon** *em*　　　　*fe*
　　　　　then 3PLP again 3PL.REC.PST say
　　　　　'Then again they said'

Finally, *mon* has the meaning of also in (228), here it does not mean 'again' but 'too/also':

(228) *Narr*   *ye*   **mon**
       1SG.NREC.PST marry also
       'I also got married'

In (228) *mon* can not mean 'again' as the speaker is talking about his one and only marriage. *Tùtù* 'very' occurs after the stative verb *lam* 'be big' and gives the meaning 'very big' as in (229):

(229) *Mwe*   *nga lam* **tùtù**
       REC.PST[3SG] IMM big very
       'It was just very big'

Konkon also means 'very' but is an adverbial intensifier and always follows another adverb as in (230).

(230) a. *Telo*   *me*   **hetin konkon**
           PST.NEG come far   very
           'He did not come far' (NE)

       b. *Na saarone*   *mi*   *yi be mam*   *rro*
           1SG tell.story.TR REC.PST[3SG] like how 1PL.EX.REC.PST CONT
           ngene rrem vi **marin konkon**
           eat   yam new before very
           'I will tell a story about how we were eating the new yams long ago'

In summary, manner adverbs appear clause final and the word order of adverbs when they occur together is free.

2.6. CLAUSE COMBINATIONS

Two types of subordinate clauses are distinguished in North Ambrym, those that are introduced by the general subordinate clause marker *ge* or *he* and those that are introduced by an adverbial clause marker (though these often co-occur with *ge*) as discussed in section 2.6.2. The general subordinator *ge* introduces relative clauses which modify the noun and this was discussed in the noun

phrase section in 2.3.5.3. *Ge* and *he* also introduce complement clauses that
are sentential arguments to the main clause's predicate as discussed in section
2.6.1. Finally the coordination of clauses are looked at in section 2.6.3.

2.6.1. Complement Clauses

Complement clauses can be marked by *ge* 2.6.1.1 and *he* 2.6.1.2.

2.6.1.1. *Ge* Marked Complement Clauses

Some verbs may take a sentential object as their argument. *Ngrengre* 'possi-
ble'; *chee* 'want' (lit. 'sweet') and *keya* 'know' are exemplified below. *Ngren-
gre* 'possible' takes a sentential complement, indicated by the brackets in (231),
either introduced by *ge* or not.

(231)   a.   *Ma   nga* **ngrengre** *[e fo   tno   rrem on orr*
               REC.PST[3SG] IMM possible   POT IRR.2SG plant yam at place
               nan]
               ASS.3SG
               'It is possible that you will plant yams in this place'
        b.   *Bone ge na   lhe ge nga nge nge te*
               when SUB 1SG[IRR] see SUB only TOP TOP NREC.PST[3SG]
               ngrengre ge *na   foone*
               possible   SUB 1SG.[IRR] sell.TR
               'When I see that it is possible to sell (it)...'

It is important to note that though the sentential complement's predicate is
inflected for 1SG, the main predicate *ngrengre* 'possible' is instead inflected
for 3SG. The two predicates do not agree with each other in tense and in per-
son/number. Note that the construction *ge nga nge nge* appears to mark a topic
and has not yet been fully analysed and requires further research. *Keya* 'able
to' either directly introduces a sentential complement or the complement is
introduced by the general subordinate clause marker *ge* in (232).

(232) a. *Nam*   ***keya*** *[na   sene]*
         1SG.REC.PST able 1SG[IRR] give
         'I am able to give it'

     b. *Lo ge om*   ***keya*** *[ge nga nge fo   che am*
         then SUB 2SG.REC.PST able SUB IMM TOP IRR.2SG call CL.2SG
         tutu   nyesul mùsùm nyesul e bsu   me nga]
         grandfather 3PCP   uncle.2SG 3PLP   POT IRR.3PC come only
         'Then you are able to just call your grandfathers and uncles to just come'

Keya has two senses when occurring as a main verb 'to be able to' and 'to know'. With its former sense it introduces a sentential complement as shown in (232). But with the latter sense it takes a direct object as shown in (233).

(233) *om   lehe vehen ge a   ma   kya*
       2SG.REC.PST see   woman SUB PROX REC.PST[3SG] know
       wilan   *a*
       dance.NMLZ PROX
       'You see, this woman knows this dance'

Finally *keya* can act as the dependent in a verbal compound (c.f. section 2.4.8) and can introduce a sentential complement. *Sur* is an intransitive verb whose transitive form *sure* takes a direct object argument. Though *sur* can introduce a sentential complement when it occurs as the head verb in a verbal compound including the dependent *keya* 'try'.

(234) *Wor hu err*   ***sur keya*** *[ge e   fe   a koune   lon*
       some one 3PL.NREC.PST say try   SUB POT IRR.3PL go throw.TR in
       tee]
       sea
       'Some people try and say that they threw it in the sea'

After the verb *tewe* 'to make', *keya* functions as a dependent element in a verbal compound and introduces a sentential complement, this time without *ge*.

(235) *Ni   na tlon nga **rrwe keya** [na   in bya le]*
       1sgP 1sg NEG IMM make try   1sg[IRR] dive go MED
       'I will not try to dive there'

Its ability to introduce a sentential complement seems to also rely upon lexical properties of the main verb as when functioning as the dependent element in a verbal compound where the head verb is *ter* 'to look for' a direct object argument is manifested rather than a sentential complement.

(236) *Na   **ter keya** sese ge rro rrwe mi   yi   a*
       1sg[IRR] look try   thing SUB CONT make REC.PST.[3SG] like PROX
       'I will try to look for the thing that is doing this'

When transitivised by the clitic *-ne*, *che* 'be sweet' occurs with a bound nominal subject *lo* 'inside' and thus *long mwe cheene* means 'my insides are sweet for/ I want' (inside.1SG REC.PST.[3SG] sweet.TR) . This verb can either directly introduce a sentential complement or the complement is introduced by *ge*.

(237) a. *Lo-ng mwe   **cheene** [na   saarone Bungyam]*
          in-1SG REC.PST[3SG] sweet.TR 1SG[IRR] talk.TR   B.
          'I want to tell a story about Bungyam'

       b. *Long   mwe   **cheene ge** [ken   bonga*
          inside.1SG REC.PST[3SG] sweet.TR SUB 1PL.INP all

          yi   rongtane [ge nam   rro saarone]]
          1PL.IN[IRR] hear   SUB 1SG.REC.PST CONT tell.story.TR
          'I want that we all hear what I am saying'

In summary complement clauses can be marked by different person/number and mood markers than the matrix clause. The general subordinator *ge* is also optional.

2.6.1.2. *He* Marked Complement Clauses

Complement clauses that are introduced by *he* are verbs of utterance that introduce either direct or indirect speech sentential complements. The verb *fe*

'to tell/say' often introduces a direct speech sentential object.

(238)   a.   *Vya **fe** "Liseseu ma*   *gro   ni"*
             go   tell L.   REC.PST[3SG] chase 1SGP
             '(He) went and said "Lisepsep chased me!"'

        b.   *Me   **fe he** "nam   lehe vanten ge   nga nge*
             REC.PST[3SG] tell SUB 1SG.REC.PST see   person SUB only TOP
             rro   rrwe rrwene mwenangken orr   rro   ulu   ulu"
             CONT make make.TR CL.1PL.IN   place CONT grow grow
             'He said 'I saw the person who is making our garden overgrow''

Similar to *ge*, *he* also appears optional as shown in (238). *Wuhu* 'ask' is a transitive verb that normally takes a direct object such as *ma uhu ni* 'he asked me'. However it can introduce a direct speech complement clause either introduced with or without *he* as shown in (239).

(239)   a.   *Tomo ma   **uhu** "Om   lehe bta   ge*
             rat   REC.PST[3SG] ask 2SG.REC.PST see   breadfruit SUB
             a   rru be?"
             PROX stay where
             'The rat asked 'Where did you see this breadfruit?''

        b.   *Vya **uhu he**   "ah tutu   bwete si   nge li?"*
             go   ask   SUB INTJ grandfather head   who TOP PROX
             'He went and asked "Ah grandfather, whose head is this?"'

The verb *teme* 'think' can introduce a sentential complement either directly after the verb or introduced by *he*.

(240)   a.   *Om   rro   **rrme** [fo   ngene amaro   bwehel*
             2SG.REC.PST CONT thinking IRR.2SG eat   CL.1DL.EX bird
             hu?]
             IND
             'You are thinking that you will eat one of our birds?'

        b.   *Nam   **teme** [**he** sasaaroan   ne   wunu*
             1SG.REC.PST think SUB RED.tell.story.NMLZ ASS fool

165

> *mo   nong nga nge le]*
> REC.PST[3SG] finish only TOP MED
> 'I think that the story of the fool is finished here'

The example in (240-a) shows an indirect speech complement. In summary
he marks direct and indirect speech complement clauses and is optional.

2.6.2. Adverbial Clauses

There are several different kinds of clausal markers that introduce adverbial
clauses. Temporal clauses are looked at in section 2.6.2.1, purposive and rea-
son clauses are discussed in section 2.6.2.2 and conditional clauses are shown
in section 2.6.2.3.

2.6.2.1. Temporal Clauses

Several adverbial markers introduce time clauses in North Ambrym. These
can also optionally occur with the general subordinate clause marker *ge*.

- *Bone* 'when/if'.

(241)   a.   *[**Bone** vanten tolo geye] [e   b-lon   rre en   liye]*
             when   person NEG pay   POT IRR[3SG]-NEG cut from wood
             'If a person does not pay, he will not (be able to) cut it from
             wood'
        b.   *[**Bone ge** musu   ktu me] [lo o-m   vya ktu*
             when   SUB 3PC.REC.PST take come then 2SG.REC.PST go   take
             sirr]
             now
             'when they bring it then you go take it now'

Bone therefore has two meanings, either 'if' or 'when' as shown in (241).

- *Lo* 'then'.

The second clause in (241-b) is introduced by *lo* 'then' to show that it is time
constrained and must occur after the action of previous clause has been com-

pleted another example is shown in (242) where the action of sitting is completed, or at least incepted before the second one occurs.

(242) *[Vya lhe temarr te   rro   taa] [lo te   a*
       go   look spirit NREC.PST[3SG] CONT sit   then NREC.PST[3SG] go
       wuhu]
       ask
       'He went and saw a spirit who was sitting down, then went and
       asked…'

Similar to *bone* 'when', *lo* 'then' may also be followed by the subordinate clause marker *ge*.

(243) *[Em   rro geye mage]   [lo ge tabaa ge nyer*
       3PL.REC.PST CONT pay namangki then SUB old.man SUB 3PLP
       moro   uhu tabaa te te   rro tno tno
       REC.PST.3DL ask old.man CONJ NREC.PST[3SG] CONT plant plant
       rrem Neuha]
       yam N.
       'They were paying for the Namangki then the old men asked the old
       man to plant yams in Neuha'

Both of these temporal adverbial clause markers can be used in consecutive clauses:

(244) *[**Bone ge** balan   te   rro nong] [lo ge*
       when SUB fight.NMLZ NREC.PST[3SG] CONT finish then SUB
       atingting te   rreng rreng]
       slit.drum NREC.PST[3SG] cry   cry
       'When the fighting is finished then the drums will cry'

Thus *lo* marks a clause that normally occurs after an event depicted in the previous clause has completed.

2.6.2.2. Purpose and Reason Clauses

- *Teban* 'for'.

Teban introduces a purpose clause.

(245)   *Me   ran har   [**teban** kukuran]*
         come on nasara for   together.NMLZ
         'They come to the nasara for the meeting'

Thus the reason for coming to the nasara is for the meeting. There is a difference in meaning when *teban* is used with and without the subordinate clause marker as shown in the following two contrasting examples. When *teban* appears on its own as an adverbial clause marker it introduces a purpose clause but when it is followed by the subordinate clause marker it has the meaning 'because' and introduces a reason clause.

Purposive:

(246)   *Na   vya Nobyul [**teban** wilan]*
         1SG[IRR] go N.   for   dance.NMLZ
         'I will go to Nobyul for the dancing' (Elicited)

Reason:

(247)   *Na   vya Nobyul [**teban ge** wilan   bu   ten]*
         1SG[IRR] go N.   because SUB dance.NMLZ be.good really
         'I will go to Nobyul because the dancing is really good' (Elicited)

When *teban* functions as an adverbial clause marker of reason then the adverbial clause must be qualified by a verb that introduces the reason rather than a bare NP as introduced by the purposive sense. Above this is expressed by the verb *bu* 'good' and the sentence would be ungrammatical if this was not present.

2.6.2.3. Conditional Clauses

Ge and *he* were previously shown to introduce complement clauses (c.f. section 2.6.1) but when they occur together as *ge he* they introduce hypothetical conditional clauses.

(248) a. *Bone ge nge ol ne Koran ma   me me*
     when SUB TOP month ASS K. REC.PST[3SG] come come
     [ge he e bsu kor]
     SUB if POT IRR.3PC eat.first.yam
     'When the month of Koran comes, they will eat the firs yams'

    b. *[Ge he te   rro koune muyu [ge he malaa*
     SUB if NREC.PST[3SG] CONT throw magic.leaf SUB if cold
     te   kte taalin [ge bya mwir marran e
     NREC.PST[3SG] bite side.3SG SUB go left die.NMLZ POT
     brru   bya en taalingken [ge bya li bya ran
     IRR[3SG].stay go at side.1PL.IN SUB go PROX go on
     mwir]]]]
     left
     'If he was throwing the magic leaf and if he feels cold on his left side, a death will occur on our side here to the left'

The two markers *ge* and *he* must occur together in order to form a grammatical construction.

2.6.3. Coordination

Co-ordinating clauses can be performed by two conjunctives 2.6.3.1 and one disjunctive 2.6.3.2.

2.6.3.1. Conjunction

Conjunction of clauses can either occur with *te* or with *a*. The following example shows both conjunctions. The first conjunction *te* joins two clauses that describe consecutive actions, the gathering together in the Nakamal and the

ensuing discussion. The second conjunction *a* joins the two discussion topics together which are simultaneous events.

(249)   *[Me a   kukur   ran mel]   te [vya rro saarone*
        came PROX RED.gather on nakamal PST go CONT tell.story.TR
        [he [si nge nge e   ba   tno rrem] a   [si nge e
        SUB who TOP TOP POT IRR[3SG] plant yam   CONJ who TOP POT
        ba   uhe atingting]]
        IRR[3SG] hit slit.drum
        '(They) came here and gathered in the nakamal and were discussing who would plant the yams and who would hit the slit drum'

The outcome of the above discussion ends with the following sentence where the *a* conjunction is again used to coordinate two non-sequential clauses.

(250)   *[Neng o fo   tno rrem] a   [ni e   na   uhe*
        2SGP POT IRR.2SG plant yam CONJ 1SGP POT 1SG[IRR] hit
        atingting nan   [ne neng o tlo kya atingting bu   rru]]
        slit.drum ASS.3SG as 2SGP 2SG NEG know slit.drum IRR[3SG] stay
        'You will plant the yams and I will hit the slit drum associated with it as you do not know how to play the drums'

Another example of *a* is shown below conjoining two simultaneous actions:

(251)   *[Fo   a rro taa fan]   a [ni na   fiye ra li*
        IRR.2SG go cont sit under.3SG CONJ 1SGP 1SG[IRR] climb on tree
        bta]
        breadfruit
        'You go and sit under it and I will climb the breadfruit tree'

The conjunction *te* conjoins clauses that are temporally consecutive. The example in (252) explains why the *auya* vine dies when it sees the sea. First it grows above the tree top and then it sees the sea and then it is afraid. Thus the three events are consecutive.

(252) *[Vya mu   mur saavi   bweteye ge hu] te*
       go   REC.PST[3SG] grow more.than point   SUB one CONJ
       [ma   lhe tee nga bya] te   [lun   mu   mùrr]
       REC.PST[3SG] see sea only go   CONJ skin.3SG REC.PST.[3SG] afraid
       'It goes and grows above a (tree) top and just sees the sea and it is
       afraid'

In summary *te* conjoins two consecutive events and *a* conjoins two non-consecutive events.

2.6.3.2. Disjunction

The disjunctive *o* can either join two NPs or two clauses. Only the disjunction of clauses is discussed here. For the disjunction of NPs see section 2.3.6.

(253) a. *[Ma   me Lolihor] o [ma   me*
           REC.PST[3SG] come L.   DISJ REC.PST[3SG] come
           Wowan?]
           W.
           'She came from Lolihor or she came from Wowan?'
       b. *[E ba   uhe sese te hu] o [e b-sene   mane]*
           POT IRR[3SG] hit thing NSP IND DISJ POT IRR[3SG]-give money
           'He must kill something or give money'

This shows an either or distinction as both clauses linked by the disjunctive cannot be true at the same time.

2.6.4. Clause Chaining

Longacre (2007) discusses the difference between co-ordinated clauses and clause chaining. Clause chaining occurs when a series of verbs occur where either the initial verb or the final verb is marked. With the case of North Ambrym the initial verb is marked by a subject indexing particle, whereas all following verbs are unmarked for subject. Thus this conforms with Longacre's (2007: 417) notion of initial-consecutive chaining structures which have "…a

171

dominating initial verb of one structure followed by consecutive verbs which are of a different structure".

The identifying criteria of clause chains in North Ambrym are that the initial verb has a preposed subject indexing particles and that consecutive verbs are left unmarked and that the same subject is shared by all verbs as in (254):

(254)   *Em   nga **me lhe***
           3PL.REC.PST IMM come see
           'They came (and then) saw'

The initial verb in example (254) *me* 'come' has the subject indexing particle *em* which encodes 3PL.REC.PST and the immediate aspectual marker *nga* also occurs. The initial verb of a clause chain generally encodes movement towards or away from some deictic centre where the more specific action of second verb in the chain occurs. The second verb *lehe* 'see' is unmarked for subject, mood and aspect. Clause chaining constructions must also encode different events and not a single event, which is one of the definitional criteria for serial verb constructions (c.f. section 2.7). Thus in (254) the two verbs encode sequential actions and the sentence does not mean 'they came while seeing' but 'they came and then saw'. Serial verb constructions on the other hand encode simultaneous events, as shown in (255).

(255)   *Vanten orr Ra   nga ma   **ktu me***
           person place Pentecost only [3.SG]REC.PST carry come
           'The people of Pentecost island just brought (it)'

Thus in (255) the motion verb is the second verb in a serial verb construction as it adds a direction to the action of the first and is semantically one event. The word order difference between the two previous examples is also telling. If the motion verb occurs first then the construction is a clause chain and encodes two seperate events. If the motion verb follows the more complex action verb the result is a single conceptual event and thus a serial verb construction. Minimally a clause chain must consist of two verbs, the initial verb marked and the consecutive verb unmarked. A clause chain can have multiple sub clauses

and example (256) shows a chain of seven sub clauses marked by |.

(256)   *Sum*   *bya* |*gili rrem vii* |*teya*   *me*   *bsau* |*me* |*rrya*
           3PC.REC.PST go   dig   yam   new carry.PL come home come carry.PL
           bya ran   har |*vya* |*ling ling ge   i*
           go   on.3 nasara go   put   put   SUB DIST
           'They went, dug the new yams, brought them home, came, took them
           to the nasara, went, put them there'

Again in (256) only the initial verb *bya* 'go' is marked for subject and recent
past and all consecutive verbs share the same subject. Switch subject clause
chains do not exist. and thus are two separate clauses where marking occurs
on both verbs as shown in (257).

(257)   ***Te***   ***kokou***   *an*   *bwehel* ***te***   ***yen funu***
           NREC.PST[3SG] RED.throw CL.3SG bird   NREC.PST[3SG] eat   finish
           bwehel nan
           bird   ASS-3SG
           'He threw his bird. She ate that bird up'

Though no coordination exists between these two clauses in (257), the clause
separation is indicated by the marking of subject on both verbs by *te* NREC.PST,
which also indicates 3SG and thus shows the switch subject as the actor of the
first verb is male and the second is female[22].

2.7. SERIAL VERBS

Serial verb constructions (SVC) are a much talked about area in Oceanic lin-
guistics. Both Crowley (1987; 2002) and the edited volume by Bril (2004)
deal extensively with this area of Oceanic grammar. Several grammars and
theses of languages of Vanuatu have extensive chapters on SVCs such as Early
(1994), Thieberger (2006), Budd (2009) and Schneider (2010).

A difference is often distinguished between subtypes of SVCs which can ei-

---

[22]Not indicated grammatically as there is no gender distinction in North Ambrym.

ther be nuclear layer serial verbs or core layer serial verbs (Crowley 2002, Bril 2004). The difference between the two types depends on the syntactic level of juncture (Foley & Olson 1984). Examples from Bril & Ozanne-Rivierre (2004: 4) show the difference between the two: Nuclear layer serialisations are of the type sVV(o) where both verbs are part of the same nucleus or predicate and share the same arguments. An example of this would be [I run catch (him)], thus the two verbs are serialised and share just one set of arguments. Core layer serialisation can be either same subject sVsV(o) as in [I run I catch (him)] or switch subject sVo(s)V as in [I strike him (he) dies] where the object of the first verb is the subject of the second verb. The core layer type share the inner argument. The core equates to the whole verb phrase and the nucleus just to the verb itself. Another type of serialisation found in Oceanic languages is ambient serialisation whereby the second verb in the serialisation "makes some kind of qualification about the manner in which an action is performed" Crowley (2002: 42).

Nuclear layer serialisation does not occur in North Ambrym. What has been commonly analysed as nuclear layer SVCs in other languages of Vanuatu has been analysed as verbal compounds, as shown in section 2.4.8.

The core layer serial verbs are of the type SVSV(O) where both verbs are inflected for a subject (though subjects may be different) and therefore the serial verb construction consists of a series of cores (the verb and its arguments). All verbs that occur in serial verb construction are able to occur solely as the main verb in a clause.

Core layer serial verbs do occur in North Ambrym. Both same subject and switch subject occur. All core layer serial verbs encode direction of one of the core arguments using the two motion verbs *me* 'come' and *bya* 'go' or the positional verb *rru* 'stay'. Same subject core layer SVCs can occur when the initial verb is either transitive (258-a) or intransitive (258-b). One of the criteria for core layer SVCs in North Ambrym is that the serialised verb does not occur with a subject indexing particle.

(258)   a.   *Musu*   *rro* **ktu** *atata*   **me**
             REC.PST.3PC CONT carry pig.killing.club come

174

'They are bringing the pig killing club'

b. *Ema   mku **bya** Fantee*
3PL.REC.PST run go Malakula
'They ran away to Malakula'

Though not exactly expressing direction *rru* 'stay' also occurs in V2 position and encodes the position of the event expressed by the initial verb.

(259)   *tesu   a **rrno rru** i*
NREC.PST.3PC go plant stay DIST
'They went and planted (it) over there'

There are no ditransitive verbs in North Ambrym. In order to encode an indirect object a switch subject serial verb construction is used. One of the verbs of motion, either *bya* 'go' or *me* 'come' are added after the object position of the transitive verb. The transitive suffix is then attached to the deictic verbs, which are actor intransitive verbs that can never occur as transitives when occurring as main verbs. However they can be transitivised when occurring in switch subject ditransitive serial verb constructions and introduce an indirect object with the semantic role of recipient:

(260)   a. *Nga **sene** tamake **bya-ne-n** vehen*
IMM give mask   go-TR-3SG wife
'He just gave the mask to his wife'

b. *Mwe   **sene** aloe marr na-n   **me-ne** nyesul*
REC.PST[3SG] give leaf eye ASS-3SG come-TR 3PCP
'You give that eye leaf to everyone'

Thus the direct object of the initial verb *sene* 'give' in (260-a) is *tamake* 'mask' and becomes the subject of the transitivised motion verb *bya* whose object is the recipient. Similarly in (260-b) the direct object of *sene* becomes the subject of the motion verb *me*.

Finally ambient serialisation occurs where the second verb in the serialisation depicts the manner of the action or event described by the initial verb. The serialised verb must be a stative intransitive verb (*hel* 'strong' in (261)).

(261) *Taem ge le rur   ma   **gnyi** mwe   **hel***
       time SUB MED earthquake REC.PST[3SG] shake REC.PST[3SG] strong
       'At that time the earthquake shook strongly'

In (261) it is not the earthquake that is strong but the whole event of the earth
shaking that is strong. Another example follows where the verb *nong* 'finish'
refers to the entire event of watching.

(262) *Bone ema   lhe mage   mo   **nong***
       when 3PL.REC.PST see namangki REC.PST[3SG] finish
       'When they finished watching the namangki ceremony'

Serial verb constructions are different from biclausal constructions as the sec-
ond verb in a SVC is unable to be clefted or topicalised. The following exam-
ple shows how a serial verb construction that expresses limit of duration of an
event cannot split:

(263) *Nam   om mo   tongve libung*
       1SG.REC.PST work REC.PST[3SG] until   dark
       'I work until dark' (Elicited)

If the final verb expressing the limit of duration is put clause initially then the
result is ungrammatical, thus showing that a serial verb construction is made
up of a single clause.

(264) **Mo   *tongve libung nam   om*
       REC.PST[3SG] until   dark 1SG.REC.PST work
       'Intd: until dark, I work' (Elicited)

Thus a serial verb construction contrasts with a bi-clausal construction such
as an adverbial clause expressing a simultaneous event.

(265) *[Bone ge nam   rro taa] [nam   rro fwerr]*
       When SUB 1SG.REC.PST CONT sit   1SG.REC.PST CONT sleep
       'When I sit down I sleep' (Elicited)

176

Since the adverbial clause is bi-clausal the second event clause may be clefted as such.

(266) *[Nam   rro   fwerr] [bone ge nam   rro   taa]*
       1SG.REC.PST CONT sleep   when SUB 1SG.REC.PST CONT sit
       'I sleep when I sit down' (Elicited)

In summary serial verb constructions cannot be clefted. Serial verbs express a single event and can express indirect objects or the manner of a whole event.

Chapter 3

Possession

Cross linguistically, there are three main structural ways of encoding possession: predicatively, externally and attributively (Herslund & Baron 2001). Predicative possession is encoded using a possessive verb such as 'have' or 'belong'. In fact these two English constructions are very different. Firstly 'have' takes the possessor as subject, whereas 'belong' takes the possessum as subject (Herslund & Baron 2001: 9). Herslund & Baron go on to explain that 'have' can be polysemous and can denote a multitude of different possessive relationships, but in English 'belong' strictly denotes a relation of ownership of the referent of the nominal in the subject position. However Herslund & Baron missed the polysemous nature of the verb 'belong', which in English can encode different relations too as one can belong to an organisation but that organisation does not own you, thus the relation encoded by 'belong' can also be one of affiliation or membership.

External possession occurs when the possessor is not included in the same noun phrase as the possessed, but is encoded as a verbal argument, e.g. 'she slapped Tom in the face' (Herslund & Baron 2001: 15). These constructions are also termed possessor raising or possessor ascension as the possessor is 'promoted' out of the possessor slot of an attributive possessive construction and into the argument position of a transitive verb.

The focus of this thesis, however, will be on attributive possession as this includes the alienable/inalienable distinction that is predominant in Oceanic pos-

sessive constructions and both verbal and external possession do not occur in North Ambrym.

Attributive possession includes genitive phrases such as 'John's chair'. Attributive possessive constructions often encode many more relations than predicative possession. For instance 'John's chair' can mean the one he owns; the one he is currently sitting on, the one he habitually sits on at work, the one he wants to buy, the one reserved for him, the one he made etc.

Many languages encode a grammatical distinction between possessions that are seen as inalienable and those that are seen as alienable. This is particularly evident in Melanesian languages and can be seen in North Ambrym as well, and this will be discussed in more detail in section 3.4 and chapter 4. Possessive constructions in Yidiɲ, an Australian language, encode the inalienable/alienable distinction where the appositional inalienable construction encodes part-whole relationships and alienable constructions, marked by the genitive suffix *-ni/-nu*, encode "material possessions, kin relations and social group membership" (Dixon 1977: 357). The attributive construction will be looked at in detail in the rest of this chapter.

This chapter is a general introduction into possessive constructions. It will look at some of the contemporary analyses of possessive noun phrases and genitive constructions in different languages and will focus on the syntax of possessive constructions in section 3.1 and the semantics in section 3.2. As possessive constructions in Oceanic languages include possessive classifiers a review of noun classes and classifier systems is given in section 3.3. Section 3.4 gives an overview of possessive techniques in the Oceanic language family and will review some of the main literature regarding Oceanic possession. Finally a summary is given in 3.5.

3.1. SYNTAX OF POSSESSION

The syntactic status of the genitive is the main topic of this section. Definite articles do not occur in preposed possessor constructions in many languages, such as English, which prohibits **the my car* or **Paul's the car*. The article is

unable to mark the possessed noun as definite. Other languages permit marking of a possessed nominal with a definite article such as Italian, shown in example (1).

(1)   a.   *La casa di Davide*
           ART house of David
           'David's house'

        b.   *La mia casa*
           ART my house
           'My house'
           Haspelmath (1999: 228)

Previously, languages have been defined as either having a possessor that is determiner-like or adjective-like. Thus as English is unable to occur with an article the possessor must sit in the syntactic determiner slot and thus block the occurrence of the definite article. Whereas Italian has an adjective like possessor and thus does not block the appearance of the definite article. Lyons (1986: 139) constructs a schematic for the preposed possessive NPs in English and Italian which reflect the above analysis and is reproduced in figure 3.1.
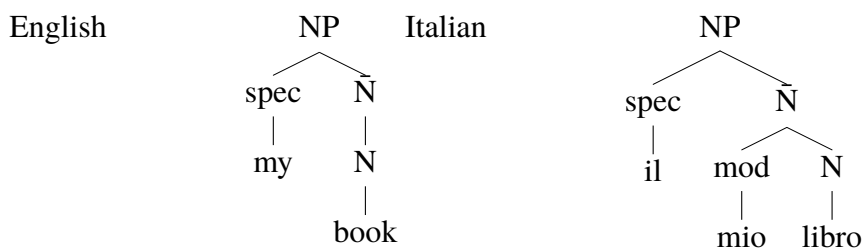
Figure 3.1: English and Italian preposed possessives

The preposed possessive pronoun in English occupies the spec position, which is also the position where determiners occur and consequently blocks this slot for other determiners. On the other hand the preposed possessive pronoun in Italian sits in the head noun modifier slot and thus does not block other determiners occurring in spec position.

Swedish patterns like English in disallowing articles in preposed possessor constructions and as a consequence is termed a determiner-genitive. In a spe-

cific type of possessive constructions a determiner can co-occur with a preposed possessor in what is called a non-determiner genitive construction by Koptjevskaja-Tamm (2003) as shown in (2).

(2)   a.   *En plikt-en-s   man*
           a   duty-DEF-GEN man
           'A man of duty'

       b.   *En sex timm-ar-s   resa*
           a   six hour-PL-GEN trip
           'A six hour long trip'

       c.   *En helvete-s oordning*
           a   hell-GEN disorder
           'A hell of a mess'

           Koptjevskaja-Tamm (2003: 516)

There are three types of non-determiner genitives, shown in (2), inserted genitives (2-a), measure genitives (2-b) and swear genitives (2-c). They all have properties that mark them apart from other nominals constructions and all lie somewhere on a continuum between nominal-like and adjective-like. For instance swear genitive are the most adjective like genitive construction in that they can appear with other articles, can be stacked with determiner genitives and act as adverbial modifiers, thus aligning themselves more with adjectives than nouns. Koptjevskaja-Tamm (2003: 530) argues that the dual genitive distinction as proposed by Lyons (1986) should be reanalysed as a continuum between determiner-like and non-determiner-like genitives.

Haspelmath (1999) also argues against the strict duality of the syntactic slot analysis, arguing that it is in fact language economy that motivates the absence of the definite article in possessive constructions in some languages. He cites examples from different languages that show complementary distribution between articles and possessors where they appear in different syntactic slots, such as Swedish, shown in (3).

(3)   a.   *Bok-en*
           book-ART
           'The book'

    b.   *Karins   bok(*-en)*
        Karin.poss book(-ART)
        'Karin's book'
        Haspelmath (1999: 229)

Thus in (3) Swedish has definite articles that occur suffixed to the nominal head whereas possessors are preposed and yet still disallow the definite article, even though they appear in different syntactic positions. Furthermore in Brazilian Portuguese the definite article is optional in possessive constructions as shown in example (4).

(4)   a.   *Os amigos*
          the friends
          'The friends'

       b.   *(os) meus amigos*
          the my   friends
          'My friends'
          Thomas (1969) as cited in Haspelmath (1999: 230)

Thus Haspelmath (1999: 230) argues that a simpler analysis is to say that the determiner is optional in possessive constructions rather that to say that the possessive is a determiner when it occurs alone but an adjective when it occurs with a determiner. Haspelmath argues that both economy and being explicit are competing factors in languages with and without possessor-article complementarity and each language prioritises one of these factors. Haspelmath (1999: 234) proposes a universal implication based on his findings that possessed NPs are more likely to be definite than non-possessed NPs in that "If possessed NPs show the definite article, then so do non-possessed NPs".

Koptjevskaja-Tamm (2002) discusses adnominal possession in the languages of Europe. Her study restricts itself to attributive or adnominal possessive constructions which form a possessive NP (PNP) only and does not look at predicative or external possessive constructions. Possessors can act as anchors that help delimit the possessed noun in space, thus we know what book is being referred to in *John's book* as we know who John is. This anchoring can be further used as evidence for the economical motivation of article-possessor

complementarity as possessed NPs are generally definite by the fact that the anchor is also definite and thus the definite article is necessarily uneconomical (Koptjevskaja-Tamm 2002: 147). Anchored possessive consructions can be structurally similar to non-anchored modificational constructions as seen in Lithuanian in (5).

(5)   a.   *Mokytojo   namas*
             teacher:GEN name
             'The teacher's name'
             (anchored relation)

       b.   *Duounos peilis*
             bread:GEN knife
             'A bread knife'
             (non-anchored relation)
             Koptjevskaja-Tamm (2002: 155)

Juxtaposition encodes an anchored possessive relation in (5-a) but encodes an attributive-like construction in (5-b). Though not all systems are structurally identical. Rumanian shows a structural opposition that encodes the semantic differentiation between anchored and non-anchored dependents, thus anchored constructions appear genitive marked (6-a) and non-anchored ones are in a prepositional construction (6-b).

(6)   a.   *Fiul   regelui*
             son:DEF.SG.M king:DEF.SG.M:GEN
             'The son of the king'
             (anchored relation)

       b.   *Fiul   de rege*
             son:DEF.SG.M of king
             'The royal son'
             (non-anchored relation)
             Koptjevskaja-Tamm (2002: 155)

Other European languages have a structural split in encoding adnominal possession depending upon the animacy or referentiality of the possessor. for

instance proper names and kinship terms, both being highly animate and referential are able to occur in the preposed possessor construction in German as opposed to common nouns, which can be less referential and which must occur in a postposed possessor construction: *Peters Buch* 'Peter's book' vs. *das Buch des Lehrers* 'the teacher's book' (Koptjevskaja-Tamm 2002: 158). Animacy and referentiality play a distinctive role in possessive constructions in North Ambrym too, though they do not result in structural differences but in the occurrence of the third person cross referencing suffix as shown in section 4.3.

Heine (1997) has identified several cognitive sources for possession. These, he calls schemas. Schemas are looked at in more detail in section 5.1.1 and therefore will only be briefly introduced. Schemas are the bare core of a construction, what you get when you strip it down to its essential components. Schemas can be elaborated by filling in their constituent parts. Langacker (1991: 17) strips down deverbal nominals of the type *builder* and *baker* to an underlying schematic structure of PROCESS-er, where [PROCESS] is the part of the schema that can be elaborated further by inputting different verbs. The different schematic sources of possessive constructions are shown in table 3.1[1].

Formula	Label of event schema
X takes Y	Action
Y is located at X	Location
X is with Y	Companion
X's Y exists	Genitive
Y exists for/to X	Goal
Y exists from X	Source
As for X, Y exists	Topic
Y is X's (property)	Equation

Table 3.1: Schemas for possessive constructions

A few of these schemas are explained here. The action schema is found in languages that have a predicative possessive construction which involves an agent and patient argument such as Portuguese (7), where the verb meaning 'have' is synchronically related to 'take'.

---

[1] Heine (1997: 47).

(7)   *O menino tem   fome*
        the child   takes/has hunger
        'The child is hungry'
        Freeze (1992: 587) as cited in Heine (1997: 47)

The locational schema can be found in Turkish (8), where the possessor is marked with the locative case.

(8)   *Ben-de kitap var*
        me-LOC book existant
        'I have a book (on me/with me)'
        Lyons (1968: 395) as cited in Heine (1997: 51)

In the companion schema the possessum is situated in the complement slot of a comitative construction as found in Khalka Mongolian in (9).

(9)   *xür   daxa-tai*
        man.NOM fur-COM
        'The man has a fur'
        Ultan (1978: 35) as cited in Heine (1997: 54)

The genitive schema is found in English shown in the sentence 'John's hat', where the genitive is marked on the possessor argument. The goal schema is exemplified by Tamil (10), where the possessor is marked for the dative case.

(10)   *ena-kku oru nalla naay (irukkiratu)*
        me-DAT a   good dog is
        'I have a good dog'
        Ultan (1978: 33) as cited in Heine (1997: 59)

The locative source is evident in Oceanic possessive constructions, though a few different ones that Heine does not mention also occur. These will be looked at in 3.4.2.

3.2. SEMANTICS OF POSSESSION

Possession can mean many things, from legal ownership of an item; intrinsic possession, such as characteristics or body parts of a person; habitual use of an item or even just a loose relationship between two entities.

In linguistics, the structures that encode possession do not necessarily have to involve legal ownership of an item. For instance, the construction 'my picture' can be interpreted as the one I own; the one I drew; the one of me; etc. Thus the linguistic structures that encode possession do not always entail strict legal ownership of a possessed item and can have a more 'loose' semantic connection with the possessor and therefore possession is merely "the relation between two entities, a Possessor and a Possessum" (Herslund & Baron 2001: 2). Several authors have attempted to come up with prototypes of possession. Langacker (1995: 56) shows that all of the following relationships can be encoded by possessive constructions:

a. Something owned (his Porsche).
b. A relative (your aunt).
c. A part (my knee).
d. An unowned possession (the baby's crib).
e. Something manipulated (her rook).
f. An associated individual (our waiter).
g. A larger assembly (their group).
h. Something at one's disposal (my office).
i. A physical quality (his height).
j. A mental quality (her equanimity).
k. A permanent location (our neighbourhood).
l. A transient location (our spot).
m. A situation (your predicament).
n. An action carried out (Oswald's assassination).
o. An action undergone (Kennedy's assassination).
p. Something selected (your candidate [i.e., the one you back]).
q. Something fulfilling a certain function (our bus).
r. Something hosted (the dog's fleas).

The use of a possessive construction in any language denotes that there is some sort of relation between the possessor and the possessed. and clearly strict ownership of an item is just one relation. Whether a possessive construction can have multiple interpretations is due to the argument structure of the possessed noun itself. If the possessed nominal is a relational term then it has an implicit possessor argument, for example the noun *sister* has an implicit possessor argument in that one cannot be a sister without being a sister to someone. The possessive construction *my sister* entails a kinship relation. Barker (1995: 43) offers the following example showing the difference between relational and non-relational nouns.

(11)　a.　The man's child
　　　　b.　The child's man

The possessed noun *child* is relational in (11-a) and can only infer a kinship relation but the non-relational noun *man* in (11-b) can lead to multiple semantic interpretations dependent on context. Barker (1995) defines the difference as lexical versus extrinsic possession. In English both lexical and extrinsic possessed nouns occur in the preposed possessor construction, however only relational nouns are able to occur in the postnominal *of* construction.

(12)　a.　The birthday of John
　　　　b.　*The day of John
　　　　　　Barker (1995: 51)

Example (12-a) shows that *birthday* is a relational noun as it has a valence of two and can allow a postnominal argument, but *day* in (12-b) is non-relational and has a valence of one and cannot take a postnominal argument. Other languages also mark a grammatical distinction in possessive marking between relational and non-relational nouns where relational nouns occur in inalienable constructions and non-relational nouns occur in alienable constructions, these will be looked at later on in this section.

Lexical possessives have an inherent relation that comes from the possessed

nominal, whereas extrinsic possessives have a vague relation that is imposed externally by pragmatic factors (Barker 1995).

A semantic distinction can be drawn between possessive constructions that encode inalienable and alienable possession. Nouns that occur in inalienable constructions are generally body part and kinship terms. These items are seen as intrinsic or inherent possessions of the possessor and are generally considered irremovable. However, other items not seen to be strictly inalienable do occur in inalienable possessive constructions across the world and it is a language specific variable. Alienable objects are those that can be possessed and removed or sold and therefore are separable possessions. Similar to inalienable constructions, some items thought to be inalienable do occur in the category of alienable objects. There is therefore some overlap between these two classes and it has been argued that this distinction is purely a grammatical distinction and that no universal semantic criteria exist for the identification of this dual distinction, but is instead highly culturally specific (Heine 1997). Overlap between these two construction types occurs in North Ambrym too and will be looked at in section 4.4.

However there are several common themes for the identification of prototypical inalienable items. Heine (1997: 10) proposes that items are generally inalienable if they are kinship terms, body parts, relational spatial concepts, parts of wholes, physical and mental states and nominalisations, where the possessed item is a verbal noun. This statement is generally true for North Ambrym, except that deverbal nouns occur in alienable possessive constructions. Basically, inalienable possession marks "an indissoluble connection between two entities - a permanent and inherent association between the possessor and the possessed" (Chappell & McGregor 1996: 4). All other nouns not included in the inalienable category are therefore alienable and they represent a looser relationship between two entities.

Morphologically there is a difference in how inalienable and alienable possessions are realised. Typically, the inalienable category receives no formal morphological marking, whereas alienable possessions are overtly marked using a special possessive morpheme (Heine 1997). The inalienable category also exhibits a stronger structural bond between possessor and possessed than the

alienable category and nouns that are inalienable are expected to be obligato-
rily marked and mention of their possessor is the norm (Heine 1997: 196).

Across the world's languages there are two ways of encoding inalienable pos-
session, either by juxtaposition of the possessor and possessed or affixing a
possessor pronominal onto the possessed noun. Alienable possession can be
marked with genitival markers, linking morphemes, or possessive classifiers
(Chappell & McGregor 1996). This extra morphology on alienable possessive
constructions shows the conceptual distance between the possessor and pos-
sessed as opposed to inalienable possession. This linguistic distance equates to
a conceptual distance between possessor and possessed. Haiman (1983: 793)
forms a hypothesis based on conceptual and linguistic distance:

> "In no language will the linguistic distance between X and Y be greater
> in signalling inalienable possession, in expressions like 'X's Y', than it
> is in signalling alienable possessions."

There is evidence to show that the alienable and inalienable categories are
not just semantically motivated and that perhaps there are more formal gram-
matical reasons for this distinction. Crowley (1996) discusses several non-
semantic motivations for the distinction that occur in Paamese. It should be
noted first that he does say that the alienable/inalienable distinction also has se-
mantic motivations, with some formal differentiating criteria as well (Crowley
1996: 385). In Paamese, compound forms for body parts accept inalienable di-
rect marking if the second morpheme is itself normally a directly marked noun.
Also some body parts are deverbal nouns, and these only occur in alienable
indirect possessive constructions. However, presumably when a compounded
body part occurs and the second is normally a directly suffixed noun, then this
is semantically prescribed by some means. Finally, borrowed body part nouns
from Bislama always occur in alienable possessive constructions. More often
than not the inalienable class is a closed class of nominals and thus borrowings
would automatically be included in the alienable class.

3.3. NOUN CLASSES AND CLASSIFIER SYSTEMS

In order to fully understand possession in North Ambrym and other Oceanic languages, some basic tenets about noun classes and classifier systems will be first explained. The differences between noun classes in 3.3.1 and noun classifiers in 3.3.2 are shown.

3.3.1. Noun Class/Gender Systems

The terms 'noun class' or 'gender' should be seen as interchangeable as they both refer to the systematic partitioning of the class of nouns into several sub-classes which behave differently in agreement (Corbett 1991). Memberhood of nouns to a particular sub-class can either depend on a semantic or formal system, or a mixture of both. Some noun class systems may be strictly or pre-dominantly semantically based, that is all nouns denoting males are assigned to a certain noun class and all nouns denoting females are assigned to a differ-ent noun class, as is the case with Tamil (Corbett 1991: 8). The choice of noun class may be more formally based, i.e. on either morphological features, such as in Russian where the differing declensions of nominals result in member-ship in different genders. Phonological features may affect noun class, such as in Hausa, where a phonological gender assignment rule states that most nouns ending in -*aa* are assigned to the feminine noun class (Corbett 1991). Grammatically, gender may be realised by agreement between the noun and an agreeing element (Corbett 1991: 106). Elements, such as determiners or adjectives, are all inflected for the gender of the noun they agree with, as in the case of German shown in (13).

(13)   *Die   weisse   Blume*
       DEF.FEM white.FEM flower
       'The white flower'

In the German sentence (13), both the definite article and the adjective are inflected for the feminine gender, to which *Blume* 'flower' belongs. One of the main distinguishing features of a noun class or gender system is that noun

classes are an obligatory part of the grammatical system of a language where noun classes occur and that all nouns are assigned to one class (Aikhenvald 2000). To summarise, the main features of a noun class system are:

- Nouns classed according to semantic, morphological or phonological assignment.
- Other elements of the NP can participate in grammatical agreement with the noun class.
- Nouns can only occur in one noun class.

Noun classes are different to classifier systems which will be shown in the next section, 3.3.2.

3.3.2. Classifier Systems

There are several different types of classifier systems found throughout the languages of the world. This section shall mainly deal with classifiers that are associated with the noun phrase, such as noun classifiers, numeral classifiers, verbal classifiers and genitive classifiers. Grinevald (2000) argues that nominal classifiers are situated in the middle of a lexical-grammatical continuum with gender and noun class systems at the grammatical end and measure and class terms at the lexical end. As classifiers are not completely grammaticalised lexical elements they are somewhere in the middle.

Noun Classifiers

Noun classifier systems differ from noun classes in that there is no overt grammatical agreement with the noun they classify and therefore assignment of a noun is not morphologically or phonologically motivated, instead it is based on semantic assignment. Aikhenvald (2000: 81) lists a few additional properties such as not all nouns must occur with a classifier; multiple classifiers may be used within one NP; category membership of nouns is not concrete in that nouns may appear with different classifiers which highlight semantic properties of the noun; and that noun classifiers may be used anaphorically. These different properties will be looked at below.

In his article, Denny (1976) discusses the use of classifier systems that are

found in different languages and demystifies popular belief that noun classifiers simply duplicate information already specified by the noun itself. In fact noun classifiers actually place the referent of the noun into two different classes, one that is specified by the noun itself and one that is expressed by the classifier. For example Denny (1976: 122) shows that *chura* 'frog' in Swahili is classified by the noun class prefix *ch-* which deems it an artifact, whereas *ngombe* 'cow' is prefixed by the *ng-* noun classifier which classifies it as an animal. Thus *ngombe* is classified by the noun as a 'cow' and by the classifier as an 'animal'. Classifiers in Swahili mark the superordinate category that the concept denoted by the noun belongs to. Different inherent properties of a noun can be highlighted through the choice of different classifiers and Denny (1976: 125) proffers three distinct typological categories that are found in classifier languages. These are physical, functional and social interaction. All three systems are found in the Meso-American language Jacaltec. Physical classifiers such as *no7* which denote animal parts and *te7* denotes plants. Functional classifiers in Jacaltec are based on perceptual analogy based on control and manipulation of an object by humans (Craig 1986: 275). Substances such as ice and hail are actually classified by the rock classifier rather than the water classifier and Craig argues that this shows the manipulability of these objects by humans and represents functional rather than physical classification. This link seems quite tenuous as we could simply say that ice and hail are physically hard like rocks. Though, the classification of wheat with the same classifier of corn looks like a more convincing argument for functional classification because of similar production methods and use as flour. Finally, social classifiers are represented by categorising different kin with different classifiers, with separate classifiers for deities and another for respected humans.

As previously stated nouns are not assigned to a classifier on a formal basis but are assigned semantically and that assignment is based on some characteristic of the noun referent and may include humanness, animacy, form or function (Aikhenvald 2000: 82). Different classifiers may be used to single out different properties of the nominal referent, thus showing that nouns do not solely occur with one specific noun classifier, thus distinguishing the system from a gender system. Aikhenvald (2000: 84) cites the following example from Minangkabau (Austronesian): *batang limau* (CL:TREE lemon) 'lemon

tree' vs *buah limau* (CL:FRUIT lemon) 'lemon-fruit'. This shows that the classifiers do not have concrete boundaries and nouns can occur with different ones depending on some semantic property of the noun. In fact this system shows similarities to the direct possessive constructions that refer to parts of wholes in North Ambrym (c.f. section 4.1.4.3).

A similar example comes from Akatek (Mayan), where a noun has the ability to co-occur with multiple classifiers simultaneously. Zavala (2000: 116) shows that there are four classes of classifiers that can all occur in the same noun phrase as they have different meanings, A noun in Akatek may occur with a combination of numeral classifier (NUM), numeral sortal classifier (SORT), human plural classifier or a noun classifier. An example is given below of how these classifiers may combine.

(14) *T'ey kaa-(e)b'   sulan   awaan*
      here two-NUM:CL SORT:CL corncob
            inanimate   smooth
      'Here are two corncobs'
      (Zavala 2000: 117)

As the noun classifier contains some semantic content of the noun it classifies elision of the head noun is made possible. This may occur in answers to questions to avoid repetition or in subordinate clauses, where the head noun was mentioned in the main clause (Aikhenvald 2000: 87). Investigating anaphoric uses of classifiers in Japanese, Downing (1986) argues that classifiers can be used anaphorically to refer to nouns when distance between classifier and antecedent noun is too large for other anaphoric devices to be used.

Functionally, nominal classifiers serve two main roles. Firstly, of instantiation or quantification of the noun and secondly, of classifying the noun according to some semantic base (Denny 1986). Foley (1997: 232) states "typically, nouns in classifier languages on their own are very vague in their reference". Thus, the classifier is employed as way of singling out a specific property of the noun and thus creating a more concrete referent for it and is less generic. Furthermore, Denny (1986: 302) states that "a noun refers to a property but a classifier

refs to a set of individuals drawn from a restricted class, and serving as the domain of the quantifier". Thus the classifier is a tool for the instantiation of a noun and shows the underlying quantificational role of a nominal classifier. Semantically, the classifiers help fulfill verbal semantic expectations, whereby a classifier may pick out a functional property of the noun that fits in with some interactional property of the verb. When the East Cree noun classifier *-a:pe:?* 'one-dimensional flexible' is attached to the noun *pi:s?:kana:piy* 'string' the expectation is that the string will be used for the properties denoted by the classifier (Denny 1986: 303). Verbal expectations of possessive classifiers will be looked at in sections 6.1 and 6.2.

Numeral Classifiers

Numeral classifiers occur in some classifier languages when a numeral modifies a noun. Similar to noun classifiers, numeral classifiers semantically represent certain properties of the classified noun such as "animacy, shape, size and structure" (Aikhenvald 2000: 98). Mokilese, a Micronesian language, has four numeral classifiers that are outlined below (Harrison & Albert 1976: 95).

-men for animate nouns (people, birds, animals, often fish)

-pas for long objects (pencils, canoes, songs, and stories)

-kij for things that have pieces, parts

-*w* general classifier (used with all nouns not covered by the other classifiers)

Nouns can appear with different classifiers depending on the shape or form of the referent, thus in Mokilese the following sentences are acceptable:

(15) a. *Peipa rah-**pas***
          'Two sheets of paper'
      b. *Peipa riah-**kij***
          'Two scraps of paper'
          Harrison & Albert (1976: 97)

Thus in (15-a) the numeral *rah* 'two' is suffixed by the classifier denoting long

objects and in (15-b) the numeral is suffixed by a different classifier denoting parts. Numeral classifiers do not occur in North Ambrym and will not be looked into further.

Verbal Classifiers

Verbal classifiers are different to all other classifiers described in this section as they are the only ones not found in the noun phrase. These classifiers are normally affixes on the verb and classify one of the verbs arguments (Grinevald 2000: 67). An example from Cayuga, an Iroquian language follows.

(16)   a.   *So:wa:s **akh**-nahskw-ae'*
            dog   I-CL-have
            'I have a pet dog'

    b.   *Skitu   **ake'**-treht-ae'*
            skidoo I-CL-have
            'I have a car'
            Mithun (1986: 387-8)

The classifier in (16-a) defines the verb's argument as a domesticated animal, whereas the classifier in (16-b) defines the verb's argument as a vehicle. As verbal classifiers do not occur in North Ambrym they will not be discussed further.

Genitive Classifiers

Aikhenvald (2000) has categorised possessive classifiers into three types: possessed classifiers, possessor classifiers and relational classifiers. There are differences between these systems. Possessor classifiers are very rare typologically and only classify the possessor according to animacy. Possessed classifiers classify just the possessed noun according to certain features of the referent of the possessed noun, such as animacy, shape, size and structure (Aikhenvald 2000: 126). Possessed classifiers can occur in either inalienable or alienable constructions. Relational classifiers are restricted to Oceanic languages and a few South American languages. Some mixed systems occur where possessed and relational classifiers co-occur. Relational and possessed classifiers will be contrasted in section 3.4.1. To summarise the main features of classifier systems are:

- No overt grammatical agreement with classified noun.
- Not all nouns must occur with a classifier.
- Nouns classified via semantic assignment.
- A noun may appear with different classifiers or even multiple classifiers.
- Classifiers can be used as anaphoric referents.
- Classifiers mark noun as non-generic.

3.4. POSSESSION IN THE OCEANIC LANGUAGES

Possession is seen as one of the more complex areas of Oceanic languages in which the split between alienability and inalienability is the most fundamental aspect (Lynch *et al.* 2002). This semantic distinction results in two different grammatical types of possessive constructions, namely direct and indirect possession. Direct possession is where a possessor pronominal suffix is attached to the possessed noun as shown in (17).

(17) *Na mata-qu*
      ART eye-1SG
      'My eye'
      Fijian (Lynch *et al.* 2002: 40)

This type of construction occurs with possessed nouns that are deemed to be semantically inalienable, generally kinship terms, body parts and parts of wholes. Directly possessed nouns in North Ambrym will be looked at in section 4.1. Indirect possession occurs when the possessed noun is deemed to be an alienable object not thought to be intrinsically connected to the possessor. Indirect possession is structurally different from direct possession as instead of the possessor pronominal suffix attaching directly to the possessed noun, it attaches to an indirect possessive host or possessive classifier, marked POSS in (18). Indirect possessive constructions in North Ambrym will be looked at in section 4.2.

(18) *Na no-qu   vale*
      ART POSS-1SG house

196

'My house'

Fijian (Lynch *et al.* 2002: 40)

Lichtenberk (1985: 105) divides the Oceanic languages into two groups, those with one to four classifiers and those with more than ten. The languages of Papua New Guinea typically have the simple structural opposition of alienable and inalienable constructions. Western Melanesia normally has the direct and indirect constructions, except there are two different types of indirect constructions, with one indirect possessive host characterising edible possessed items and another indirect possessive host for any other alienable possessed entity. In Eastern Melanesia there can be as many as six different indirect possessive hosts, distinguishing between alienable possessions such as edible items, drinkable items, plantable items and valued items. North Ambrym is grouped with the Eastern Melanesian languages and has five different alienable indirect possessive hosts. The exact semantic distinctions of these indirect possessive hosts vary from language to language. Lichtenberk (1985) shows that languages in Western Melanesia tend to develop classifiers along specific semantic lines. If a language has one classifier then it distinguishes alienable from inalienable possessions. If there are two classifiers then one distinguishes alimentary possession whereas the other is a residual classifier. If there are three classifiers then the distinction is one of food, drink and residual. Finally if there are four classifiers then they also distinguish valued possession. Lichtenberk's study now seems quite dated and if we just look at a few different languages it will be seen that when there are four or more classifiers in a language the semantic domains of these classifiers are very language specific. For instance, Lonwolwol, North Ambrym's closest relative has six classifiers that denote food, drink, basket, transport, fire and residual (Paton 1971). Tape has four classifiers and the fourth denotes chewable possessions (Crowley 2006).

In Micronesia there are even more semantic distinctions made between the different indirect possessive hosts. Ponapean, a Micronesian language, has twenty-one possessive hosts listed in the grammar as shown in table 3.2[2].

---

[2]Rehg & Sohl (1981: 180-181).

Classifier	Usage
ah	general things
nah	dominant classifier
kene	edible things
nime	drinkable things
sapwe	land
imwe	buildings
were	vehicles
kie	things to sleep on
ipe	things to cover with
ulunge	pillows
rie	siblings
kiseh	relatives
ullupe	maternal uncles
wahwah	nephews, nieces
sawi	clan members
pelie	peers, counterparts, opponents
seike	catch, sea or land
pwekidah	share of food at a feast
mware	garlands, names, titles
ede	names
tie	earrings

Table 3.2: Possessive classifiers in Ponapean

Directly possessed nouns and possessive classifiers in Ponapean share some similarities. Both are able to take pronominal possessor suffixing. In this way the classifiers are structurally the same as directly possessed nouns and in some cases directly possessed nouns can even act as possessive classifiers, such that they form repeaters as in *kili kihl* 'his skin' or *timwe tihmw* 'his nose' (Rehg & Sohl 1981: 184). There are differences between direct and indirect constructions in Ponapean as the classifiers are not always grammaticalised from nouns but sometimes from verbs as with *nime* the drinkable classifier clearly originates from the verb *nim* 'to drink'(Rehg & Sohl 1981: 185).

Possession in Polynesian is quite different than the rest of the Oceanic family in that there is a distinction not between alienability and inalienability but between dominant and subordinate possession (Lynch *et al.* 2002). Dominant possession is often called *a possession* and subordinate called *o possession*

after the phonological shape of the possessive marker. The following example contrasts the two types of Polynesian possession.

(19)   a.   **Ko'u** inoa
              'My name (that represents me)'
        b.   **Ka'u** inoa
              'My name (that I bestow on someone)'
              Hawaiian (Wilson 1982: 15)

In (19-a) the possession is *o* marked and thus the possessor is seen to have less control over the possessed item than in the *a* marked construction in (19-b).

The rest of this chapter reviews the different theories that that have been proposed for the semantic and syntactic status of the indirect possessive constructions. The indirect possessive construction is the main focus of this thesis and the theory that they function as relational classifiers is looked at in 3.4.1. Proto Oceanic reconstructions of classifiers are given in section 3.4.2. Passive and subordinate possession is looked at in section 3.4.3. The verbal nature of the classifiers is looked at in section 3.4.4. Finally the syntactic status of the classifiers are looked at in section 3.4.5.

3.4.1. Relational Classifiers

The first wave of Oceanic linguists' descriptions of possessive constructions called the indirect possessive hosts 'possessive nouns' (Codrington 1885, Ray 1926). These 'possessive nouns' appeared to be thought of as a kind of noun class system where the indirect possessive hosts acted as categorising elements, such that in Mota (Banks Islands) the indirect host *no* denoted general possessions; *ga* denoted close belongings; *ma* denoting things for drinking and *ma* denoted things done by the possessor (Codrington 1885: 129-130). This notion of possessive noun is the same as Bickel & Nichols's (2011) who state that some languages with head-marked possessive constructions must be obligatorily marked, also have a class of nouns that must occur with an appositonal head marked noun called a possessive noun. In most languages that

have them, these possessive nouns are assigned by gender of the head noun. Similarly, Milner (1972: 65) describes the Fijian possessive constructions as having four genders - neutral, edible, drinkable and familiar. Though he does point out that some nouns can belong to more than one gender. It is this ability for nouns to occur with different indirect possessive hosts that was singled out by other linguists in the 1970s and 80s. These linguists believed that nouns do not fall into a rigid noun class system but, depending on context, can occur with different indirect possessive hosts (Pawley & Sayaba 1990). Lynch (1982: 246) says that the different types of possessive constructions do not mark the gender of the possessed nominal but a semantic relation between the possessor and possessed. The most famous account of indirect possessive hosts is from Lichtenberk (1983b: 148), who argues that the indirect possessive host in Oceanic languages functions as a relational classifier:

> "The crucial property of relational classifiers is that their use is determined not by some properties of the entity to which the noun phrase associated refers but by the semantic relation between the referents of those elements."

In languages with nominal or numeral classification systems, when a noun occurs with a classifier the specific properties of the noun define the type of classifier to be used. However in languages with relational classifiers, when a noun appears in a possessive phrase, it is not the specific properties of the possessed noun that determine the type of classifier that occurs with the noun, but the relation between the possessor and the possessum that determines the type of classifier to be used. One of Lichtenberk's main points is that it is normal for possessed items to appear in constructions with different types of classifiers. This is exemplified in Paamese in example (20), which show that *ani* 'coconut' can be expressed in different possessive phrases using different possessive classifiers to emphasise the type of relation held between the possessor and the possessed item.

(20)   a.   *Ani   ā-k*
               coconut EDIBLE.CL-1SG
               'My coconut (of which I intend to eat the flesh)'

b. *Ani   ema-k*
   coconut DRINKABLE.CL-1SG
   'My coconut (of which I intend to drink the liquid)'

c. *Ani   esa-k*
   coconut PLANATABLE.CL-1SG
   'My coconut (which is growing on my land)'

d. *Ani   ona-k*
   coconut GENERAL.CL-1SG
   'My coconut (which I intend, perhaps, to sit on)'

   Paamese, Paama (Lynch *et al.* 2002: 42)

Example (21) show that North Ambrym behaves in the same way as Paamese and other Oceanic languages in that a possessed noun may be used with different relational classifiers dependent upon the semantic relation between the possessor and possessed.

(21)   a. *Mwene-ng ol*
           CL-1SG   coconut
           'My copra (my coconut as copra)'

        b. *Ye-ng   ol*
           CL-1SG coconut
           'My coconut for eating'

        c. *Mwe-ng ol*
           CL-1SG   coconut
           'My coconut for drinking'

According to Lichtenberk (1983b) the above sets of examples illustrate that the specific properties of the coconut only play an indirect role in the type of classifier that is used and that it is the real-world semantic relation between the two elements that play the deciding factor. The possessed item 'coconut' occurs with four different types of possessive classifiers in Paamese and with three different possessive classifier in North Ambrym, depending upon the intentional use by the possessor. In this respect the languages of Central Vanuatu fit in with Lichtenberk's analysis as possessed nouns appear to be able to switch between the different indirect possessive hosts resulting in a different semantic interpretation of the possessive phrase.

Pawley & Sayaba (1990) discuss possessive marking in Wayan, a Western Fijian language. They argue that the system there is a mixed system made up of relational classifiers and noun classes. They ask if the choice of indirect possessive host is reliant on a semantic feature of the possessed noun or the intended relation between possessor and possessed? (Pawley & Sayaba 1990: 152). Their survey of Wayan found six different morphosyntactic possessive constructions. Some nouns were restricted to only one type of possessive construction and thus these nouns belong to a particular noun class (Pawley & Sayaba 1990: 167). Other nouns could occur with different indirect possessive hosts. A noun could occur with the *ke* 'edible' host or the *me* 'drinkable' host when in a given context the item is viewed as a type of food rather than a type of drink and not simply because the item can be eaten or drunk.

Pawley & Sayaba do say that the distinction between nouns that occur in one noun class and those that can occur in different classes, is roughly akin to the distinction between alienable and inalienable split. That is the nouns that occur in just a single noun class are semantically inalienable and occur in direct possessive constructions and those that can occur in more than one class are semantically alienable and occur in indirect possessive constructions. This links in with the fact that relational nouns tend to only have one semantic interpretation and those non-relational nouns can have multiple semantic interpretations (Barker 1995). In conclusion Pawley & Sayaba (1990: 169) argue that the relational hypothesis be reinterpreted as the following:

i. Possessive marking is determined by the semantic relation holding between possessed and possessor, but that

ii. this relation is not constant for all situations.

In many languages, nouns that occur in direct possessive constructions can also occur in indirect possessive construction. This phenomenon and the corresponding phenomena of a noun occurring in different indirect possessive constructions has been termed 'fluidity' by Lichtenberk (2009a). Here he reiterates his claim that the fundamental pattern of possession depends on the semantic relation between possessor and possessed. For example, some directly possessed nouns in Tamambo (Vanuatu) can occur in indirect possessive

constructions too:

(22)   a.   *Nunu-ku*
               photo/picture/reflection/shadow-1sG
               'My photo/reflection/picture'

        b.   *No-ku*   *nunu*
               POSS.CL-1sG:POSS photo/picture
               'my photo(s)/picture(s) that belong(s) to me'

               Jauncey (2011: 229) as cited in Lichtenberk (2009a: 273)

The directly possessed noun *nunu* in (22-a) can also occur in indirect possessive construction (22-b) with a different semantic relation between possessor and possessed. Lichtenberk (2009a: 273) argues that there are cases when polysemy is the reason for the fluid nature of the possessive system in a language, such that in Araki *po* has two senses, 'pig' and 'pork' and these different senses are highlighted when occurring with different indirect possessive constructions, such that the general classifier would highlight the sense 'pig' and the edible classifier would highlight the sense 'pork'. Similarly the different classifier choice can be to do with the different referents of a noun, such that in Fijian *maqo* 'mango' can occur with the edible classifier when it is young and firm, but when it is ripe and juicy it will occur with the drinkable classifier (Lichtenberk 2009a: 274). There may also be a change in indirect constructions when the different relationship with the possessor, rather than the possessed, is in focus. For example in passive possessive constructions a possessed noun acts upon the possessor and thus the possessor is the patient or experiencer of an action associated with the possessed item forces a classifier change (This is described in more detail in sections 3.4.2 and 3.4.3). Lichtenberk (2009a) proffers some exceptions where one construction is expected but others occur, for instance kinship terms are expected to be encoded with the direct possessive construction as they are semantically inalienable, yet in some Oceanic languages some kinship terms occur in different constructions. This also occurs in North Ambrym where kinship terms occur in direct and indirect constructions (c.f sections 4.1 and 4.2). Other exceptions that occur are with some body parts which occur in indirect constructions, though these normally refer to internal organs (Crowley 1996, Lichtenberk 2009a). Again

these exceptions occur in North Ambrym (c.f. section 4.5). Lichtenberk argues that due to semantic/pragmatic constraints the use of some possessive constructions would be barred and "thus it is unlikely that the noun for 'father' would occur in the PM [possessum] position in the food or the drink possessive construction" (Lichtenberk 2009a: 282). Interestingly, this implausible construction does occur in North Ambrym and the reasons for this will be explained in chapter 8.

There is a constantly changing view of the nature of the possessive constructions in Oceanic, on the one hand the idea that they are rigid noun class systems is no longer believed, but that they are completely relational is also equally hard to fathom due to evidence from Pawley & Sayaba (1990). Though Lichtenberk (2009a: 281) disagrees and says that even if a possessive system lacks fluidity it is still nonetheless a relational system as the possessive construction types still encode different relations between possessor and possessed. However, Lichtenberk fails to distinguish a difference between possessive constructions in general, which by their very nature are relational as they encode a relation between the possessor and possessum, and relational classifier which encode the intended use of a possessed item by the possessed. Simply because these are possessive constructions does not entail that the possessive constructions are relational in the sense defined by Lichtenberk (1983b; 2009a) and these should be seen as two separate notions.

Aikhenvald (2000) states that there are two types of possessed classifier systems, those whose classifiers can only occur with a set of alienably possessed nouns and those whose classifiers can be used irrespective of noun type. Below is a comparison of definitions of possessed and relational classifiers taken from Aikhenvald (2000)

Possessed Classifiers

  i. They characterize nouns in terms of their animacy, shape, size and structure.
 ii. They are not expressed outside the possessive NP.
iii. Every noun in a language may not necessarily be able to take a possessed classifier.
 iv. Some languages can have a 'generic' possessed classifier which replaces

other, more specific classifiers.
(Aikhenvald 2000: 126)

Relational Classifiers

   i. They characterize a possessive relation between nouns.
  ii. They are not expressed outside the possessive NP.
 iii. Every noun in a language does not necessarily take a relational classifier.
      (Aikhenvald 2000: 133)

Aikhenvald's summary of relational classifiers misses the main argument of Lichtenberk's (1983b) account of relational classifiers in that the classifiers denote some real world relation between the referents of the possessor and possessed and it is the nature of the relation that dictates what classifier is used. One could equate the real world relation with agency or intentional use in that the relational classifier encodes the intended real-world relation between the referents possesor and possessed, thus if the possessor intends to eat or sell their pig, different classifiers would occur. If agency is the factor in determining intentional use of a possessed item then we are inferring that possessor arguments can only be animate. This is the case for North Ambrym, whereby only animate entities, human or non-human, can be possessors in a possessive construction involving a classifier.

Definitions (ii) and (iii) are the same for both types of classifiers. Aikhenvald does not talk about a generic classifier occurring in relational classifier languages, though this is a given in all languages where there are two or more classifiers in Oceanic and thus this is a slight distinction between relational and possessed classifier categories as with possessed classifiers only some languages have a generic classifier. But the fact that they are able to have a generic classifier shows their affinity to relational classifier systems. The only main difference in the definitions above is item (i) and this involves the characterisation of the type of classification of the noun, either a possessive relation between two nouns, in the case of the relational classifiers, or some attribute of the possessed, in the case of possessed classifiers. If we look at Panare, a Carib language from South America which has a possessed classifier system we can see that the classifiers that occur characterise the possessed noun ac-

cording to some attribute of it. But these attributes look akin to the relational classifiers found in Oceanic languages. There are classifiers for edible possessions, drinkable possessions, vehicles, containers, hunting arms, clothing and even a generic classifier that classifies lexemes that aren't characterised by other classifiers (Aikhenvald 2000: 128). Aikhenvald (2000) makes no mention as to whether a noun in a possessed classifier language can occur with more than one classifier so as to highlight different semantic attributes of an item. Though this should be assumed as her definition of classifiers does say that nouns can occur with different classifiers. If this is the case then this would bring the situation even closer to that of a relational classifier system. The question that arises from this discussion is are the classifiers in North Ambrym relation based or simply a possessed noun class system?. Is it the real world relation between the referents of the possessor and possessed or some semantic feature of the possessed that determines classifier choice? In chapter 6 the theory of relational classifiers is put to the test using different experiments that show the North Ambrym system is more akin to a possessed classifier system.

3.4.2. Proto Oceanic Reconstructions

As for Proto Oceanic (POc), Lynch (1996b: 95) determines that it also distinguished between direct and indirect possessive constructions. Direct constructions involved suffixation of a possessor pronominal on the possessed noun and with indirect constructions the possessor pronominal was suffixed onto a separate possessive marker. Lynch also states that the POc indirect constructions consisted of three different possessive markers or classifiers: *ma-* 'drinkable'; *ka-* 'edible and subordinate' and *na-* 'general'.

Though *na-* is the most widely reconstructed form of the general classifier, three other forms, *a-*, *ta-* and *sa-*, have also been reconstructed (Lynch 1996b: 105-106). Both the *na-* and *a-* markers are thought to have been derived from the POc common noun article which has been reconstructed as *na/*a also and thus the *na/*a possessive classifiers originated as one form (Lynch 1996b: 106). For the two other reconstructions, *ta-* and *sa-*, there are two hypotheses for the origin of these possessive markers. They are ei-

ther thought to have originated from the locative preposition *ta* or from the numeral 'one' or indefinite article *sa* or *ta*. Articles and numerals were not thought to be sources for the grammaticalisation of possessive constructions as per Heine (1997) (c.f. section 3.1).

The *ka-* classifier occurs not just with possessed items that are edible but also in subordinate or passive possessive constructions. These types of possession encode a relationship between possessor and possessed where the possessor is the undergoer or patient of the possessed as the following example from Fijian shows.

(23) a. **No**-mu i-vacu
         'Your punch (which you give)'
     b. **Ke**-mu i-vacu
         'Your punch (which you receive)'
         Fijian (Lynch 1996b: 97)

In (23-a) the general possessive classifier occurs as the possessor is the 'owner' of the punch but in (23-b) the possessor stands in a patient-like role and is the receiver of the punch and thus the relationship between possessor and possessed is characterised by lack of control. In fact Lynch (2001) argues against passive possession occurring in POc as will be shown in section 3.4.3.

3.4.3. Passive and Subordinate Possession

Research into passive and subordinate possession has been undertaken by Lynch (2001) and Palmer (n.d.). Lynch (2001: 195) proffers the following definition of passive possession.

a. Possession by the logical object of a nominalised verb (as in 'my having been hit');
b. Possession of nouns which are not nominalisations and which refer to things done to or about the possessor (like 'my wound - which I received' or 'her song/story - sung/told about her');
c. Possession of animate or inanimate nouns where the relationship is one

which might precipitate suffering on the part of the possessor - such as 'enemy', 'club' and other weapons (to be used on the possessor), and so on; and

d. Possession of other nouns which can be seen as being 'suffered' by the possessor - parasites, disadvantages, etc.

Lynch (2001: 196) also notes that possession of certain characteristics (size, weight ...) are often encoded the same way as those listed above. Lynch argues against the POc *ka* possessive classifier encoding passive possession as there are many languages where passive possession is encoded in direct possessive constructions or with a special passive possessive classifier or with the general classifier. Lynch (2001: 212) concludes that passive possession was actually marked by the direct possessive construction and that the *ka* 'edible' classifier merged with the affective preposition *ka-* at some point.

Palmer (n.d.) redefines passive possession as the opposition between canonical and non-canonical possession, where passive possession is but one type of non-canonical possession. In canonical instances the direct possessive construction is used to encode the intrinsic relation between a possessor and possessed, where the possessed is a body part, kinship term or part of a bigger whole. Canonical instances of indirect possession is where edible possessions occur with an edible host and so forth. Non-canonical instances of possession are when the different constructions occur with subordinate or passive possession.

In some Oceanic languages subordinate possession can occur in the direct possessive construction or not be possessively marked at all. Palmer (n.d.: 11) defines passive possession more narrowly than that of Lynch (2001)

"Passive possession is the distinctive formal treatment of possessum-possessor relations in which: a) the possessum acts on, is used on, or directly affects the possessor; or b) the possessor has no control over the possessum."

Thus the possession of intimate property, inherent characteristics and possession by subject matter should be seen as separate to passive possession yet all falling under non-canonical possession. Paamese, a language related to the

language of South-East Ambrym, encodes passive possession with the edible host:

(24) a. *Aai aa-n*
stick EDIBLE.CL-3SG
'His stick (he will be hit with)'

   b. *Aai ona-n*
stick GENERAL.CL-3SG
'his stick (he will hit someone with)'
Palmer (n.d.: 14)

Example (24) show the difference in control over the possessed item. In (24-a) subordinate possession appears with the edible classifier. Paamese also encodes several different types of subordinate possession, including negative affects on the possessor (25-a), possessions beyond the control of the possessor (25-b), particularising characteristics of the possessor (25-c) and temporary bodily afflictions (25-d) (note that normal or permanent sores are encoded with the general possessive host).

(25) a. *Ipu aa-m*
loss EDIBLE.CL-2SG
'Your loss or disadvantage (when playing a game)'

   b. *Ahol aa-m*
intended.spouse EDIBLE.CL-2SG
'Your intended spouse (reserved for you at birth because of your place in the kinship system)'

   c. *Haiali aa-n uit*
suckers EDIBLE.CL-3SG octopus
'An octopus' suckers (no other thing having such suckers)'

   d. *Manu aa-n*
sore EDIBLE.CL-3SG
'His/her (unusually large or numerous) sores'
Palmer (n.d.: 17; 38)

Intimate garments are perceived to be an inalienable part of the possessor and therefore occur in direct possessive constructions:

(26) *Tinivuse-n*
      penis.sheath-3SG
      'His/her penis sheath'
      Palmer (n.d.: 28)

However, Palmer also shows that in Paamese intimate possessions also occur with the drinkable possessive host:

(27) a. *Aim   ma-k*
          house DRINKABLE.CL-1SG
          'My house'

      b. *Aisin   ma-k*
          clothes DRINKABLE.CL-1SG
          'My clothes'
          Palmer (n.d.: 31)

Houses and their parts also occur with the liquid or drinkable (*man*) classifier in North Ambrym. This will be looked at in more detail in section 4.2 and chapters 6 and 7.

3.4.4. Verbal Aspects of Oceanic Possession

Section 3.4.1 showed how the same possessed noun could occur with different indirect possessive hosts. Lynch (1973: 76) argues that possessed nouns which occur with different indirect possessive hosts is

> "thus strong evidence that the lexical features of the possessed noun are not the primary factors conditioning the kind of construction that the noun appears in."

Lynch proposes that there is an underlying verbal structure to all possessive phrases and thus the possessed and possessor act like verbal arguments. Lynch (1973: 82) proposes that the underlying verbal structure is X [bilong] Y, where X is the possessed item functioning as the subject and Y is the possessor functioning as the object. *Bilong* is chosen here to represent the underlying schema as it occurs in all the possessive constructions in the pan Melanesian pidgin.

Lynch cites evidence that possession in Melanesian is underlyingly verbal because of the similarities between verbal object affixes and possessive pronouns in some Melanesian languages and also by the use of the transitive morpheme in Lenakel (Southern Vanuatu) to mark some possessive constructions. There is a distinction drawn between inalienable constructions, which are seen as obligatory, where the possessor has little or no control over the possessed, and alienable constructions, where there is a more distant relationship between possessor and possessed and the relationship is not obligatory. This distinction gives rise to a different underlying verbal form for alienable and inalienable possession such that:

(28)   My father = father [bilong] I
         Lynch (1973: 85)

Above the inalienable construction has only one underlying verbal form, whereas the alienable construction, below, has two underlying forms, with the second form embedded in the first:

(29)   My house = house [bilong] I
         I [have] house
         Lynch (1973: 85)

The second embedded structure is motivated by the fact that the possessor has some form of control over the possessed and may choose whether or not to 'have' the possessed (Lynch 1973). When there are different types of indirect possessive hosts then a further embedded structure such the following could be used:

(30)   My taro = taro [bilong] I
         I [have] taro
         I [eat] taro
         Lynch (1973: 89)

The third embedded underlying verb can be interchanged with drink, plant, etc. depending upon the different indirect possessive hosts. The idea that there are similarities between possession and verbal arguments has also been forwarded by Seiler (1983), who shows that there are similarities between possessive pronouns and subject and object pronouns. In general, possession could be seen as a binary valence relation between the possessor and the possessed and the indirect hosts could be seen to be linking the two elements together, similar to a verb. One of the problems with this hypothesis is that it is unable to handle non-canonical possession, such as passive and subordinate possession. Section 4.2 shows that in North Ambrym there are several non-canonical instances of possession where the 'edible' or 'drinkable' classifier occurs with non-edible and non-drinkable items and these could not be covered by underlying verbs of eating or drinking.

The idea that one could define specific verbs as underlying possession is very difficult considering that the relation between the possessor and possessed can sometimes be quite abstract. Also considering the evidence of passive or subordinate possessive relations as detailed in section 3.4.1. But there is a link between verbs of eating and drinking and the possessive classifiers that mark these relations. That is, the possessive marker *ka* and the verb *kani* in POc are very closely related especially considering the verb *kani* has the transitive marker *i* attached to it (Lynch 1982: 260). Similarly, the drinkable classifier *ma* is related to POc *inum* 'to drink'. Lichtenberk (1985) argues against Lynch's hypothesis as possessive markers may be derived from verbs but that does not entail that they are underlyingly verbal constructions as they could simply be deverbal nouns.

3.4.5. Syntactic Status of Classifiers

The last few sections have dealt with how possessive constructions in Oceanic encode different semantic relations between possessor and possessed. Most research conducted on possessive classifiers shy away from their syntactic status, for example Lichtenberk (1983b: 149) labels its status as 'uncertain'. However he does state that normally the possessed noun is the head and the possessor is its dependent. Likewise, Nichols (1988) suggests that the possessed noun

212

is the head. A recent paper by Palmer & Brown (2007), contradicts this claim and argues that in Kokota, a language of the Solomon Islands, and in other Oceanic languages, the head of the possessive phrase is whichever element the possessive indexing occurs with. Therefore, in direct constructions the head of an NP marked for possession would be the possessed noun as this is the element to which the possessive suffixation attaches. In indirect possessive constructions the possessive suffixation attaches to the indirect possessive host and therefore this should be the head of the phrase. Palmer & Brown (2007) argue that the possessive classifier passes several tests for headhood as set out by Zwicky (1993), including obligatoriness, category determinance, distributional equivalence and morphosyntactic locushood.

Palmer & Brown (2007: 203) use Lichtenberk's (1983b) argument that the indirect possessive hosts are relational classifiers and argue that as they classify the relationship between possessor and possessed that they "are the functionally most important constituent in the phrase" and as they are the most important part of the phrase they are therefore considered to be the head. In Kokota the idea that the indirect host is the only obligatory element in the phrase comes from utterances when the possessed noun is omitted. The following example from Kokota shows this:

(31) a. *N-e   ŋ̊a-di   manei [ɣe-gu   kaku]=ro*
          RL-3.SBJ eat-3PL.OBJ s/he   CNSM:CL-1SG banana=DEM
          'He ate my bananas'

      b. *N-e   ŋ̊a-di   manei [ɣe-gu]=ro*
          RL-3.SBJ eat-3PL.OBJ s/he   CNSM:CL-1SG=DEM
          'He ate my food'
          (Palmer & Brown 2007: 205)

Example (31-a) shows Kokota's consumable classifier ɣe occurring with a possessor suffix -gu and the possessed noun *kaku* 'banana' occurs to the right of the consumable classifier. In (31-b) there is no overt possessed noun. (Palmer & Brown 2007) use this as evidence to show that the possessive classifier is the only obligatory element in the possessive phrase and acts like a generic noun, which is the head of the construction and acts as the category determinant.

In indirect constructions the possessive host is marked and not the possessed noun. Palmer & Brown (2007) therefore argue that the possessive classifier is the head as this would keep marking uniform. However there is typological evidence to show that marking can occur on either the head or the dependent element in any phrase. Nichols (1988) does identify several languages which can either be head or dependent marked in possessive phrases, such as Turkish, Cochabamba Quechua, Arabic and Aleut. If there are languages that alternate between head and dependent marking in the possessive phrase then Palmer and Browns assumption that the possessive classifier must be the head as it is marked with morphology is erroneous as Kokota, and other Oceanic languages, could have a head/dependent marking split in the possessive phrase as there is already a typological precedent in other languages.

Lichtenberk (2009b) also does not agree with the analysis by Palmer and Brown that the possessive classifiers are generic nouns. Lichtenberk cites further evidence from languages that allow multiple classifiers and those that have a large number of classifiers. Multiple possession is defined by Lichtenberk (2009b: 395) as where

> "one possessive construction is nested within another one, and where the innermost possessum is identical for the two possessive constructions but stands in different relations to different possessors, at different structural levels".

Kokota itself allows this type of construction shown in (32), where both the dog and the 1sg.poss are the possessors of the medicine.

(32)   *no-gu*   *mereseni=na*   *mheke*
       CL-1SG.POSS medicine=3SG.POSS dog
       'my medicine for dogs'
       Lichtenberk (2009b: 396)

Lichtenberk argues that the ensuing syntactic analysis is [no-gu [mereseni=na mheke]] and this can be interpreted as the classifier *no* being the head and *mereseni=na mheki* its modifier with *mereseni=na* being the head of the modifier itself. Alternatively, it could also be that *mereseni* is the overall head of

the possessive phrase with *mheki* being an internal modifier and *no* being an external modifier.

Finally, languages that have lots of classifiers, like the Micronesian languages where the classifiers can be repeaters where the possessive pronominal attaches to a 'repeated' form of the possessed noun such as Kosraean where when *waa* 'canoe' is possessed the classifier is also *waa* (Lichtenberk 2009b). Lichtenberk argues then that the classifier cannot be noun-like as then why would the noun *waa* 'canoe' itself not be inflected for possessor marking rather than the classifier *waa*. In summary Lichtenberk argues that possessive classifiers are just that, a special syntactic category of their own and act as modifiers for the possessed noun head. The syntactic status of the indirect possessive host in North Ambrym is looked at in section 4.2 where it will be seen that the classifiers are unable to appear without a possessed noun or a particle that marks an elided possessed noun and can occur in multiple classifier constructions.

3.5. CHAPTER SUMMARY

This chapter has given an overview of what constitutes possession in the world's languages and moreover has looked at the semantics and syntax of possession in Oceanic. Briefly, it has been seen that possessive constructions encode a multitude of different relations between the possessor and the possessed and that strict ownership is but one of these. Oceanic possessives distinguish between alienable and inalienable possession using the grammatical distinction of direct and indirect possessive constructions. Chapter 4 will look at the different possessive constructions found in North Ambrym and will explain the syntax and semantics of these according to this literature review. This chapter has raised some interesting research questions that will be pursued further in this thesis. Firstly, how does North Ambrym encode the different semantic relations such as non-canonical and passive possession? This will be answered in sections 4.2 and 4.5. Secondly, the syntactic status of the indirect possessive host will be explored in section 4.2. Finally, are the indirect possessive hosts relational classifiers? This is the main topic of this thesis and this will

be answered in chapters 6 and 7.

Chapter 4

Possession in North Ambrym

As explained in section 3.4 the languages of Vanuatu generally have two main possessive construction types, namely direct and indirect. North Ambrym does not differ in this respect. The two different construction types occur with the two different noun classes, bound and free, as mentioned in 2.3.1. Example (1) shows the direct possessive construction where a bound noun is obligatorily marked by an element referring to a possessor, here a pronominal possessor suffix.

(1)   *Boto-m*
        head-2sɢ
        'Your head'

Direct possessive constructions will be looked at in detail in section 4.1. Free nouns are unable to be suffixed directly by a possessor pronominal and when occurring in a possessive construction the possessor pronominal attaches to an indirect possessive host, also known as a possessive classifier, as shown in (2).

(2)   *Ma-m we*
        cʟ-2sɢ water
        'Your water'

Indirect possessive constructions will be examined in section 4.2. Both of these grammatical constructions share the same set of possessive pronominals, which either attach to the bound noun or the indirect possessive host as shown in the previous two examples. Table 4.1 lists the form of these suffixes.

	Singular	Dual	Paucal	Plural
1.INC	—	*-ngrong*	*-ngsul*	*-ngken*
1.EX	*-ng*	*-maro*	*-masul*	*-ma*
2	*-m*	*-mro*	*-msul*	*-mi*
3	*-n, -te*	*-ro*	*-sul*	*-r*

Table 4.1: Pronominal possessor suffixes

The forms in table 4.1 are similar to the set of free pronouns in that the dual and trial forms have the forms for two and three fused to them. The 3sɢ suffix is *-n* for human possessors and *-te* for non-human possessors. When the possessor is a lexical noun, cross referencing of the possessor nominal occurs on either the bound possessed noun (3-a) or the indirect possessive host (3-b).

(3)   a.   *Ye-**n** bàrrbàrr ge li*
              leg-3 pig   sᴜʙ ᴘʀᴏx
              'This pig's leg'

    b.   *Meyee a-**n** bàrrbàrr*
              food   ᴄʟ-3 pig
              'Pig's food'

When the possessor is a lexical noun these are called complex possessive constructions, as opposed to simplex possessive constructions where only a possessor pronominal suffix occurs (Lichtenberk 1985). The occurrence of the third person cross referencing suffix depends upon certain properties of the possessor nominal which will be discussed in section 4.3. Section 4.4 explores the overlap between bound and free nouns and how they can occur in the different possessive construction types. Along with these two main types of possessive constructions, a third minor type of possession also occurs in the form of the associative construction, shown in 4.5.

4.1. DIRECT POSSESSIVE CONSTRUCTION

Bound nouns must take a possessor argument, either a pronominal possessor suffix that attaches to the bound root or a nominal possessor juxtaposed to the bound root. Therefore, bound nouns always occur in a direct possessive construction.

(4)   a.   *Rahe-**ng***
            mother-1sg
            'My mother'

        b.   *Rahe*   ***John***
            mother J.
            'John's mother'

        c.   **Rahe*
            mother
            INTD:'Mother'

Example (4-a) shows the pronominal possessor suffix attaching to the bound root *rahe* 'mother', whereas (4-b) shows a possessor noun phrase juxtaposed to the same bound root. Example (4-c) shows that if the bound root occurs on its own without recourse to a possessor then it is ungrammatical. The bound noun is the head of the direct possessive construction, its referent is the possessed item and it is the referent of the whole construction. In some cases when the possessor is a noun phrase, and thus a complex possessive construction, a third person cross referencing suffix, which is homophonous with the the 3sg possessor pronominal suffix, occurs on the bound noun itself and cross references the possessor nominal, as in the following:

(5)   *Bwete-n maalo*
       head-3   fish
       'The fish's head'

Compare example (5) where possessor cross referencing occurs and example (4-b), where no cross referencing of the possessor nominal occurs. The control constraints of the cross referencing suffix will be examined in section 4.3. The

word order of the direct possessive construction is shown in table 4.2.

Simplex	BOUND NOUN-POSSESSOR.PRONOMINAL
Complex	BOUND NOUN-(XREF) POSSESSOR

Table 4.2: Direct possessive construction word order

XREF occurs only when the POSSESSOR is a noun phrase and only when certain constraints are met. Direct possessive constructions function as NPs and can occur in either the S, A or P role or as the object of a preposition.

In the subject role of an intransitive verb:

(6) ***Ye-n*** *rro chen*
     leg-3SG CONT sore
     'His leg is sore'

(6) ***Bwete-n maalo*** *mwe   lam*
     head-3 fish   REC.PST[3SG] big
     'The fish's head is big'

In the agent role of a transitive verb:

(7) ***Taala John*** *ma   uhe ni*
     brother J.   REC.PST[3SG] hit 1SGP
     'John's brother hit me'

In the patient role of a transitive verb:

(8) *Te lingi **wo-te**   te   e   lim*
     PST put   fruit-3SG.NH NREC.PST[3SG] COP five
     'It bore five of its fruit'

Finally, as the object of a preposition

(9) *Marran e   brru   bya en **taali-ngken** ge bya li   bya ran mwir*
     die.NMLZ POT IRR.stay go at side-1PL.IN SUB go PROX go on left
     'A death will happen on our side here on the left'

Thus a possessive NP (PNP) functions the same as an NP.

4.1.1. Emotive Verbs

Bound nouns referring to parts of the body or having spatial references to the body occur in the subject position of one class of verbs that refer to feelings or emotions. The 3SG form of the recent past marker agrees in person and number with the bound noun itself and not the person number combination of the possessor pronominal suffix, which is 1SG.

(10)   a.   *Bye-ng   me   mal*
                  body-1SG REC.PST[3SG] tired
                  'I am tired (lit. my body is tired)'

            b.   *Lo-ng   mwe   cheene*
                  inside-1SG REC.PST[3SG] sweet.TR
                  'I like/want sth. (lit. my insides are sweet for sth.)'

            c.   *Lu-ng   mu   murr*
                  skin-1SG REC.PST[3SG] fright
                  'I am afraid (lit. my skin is afraid)'

            d.   *Lo-ng   sa*
                  inside-1SG don't.want
                  'I don't like/want (lit. my insides don't want/like)'

The previous examples refer to the body as a whole, the skin or the insides. These are specialised constructions where the possessor must be a possessive pronominal suffix and not a noun phrase. Possessor noun phrases may occur, but only in the pre-subject topic position. This is in direct contrast to example (6) where the direct possessive constructions with possessor noun phrases occurred in subject position.

(11)   a.   *[**John**] lo-n   mwe   hakbe*
                  J.   inside-3SG REC.PST[3SG] break
                  'John, he is sad (lit. John, his insides are broken)'

            b.   *[**Ye-ng taata**] lo-n   ma   alu   ni*
                  CL-1SG father inside-3SG REC.PST[3SG] angry 1SGP
                  'My father, he is angry with me (lit. my father, his insides are

angry with me)'

Again, the subject indexing particle agrees in person and number with the directly possessed noun head and the possessor pronominal suffix agrees with the person and number of the possessor nominal in the pre-subject topic position.

4.1.2. Recursion

Direct possessive constructions may be stacked recursively as long as the head construction is within the spatial scope of the modifying construction:

(12)   a.   ***Ye-n taala-n***
                leg-3 brother-3sG
                'His brother's leg'

        b.   *Ma   free kibwiti **gùrù li   maare***
                REC.PST[3sG] step break branch tree maare
                'She stepped and broke the branch of the maare tree'

In both the above examples the head of the direct possessive constructions are *ye* 'leg of' and *gùrù* 'branch of' which are both within the spatial scope of the modifying direct possessive construction *taala* 'brother of' and *li* 'tree of' respectively.

4.1.3. Modification and Quantification

Direct possessive constructions may be modified by adjectives, the indefinite article and subordinate phrases or by quantifiers. Adjectives may modify directly possessed nouns and always occur following the direct possessive construction.

(13)   a.   *Ra-te   **kakai***
                leaf-3sG.NH small
                'Its small leaves'

    b.   *Bwete-n maalo **kakai***
        head-3 fish   small
        'The small fish's head/the small head of the fish'

In (13-a) the adjective modifies the head of the direct possessive construction, namely the bound noun *ra* 'leaf'. However, in (13-b) the reading of the modified construction is ambiguous as the adjective may modify the possessor noun phrase or the bound noun. There is no modifier position between the possessum and the possessor slots as these two are tightly packed together and nothing can intervene between these two elements. The possessor is a complement of the bound noun and must be realised as either a pronominal suffix or a nominal complement. The possessor is not optional like a modifier and thus is a complement. Ambiguity of this kind can be overcome by using an associative construction as shown in (14).

(14)   *Paul me   farr ran boko lam **ne** ye John*
        P.   REC.PST[3SG] stand on digit big ASS leg J.
        'Paul stood on John's big toe'

Example (14) shows the adjective *lam* 'big' modifying the free noun boko 'digit'[1] and is linked to the direct possessive construction *ye John* 'John's leg'[2] by an associative preposition *ne* (c.f. section 4.5).

The numeral *hu* 'one' functions as an indefinite article in the following:

(15)   *Puskat ma   ngene bwete-n maalo **hu***
        cat   REC.PST[3SG] eat   head-3 fish   IND
        'The cat ate a fish's head'

Quantifiers are similar to adjectives in that they can lead to ambiguous quantification of the possessor or possessed in direct possessive constructions with a possessor noun phrase.

---

[1]Note that *boko* 'digit' is normally a compound bound noun phrase such as *boko-n ye-n* 'his toe'.

[2]*Ye* 'leg of' refers to the whole leg including the foot; similarly *vera* 'arm of' refers to the whole arm including the hand.

(16) a. *Taala-ng* **wor hu** *err*   *rro* *vya lon makerr*
         brother-1SG some one 3PL.NREC.PST CONT go in market
         'Some of my brothers went to the market.'

   b. *Taala-n* *vanten* **nyer**
       brother-3 person 3PLP
       'A person's brothers/the peoples brothers'

In (16-a) the direct possessive construction is quantified by *wor hu* 'some' and in (16-b) the complex direct possessive construction is quantified by *nyer* the 3PL free pronoun, which acts as a quantifier.

Finally, relative clauses introduced by the general subordinator *ge* may modify the direct possessive construction. However, in complex direct possessive constructions either the possessor nominal or the bound noun can be modified by a relative clause as shown in (17).

(17) a. *Te*   *vya kuru* *boto-n vanten* **ge** **te**
         NREC.PST[3SG] go collect head-3 person SUB NREC.PST[3SG]
         ngenean ho
         eat.NMLZ stay.PL
         'He went and collected the heads of the people who had been eaten'

   b. *Tilin* *tolo Yafu* **ge mo**   **roune ken**
       sound-3 voice God SUB REC.PST[3SG] help   1PL.inP
       'God's voice helps us'

In (17-a) it is the people and not the heads have been eaten and the relative clause modifies the possessor nominal. In (17-b) it is the compounded bound noun *tilin tolo* 'sound of the voice' that is modified by the relative clause and not the possessor nominal *Yafu* 'God'. Ambiguity can thus arise and is normally resolved by simply modifying a simplex direct construction instead. Thus (18-a) is ambiguous as to what the relative clause modifies, but the simplex construction in (18-b) it is clear that the relative clause modifies the bound noun.

(18)   a.   *Ye-n bàrrbàrr ge   li*
            leg-3 pig   SUB PROX
            'This pig's leg/this leg of the pig'

       b.   *ye-n   ge   li*
            leg-3SG SUB PROX
            'This leg of his'

The modification of bound nouns in complex constructions by relative clauses is quite rare in the corpus and thus this is an ideal way of not causing ambiguous utterances.

4.1.4. Inalienability

Semantically the direct possessive construction encompasses possessed referents that are deemed to be inalienable possessions of the possessor (c.f. chapter 3). What is deemed inalienable is very language specific, but generally includes kinship terms, body parts and parts of wholes (Chappell & McGregor 1996). These three semantic categories are all found in North Ambrym, along with a few other subtypes which will be explained below.

4.1.4.1. Kinship Terms

Each kinship term can have multiple referents, for instance, *rahen* 'his mother' can mean his maternal mother, his maternal aunties, his paternal aunties' husbands' sisters or his maternal uncles' granddaughters. Table 4.3[3] details the bound kinship terms along with their nuclear meaning. For a more in-depth discussion on kinship in North Ambrym see section 8.1.

Free noun alternatives are found that roughly correlate to the referents of their bound noun counterparts which can be used vocatively. These will be looked at in 4.2.4.

---

[3]All of the items listed in the tables in this section occur with the 3SG possessive pronominal suffix *-n*.

Kinship Term	Male Ego
tahan	his family
rahen	his mother
teman	his father
tin	his offspring
iyunan	his sister
itnan	his paternal auntie
mùson	his maternal uncle
taalan	his brother
tubyun	his grandparent
wonyon, *yala-n*	his sister's son

Table 4.3: Bound noun kinship terms

4.1.4.2. Body Parts

Table 4.4 shows the body parts that are all bound nouns. Internal body parts normally occur in associative constructions and this will be looked at in section 4.5. Non-human body parts such as animal body parts also occur and these are shown in table 4.5. Here the lexemes occur with the non-human 3SG possessive pronominal suffix *-te*.

Bound Noun	Gloss	Bound Noun	Gloss
byen	his body	*hùn*	his breast
tablin	his body	*non*	his face
wun	his body part	*wan*	his penis
guhun	his nose	*lohon*	his scrotum
ngen	his gum	*kenen*	her vagina
metan	his eye	*bongon*	his lips
yen	his leg	*rralnyen*	his ear
balsin	his cheek	*veran*	his hand
boton	his head	*lowon*	his tooth
mean	his tongue	*haalun*	his back
woulun	his hair	*geren*	his backbone
mun	his beard	*fàn*	his mouth
tebàn	his belly	*lun*	his skin
ban	his shoulder		

Table 4.4: Bound noun body parts

Not just body parts but also body products are bound nouns in North Ambrym

226

Bound Noun	Gloss
byùte	its wing
lengate	its scales
woulute	its feathers/hair

Table 4.5: Non-human body parts

and table 4.6 depicts these.

Bound Noun	Gloss
mihun	his urine
sen	his excrement
rran	his blood
malten	his saliva
hun	her breast milk/his semen
tùlùte	its egg

Table 4.6: Bound noun body by-products

Not all bodily by-products are bound nouns, some are free nouns and these are shown in table 4.7.

Free Noun	Gloss
horou	sweat
loan	vomit (nominalised)
meno	sore
kolkol	scabies
rrol	earwax

Table 4.7: Free noun body by-products

Other intrinsically linked inalienable possessions that are deemed part of the possessor and act as relational nouns are shown in table 4.8.

The direct possessive construction also covers some physical items that are deemed more intimate possessions, as shown in table 4.9.

Bound Noun	Gloss
hilgin	his possession
tolon	his voice
nonon	his shadow/reflection
main	his breath
san	his name
wirin	his debt
wulun	her price

Table 4.8: Intrinsic possessions

Bound Noun	Gloss
telete	its tether
tùnyùn	his sleeping mat
vyuusùn	his bow and arrow
towon	his penish sheath
tivin	her grass skirt

Table 4.9: Intimate possessions

4.1.4.3. Parts of wholes

Parts of wholes differ semantically to body parts in that the possessor argument is semantically inanimate. The largest group of parts of wholes are parts of trees as shown in table 4.10.

A special suffix can attach to bound nouns that denote trees and their parts. The suffix *-ye*, glossed as NSP 'non-specific' in (19), denotes that the tree or tree-part is no longer a bound noun but a free noun with no reference to its whole. This is often used in discourse to talk about trees or fruit without talking about what type they are. The following example shows this:

(19) *Te   ktu **li-ye**   hu sa-n   nge li   tor*
      NREC.PST[3SG] take tree-NSP IND name-3SG TOP tree wild.cane
      ra-te   ma   breù ho
      leaf-3SG.NH REC.PST[3SG] long stay.PL
      'He took a tree, its name is the wild cane tree, its leaves are long'

In (19) *li* 'tree of' simply means tree and no type is specified as the *-ye* non-

228

Bound Noun	Gloss	Bound Noun	Gloss
lite	its tree	*silite*	its log
wote	its fruit	*asite*	its stem
lute	its bark	*basite*	its stump
gùrùte	its branch	*awute*	its mature shoot
howote	its forking branch	*rrete*	its sap
libwite	its roots	*balete*	its trunk
tute	its hollow	*marrite*	its hole
hiingite	its thorns	*lisite*	its stone
kovute	its pith	*kutute*	its seed
tivite	its shoot	*late*	its bunch
wingite	its flower	*aurite*	its branch

Table 4.10: Tree parts

specific suffix occurs. The second instance of *li* occurs with the type specified, namely *tor* 'wild cane'. The next bound noun *ra* 'leaf of' occurs with the normal non-human 3sG possessor pronominal showing that it has a possessor, which has been mentioned previously, that is *li tor*. The non-specific suffix can occur with all tree parts mentioned in table 4.10 and *liye* 'tree', *woye* 'fruit' *gùrùye* 'branch' are common occurrences in the corpus. *Raye* 'leaf' is less common as *raki* 'leaf' normally occurs instead. *-ki* functions the same as *-ye* but only with *ra* 'leaf of'. Other parts of wholes are shown in table 4.11.

Bound Noun	Gloss
wute	its blade
tangvate	its broken piece
haute	its flame
hivite	its small piece
rrurrute	its leftovers
romoromote	its tassels
rrute	its half
kilite	its meat/fat
hemate	its waste product

Table 4.11: Parts of wholes

A few bound nouns refer to imprints and impressions such as *milite* 'its imprint', *bwirite* 'its mark' and *bwebwete* 'its sign of black magic'. The final large group of parts of wholes refer to locations in the whole as shown in 4.12.

229

Bound Noun	Gloss
bwetete	its top
tote	its middle
bunsi	its bottom
girite	its end
barite	its beginning
farrbate	its underneath
site	its side
taalite	its side
tahite	its side
tobiilate	its side
tosite	its boundary
siirite	its edge

Table 4.12: Locations

4.1.5. Bound Noun Compounds

Bound noun compounds occur when two bound nouns superficially appear juxtaposed together, as shown in (20).

(20) *Bu-n   ye-n*
      joint-3 leg-3sG
      'His knee'

Bound noun compounds are not two bound nouns with two seperate referents but are grammatically one construction. (20) refers to a single conceptual entity and not to two entities. A change in word order results in ungrammaticality and thus structurally it is a single construction. The initial bound noun is unable to occur on its own with the full set of possessive pronominal suffixes and it must either precede another bound noun as in (20) or precede a free noun, in which case no possessor is evident, as in (21).

(21) *Bu   la*
      joint leg
      'Knee'

(21) is still a direct possessive construction and now resembles a bound part-whole construction where the possessor is inanimate and can be compared to (22).

(22)   *Bu   liye*
         joint tree
         'A tree's knot'

Animacy constraints on the occurrence of the possessor cross referencing suffix will be looked at in section 4.3. Semantically, these constructions often refer to sub-body parts or sub-parts of wholes. Table 4.13 lists some of the bound noun compounds.

Complex Bound Noun	Example	Gloss
bu 'joint'	*bun yen*	his knee
	bun veran	his elbow
boko 'digit'	*bokon yen*	his toe
	bokon veran	his finger
bwela 'shell/cover'	*bwelan metan*	his eyelid
bulu 'hole'	*bulun sen*	his anus
	bulun guhun	his nostril
bo 'smell'	*bon main*	the smell of his breath
tili 'sound'	*tilin tolon*	the sound of his voice

Table 4.13: Bound noun compounds

Some of these bound noun compounds can also occur as simplex bound nouns but only when the possessor has inanimate reference where the construction refers to parts of wholes. For example, *bulu* 'hole of' can occur in *bulu we* 'water hole' and *bwela* 'shell of' can occur in *bwela ol* 'coconut shell'.

4.2. INDIRECT POSSESSIVE CONSTRUCTION

Indirect possessive constructions occur when the possessum belongs to the class of free nouns (23-a) or has an inanimate referent (23-b). Indirect possessive constructions never occur when the possessum nominal is a bound noun which refers to a human kinship term or body part. The set of possessor

231

pronominals attach to the indirect possessive host, also known as a possessive classifier.

(23) a. *A-**n** to*
          CL-3SG fowl
          'His fowl'

      b. *A-**n** wo mango*
          CL-3SG fruit mango
          'His mango fruit'

Complex indirect possessive constructions also occur when the possessor is a noun phrase as in (24).

(24) *Bàrrbàrr a Massing*
      pig   CL M.
      'Massing's pig'

Complex indirect possessive constructions differ to their counterparts in direct possessive constructions. Here the word order changes from [CLASSIFIER POS-SESSOR POSSESSUM] to [POSSESSUM CLASSIFIER POSSESSOR]. Table 4.14 shows the schema for word order in both types of possessive constructions.

	Simplex	**Complex**
Direct	POSSESSUM-POSSESSOR	POSSESSUM-(XREF) POSSESSOR
Indirect	CL-POSSESSOR POSSESSUM	POSSESSUM CL-(XREF) POSSESSOR

Table 4.14: Word order schema for possessive constructions

Indirect possessive constructions have the same grammatical roles as direct possessive constructions, namely they can appear as the subject of an intransitive verb and the agent and patient role of a transitive verb, along with the object of a preposition.

Example (25) shows an indirect possessive construction may occur as the subject of an intransitive verb.

(25) *Mwe-ng mel   mu   rru towel*
      CL-1SG   nakamal REC.PST[3SG] stay down

232

'My nakamal is down there'

Example (26) shows an indirect possessive construction may occur as the agent of a transitive verb:

(26) **Ye-ng taata** *ge hu ma   ktu skul   me*
      CL-1SG father that one REC.PST[3SG] take church come
      'One father of mine brought the church'

An indirect possessive construction may occur as the patient of a transitive verb, as shown in (27)

(27) *Nam   ngene* **ye-ng rrem**
      1SG.REC.PST eat   CL-1SG yam
      'I ate my yam'

Finally as the argument of a preposition:

(28) *Te   torr vya fu rru fan   **ma-n bweye***
      NREC.PST[3SG] roll go lay stay under.3 CL-3SG cave
      'He rolled it and stopped under his cave'

4.2.1. Recursion

Indirect possessive constructions may be stacked recursively, similar to direct possessive constructions as in (29). (29-a) shows a complex indirect possessive construction where the possessor slot is filled by a simplex indirect possessive construction. While (29-b) the possessor slot is filled with another complex indirect possessive construction.

(29) a. *[We   [ma [ye-ng taata]]]*
          water CL   CL-1SG father
          'My father's water'
      b. *[We   [ma [taata a   Totang]]]*
          water CL   father CL T.

233

'Totang's father's water'

Alternatively the possessor slot may be filled by a direct possessive construction as in (30).

(30)   a.   *[Im   ma [taala-ng]]*
           house CL brother-1SG
           'my brother's house'

         b.   *[im   ma [taala Massing]]*
           House CL brother M.
           'Massing's brother's house'

Thus either a direct or indirect construction can appear in the possessor noun phrase of an indirect possessive construction.

4.2.2. Modification and Quantification

The different strategies for modification of indirect possessive constructions are the same as for direct possessive constructions: Adjectives, the indefinite article, quantifiers and subordinate phrases. Unlike direct possessive constructions, either element of the indirect possessive construction, the possessum or possessor, can be modified directly.

Adjectives can modify either the possessum as in (31-a) or the possessor as in (31-b).

(31)   a.   *[Amkumku **frifri** [mwena Tom]]*
           truck   red   CL   T.
           'Tom's red truck'

         b.   *[[Bu [mwena-n bwehel **kakai**]] ge   a]*
           song CL-3   bird   small   SUB PROX
           'This small bird's song'

Similarly the indefinite article can appear in the same position as adjectives, either post possessed nominal (32-a) or the post possessor nominal (32-b).

234

(32) a. *[Plan **hu** [mwena God]]*
          plan IND CL   G.
          'A plan of God's'

      b. *Kor   kuku [ul   [mwena-n teere vehen **hu**]]*
          remove out clothes CL-3   child woman IND
          'He removed the clothes of a girl'

Quantification works similarly, *wor hu* 'some' quantifies the possessum in (33-a) and *nyer*, the 3PL independent pronoun quantifies the possessor in (33-b)

(33) a. *John te   tnu [atuuntuun **wor hu** [mwena-n*
          J.   NREC.PST[3SG] light torch   some one CL-3
          vanten hu]]
          person one
          'John lit some of a persons torches'

      b. *[Rrin [mwena-n temto   **nyer** ta   marin]]*
          myth CL-3   ancestor 3PLP from before
          'A custom story of the ancestors from before'

However, when the quantifier occurs after the possessor nominal, context distinguishes whether it quantifies the possessor or possessum, as shown in (34).

(34) a. *John te   ngene [[ol   [mwena Paul]] **wor hu**]*
          J.   NREC.PST[3SG] eat   coconut CL   P.   some one
          'John ate some of Paul's coconuts'

      b. *John te   tnu [[atuuntuun [mwena-n vanten]]*
          J.   NREC.PST[3SG] light torch   CL-3   person
          ***nyer**]*
          3PLP
          'John lit all the peoples torches'

In (34-a) though the quantifier appears after the possessor it only quantifies the possessum as proper nouns cannot be quantified. In (34-b) the most natural reading is of where the quantifier affects both the possessor and possessed. Deictic demonstratives that are introduced by the general subordinator *ge* modify either the possessor or the possessum in (35).

(35) a. *Te   a rro kor   kuku [ul   [mwena-n teere*
          NREC.PST[3SG] go CONT remove out   clothes CL-3   child
          *vehen **ge   a]]***
          woman SUB PROX
          'He went and was removing the clothes of this girl'

      b. *[Beta   **ge   a**   [a-n Liseseu]]*
          breadfruit SUB PROX CL-3 L.
          'This is Lisepsep's breadfruit'

Example (35) shows that either the possessum or possessor can be directly modified. A full indirect possessive phrase can be topicalised to initial clause position, just like any other NP as in (36).

(36) *[**Ye-ng ol   nge***] John ma   ngene*
      CL-1SG coconut TOP   J.   REC.PST[3SG] eat
      'My coconut, John ate it'

The possessor nominal can also be topicalised as in (37).

(37) *[**Tabaa**]   mwena-n vehen ge   a*
      respected.man CL-3SG   woman SUB PROX
      'this man, his wife here'

The possessum can also be topicalised:

(38) *[**Bwehel ge moro   rrya bya le**] Batik bya rro fne*
      bird   SUB 3DL.REC.PST carry go MED B.   go CONT roast
      [a-n   ge]
      CL-3SG PART
      'The birds that they carried there, Batik went and roasted his'

The indirect possessive phrase *an ge* shows the possessive classifier along with a particle *ge*. This particle acts as a marker to show the head of the indirect possessive construction has been elided, but is recoverable from discourse or from context. For instance if someone was holding a banana and said *am ge* 'this is yours' then the head noun *vii* 'banana' is pragmatically recoverable.

4.2.3. Syntactic Status of the Possessive Classifier

The syntactic status of the possessive classifier in Oceanic was raised in section 3.4.5. There were two main arguments, either that the classifier is the head of the construction and acts like a generic noun (Palmer & Brown 2007) or that the possessive classifiers are a special syntactic category and act like modifiers to the possessed noun head (Lichtenberk 2009b). The possessive classifiers cannot be generic nouns in North Ambrym as they are unable to occur in constructions without a possessed nominal and are therefore dependent upon the possessed noun. They must always occur with a possessed nominal. The possessed nominal can be elided, though it is always recoverable from context and marked accordingly by a special particle *ge* which occurs in the elided possessed nominals position as shown in (38). As the possessive classifier is not the only obligatory element, it fails one of Zwicky's (1993) tests for headhood. It also follows that as it is not the only obligatory element it is also not the category determinant either, which is another criteria for headhood. In Kokota the possessed noun occurs in the modifier slot and thus can not be the head. In North Ambrym, modification occurs to the right of the head and the possessed noun also occurs to the right of the classifier, as shown in (39).

(39)   a.   *Amkumku frifri*
            truck   red
            'The red truck'

    b.   *Mweneng amkumku*
            CL.1SG   truck
            'My truck'

However, when the indirect possessive construction is complex and the possessor is a nominal the word order changes so that the possessed nominal is no longer to the right of the possessive classifier, as shown below.

(40)   *amkumku a John*
       truck   CL J.
       'John's truck'

Therefore word order of the possessive phrase can not be use to determine the syntactic status of the possessed noun. Lichtenberk (2009b) argues that multiple classifier constructions could also point to the modificational status of the possessive classifier. Example (41) is an example of this phenomenon in North Ambrym.

(41) *ye-ng* **ye-n** *to*
      CL-1SG leg-3 fowl
      'My fowl's leg'

At first, example (41) looks like recursion, but both *to* 'fowl' and the 1SG are the owners of the leg, as the fowl may actually belong to someone else but just its leg belongs to the possessor. Thus both the possessive classifier and the possessor nominal act like modifiers here.

In conclusion there is no evidence to support the analysis that possessive classifiers are heads of the indirect construction and instead it is best to leave them as a special syntactic category of their own.

4.2.4. Alienability

The indirect possessive construction contrasts semantically with direct possessive constructions, which were said to cover semantic inalienability (c.f. section 4.1.4). Indirect possessive constructions generally occur when the possessed item is considered alienable. There are five different possessive classifiers whose collocations with possessed entities are semantically motivated.

According to Oceanic tradition possessive classifiers are given mnemonics that are rough semantic labels that define what kinds of entities they occur with. These labels should not be taken as absolute as sometimes seemingly semantically unrelated entities occur in these categories. The following sections are labelled after the 3SG form of the possessive classifier and therefore all end with the *-n* 3SG possessive suffix.

4.2.4.1. *An* Classifier

Under the Oceanic tradition the *an* classifier would be called the 'edible' classifier as for the most part items that are considered edible occur with it, as (42) shows.

(42)   *Te*   *kokou*   ***a-n***   **bwehel**
           NREC.PST[3SG] RED.throw CL-3SG bird
           'He threw away his bird'

The 'edible' classifier generally has the morphological shape *a* to which the set of possessor pronominal suffixes (shown in table 4.1 attach to, yet when occurring with the 1SG possessor pronominal suffix the form of the classifier changes to *ye* as in (43).

(43)   *Ey si nge rro yo* **ye***-ng beta   li?*
           INTJ who TOP CONT pick CL-1SG breadfruit PROX
           'Hey who is picking my breadfruit here?'

Canonically the 'edible' classifier occurs with possessed nouns denoting edible items such as animals, fruit (and the trees that bear them) and crops. Non-canonically it occurs with items that may be associated with food such as *ayi* 'machete', *teye* 'ax' *abol* 'tongs' and *plet* 'plate'. The 'edible' classifier may also be used with lexemes denoting units of time such as *huwo* 'year' and *ol* 'month'. Interestingly, *rrem* 'yam' may be used to denote 'year', as years are counted in yam seasons. the two lexemes for years are shown in (44).

(44)   a.   ***Ye-ng huwo*** *be 77*
               CL-1SG year   COP 77
               'I am 77'

        b.   *Ye-ng rrem*
               CL-1*sg* yam
               'My years'

Kinship terms were previously described as occurring as bound nouns in direct possessive constructions (c.f. section 4.1.4.1). Most of those kinship terms have a free noun counterpart and some of these occur with the *an* classifier as shown in table 4.15. This is perhaps evidence for passive possession as the possessor have no control over the possessed kin. This will be looked at further in section 8.1.

Bound Noun	Free Noun	Denotata
rahe-n	*a-n mama*	his mother
tema-n	*a-n taata*	his father
itna-n	*a-n ina*	his paternal auntie
mùso-n	*a-n song*	his maternal uncle
tubyu-n	*a-n tutu*	his grandparent

Table 4.15: 'Edible' kinship nouns

Clearly not all possessed nouns are edible that occur with the *an* classifier. A more in-depth semantic analysis of the *an* classifier is given in section 8.1.

4.2.4.2. *Man* Classifier

The *man* classifier would be called the 'liquid' or 'drinkable' classifier. Different liquids such as *we* 'water' and *tee* 'saltwater' occur with this classifier as shown in (45).

(45)   *Massing te   mnu   **ma-n   we***
        M.   NREC.PST[3SG] drink CL-3SG water
        'Massing drank his water'

Similarly to the *an* classifier the morphological form of the drinkable classifier alters when the 1SG possessive pronoun attaches to it. The form of the stem in (46) is *mwe*.

(46)   *Nam   mnu   **mwe-ng** we*
        1SG.REC.PST drink CL-1SG   water
        'I drank my water'

240

This classifier not only covers liquids but also containers for liquids:

(47)   ***Mwe-ng bwela-ye***
       CL-1SG   container-NSP
       'My drinking vessel'

Interestingly the drinkable classifier also occurs with possessed nouns denoting houses and parts of houses:

(48)   *John bya lon* **ma-n** **im**   *tere*   **ma-n** **bulufatau**
       J.   go in CL-3SG house through CL-3SG doorway
       'John went in his house through his doorway'

The use of the drinkable classifier for objects such as these occurs in other Central Vanuatu languages and has been explained as an 'intimate' or 'domestic property' classifier. For instance in Lewo, a language of neighbouring Epi island Early (1994: 212) talks about the dual functionality of the liquid classifier and that:

> "The second set of items includes those that are associated with aspects of domestic life, such as home, house, some house parts (such as door, and hence, figuratively, family), sleeping-mats and pillows (and hence modern beds and bedding), and some articles of clothing, particularly those one pulls over ones head or puts around ones shoulders (such as shirt, dress, jacket, but not trousers)"

Similar to Lewo, *hul* 'mat' also occurs with the drinkable classifier. However, clothing is not included with this classifier in North Ambrym. One body part can also occur with the drinkable classifier, for obvious semantic reasons (49).

(49)   *Ma-n   huu*
       CL-3SG breast
       'Her breast'

Though the translation above refers to a female, this classifier is still used regardless of gender and the referent can still be a male. Finally holes are often

classified with this classifier, so *bulu* 'hole of' and *tuye* 'hollow of tree' occur
with the *man* classifier. An in-depth discussion of the unifying semantics of
the *man* classifier is given in 8.2.

4.2.4.3. *Ton* Classifier

The *ton* classifier only seems to occur with one lexeme *arrbol* 'basket':

(50) *Nam   lingi rrem be ru   lon **to-ng** arrbol*
      1SG.REC.PST put   yam COP two in   CL-1SG basket
      'I put two yams in my basket'

Different types of basket also occur with this classifier, though are normally in
a compound-like construction with *arrbol* being the head such as *arrbol beta*
'breadfruit basket' and *arrbol bwereù* 'long basket'

4.2.4.4. *Bon* Classifier

The *bon* classifier occurs with lexemes that denote fire and associated items.
Fyang 'fire', *yem* 'firewood', *barrni* 'firebrand' and *fwerrye* 'firebrand for sleep-
ing with' all occur with the *bon* classifier.

(51) *Nam   tunu **bo-ng** fyang*
      1SG.REC.PST light CL-1SG fire
      'I lit my fire'

Like the *ton* classifier there are only a limited amount of lexical items that can
occur with this classifier.

4.2.4.5. *Mwenan* Classifier

The *mwenan* classifier covers all the semantic domains not included with the
other classifiers and is usually called the 'general' or 'residual' classifier in

other Oceanic languages. Derived nominals representing abstract nouns occur with the general classifier:

(52)　***Mwena-n*** *rrinrrin=an*
　　　CL-3SG　think=NMLZ
　　　'His opinion'

When this classifier is inflected for 1SG the stem changes from *mwena* to *mwene* as shown in (53).

(53)　***Mwene-ng*** *mese=an* *mwe* *hel* *ten*
　　　CL-1SG　sick=NMLZ REC.PST[3SG] strong too.much
　　　'My sickness is really bad'

Some free noun kinship terms do occur with the *mwenan* classifier, such as *metahal* 'sister' and *metauno* 'sister's son'. The reason for this will be explored in section 8.1.

4.2.4.6. Summary

Table 4.16 summarises the semantic domains of the indirect possessive hosts.

Classifier	Semantic Function
an	food items
	tools
	units of time
	some kinship terms
man	liquids
	items used for containing liquids
	intimate possession
	holes
ton	baskets
bon	fire
	items used for fire
mwenan	all other alienable items
	some kinship terms
	derived Nominals

Table 4.16: Semantic domains of the classifiers

4.3. POSSESSOR CROSS REFERENCING

Lichtenberk (1985) distinguishes between simplex and complex possessive constructions. Simplex constructions are those that have a pronominal possessor suffix that references the possessor and appears on either the bound noun or the indirect possessive host.

Complex constructions occur when the possessor is a lexical noun and this type will be the focus of this section as it is in this type of construction when cross referencing of the possessor occurs. Lichtenberk distinguishes between three subtypes of complex possessive constructions:

i. Nominal head possessor
ii. Personal pronoun possessor
iii. Special possessive pronoun
    (Lichtenberk 1985: 97)

Only the first subtype will concern us here as this is the type that occurs in North Ambrym. Lichtenberk makes a further distinction between complex constructions that cross reference the possessor in another part of the possessive construction, that is either on the bound noun in a direct possessive con-

struction or on the indirect possessive host or possessive classifier in indirect possessive constructions. The following list shows Lichtenberk's findings:

i. Complete cross referencing (person and number marked)
ii. Partial cross referencing (person marked)
iii. Construct cross referencing (special construct suffix different to 3SG and 3PL markers)

(Lichtenberk 1985: 98)

In North Ambrym, the cross referencing suffix is *-n* and is homophonous with the 3SG possessive suffix. However, the cross referencing suffix only agrees in person and not in number with the possessor noun, as shown in (54).

(54)   *[Rrin [mwena-**n** temto   nyer]] ta   marin*
       myth CL-3   ancestor 3PLP   from before
       'A custom story of the ancestors from before'

In (54) the cross referencing suffix agrees only in person with the possessor nominal, despite being marked for plural. Thus, possessor cross referencing in North Ambrym is a partial cross referencing system as only person and not number is marked.

The cross referencing suffix attaches to the bound noun or to the possessive classifier, dependent upon the grammatical type of the possessive phrase:

(55)   a.   *Ye-**n** bàrrbàrr ge   li*
            leg-3 pig   SUB MED
            'This pig's leg'

       b.   *Meyee a-**n**   bàrrbàrr*
            food   CL-3 pig
            'Pig's food'

There is regular alternation between the presence and absence of the cross referencing suffix and the different constraints of its occurence are laid out in the following sections. Human animate possessors in 4.3.1, non-human animate possessors in 4.3.2 and inanimate possessors in 4.3.3.

4.3.1. Human Animate Possessors

When the possessor noun is a proper noun (56-a) or a kinship term no cross referencing suffix occurs. Kinship terms may either be realised as a bound noun or as a free noun. Free noun kinship terms can occur in indirect possessive constructions. Both of these possessor nominal types control zero encoding of the suffix as shown in (56-b) and (56-c).

(56)   a.   *Huu **ma** Tol Taasum*
                breast CL Tol Taasum
                'Tol Taasum's breast'

        b.   ***Bwete** tomomro nga nge le*
                head   father.2DL just TOP PROX
                 'This is just your (dl.) father's head'

        c.   *Telo ngrengre vya lon im   **ma** mweneng brata*
                NEG able   go in house CL CL.1SG   brother
                'She is not able to go in my brother's house'

The examples above contrast with human common noun possessors that always control agreement with the cross referencing suffix. The suffix occurs regardless as to the number of the possessor referent as shown in (57-a) and (57-b) below.

(57)   a.   *Vya homnen bwelan **bwete-n** teere hu*
                go find   skull.3 head-3 child IND
                'She found the head of a child'

        b.   *Vanten hu te me a lon im   **ma-n** vehen nyer*
                man   IND PST come go in house CL-3 woman 3PLP
                'A man came and went inside the girls' dormitory'

Two nouns, the Bislama *jif* or the North Ambrym *yafu* 'chief' act like proper nouns and do not invoke the appearance of the cross referencing suffix unless it is modified by a plural marker (58-b), and thus acts more like a common noun.

(58)   a.   *Te   vya ktu bulbul **mwena** jif*
                NREC.PST[3SG] go take canoe CL   chief

246

'He went and took the chief's canoe'

b. *Lonle ge   yim   rro   taane wobung **mwena-n** yafu*
today SUB 1PL.IN.REC.PST CONT sit.TR day   CL-3   chief
nyer
3PLP
'Today we are sitting for the day of the chiefs'

Thus these two nouns act like quasi-proper nouns and it is due to the grammatical specificity of the possessor that this difference in occurrence of the cross referencing suffix comes about. A specific 'chief' acts like a proper noun, which in itself is more grammatically specific than a common noun. Thus plural chiefs are less specific and act like common nouns[4].

At this juncture we can posit the following hierarchy, noting that it is the highly specific terms that do not evoke the cross referencing.

No XREF	Proper Noun
	Kinship term
XREF	Common Noun (SG/PL)

So far the distinction between whether cross referencing occurs is determined by the semantic sub class of the possessor noun, either proper noun (personal names or kinship terms) or common noun.

4.3.2. *Non-Human Animate Possessors*

As non-human animate possessors are also common nouns they have the same grammatical constraints on controlling agreement with the cross referencing suffix as do human common nouns. The cross referencing suffix will always occur on the bound noun and the possessive classifier as shown in (59-a) and (59-b).

(59)   a. *Mi   kin   kote **bu-n** **gere-n** tomo mon*
REC.PST[3SG] pinch break joint-3 tail-3   rat   again
'He pinched and broke the rat's tail again'

---

[4]*Yafu* can also mean 'God' and when this sense is evoked it is exactly akin to a proper noun and no cross referencing suffix will occur.

b. *Bu nan nge be bu **mwena-n** tomo*
  song ASS.3SG TOP COP song CL-3　　rat
  'This song is the rat's song'

It would appear that there is no difference between the occurrence of the cross referencing suffix when the possessor is human animate common noun or non-human animate common noun as the suffix always occurs. However, there is a difference between the following pairs of examples.

(60)　a.　***Ti-n*** *bàrrbàrr*
　　　　　child-3 pig
　　　　　'A/the pig's child'

　　　b.　***Ti*** *bàrrbàrr*
　　　　　child pig
　　　　　'Piglet'

(60) shows the difference between the occurrence of the cross referencing suffix when the possessor is non-human animate. The difference is one of possession; a possessive phrase occurs in (60-a) where *bàrrbàrr* 'pig' is the possessor, whereas in (60-b) the pig is not the possessor and in fact this phrase is a kind of compound phrase where *bàrrbàrr* acts as a modifying element showing the type of child rather than designating the possessor. This difference also occurs in the neighbouring moribund language Lonwolwol where both human and non-human possessor arguments can be distinguished as to specific/generic by the occurrence of the cross referencing suffix (Paton 1971). Though for North Ambrym this distinction only occurs with non-human animates. A similar example follows.

(61)　a.　***Bulu-n*** *Liseseu*
　　　　　hole-3　Lisepsep
　　　　　'Lisepsep's hole[5]'

　　　b.　*O fe byanen eb le **bulu** lho*
　　　　　2sGS tell go.TR.3SG POT.IRR pass hole　boar
　　　　　'Tell him to pass through the hole of the boar'

---

[5]The Lisepsep is an evil dwarf spirit that lives in holes in the bush and eats people.

In (61-a) The Lisepsep spirit possesses the hole as it is where he lives, but the boar in (61-b) does not own the hole but this refers to a type of hole that was made in the sides of houses so that the boar could enter and sleep next to their owners.

A further difference between humans and non-humans is the occurrence of a different 3sG pronominal possessor suffix that only occurs when the pronominal possessor's referent is non-human and only occurs in simplex constructions. For human animates *-n* is used and *-te* or *-ti* is used to reference non-human possessors[6]. The following example contrasts this distinction.

(62)   a.   *Rahe-n*
             mother-3sG
             'His/her mother'

       b.   *Rahe-te*
             mother-3sG.NH
             'It's mother'

So it is clear that though the 3sG suffix occurs when the possessor is a human or a non-human there is a difference as to the meaning of the construction when it doesn't occur. For human possessors there is a difference between highly specific humans and less specific humans, whereas with non-human possessors the difference is between specific and generic. Thus the cross referencing system shows both animacy and specificity constraints.

4.3.3. Inanimate Possessors

Inanimate possessors do not control agreement of the cross referencing suffix on bound nouns. They are also unable to occur in the possessor slot of an indirect possessive construction. (63) shows some examples of this.

(63)   a.   *Bulu we*
             hole water
             'Water hole'

---

[6]The difference in shape of the non-human possessor suffix is dialectal. The North Western Ambrym dialect uses *-te* and the North-Eastern Ambrym dialect uses *-ti*.

b. *Wo byang*
fruit banyan
'Banyan fruit'

c. *Bulu meta yal*
hole eye sun
'Eye socket of the sun'

This is an interesting contrast between North Ambrym and other languages of Vanuatu where inanimates can act as possessors in direct possessive constructions which are meronymic constructions, such as in Lonwolwol, as the cross referencing suffix occurs when the possessor argument is inanimate (Paton 1971). In North Ambrym it is unclear if inanimates are possessors in a meronymic construction or are in a type:token construction, where the bound noun represents the type or concept and the lexeme in the 'possessor' slot reflects an instantiation of the type. If we argue that these constructions are still possessive relationships we can group these together with non-human animates which occur in a generic relationship where no cross referencing suffix occurs. This makes sense as the 3sG pronominal suffix for non-human animates is *-te* or *-ti* and is the same for inanimate arguments. That is the possessor arguments in example (63) can be replaced by this possessive suffix, showing that inanimates are still in a possessive relationship (i.e. *wo-te* 'its fruit').

4.3.4. Summary

In conclusion we can posit the following hierarchy for the constraints on occurrence of the possessor cross referencing suffix controlled by the possessor nominal.

Animacy	XREF
Proper Noun	⊘
Kinship Term	⊘
Human animate	-n
Non-human animate	-n/⊘
Inanimate	⊘

There is an animate/inanimate split as animates take the *-n* suffix and inanimates do not. A human/non-human split also occurs with animate nouns as highly specific humans control a zero occurrence of the cross referencing suffix, whereas non-human animates control zero suffixation when the argument is generic. This conforms with the morphological realisation of the 3sg possessor suffix for human and non-humans too as for humans the 3sg suffix is *-n* and for non-humans and inanimates it is *-te*.

4.4. NON-FLUIDITY IN POSSESSIVE CONSTRUCTIONS

Fluidity was first discussed in section 3.4 and the term was introduced by Lichtenberk (2009a) who states that it is not uncommon for a noun to occur as the possessum in different syntactic possessive constructions in Oceanic languages. In North Ambrym this does not seem to be the case. For instance body parts are generally bound nouns and thus occur in direct possessive constructions. Some of these bound nouns may occur without a possessor suffix. For example *vera-n* 'his arm' may occur without the possessor marking as simply *vera* and then means 'arm' and is neither a direct possessive construction nor a bound noun. The following example shows its use:

(64)   *Nam*   *homne **vera** hu lon tan*   ***vera** ge le be **vera-n***
       1sg.rec.pst find   arm ind in   ground arm sub med cop arm-3
       ***vanten** ge me*   *marr rru*
       person sub rec.pst[3sg] die   stay
       'I found an arm on the ground, that arm is the arm of the man who died' (Elicited)

The first two instances of *vera* show that it is non-possessed, but the third shows its possessive function. Bound nouns must always occur with a marked possessor so how is it possible that some nouns can occur without a possessor? It is because there are free noun alternatives for most bound nouns. Though for the most part these are suppletive forms that are morphologically different from their bound noun counterparts. For instance *ye-n* 'his leg' is the bound noun whose free noun alternate is *la* and is related to the verb *la* 'to walk'.

These free noun alternatives do not occur as the possessum in indirect possessive constructions, only the bound noun forms can as shown before in 4.2.1. The free noun body part alternatives are unable to occur in the possessum position in indirect possessive constructions. *rra-n* 'his blood' is the bound noun to the free noun alternative of *rra* but in (65) the free noun alternative is unable to occur as the possessum in the indirect possessive construction.

(65)   a.   *Ma   mnu rra-n   buluk*
                 REC.PST[3SG] drink blood-3 bullock
                 'He drank the cow's blood'

           b.   *Ma   mnu rra-n   ne a-n   buluk*
                 REC.PST[3SG] drink blood-3SG ASS CL-3SG buluk
                 'He drank its blood of his bullock'

           c.   **Ma   mnu a-n   rra*
                 REC.PST[3SG] drink CL-3SG blood
                 INTD: 'He drank his blood'

In (65-a) *rran* 'his blood' is the bound noun and occurs in the possessum position of the direct possessive construction. (65-b) shows that the bound noun *rran* is unable to occur in the possessum position of the indirect possessive construction as it is already filled with *buluk* 'bullock' and instead occurs in an associative construction marked by *ne*. (65-c) shows that the free noun alternative is unable to occur in the possessum position of the indirect possessive construction. Other free noun terms for intimate possessions can occur in the possessum slot of an indirect possessive construction. *towo-n* 'his penis sheath' can also be *mwena-n tel* 'his penis sheath' with the 'general' classifier and similarly *tonyo-n* 'his mat' can be *ma-n hul* 'his mat' occurring with the 'drinkable' classifier. Generally, free noun body parts are unable to occur as possessums in indirect possessive constructions, whereas free noun intimate possessions or free noun kinship terms can.

These examples do not conform to Lichtenberk's idea of fluidity as all the nouns that can occur as possessums in indirect constructions are free nouns and no longer bound nouns. However as stated previously direct possessive constructions can occur in the possessum slot of an indirect possessive construction but only if it refers to non-human entities, such as intimate property

or animal body parts. That is a bound noun representing a human body part should not occur as the possessum in an indirect possessive construction.

Another idea of fluidity is that free nouns that occur as possessums in an indirect possessive construction with one classifier could also occur with other classifiers depending upon the intended use of the possessum by the possessor. This is also known as the relational classifier theory as introduced in section 3.4.1 and is generally true in a lot of Oceanic languages. However, in North Ambrym this fluidity seems to be highly restricted as for instance *bwehel* 'bird' would always occur with the *an* 'edible' classifier regardless as to whether it will be eaten, sold or kept as a pet. Similarly *wirii ne verr* 'stonefish' would be classified with the *an* classifier even though these are never eaten. The theory of relationality will be tested in North Ambrym in chapter 6.

4.5. ASSOCIATIVE CONSTRUCTION

This construction links two nouns together to form a semantic bond of association using what is known as the associative or general preposition *ne* (Hyslop 2001, Schneider 2010). Other uses of this preposition were discussed in section 2.5.1.1. In some cases the associative construction can denote possession. It was shown in section 4.1.4.2 that body parts occur in direct possessive constructions as they are bound nouns. These body parts also have a free noun suppletive form that is used when no reference to a possessor is needed (c.f. section 4.4). However body parts that refer to internal body parts are always free nouns and do not have a bound noun counterpart. Table 4.17 shows these internal organs.

If someone wants to refer to their internal organs they must use the associative construction as in (66).

(66)   a.   *Olvaa ne John*
                brain ASS J.
                'John's brain'

          b.   *Olvaa ne ni*
                 brain ASS 1SG
                 'My brain'

Internal Organ	Gloss
olvaa	brain
wovyo	heart
tenya	intestines
arr	stomach
womam	kidney
rramtakye	liver
balaa	jaw
waù	vein
barhu	bone
liwe	lungs
marrya	rib

Table 4.17: Free noun internal body parts

    c.   *Olvaa na-n*
          brain Ass-3sɢ
          'His brain'

In (66-a) the associative preposition *ne* looks similar to an indirect possessive host as the word order is POSSESSUM *ne* POSSESSOR and reflects the word order for indirect possessive constructions. However the associative construction is markedly different from indirect possession as the full set of possessor pronominals are unable to attach to it and the possessor is represented by one of the independent pronouns, which in example (66-b) is *ni* 1sɢP. However, the 3sɢ possessor pronominal suffix is able to attach to the associative preposition, as shown in (66-c), and is the only suffix allowed to do so. When this happens the word order is different to a simplex indirect possessive construction, which is CLASSIFIER-POSSESSOR.SUFFIX POSSESSUM, but the simplex associative construction is POSSESSUM *ne*-POSSESSOR.SUFFIX.

The associative marker does not just link body parts to their wholes, but also parts of trees that are free nouns to their wholes:

(67)   a.   *Awu   ne togur*
             section Ass sago
             'A section of sago palm'

b. *keberr ne beta*
   seed   ASS breadfruit
   'Breadfruit seed'

Most parts of trees are expressed as bound nouns, yet some are free nouns. The two examples above show 'section' and 'seed' to be free nouns and therefore need the associative marker to link them to their whole. The associative construction's argument slot may be filled by any NP including both types of possessive constructions: The direct possessive construction shown in (68-a) and the indirect possessive construction shown in (68-b).

(68)   a.   *Wowul ne **teba-ng***
            hair   ASS belly-1SG
            'Hair of my belly'

       b.   *Berr ne **mwe-ng im***
            post ASS CL-1SG house
            'The post of my house'

The associative preposition can only link a free noun to its argument and thus it could never link the head of an indirect possessive phrase to its argument, though it could link the possessor nominal in a complex direct possessive construction as in (69).

(69)   *[Taala [yafu ne vere]]*
      brother chief ASS village
      'The chief of the village's brother'

The translation of (69) could never be 'the chief's brother's village' as this would mean the associative preposition links *taala* 'brother' to *vere* 'village'. A similar example is shown below where the possessor nominal *whe* 'water' is linked to *myunmyunan* 'drinking'.

(70)   *[Bulu [whe ne myunmyunan   hu]]*
      hole   water ASS RED.drink.NMLZ IND
      'A water hole for drinking' (NE)

255

The possessum noun in a simplex indirect possessive construction can be linked to the argument NP of the associative construction as it is a free noun (71-a) and likewise when the possessum noun in a complex indirect construction can also be linked to the argument of the associative construction as in (71-b)

(71)   a.   *[Mwenan [rruan ne yafu hu]]*
            CL.3SG   custom ASS chief IND
            'His chiefly custom ceremony (lit. his custom of a chief)'

        b.   *Te rro ktu [[barhu ne bten] aro taata]]*
            PST CONT take bone   ASS head CL.3DL father
            'He was taking the skull of our father'

More abstract parts of wholes are encoded by the associative construction.

(72)   *Em   tou* **bàrrbàrr ne mage**
         3PL.REC.PST strike pig   ASS namange
         'They killed a pig for the namange'

The associative marker above links *bàrrbàrr* 'pig' with *mage* 'namange', a ceremony for becoming a chief. The killing of pigs is associated with these ceremonies and therefore is an intrinsic part of the ceremony. A less semantic bond between the two elements linked by the associative marker can be seen in the following:

(73)   *Saaroan ne rrem lo mi   yi a*
         story.NMLZ ASS yam then REC.PST[3SG] like here
         'The story of the yam is like this'

Above, *saaroan* 'story' is not an intrinsic part of *rrem* 'yam' and a more loose semantic relationship occurs between these two NPs. Thus the associative marker links two NPs together and it is the lexical semantics of the two NPs that determine what kind of semantic bond that occurs between the two. The associative marker may also be elided and the two NPs simply juxtaposed:

(74)   *Lo moro fe ge "**beta   Hivir**"*
             then 3DL   say that breadfruit Hivir
             'Then the two of them said that "breadfruit of the Hivir"'

A clear example that the juxtaposition is just the elision of the associative marker is shown in (75) where a similar construction has the associative marker

(75)   *Lo moro   fe byanen   "eya **beta   ne Sagaran**"*
             then REC.PST.3DL say go.TR.3SG INTJ breadfruit ASS Sagaran
             'Then the two of them said to him "hey! breadfruit of the Sagaran"'

Thus juxtaposition is not another grammatical form of association but is the elision of the associative preposition.

4.6. CHAPTER SUMMARY

This chapter has given an overview of the different type of possessive constructions found in North Ambrym. Possession in North Ambrym conforms to the Oceanic trend of a grammatical split showing the semantic difference between alienable and inalienable possessions. It was also seen that the associative construction can encode possession when referring to internal organs and can also show a looser sense of association between two items.

It was also shown that the classifiers encode non-canonical possession (Lynch 2001, Palmer n.d.) as items that are not considered edible occur with the *an* classifier and items not considered liquids occur with the *man* classifier. Similarly passive possession, where the possessor has no control over the possession was seen in instances where kinship terms were possessed using the *an* classifier.

The syntactic status of the possessive classifiers was shown to align with Lichtenberk (2009b) in that they are a special syntactic class of their own and they modify the possessed noun. Though one question remains, what is the nature of the possessive classifiers, are they relational classifiers and thus encode the relation between the possessor and possessed or are they possessed classifiers

257

and characterise the possessed noun according to some feature? The relational classifier hypothesis will be tested in chapter 6.

Chapter 5

Cognitive Linguistics

Section 5.1 will introduce the theory of cognitive linguistics, which explains various notions that will be used in chapter 8 for the semantic analysis of the possessive classifier system in North Ambrym. In section 5.2 the cognitive psychological notion of categorisation and prototype theory, which will form part of the theoretical argumentation for this thesis, will be introduced. This will be used to form an analysis of the classifier system of North Ambrym in chapter 7.

5.1. BASIC NOTIONS OF COGNITIVE LINGUISTICS

This section gives a general introduction into cognitive linguistics and cognitive semantics. Cognitive linguists identify themselves with the functional approach to linguistics, as opposed to the generative/formal approach and believe that the underlying principles of language pattern with basic cognitive principles. Language is therefore not viewed as an autonomous faculty of the mind. The mind's different cognitive abilities, such as visual perception, reasoning or motor skills are fundamental to the shaping of language, and grammar is conceived from these different cognitive abilities. Language arises from use and our knowledge of syntax, semantics and phonology is built up from different utterances over time that are rooted in our conceptualisation of the world around us. Croft & Cruse (2004: 1) underline three main hypotheses that are

fundamental to Cognitive Linguistics:

- Language is not an autonomous cognitive faculty
- Grammar is conceptualisation
- Knowledge of language emerges from language use

Cognitive Lexical Semantics plays a relevant role in the following discussion. Lexical Semantics, being part of the larger functionalist theory of Cognitive Linguistics, branches away from more traditional semantics, which tend to view meaning of linguistic expressions as concepts based upon semantic features. Croft & Cruse (2004: 7) cite the following example of feature based semantics. The concept MARE would be distinguished by the features [+equine, +female] and the concept STALLION would be differentiated from the concept MARE by the feature [+male]. Cognitive Semantics views linguistic expressions as being more than a grouping of features. Instead of having a feature based approach, Cognitive Linguistics takes an encyclopaedic approach to semantics. Feature based semantic takes the view that each lexical entry is defined separately in the mind, whereas in cognitive lexical semantics certain concepts are instead grouped together. How different concepts are grouped together is determined by real world experience. For example use of a certain word might trigger other notions associated with it. If the concept HOTEL was expressed then other related concepts would also be triggered such as BED, REST, OVERNIGHT, MINIBAR, RECEPTION, etc. According to (Croft & Cruse 2004: 7) these concepts would not be related by "Hyponymy, meronymy, antonymy or other structural semantic relations" but are instead related by "ordinary human experience".

Continual and frequent use of a particular grammatical structure or word makes its meaning become entrenched and stored in long term memory, thus "the degree of entrenchment of a cognitive or linguistic unit correlates with its frequency of use" Schmid (2007: 118). For example if we see a dog running through the park the cognitive effort to recognise and categorise it is minimal and almost automatic because DOGS are familiar concepts, however, if we are confronted by an animal that is less familiar, for example a tapir in a zoo, it takes more cognitive effort to process all the necessary attributes and correctly categorise it as a tapir as this concept is less entrenched (Schmid 2007). The

highest degree of entrenchment occurs on the basic level of categories (Schmid 2007: 122) . This is not surprising given what basic levels represent as they are the first level learned by children, the level where a visual representation can be posited and basic level categories afford an ideal level of specificity that a concept can be distinguished from others (c.f. 5.2.2). Entrenchment of basic levels in the possessive classifier system in North Ambrym is explored in 8.

5.1.1. Frames, Domains and Schemas

The notion of a frame based semantics was introduced by Fillmore (1982) in an attempt to understand how concepts are connected in our mind. Fillmore (1982: 111) defines the term frame as "... any system of concepts related in such a way that to understand any one of them you have to understand the whole structure in which it fits". In order to understand the meaning of a concept, the meaning of all other related concepts must also be understood. Together, all related concepts are called the frame and it is the frame that needs to be invoked in order to understand a single concept in the frame itself. The frame acts as background information for a concept, and equivalent to an encyclopaedic view of the lexicon, rather than a restricted dictionary-like lexicon.

Croft & Cruse (2004: 7) give an example of how the concept RESTAURANT is not just a place to have dinner but that when this concept is used other related concepts are evoked as well, such as CUSTOMER, WAITER, ORDERING, EATING and BILL. In order to understand the concept RESTAURANT one has to understand all the related concepts as well.

Fillmore (1982: 118) explores the word breakfast to show how a word evokes a category which can be used to describe related concepts. Fillmore describes the concept BREAKFAST as being understood prototypically as being eaten in the morning, after waking up from sleep and consisting of a particular set of ingredients. Fillmore goes on to show that people can eat breakfast at any time of the day and without having slept and that people can eat anything for breakfast, thus showing that none of the three main notions of breakfast are concrete. His idea is that the conceptual frame for the concept BREAKFAST contains information about its prototypical use. When the word breakfast is

used it does not necessarily have to fully match the prototypical definition. This reasoning shows how a word may have different meanings based upon the context it is used by identifying certain aspects of its frame. By evoking certain aspects of a frame a word can differ in meaning.

The concept of a frame is the same as Langacker's (1991) notion of domain, in that in order to understand one concept a domain of related concepts is evoked. Figure 5.1[1] below, shows how the concepts HYPOTENUSE, TIP and UNCLE are all concepts that can only be understood by evoking a larger more complex domain or base. The profile is the concept that is referred to by the linguistic unit that is understood by evoking its domain.

| Right Triangle | Elongated Object | Kinship Network |
| Hypotenuse | Tip | Uncle |
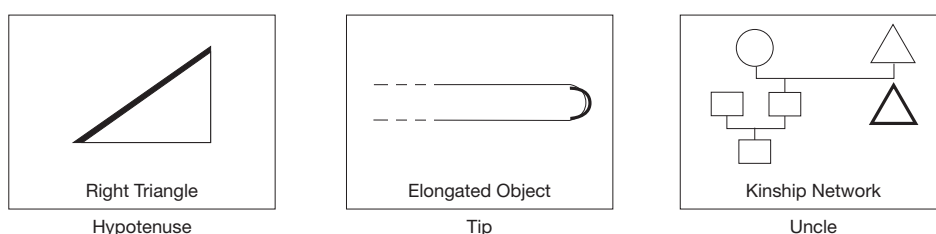
Figure 5.1: Profile and base

Figure 5.1 shows how the concept HYPOTENUSE is a profiled region of the domain of a right angled triangle. The concept TIP is a profiled region of the domain of an elongated object. The concept UNCLE is a profiled region of the kinship domain. It is hard to conceptualise any of these examples without referring to their respective domains. A hypotenuse cannot exist independently of a right angled triangle, a tip needs to be the end point of some object and an uncle needs a nephew or niece. Langacker (1991: 5) states that "An expression's semantic value does not reside in either the base or the profile individually, but rather in the relationship between the two".

Another dimension of language is that commonalities of language production can be broken down into schemas. Schemas are basically the building blocks of language, much similar to rules under a generative approach. These schemas are primitives that require elaboration in order to be utilised in language. An example of this was already shown in section 3.2 where the schema

---

[1]Langacker (1991: 6).

262

[PROCESS]-er is elaborated by inputting different verbs to create agentive nominalisations such as *baker* or *singer*.

Example (1) shows how a schematic cognitive base can become more semantically specific as more levels of hierarchy are added and show how basic cognitive domains are built upon in order to increase specificity of a linguistic expression

(1)   animal → reptile → snake → rattlesnake → sidewinder
        Langacker (1991: 7)

Schemas will be looked at again in the section on polysemy in section 5.1.3 and the underlying schema of two of North Ambrym's classifiers will be provided in chapter 8.

5.1.2. Metaphor and Metonymy

Traditionally, metaphors in language have been studied in areas such as literacy, poetry and philology. But a study by Lakoff & Johnson (1980) shed light on the use of metaphor in everyday language and has brought analysis of metaphor in language away from the more traditional domains of study and to the forefront of cognitive semantics. One of the main components of cognitive linguistics is the use of metaphor in the construal of different conceptualisations of the real world. For example, Lee (2001: 6) says that

> "we sometimes think about the concept of intimacy in terms of heat (I couldn't warm to her, He is such a cold person, He has a very cool manner) and sometimes in terms of distance (I felt really close to him, I found his manner rather distant, He is quite unapproachable)".

The use of metaphor in construing language is achieved by using one conceptual domain to illustrate another conceptual domain. In the examples above, heat and distance are used as the source domain to illustrate the target domain of intimacy. The use of metaphors in language is very widespread where one conceptual domain is extended to explain another more complex domain. The following examples would normally be considered non-metaphorical as they

263

are more fixed in our minds and don't lend themselves to more literary or poetic languages use.

(2)   a.   I gave you that idea.

          b.   It's difficult to put my ideas into words.

          c.   The sentence is without meaning.

             Lakoff & Johnson (1980: 11)

In the sentences in (2) it is hard to gauge that these are in fact uses of metaphor in language as they seem to be using ordinary non-metaphorical language. In fact these are known as CONDUIT metaphors, whereby language and ideas are seen as objects which are put into containers and are sent along a conduit to someone who receives them. We can interpret the use of the verb 'give' in (2-a) as encoding the 'idea' as an object that is given to someone else. In (2-b) 'words' can be realised metaphorically as a container for ideas. Example (2-c) shows that a sentence is seen as a container for meaning and in this case the meaning is not within the container but outside of it.

Metaphor, as studied by cognitive linguists, goes beyond those found in literary analyses, these normally have the underlying form of X is Y, where X and Y are both NPs (Croft & Cruse 2004: 195). Examples of the more literary style of metaphorical use are found in the following example: *Tom is such a pig because he has no manners*, where the interpretation of the utterance is not one that *Tom* is literally a *pig* but instead the concept PIG is used as the source conceptual domain to reinterpret the target domain of 'Tom's manners'. These more literary uses of metaphor still show how understanding can be the blending of two conceptual domains, but metaphor in cognitive linguistics is a notion that can be extended further to encompass metaphors that use verbs, prepositions or other elements that relate metaphorical relational elements to their nominal arguments. Croft & Cruse (2004: 195) cite the following sentence as examples of this: *Her anger boiled over*, where the pronominal element functions as an argument to the metaphorical verb and preposition. The expression *I'll see you at 2 o'clock* is another example of where a locative preposition has been metaphorically extended to a temporal

use.

Metaphors are not used as alternatives to other concepts but are used to partially structure other concepts by lending certain properties of the metaphorical substructure to the corresponding elaborating conceptual structure. If the metaphors were used to fully structure another concept then all the properties of the underlying metaphor would be transferred to the concept it is elaborating. Accordingly we can see that in the metaphor TIME IS MONEY where we can say things like *how did you spend your weekend?* or *stop wasting my time, it is precious to me*. Time is not actually money in these examples as we cannot deposit time into banks, get refunds on our time or other actual properties that are associated with money (Lakoff & Johnson 1980: 13). Instead only part of the metaphorical substructure of money is lent to the target structure.

An integral point about the use of metaphors in cognitive linguistics is that, according to Lakoff & Johnson (1980: 19), they are grounded in our experience and that different cultures may vary in their use of metaphors for conceptualisation. This notion also underpins several other theories within cognitive linguistics, such as polysemy (c.f. section 5.1.3) and frames (c.f. section 5.1.1). Metaphorical categorial extensions will be reviewed in 5.2.3 and applied to North Ambrym possessive classifier categories in chapter 8.

Metonymy is akin to metaphor in its use as conceptual mechanism that blends different domains together. Metonymy is where one entity is used as a referent for another entity. Such examples as *Downing Street has issued a statement* where *Downing Street* refers not to the street itself but to the Prime Minister who resides there. Another type of metonymy is where a token refers to a type such that *This jacket is our best selling item* where *jacket* stands for the type of jacket and not the instance (Taylor 2003: 125). There are many different types of metonymy as shown in the following examples from Evans & Green (2006: 312-314):

Producer for product

(3)   a.   I've just bought a new *Citröen*.
        b.   Pass me the *Shakespeare* on the top shelf.

c.   She likes eating *Burger King*.

Place for event

(4)   a.   *Iraq* nearly cost Tony Blair the premiership.

b.   American public opinion fears another *Vietnam*.

c.   Let's hope that *Beijing* will be as successful an Olympics as *Athens*.

Place for institution

(5)   a.   *Downing street* refused comment.

b.   *Paris* and *Washington* are having a spat.

c.   *Europe* has upped the stakes in the trade war with the *United States*.

Part for Whole

(6)   a.   My *wheels* are parked out the back.

b.   Lend me a *hand*.

c.   She's not just a pretty *face*.

Whole for part

(7)   a.   *England* beat *Australia* in the 2003 rugby World Cup final.

b.   *The European Union* has just passed a new human rights legislation.

c.   My *car* has developed a mechanical fault.

Effect for cause

(8)   a.   He has *a long face*.

b.   He has *a spring in his step* today.

c.   Her *face is beaming*.

Metonymic category extensions will be reviewed in 5.2.3 and its application to categorial extension in the North Ambrym possessive classifier system in chapter 8.

5.1.3. Polysemy and Categorisation

Polysemy is a domain of semantics that has received renewed interest from cognitive linguists. Taylor (2003: 102) defines polysemy as "the association of two or more related senses with a single linguistic form". The difference between monosemy and polysemy can be defined by whether a lexeme has a vague referent or an can have multiple referents and thus is ambiguous. Taylor (2003: 104) gives the following contrastive examples.

(9)   a.   There's a pig in the house
        b.   There's a bird in the garden

Thus example (9-a) has ambiguous reference as the sentence could refer to either the animal or the notion of a greedy person and is therefore polysemous. item (9-b) has a vague reference and refers to one of the members of the concept BIRD. Similarly, zeugmatic constructions show polysemic relations of the verb *take* in the following:

(10)   Tom took his hat and his leave

The meaning of polysemy has been extended from its original meaning of different related senses of a lexeme to a more broad view of the meaning of a lexeme when it occurs in different constructions (Croft & Cruse 2004).

The different senses of a single lexeme are best represented as a polythetic class (Lewandowska-Tomaszczyk 2007: 146) or chain model (Taylor 2003: 117). Some features of sense A are shared by sense B and some features of sense B are shared by sense C, resulting in chaining effect, much like a dialect chain. So the senses A and C might not share any features but both could be related to sense B. Chaining effects are essentially similar to Wittgenstein's (1953)

notion of family resemblance (c.f. section 5.2.1).

As polysemy deals with the different meanings of a lexeme in different contexts there is presumably an underlying prototypical meaning. Different meanings of a polysemic lexeme exhibit prototype affects. For instance the concept BIRD can either mean the species 'bird' or can be metaphorically extended to mean an airplane (c.f. section 5.1.2). Clearly the metaphorical sense is less prototypical than the original sense (Lewandowska-Tomaszczyk 2007: 147). Thus polysemy itself can be seen as a form of categorization whereby the different senses of a word are linked via semantic extensions.

Selvik (2001) analyses three noun classes in Setswana as representing polysemic grammatical categories. Previous analyses had thought that noun classes 3, 5 and 7 were heterogeneous in nature and that assignment of nouns was thus arbitrary. However, Selvik identifies underlying schematic networks that unify different concepts in a particular noun class (c.f. 5.1.1). Selvik analyses noun class 3 as having TREE as the prototype and having two underlying noun class schemas of 'living' and 'long'. The two class schemas in figures 5.2 and 5.3[2] represent a chain model whereby the members of this noun class may be only indirectly related to the prototype and or underlying schemas. Box 6 'long body parts' is an elaboration of both of the underlying schemas of LIVING and LONG. Nouns such as *mokwatla* 'the back, the spine, a backbone' or *molêtsê* 'a leg' are both LONG and LIVING but are also directly related to the class prototype TREE by the underlying metaphor A TREE IS A BODY as terms for body parts in Setswana can be directly applied to name parts of trees too. Other nouns in Setswana are not directly linked to either the prototype or the underlying class schemas. Box 8 'other body coverings', includes nouns such as *mofitshana* 'a plain iron ring worn on the wrist' and *moitshômêlô* 'armour; protective clothing' are related via semantic extension to nouns included in box 7 'body coverings made of skin', which in turn is linked to the prototype TREE via the metaphor A TREE IS A BODY and to one of the underlying schemas MATERIAL OF 'LIVE ORIGIN'. Selvik (2001) has shown that the noun class prefixes are polysemous in nature and the different members share underlying unifying schemas. One point to note is that Selvik does not include a discussion as

---

[2]Selvik (2001: 166-7).

to how she posited that the prototypes were 'tree' and 'long'. Presumably, it is because they are the underlying schemas that are related to the majority of the different semantic groupings. How to test for prototypes will be looked at in section 5.2.2. The idea of underlying class schemas based on prototypical members of the North Ambrym classifiers will be looked at further in chapter 8.
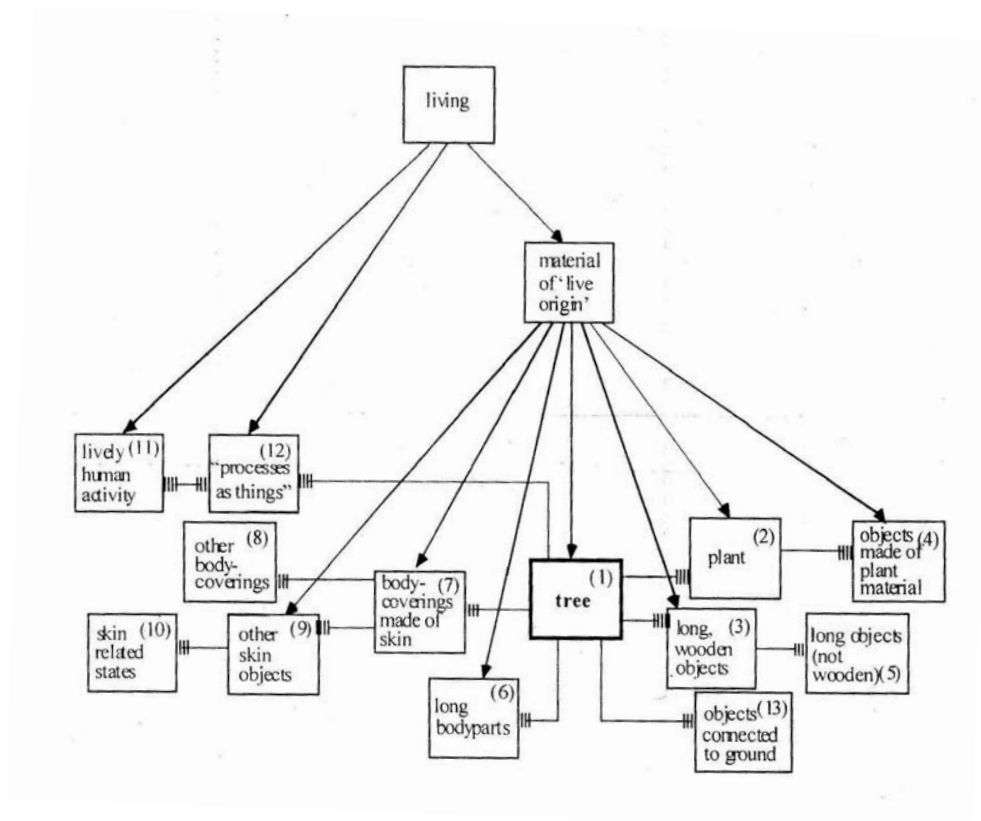
Figure 5.2: The class schema 'living' in class 3 nouns

Another relevant study on polysemy for this thesis is Nikiforidou's (1991) account of the underlying polysemic nature of the genitive which uses the theory of metaphor to underpin her argument. As shown in section 3.2 genitive marking can entail multiple meaning relations between the possessor and possessed. Nikiforidou argues against accidental homonymy, where the different meanings are just a chance occurrence, or there is one underlying abstracted core meaning. The different relations embodied by a single inflection such

269
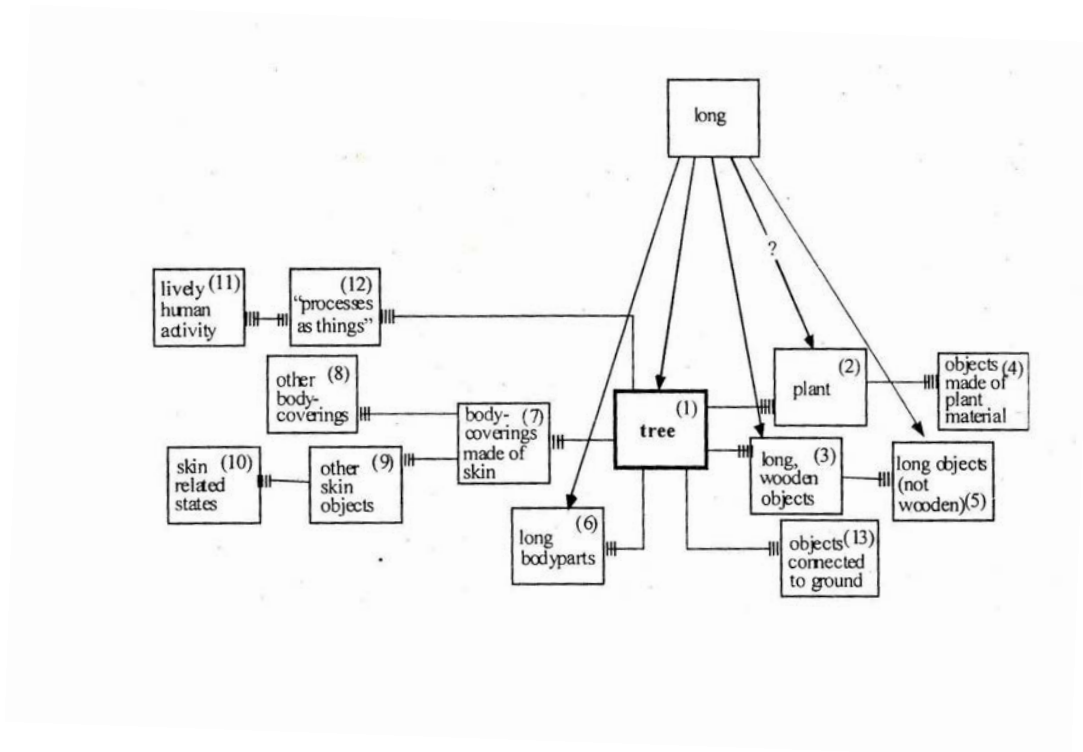
Figure 5.3: The class schema 'long' in class 3 nouns

as a genitive marker is an instance of a network of related meanings. This is evidenced by the fact that unrelated languages share a core or central set of possessive relations and thus can not be accidental homonymy. Also it is the peripheral relations that synchronically can be overridden by other constructions. For example English used to use the *'s* genitive to cover partitive meanings, but from around 1000 A.D. the *of* construction took on this role (Nikiforidou 1991: 161).

Nikiforidou identifies several different underlying metaphors that motivate the different relations encoded by the genitive. For example the metaphor PARTS ARE POSSESSIONS is identified by the use of non-genitive examples such as the following examples show.

(11)   a.   She's GOT arms and legs.
         b.   I can LEND you a hand with this.
         c.   Although this branch looks as if it is part of this tree, it actually

BELONGS to that one over there.

    d.   He BELONGS to the committee of foreign affairs

        Nikiforidou (1991: 170)

The non-genitive examples in (11) show the central meaning of possession (inalienable body parts and parts of wholes). The final example above also shows that abstract alienable parts (members of organisations) are also encoded in the same way. A semantic extension of the above relation is embodied by the WHOLES ARE ORIGINS metaphor as shown by the following examples.

(12)   a.   This is a branch FROM that tree.

       b.   This is the engine FROM a '57 Volvo.

       c.   The lid FROM this teapot is broken/The lid CAME FROM this teapot.

        Nikiforidou (1991: 173)

Again the non-genitive constructions in (12) all encode a metaphorical sense of possession but these are extensions of the PARTS ARE POSSESSIONS metaphor. Nikiforidou describes a radial category where each relation of the genitive is related to others via different metaphors and it is those relations that are more close to the central meaning of possession, that of a possessor and their possessions which are often described as the central definitions of possessive relationships. Those that are further away represent the periphery and it is these relations that are more susceptible to be encoded via different morphological constructions.

5.2. CATEGORISATION

Being able to categorise the world around us is the way we seek to simplify the immense amount of perceptual information that continually surrounds us. Our ability to interpret and organise experience depends on categories, without which it would be incredibly hard to digest the unending flow of perceptual material around us. Categorisation is the mental process of classification. Its product is the system of cognitive categories of concepts and it is deemed

one of the most important areas of cognitive science and is central to our understanding of how we conceptualise the world around us. Concepts have the status of categories: for instance the word *dog* denotes the concept DOG[3] which itself can be seen as a category as its members are different instantiations of the concept. The major function of conceptual categories is to classify human experience and to provide headings under which knowledge can be economically stored. Lakoff (1987: 6) states that

> "An understanding of how we categorize is central to any understanding of how we think and how we function, and therefore central to an understanding of what makes us human."

It is how we differentiate between these different concepts that is important, how we can decide that a dog is a DOG and not a CAT. We are constantly comparing concepts, but what exactly are we comparing? Within the discipline of cognitive psychology there are two main views on how we categorise the world around us. These are the classical view, explained in 5.2.1 and the prototype view, explained in 5.2.2.

5.2.1. Classical View

The classical view has its roots within philosophy and originates with Aristotle. This approach to categories contends that a conceptual representation consists of a series of features. These features are necessary and sufficient to characterise a concept and thus categories have clear discrete boundaries. A member of a category is determined if it shares all the properties of the category, thus to define whether an instance is part of a concept the summary representation of that concept is called up and the instance is compared to it (Smith & Meding 1981). For instance the concept SPARROW has the defining attributes: *feathered*, *animate*, *two-legged*, *small*, *brown*. If we want to see if this is an instance of the concept BIRD then we must retrieve the defining attributes of this concept, which are: *feathered*, *animate*, *two-legged*. As the concept SPARROW shares all the properties of the concept BIRD then we can safely say that a sparrow is a bird (Eysenck & Keane 2000: 285). Smith &

---

[3]In this chapter all concepts are denoted in small capital letters.

Meding (1981) further define the classical view by saying that a feature of a concept must be shared by all instances of it and that all members must share the set of all features of a concept, that is the features of a concept are "necessary and sufficient conditions" (Saeed 2003: 35).

The final assumption of the classical view is of nesting, thus subordinate concepts contain features that are not shared by the superordinate concept. Looking at the previous example of the concept SPARROW the unique features are *small* and *brown*, which are not in the superordinate BIRD concept..

The classical view of categories harmonises with formal semantics componential analysis where a lexeme can be represented by its component concepts. Katz (1972: 40) gives the following componential analysis of the lexeme *chair* which is made up of defining semantic markers:

(13)   (Object), (Physical), (Non-Living), (Artefact), (Furniture), (Portable), (Something with legs), (Something with a back), (Something with a seat), (seat for one).

Example (13) shows striking similarity to the classical view's feature based analysis of concepts, that is the semantic markers for a lexeme in formal semantics are the same as the defining attributes of a concept. In componential analysis the meaning of a word is made up of components of meanings which are semantic primitives (Kempson 1977). These primitives are considered themselves to be nuclear in that they cannot be further componentialised. Concepts have a binary relation to primitives, they can either have or not have a particular primitive. This binary approach opens up comparisons between concepts. For instance the difference between two concepts can be simply the absence of a single semantic primitive. In (14) the difference between the concepts BOY and MAN is that BOY lacks the primitive [ADULT].

(14)   a.   BOY = [MALE] [HUMAN]
        b.   MAN = [MALE] [HUMAN] [ADULT]

The ability to compare concepts and thus differentiate between them is very

useful but what happens when members of a category do not share any common attributes? The notion of family resemblances as forwarded by Wittgenstein (1953) was one of the earliest criticisms of the classical view as exemplified by the concept GAME. Not all instances of a game share all the properties of other instances yet are still categorised as the concept GAME. For example some games are played for sheer enjoyment, others require skill and others luck. Wittgenstein realised that no single feature was shared amongst all instances of the concept GAME, instead they were joined together by family resemblances Members of a category share properties with others and these members share properties with others, but no overall set of features is shared by all (Lakoff 1987).

The classical view has also come under fire by cognitive psychologists in recent years, particularly from Rosch (1978) who argues that there is an internal structure to concepts that is not captured by the classical view in that not all members are equal and some members are more typical than others. Several experiments have shown that some members of a concept were easier to identify with their superordinate concept and thus were deemed more prototypical. Experiments have been conducted to show that people categorised more prototypical members faster than less prototypical members, such that a robin or a sparrow were recognised more quickly as the concept BIRD than a chicken or a duck, which took longer (Rosch 1973). If we take the concept TOMATO as an example, many people classify it as a FRUIT because of its botanical properties, whereas others classify it as a VEGETABLE because its use is comparable with other vegetables, for instance in cooking and eating. This shows that an item can conceptually belong to two different categories and a clear cut off point within categories can not be taken for granted.

Berlin and Kay's (1969) cross linguistic study tested category labels for colour terms using 329 Munsell colour chips found that though the category foci were relatively consistent the boundaries of the categories were not. That is even the same participant, when retested, would not give the same boundaries for a particular colour term. Berlin & Kay (1969: 15) state that participants generally understood the task of choosing the foci of colour term but when it came to choosing the boundaries of a colour space participants hesitated and asked

for clarification of the task. In summary this study found that people perceive colour categories to be defined by their foci and not their boundaries. Thus according to these findings we can say that category boundaries are not fixed, yet their foci may be and thus category membership cannot be a yes/no answer and that their edges are fuzzy. This critique of the classical view leads us on to the next section 5.2.2 which looks into prototypicality.

5.2.2. Prototype View

The main proponent of the prototype theory of classification was Eleanor Rosch. Prototype theory states that "categories have a central description, a prototype, that in some sense stands for the whole category" (Eysenck & Keane 2000: 289). This is equivalent to Berlin and Kay's notion of focal members. As a consequence some members of a concept are more prototypical than others because they match with more of the central properties of the concept. This is different to the classical view where all properties were weighted equal and all members must match the entire set of properties that a concept has and thus category membership was black or white, whereas within the prototype view category membership is not concrete and members which are less prototypical are able to also be members of other categories. A more typical member of a category then is one that shares the most properties of the other members of a category and thus the concept as a whole (Smith & Meding 1981). Following this, a category must therefore be defined by multiple properties that may or may not hold for a given member (Sokal 1977).

Prior to research by Rosch (1973; 1977; 1978) linguists and psychologists believed that there was no internal organisational structure to categories and that all members were as equal as other members. But Rosch (1973) has shown that categories have an internal structure. Properties of concepts should not be seen as isolated occurrences devoid of any relation to other features. For instance if we take the properties [HAS FEATHERS] we can determine that other properties are connected to this, the property [HAS WINGS] is highly likely to be connected to the first property in that most animals with the first property have the second property (Rosch 1977: 213).

Rosch (1973) devised an experiment to find out how central different category members were perceived to be. She tested eight different categories, each with six category members. The experimentees were asked to rate each category member on a scale of seven as to which member they thought to be the best example of the category. All 113 experimentees chose chemistry to be the best form of science; car to be the best form of vehicle; and murder to be the best example of crime, showing that the best exemplar is a meaningful unit to contrast category membership as it is something that is shared by the experimentees. Rosch's experiment showed that semantic categories do have an internal structure where more prototypical members are judged to be the best example of that category.

Another experiment was designed to test reaction times, where the hypothesis was that more central members of a category will be identified faster than less central members (Rosch 1973). Both adults and children were tested using a computer that displayed 96 sentences which paired category members with category concepts and the experimentees were asked to judge whether a member was an instance of a category and the reaction time was measured. The results showed that more central members took less time to identify as members of a certain category than more peripheral ones. Also the child experimentees made more mistakes in identifying peripheral members than central members, showing that the central members of a category are learned earlier in cognitive development. This kind of structure is labelled horizontal structure as it defines how different members of a category are organised according to their centralness (Rosch 1978). Reaction times for assigning nouns to possessive classifiers in North Ambrym will be looked at in section 7.3.

Categories also have a vertical structure is based on the different levels of abstraction of a concept where at each level of abstraction the set of features differs. The optimum level of abstraction is when a user can easily identify members of a category based upon the combined properties at a given level of abstraction (Rosch 1978). Many levels of abstraction can be perceived of but one level of abstraction appears to be the most important. For example, we take a simple three tiered taxonomy to be SUPERORDINATE>BASIC>SUBORDINATE, for example ANIMAL>DOG>COLLIE.

The basic level is deemed to be the most salient category for several reasons. It is the one that is learned and named first by children rather than names for the superordinate or subordinate levels (Rosch *et al.* 1976a). It is not just the names of the basic level categories that are learnt first by children but actually the basic level categories themselves. In sorting tasks three year old children had no problem sorting different pictures based on basic level categories but were only 55% correct on superordinate category sorting, whereas the four year olds achieved 96% (Lakoff 1987). The basic level is also the highest level where an abstract image can be used to represent the category. For instance in the hierarchy FURNITURE>CHAIR>ROCKING CHAIR a mental image can be conjured up of an instance of the basic and subordinate level but no abstract image can represent furniture as a whole (Lakoff 1987, Croft & Cruse 2004, Rosch *et al.* 1976a). Berlin (1978) confirms the notion of basic level with his research on folk taxonomies of plants and animals in Tzeltal, which he calls generic rank, and it is at this level of ethnobiological classification that plants and animals differ the most from humans.

The superordinate level of abstraction has the least amount of features that are shared by its lower levels of abstraction, but the basic level has the most features that is shared by the lower levels of abstraction, though not all features need to be shared by the subordinate members making it different to the classical view of categorisation. Names for superordinate categories tend to be mass nouns as opposed to basic level categories which are more often count nouns, though the opposite can also hold, i.e. CUTLERY>FORK and SPICE>PEPPER, where the first example is mass>count and the second count>mass (Croft & Cruse 2004).

The subordinate level has a few more features that can be used to distinguish it from others at the same level of abstraction such that KITCHEN CHAIR has similar properties to the basic level CHAIR. Subordinate categories have less divergent properties when compared with other categories of the same level (Croft & Cruse 2004). For instance KITCHEN CHAIR and PATIO CHAIR have few dissimilar characteristics as opposed to basic level categories CHAIR and STOOL.

There are three ideas as to what a prototype is, it could be a member of the

category that best represents it, that is, the best exemplar, it could be a subcategory that is the prototype or it is possible that the prototype is rather abstract and is actually just a set of core attributes. Taylor (2003: 64) disregards the best exemplar idea because we are unlikely to have a best example for the category DOG, instead a cluster of properties is more likely depicting the categories form, size etc. Abstract linguistic categories such as COWARDICE are unable to be represented by an entity, but a set of attributes associated with events of cowardice are more likely. FURNITURE is another example cited by Taylor (2003), in this case the category is unable to be defined by a best exemplar, but in fact a sub category such as CHAIR is more likely to be the prototype.

Prototype theory helps with the definition of words, how words can have a set of polysemic interrelated meanings as opposed to being instances of homonyms (c.f. section 5.2.3 for an analysis of the preposition *over*). for example the word *go* prototypically implies motion from point A to point B, but it can be used in a non-prototypical sense to convey non-motion as example (15) shows.

(15) a. The janitor goes from top to bottom of the building.
   b. The staircase goes from top to bottom of the building.
   c. The river Ganges goes from the Himalayas to the Indian Ocean.
   d. The power of prayer goes around the world.
    Aitchison (1994: 57)

Example (15-a) shows the prototypical use of the word *go* as it includes motion, but the staircase in (15-b) does not move and thus is a non-prototypical example of *go*. Similarly (15-c) and (15-d) show atypical uses of *go* where actual motion does not occur. Aitchison (1994) argues that the prototype analysis advantageously treats the word *go* as being polysemous and thus different senses of the same word, rather than being homonymous and treating every instance of *go* as being a separate entry in the mental lexicon.

There are of course some criticisms associated with the prototype view. Firstly that the best example of a category can be influenced by context, for example the best example of the category ANIMAL was COW and GOAT when the context milking was evoked, but HORSE and MULE when the context riding was used

(Barsalou 1987). Similar to context, point of view was seen to affect the best example of a category, for instance when subjects were asked for the best example of the category BIRD from the point of view of an American then ROBIN and EAGLE were elicited, but asked the same for the point of view of a Chinese person the subjects gave SWAN and PEACOCK (Barsalou 1987).

Rosch (1978: 40) regards prototypes as merely "judgements of degree of prototypicality". Simply put the prototype is never a particular member of a category but some members of a category are more central than others. Even when some members are less prototypical they are still members of that category. Lakoff (1987: 82) says that prototypes are merely representative structures which take into account the underlying complex models of a concept which are influenced by stereotyping and thus result in surface prototypicality effects. The Lakoffian view of idealised cognitive models is an attempt to show the underlying make up of a category that result in these representative structures (c.f. section 5.2.3).

5.2.3. Idealised Cognitive Models and Radiality

As Rosch (1978) views prototypes not as a representational theory of categories but merely as people's judgments on what they perceive the prototype to be, prototype theory itself does not actually explain the internal organisation of categories and their members but just superficial surface phenomena. Lakoff (1987) developed the theory of Cognitive Models to represent the internal make up of categories.

An idealised cognitive model (ICM) is idealised in the respect that they "involve an abstraction, through perceptual and conceptual processes, from the complexities of the physical world" (Cienki 2007). It is the schematic abstraction that makes these cognitive models idealised. Lakoff (1987) shows that categories themselves may be made up of multiple cognitive models called cluster models. The concept mother cannot simply be defined as "a woman who has given birth to child" (Lakoff 1987: 74) but is in fact defined by several cognitive models that combine together. These different cognitive models are given below.

279

- The birth model: The person who gives birth is the *mother*.
- The genetic model: The female who contributes the genetic material is the *mother*.
- The nurturance model: The female adult who nurtures and raises a child is the *mother* of that child.
- The marital model: The wife of the father is the *mother*.
- The genealogical model: The closest female ancestor is the *mother*.
  (Lakoff 1987: 74)

These models cluster together and any one or any combination of them may be activated when talking about the concept mother. Thus, prototype affects are not merely based on one definition of mother but on which cognitive model is activated in the mind. Interestingly, different cognitive models can be the source for metaphorical extensions, such that *necessity is the mother of invention* stems from the birth model and *he wants his girlfriend to mother him* originates with the nurturance model (Lakoff 1987: 76).

Metonymic prototype affects also occur and happen when a subcategory or member of a category is used in place of the superordinate category. Lakoff (1987) uses the example of housewife-mother where a social stereotype is used to stand for the idealised MOTHER and thus prototype affects are seen on the surface when people think that housewives are better examples of mothers than working mothers. This stereotypical model is defined according to the nurturance model because housewives are thought to be able to spend more time with their offspring as opposed to working mothers who do not. The most representative MOTHER or prototype is a mixture of the cluster and metonymic stereotype cognitive models in that:

> "the best example of a mother is a biological mother who is a housewife, principally concerned with nurturance, not working in a paid position, and married to the child's father" Lakoff (1999: 400).

Subcategories of the category mother also exist, such instances are stepmother, adoptive mother and foster mother. These subcategories are deemed to be radial categories by Lakoff as they are related to the central case of MOTHER. They are conventionalised by a culture and have to be learnt. Lakoff (1999: 406) defines radial categories as the following:

- There can be no single cognitive model that represents the entire category
- There is a central submodel characterizing a central subcategory
- Representations for noncentral subcategories cannot be predicted either by rule or by general principle such as similarity
- There are nonarbitrary links between the central and noncentral subcategories. These links are other cognitive models existing independently in the conceptual system.
- Though the noncentral subcategories cannot be predicted from the central subcategory, they are motivated by the central subcategory plus other, independently existing cognitive models.
- Motivated subcategories can be learned, remembered, and used more efficiently than arbitrary, unmotivated subcategories.

Lakoff (1987) illustrates the radial category by looking at the Japanese numeral classifier *hon* which normally classifies long, thin objects such as sticks, pencils and trees. This classifier has also been extended to classify other more opaque entities such as hits in baseball; martial arts contests; telephone calls and television programmes. Lakoff argues that these entities are all explainable as part of a wider radial category. Martial arts contests use sticks which are long and thin and are the main functional object that secure the win. Hits in baseball are achieved with the baseball bat, itself long and thin and the trajectory made by the ball is also a long and thin arc thus the main functional object extends itself to the main goal of the game. Telephone calls utilise the receiver as the main functional part, which is long and thin. Telephone calls are conducted over wires, which are long and thin and fit in with the conduit metaphor for communication. Finally, television programmes are also classified as *hon* because they are an extension of the conduit metaphor, similar to telephone calls but without the wires.

A case study into the preposition *over*, originally researched by Brugman (1981) and refined by Lakoff (1987), underlines the different semantic links that chain the different senses of the preposition together. *Over* has a multitude of different interrelated senses, the following list explicates a few of these.

a. The painting is *over* the mantle.
b. The plane is flying *over* the hill.

c. Sam is walking *over* the hill.

d. Sam lives *over* the hill.

e. The wall fell *over*.

f. Sam turned the page *over*.

g. Sam turned *over*.

h. She spread the tablecloth *over* the table.

i. The guards were posted all *over* the hill.

j. The play is *over*.

k. Do it *over*, but don't *over*do it.

l. Look *over* my correction, and don't *over*look any of them.

m. You made *over* a hundred errors.

(Lakoff 1987: 418-419)

The most central sense according to Brugman (1981) was a combination of the underlying schemas of *above* and *across*. These meanings can be found in many of the above listed senses and is best represented graphically as shown in 5.4[4] where TR and LM correspond to trajector and landmark respectively, which in turn correspond to Langacker's (1991) encoding of figure and ground.
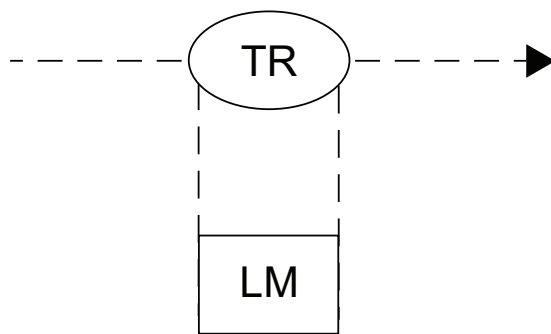
Figure 5.4: The plane flew over

These meanings are held to be the most central definition of *over* and thus all other meanings are related to this central meaning via different forms of semantic chaining. This schema can be elaborated by specifying whether there is

---

[4]Lakoff (1987: 419).

contact between the trajector and landmark; and whether the landmark represents a single point in space or an extended three dimensional area. Thus *Sam is walking over the hill* indicates that the trajector and landmark are touching and *the bird flew over the hill* would be elaborated to show that there is no contact between the trajector and the landmark. Similarly the landmark (hill) is an extended area in space, much larger than *wall* would be in *the bird flew over the wall*. Non-spatial metaphorical extensions also occur, *for example he has no authority over me*, shows that power is perceived as a metaphor of vertical space Taylor (2003: 115).

5.3. CHAPTER SUMMARY

This chapter has reviewed the important underpinnings of methods of categorisation and classification in Cognitive Linguistics and in particular looked at prototype theory. The theory of prototypes will be applied to the North Ambrym classifier system in chapter 7. Finally, many of the different cognitive linguistic notions explored in this chapter will be applied to the possessive classifier system in North Ambrym in chapter 8, which will argue that possessive classifiers are polysemic with underlying schemas that unite different elaborations via semantic chains motivated by metaphor and metonymy.

Chapter 6

Testing Relationality

This chapter sets out to empirically test Lichtenberk's (1983b) theory of relational classifiers as explained in section 3.4.1. As the theory states that it is the intention of the possessor to use the possessed in a particular fashion that dictates the choice of possessive classifier, two different experiments were designed to test different contextual uses of possessed items. By using video stimulation and translation based elicitation a contextual frame was evoked that should influence the choice of classifier, such that if the possessive classifiers are in fact relational then the different contexts a possessor uses a possession in will trigger different possessive classifiers (c.f. section 5.1.1). It will be seen that that context or intentional use does not play a role in classifier choice and thus the relational hypothesis does not hold for North Ambrym possessive classifiers. It will be shown that some lexical items can only occur with one classifier regardless of how it is interacted with. Other lexemes can occur with different classifiers but it is due to particular culturally entrenched uses of a given possession and not the intended relation.

The experiments included nine male participants from Ranvetlam village and one participant from neighbouring Lonoror village[1]. Most participants were either born and grew up in these villages or have spent a considerable portion of their lives there. The participants ranged in age from 16 to 59 years old[2].

---

[1]Lonoror village is just a short walk across the creek from Ranvetlam. Lonoror just has two families living there and they have many close relatives in Ranvetlam.

[2]Exact ages are often hard to determine in Vanuatu and many people don't know their true

The two experiments explained in this chapter are part of a larger set of which the others will be explained in chapter 8. Table 6.1 shows the participants and their ages.

Participant	Age
1	55
2	59
3	38
4	16
5	34
6	26
7	26
8	51
9	27
10	19

Table 6.1: Participant age

The standard Oceanic mnemonic labels for the possessive classifiers are avoided in the body of the text and the different classifiers are simply referred to by name. However, for their occurrence in tables The different mnemonic labels are used to save space. The following labels are used:

- G = *mwenan* 'general' classifier.
- E = *an* 'edible' classifier.
- D = *man* 'drinkable' classifier.
- B = *ton* 'basket' classifier.
- F = *bon* 'fire' classifier.
- ASS = *ne* associative preposition.
- X = non possessable.
- Sometimes participants failed to give a response and these are left blank in the tables.

During elicitation sessions it was found that certain lexemes could only occur with just one classifier. It was this finding that prompted the design of these experiments. For example *bàrrbàrr* 'pig' only seemed to occur with the *an* classifier even when semantic frames such as selling and buying them were evoked. If the classifiers were relational the 'general' classifier *mwenan*

---

age but can give a rough estimate based on major events in the area.

should have been used. This leads to the following hypothesis:

Hypothesis 1. *Possessive classifiers in North Ambrym are not relational classifiers but are possessed classifiers.*

This chapter will show that possessed nouns are much more restricted in their ability to appear with multiple possessive classifiers and that the possessive classifiers are in fact possessed classifiers that classify some semantic feature of the possessed noun rather than the intended relation between the possessor and possessed (c.f. section 3.3.2). Section 6.1 describes a video clip based experiment and section 6.2 explains a context question based experiment.

6.1. VIDEO EXPERIMENT

The video experiment took 75 videos depicting interaction between a person and his possessions. 70 of the videos were filmed and edited on site in Ranvetlam village, while a further five were taken from the youtube website[3]. All the videos were numbered and then randomised to minimise any semantic grouping affects. Participants were asked to describe what the actor was doing with his possession.

The items chosen were items that were used on a regular basis by the community members. For example, the different coconut growth stages or coconut shells are used in a variety of different ways on an almost daily basis. The different interactions were designed to test whether intentional use could affect the choice of classifier. Also, using the medium of video disambiguated polysemous items, such as *ol* which can mean 'coconut' and its by-product 'copra' and thus particular senses could be tested reducing possible interference from other related senses that might affect the classifier choice.

The following sections are based around different videos depicting similar themes. In section 6.1.1 videos that show different interactions with coconuts will be discussed. The results show that the classifiers rarely change depending on contextual use. Similarly, section 6.1.2 discusses videos depicting interac-

_____

[3] www.youtube.com.

286

tions with coconut shells and the same conclusion is reached. Section 6.1.3 analyses a set of videos that show differing interactions with paper which result in only one classifier being used regardless of the intentional use. Section 6.1.4 shows different interactions with liquids. Section 6.1.5 shows the different uses of fire. Section 6.1.6 describes a set of videos that show non-canonical uses of items where this also results in the same classifier being used continually.

6.1.1. Coconut Videos

Videos depicting different interactions with coconuts were the largest group of videos as several different growth stages of coconuts were tested in different contexts. Each growth stage is explained below followed by the results of their different interactions with a possessor. It is important to note that the lexeme *ol* is the noun denoting coconut, yet all the growth stages have different names and thus *ol* should be seen as the superordinate term covering all growth stages and thus could not be tested using the video stimuli. One of the subsenses of *ol* is copra, which is included below.

Growth Stage 1: *Yumyum*. The *yumyum* is the first growth stage. It is a small green coconut without any hard shell or meat. There is water inside, which can have a bitter taste to it and it is often referred to as *yumyum konkon* 'bitter yumyum'. This coconut is normally drunk.

Video	1	2	3	4	5	6	7	8	9	10
throw & catch	D	D	D	D	D	D	D	D	D	D
throw away	D	D	D	D	D	D	D	D	D	D
kick	D	D	D	D	D	D	D	D	D	D
sit on	D	D	D	D	D	D	D	D	D	D
kick small one	D	G	X	D	D	D	D	D	D	D
drink small one	D	D	D	D	D	D	D	D	D	D
throw & catch small one	D	D	D	D	D	D	D	D	D	D
throw away small one	D	D	D	D	D	D	D	D	D	D
sit on small one	D	D	D	D	D	D	D	D	D	D

Table 6.2: Interactions with the *yumyum* 'small green coconut'

Table 6.2 depicts the results of the video experiment that included different in-

teractions with the *yumyum* 'small green coconut'. As is clearly evident from the results the predominant classifier used for all contexts was *man*, signified by the D in the table. The only time any other classifier was used was during the video on kicking the small *yumyum* where one participant used the *mwe-nan* classifier and one said it was non-possessable. Participant 3 who said it was non-possessable suggested that the man in the video had just found the coconut and had simply kicked it and therefore no possessive relation could be surmised from this.

Growth Stage 2: *vyùù*. The *vyùù* is a green coconut which has a soft shell inside with soft watery meat inside. The water content is large and it tastes sweet. This coconut is simply drunk as a refreshing drink and the meat is scooped out after and eaten.

Video	1	2	3	4	5	6	7	8	9	10
throw & catch	D	D	D	G/E	D	D	D	D	D	D
eat	D/X	D/E	E	E	D/E	D/E	D/X	D/E	D/X	D/E
drink	D	D	D	D	D	E/D	D	D	D	D
sit on	D	D	D	G	D	D	D	D	D	D
throw away	D	D	D	D	D	D	D	D	D	D
kick	D	D	D	D	D	D	D	D	D	D

Table 6.3: Interactions with *vyùù* 'green coconut'

Table 6.3 summarises the different contextual uses of *vyùù*. Similar to the videos of the *yumyum*, the predominant classifier given was the *man* classifier, especially when sat upon, kicked or thrown. What is interesting is that only when this stage of the coconut was eaten does the classifier change to the *an* classifier, which signifies a supposed edible relation. This is interesting as it would seem that this is evidence for an intended edible relation between the possessor and the possessed, yet if this were the case then we would also expect the *mwenan* classifier to occur when there is no intention to eat or drink the possession, such as the case when throwing, kicking or sitting on it. Similarly the choice of the *an* classifier actually occrred because of its collocation with *kili* 'flesh/meat of' rather than with *vyùù* 'green coconut' itself (see discussion in the analysis at the end of this section).

Growth Stage 3: *ol goro*. The *ol goro* 'dry coconut' has a brown outer skin and a hard shell with tough coconut meat inside. The water is more bitter than

288

in the *vyùù*. This growth stage is normally used for food preparation, where the meat is dessicated and mixed with water and squeezed to make coconut milk.

Video	1	2	3	4	5	6	7	8	9	10
throw	E	G	E	D	E	E	E	E	E	D
drink	D	E/D	E/D	E/D	D	D	D	D	D	D
sit	E	G	E	G/E	E	E	E	X	E	D
kick	E	G	E	E	E	E	E	E	E	D
throw	E	G	E	G	E	E	E	E	E	D
eat	E	G/E	E	D/E	E	E	D/E	E	E	D/E

Table 6.4: Interactions with *ol goro* 'dry coconut'

Table 6.4 summarises the findings of the videos depicting different interactions with the dry coconut. Different to the *yumyum* or *vyùù* stages of the coconut growth, this stage occurs predominantly with the *an* classifier when it was being kicked, thrown or sat upon, rather than the *man* classifier that occurred with the previous two growth stages. It is only when the liquid of this coconut growth stage is being drunk is the *man* classifier predominantly used. However, it will be shown in the analysis at the end of this section that the *man* classifier is chosen because of its collocation with *hu* 'juice' rather than *ol goro*.

Growth Stage 4: *Var*. The *var* 'sprouting coconut' is when an *ol goro* ripens and falls to the ground. The water that is inside the coconut is soaked up into the meat of the coconut creating a spongy mass called the apple. The coconut begins to sprout and a new coconut palm begins to develop. This growth stage of the coconut can only ever be eaten as there is no water content inside of it.

Video	1	2	3	4	5	6	7	8	9	10
throw & catch	E	E	E	E	E	E	E	E	E	E
throw away	E	E	E	G/E	E	E	E	E	E	E
eat	E	E	E	E	E	E	E	E	E	E
kick	E	E	E	G	E	E	E	E	E	E
sit on	E	E	E	G/E	E	E	E	E	E	E

Table 6.5: Interactions with *var* 'sprouting coconut'

Table 6.5 shows different interactions with the *var* stage of the coconuts de-

velopment. The predominant classifier is the *an* classifier in all contexts and the *mwenan* occurs only twice and was given by the same participant on both occasions. Again under a relational classifier hypothesis the *mwenan* classifier should occur in contexts of non-eating, but this simply does not occur.

Alternate Stage 1: *Bwela rrmo*. When a coconut is at the third growth stage, it also becomes the food source of one of the thousands of rats that populate the island. They climb the palm and cut a hole through the coconut to eat the meat inside. This is known as *bwela rrmo* 'shell of the rat'. As this coconut has no meat or water inside of it, it serves no real function in North Ambrymese society[4].

Video	1	2	3	4	5	6	7	8	9	10
kick *bwela rrmo*	X	G	X	D	X	G	X	X	X	G
sit *bwela rrmo*	X	G/D	X	G	D/X	G	X	G	X	G
throw away *bwela rrmo*	X	G	X	G	X	D	G/X	G	X	G
throw & catch *bwela rrmo*	X	G	X	D/G	E/X	D	X	G	X	G

Table 6.6: Interactions with the *bwela rrmo*

Table 6.6 shows the results from the video experiment on the interactional uses of the *bwela rrmo*. Predominantly the participants argued that this stage is not possessed and couldn't occur with a classifier. A few *mwenan* and one or two *man* classifiers and one *an* classifier do also occur. It can be safely argued that there is no intention to drink this type of coconut as there is no water and as there is no meat inside this coconut the intention to eat or drink it could not be the reason for the choice of this classifier and thus the majority of participants who did choose a classifier went for the *mwenan* classifier which indicates a general possessive relation. The varying use of classifiers here is an indication that *bwela rrmo* is a non-prototypical possession and that people find it difficult to classify. Non-prototypical possession will be looked at further in section 7.3.

Alternate Stage 2: *Ol*. *Ol* 'copra' is made from coconuts in growth stages three and four. The coconuts are chopped in half and the meat is scooped out.

---

[4]Only one use was found and that is the giving of the *bwela rrmo* to your *tutu*, a member of your kin who you are in a joking relationship with. This giving of the shell is done as a joke as it is said to resemble a vagina and you are implying that your *tutu* will have intercourse with it.

It is then laid on large drying racks and either sundried or roasted over a large fire. The copra is then put into bags and shipped off to Santo island to be pressed into coconut oil. This represents the main income source for the large rural population of Vanuatu.

Video	1	2	3	4	5	6	7	8	9	10
shelling copra	G	G	E	E	G	G	G	G	G	G
empty copra bag	G	G			G	G	G	G	G	G
carry copra	G	G	G	G	G	G	G	G	G	G

Table 6.7: Interactions with *ol* copra

The most predominant classifier to occur with copra is the *mwenan* classifier. No video of someone eating copra was made, though this was asked in the context question experiment (c.f. section 6.2).

Analysis

In this experiment the different contexts of throwing, sitting and kicking and drinking the *yumyum* there was a near consistent choice of the *man* 'drinkable' classifier. Similarly, with the *var* 'sprouting coconut', when it was kicked, sat upon thrown and eaten, it always occurred with the edible classifier. This is a very telling result as under a relational classifier hypothesis we would expect to see the *mwenan* classifier as there is no intention to eat or drink these items during these interactions.

It is only when the different growth stages of coconuts that have both a water content and a meat content were tested that differentiation of classifier choice occurred from the various contextual interactions. When being kicked, thrown, sat upon or drunk the *vyùù* 'green coconut' occurred predominantly with the *man* classifier. When being eaten, there was a mixed bag of results. The *an* and *man* classifiers occurred and some participants said it was non-possessable. A large amount of edible classifiers occurred and this might add credence to Lichtenberk's (1983b) theory of relational classifiers, as if something is being eaten then we expect the *an* classifier to occur. All eight occurrences of the *an* classifier actually occurred with a bound noun construction in the possessor slot, either with *kili ol* 'meat of the coconut' or *kilite* it's meat', where the classifier classifies the bound noun head *kili* 'meat of'. Not one par-

ticipant said that the lexical item *vyùù* could occur with the an classifier, in fact two participants specifically said that the edible classifier could not occur with *vyùù*. Finally, those who used the man classifier only used this as the video depicted the chopping of and then the eating of the coconut. Therefore, the man classifier was actually used in conjunction with the verb *rre* 'cut' or *tu baba* 'cut and split' and with the nominal *vyùù*, *ol vyùù* or *bwela ol vyùù* or *bwela vyùù*, thus the context of eating was not implied. The *man* classifier was predominantly used with the lexical item *vyùù* and the *an* classifier was predominantly used with the bound noun phrase *kili ol*. It appears that these nouns have predetermined classifiers as context does not affect them.

Similarly *Ol goro* 'dry coconut' occurred mainly with the *an* classifier when it was being sat upon, kicked, thrown and eaten. Interestingly *ol goro* did not need to occur in a bound noun construction with the bound noun *kili* 'meat of' as did the *vyùù* 'green coconut' shown previously. However, when the dry coconut was drunk it occurred with the *man* classifier all the time, with three of the participants saying both the *man* and *an* classifier were acceptable. Again, a more detailed analysis is required. Four of the participants used the *man* classifier along with the bound noun *hu* 'juice of' in a similar vein to the bound noun *kili* 'meat of' shown for the *vyùù* 'green coconut' examples. However the other six participants used the *man* classifier directly with the lexical phrase *ol goro* showing that the bound noun *hu* does not need to be the head of the phrase for the classifier to be acceptable here. It will be seen that the natural classifier for *ol* 'coconut' is the *man* classifier (c.f. section 7.2.2) and as *ol goro* is a compound form where the head noun is *ol* it is not unreasonable that the *man* classifier occurs in this construction. A new hypothesis can now be formulated:

Hypothesis 2. *Nouns co-occur with a particular classifier based on a particular culturally entrenched use of the noun referent.*

That is, for any noun, its culturally entrenched use is made salient by the possessive classifier and the intention to use it in a particular way is not the impetus for classifier selection. This is why the intended use of an item bears no significance on the choice of classifier and why, for example, the *man* classifier

occurs when the *vyùù* 'green coconut' is thrown or kicked, because its most entrenched use is to be drunk and thus the actual use, that of being thrown or kicked, does not override the entrenched classifier. When different classifiers do occur it is because a different lexeme was given in the answer, as shown with *kili ol* 'coconut meat' and *ol goro* 'dry coconut'. This can be related to Denny (1976) who says that classifiers can pick out functional properties of nouns. This hypothesis will be examined further in section 7.2.

What this section also shows is that the classifiers have a homogenous status as a change in classifier only occurs because of collocation with another lexical item and that the choice of classifiers are unaffected by context. Context may induce a different lexical item to be chosen, such as the choice of *kili* 'flesh/meat of' when the green coconut was being eaten and thus the *an* classifier is used rather than the *man* classifier. Pursuing this argument further, the classifier did not change when the green coconut was sat upon, kicked or thrown because the lexical item did not change.

6.1.2. Coconut Shell Videos

Another set of videos depicted using the shell of the coconut in various ways. Coconut shells have many uses, they can be used as cups, plates or as fuel for fires in North Ambrym. No video depicting the use of a coconut shell as a plate was made as this was elicited in the context question experiment, shown in section 6.2, though its result will be discussed here.

Video	1	2	3	4	5	6	7	8	9	10
collect sea in shell	D	G	D	D	D/E	D	D	G	X	G
wash with water in shell	D	G	D	D		D		G	X	G
put shell on fire	G	G	D	G	E	E	G/X	G	X	G
water drink shell	D	G	D	D	D	D	D	D	X	G
eat from shell	E	G/E	D	D/E	X/E	E	E	E	E	G

Table 6.8: Interactions with coconut shells

The results from table 6.8 show that the participants are more likely to use *man* classifier for contexts involving the containing of water in the coconut shell, and more likely to use the general classifier when the shell was put on the fire. And when looking at the result from the context question experiment we see

that the participants are more likely to use the *an* classifier. This evidence is quite contrastive as on the one hand it shows that classifier use may be relational as participants use more *man* classifiers in contexts where liquids are present and they use more *an* classifiers in contexts involving the containment of food, on the other hand when the context is of putting the *bwela ol* on the fire we do not find any instances of the *bon* classifier, which should indicate an intention to burn a possession. An explanation can be given based upon possessability, that is it depends on whether an item is thought of as an actual possession. Coconut shells are used as cups more than plates, but they are also used in fires regularly as they give off an intense flame. Coconut shells are everywhere in the village and are not really considered a possession but as transient objects that are just lying around, after having been used initially for their flesh content for cooking, these are then just put on the fire as fuel. Their use as kava cups are used again and again and so their continual use as a cup shows their predominant use and supports hypothesis 2. It is not just cultural entrenched use of an item in a particular way that affects classifier choice but length of use of a possession in a particular way too. The use of the coconut shell as a plate as a one off use still yields the *man* classifier, but when it is continually used as a plate then the *an* classifier is more likely to occur. A further hypothesis can now be developed:

Hypothesis 3. *The length of using a possession in a particular way affects the classifier choice.*

That is hypothesis 2 is affected by hypothesis 3, whereby continual use of a possession in a certain manner leads to cultural entrenchment and thus classifier change.

6.1.3. Paper Videos

This section details different interactional uses with paper and will show that neither context nor intentional use results in different classifiers.

Table 6.9 shows the use of paper in different contexts. Canonical uses of paper in North Ambrym are for writing or for using as cigarette paper. Both of

Video	1	2	3	4	5	6	7	8	9	10
drawing on paper	G	G	G	G	G	G	G	G	G	G
paper cigarette	G	G	G	G	G	G	G	G	G	G
eating paper	G	G	G	G	G	G	G	G	G	G
burning paper	G	G	G	G	G	G	G	G	G	G
paper cup	G	G	G	G	G	G	D	G	G	G

Table 6.9: Interactions with paper

these uses occurred consistently with the *mwenan* classifier. Either the Bislama words *pepa* 'paper' or *buk* 'book' along with the North Ambrym word *raki* 'leaf' were used to describe this item, though the predominant lexeme was the Bislama *pepa*. What table 6.9 shows is that this item does not occur with other classifiers when the context, and thus the intentional use, has changed. When lighting it to start a fire, or eating it and even when it was used to make a cup the classifier never changed[5]. Only once was the *man* classifier used when the paper was turned into a cup - though it occurred in the following sentence *man kap ne pepa* 'his cup made of paper', where the classifier occurs with the head of the NP *kap* 'cup'. Clearly, intentional use plays no role in the classifier choice here as paper consistently occurs with the *mwenan* classifier. This is similar to the results for coconuts and coconut shells and thus the results from the paper videos supports hypotheses 2 and 3 as the different uses of paper are not culturally entrenched enough to force a change in classifier as they are not used in this way by the majority of people (that is eating of paper is not an accepted use of paper).

Arguing further on side of verbal expectations we can see that even when *ngene* 'eat', was used with paper it did not impose some semantic agreement conditions onto the possessed item and the classifier does not change to *an*, as we would expect. And one participant even said that *an* would be ungrammatical if used here. Interestingly fire is said to eat and not to burn and again *ngene* 'to eat' was used when the paper was lit but the classifier did not change to *an* or to *bon*.

---

[5]The paper was not actually eaten - the actor just put it in his mouth and chewed it and pretended to eat it!

A series of videos depicting different usage of liquids was made to test whether liquids that were drunk were different from liquids that were used for washing or for gargling. If this were to happen then the classifiers would be relational classifiers and reflect similar usage as shown in Lolovoli in (1).

(1) a. *Na=ni utu na **me**-mu   wai*
    1SG=IRR draw.water ACC DRINKABLE.CL-2SG water
    'I will draw you some water to drink'

  b. *Na=ni utu na **no**-mu   wai*
    1SG=IRR draw.water ACC GENERAL.CL-2SG water
    'I will draw you some water (to wash with, or use for some other purpose)'
    Hyslop (2001: 181)

Lolovoli uses the drinkable classifier *me* when the water is to be drunk, but if the water is for washing with the general classifier *no* is used. The results of these contexts in North Ambrym show that only the *man* classifier occurs as shown in table 6.10.

Video	1	2	3	4	5	6	7	8	9	10
drinking water	D	D	D	D	D	D	D	D	D	D
washing with water	D	D	D	D	D	D	D	D	D	D
mouthwash	D	D	D	D	D	D	D	D	D	D
saltwater in shell	D	D	D	D	X	D	D	D	X	D
area of sea	D	D	G	D/E	G/D	G	G	D	D	D

Table 6.10: Interactions with liquids

There is not really much to say about the results except that nearly every participant gave the *man* classifier regardless as to the use of the liquid. The only results that need to be explained are for the area of sea. The *mwenan* classifier occurred only when the construction was *mwenan orr le tee* which means 'his area of sea-coast' and thus the classifier actually classifies *orr* and not *tee*. This is similar to the results for the different coconut growth stages where a different classifier was only used in conjunction with a different lexical item.

6.1.5. Fire Videos

Video	1	2	3	4	5	6	7	8	9	10
adding stick to fire	F	F/G	F	F	F	F	F	F	F	F
setting alight paper	G	G	G	G	G	G	G	G	G	G
putting coconut shell on fire	G	G	D	G	E	E	G/X	G	X	G
setting alight coconut husk	G	G	D	D	G/E	G	G	G	X	G
house on fire	D	D	D	D	D	D	D	D	D	D

Table 6.11: Interactions with firewood

Under a relational classifier hypothesis it is expected that the *bon* classifier be used for fire and firewood in these contexts as all of these items were set alight or added to the fire. The first context shows a near constant use of the *bon* classifier, yet this only occurred with the lexeme *yem* 'firewood', which is expected to co-occur with this classifier. The *mwenan* classifier occurred just once and not in conjunction with *yem* but with the lexeme *liye* 'stick' showing that these lexemes occur with a predetermined classifier and that context does not change its use. It was said many times that a stick is no longer a stick when put on the fire but is now firewood and thus both the lexeme and the classifier changes. Using coconut shells and husks with fire occur often in North Ambrym society yet the classifier did not change to *bon* as is to be expected under the relational hypothesis. Finally *im* 'house' when set on fire was not reclassified with *bon*, but stayed with its default *man* classifier.

6.1.6. Non-canonical Usage Videos

Finally a set of videos depicting aberrant or non-canonical uses of items were also shown to see if non standard ways of interacting with objects would result in different classifiers. I will argue that it does not impact the classifier choice.

Video	1	2	3	4	5	6	7	8	9	10
Eating paper	G	G	G	G	G	G	G	G	G	G
Drinking eggs	D	E	E	D	E	E	E	E	D	E
Eating lightbulb	G	G	G	G	G	G	G	G	G	G
Eating nails	G	G	E	G	E	G	G	G	G	G
Eating leaves	X	G	X	G	E	G	G	G	E	G

Table 6.12: Non-canonical interactions

Table 6.12 shows different non-canonical interactions with different items. The first line shows the eating of paper, whose occurrence with *mwenan* was discussed previously in section 6.1.3. The second item on the list is the drinking of eggs. Eggs are solely eaten in North Ambrym, though this video depicted a man cracking eggs into a glass and then drinking the raw eggs without chewing them[6]. Liquids and anything drunk should occur with the *man* classifier, yet only three people used this classifier as opposed to the *an* classifier. Under a relational classifier hypothesis we would expect a majority of participants to be using the appropriate relational classifier, yet the majority stick with the 'default' *an* classifier. A video depicting a man eating a lightbulb always occurred with *mwenan* and never changed to *an*, and thus violates the relational classifier hypothesis. Finally a video showing a man eating nails[7] predominantly occurred with the *mwenan* classifier, with only two people saying *an*. Finally a video depicting a boy and his father eating a big pile of leaves failed to evoke consistent use of the *an* classifier.

This final video of the eating of leaves can also be compared to the results of *raki* 'leaf' in the freelisting experiment (c.f. section 7.1). The results are juxtaposed below in table 6.13. The results of the freelisting experiment showed that raki 'leaf' occurred with the *mwenan* classifier four times and the *an* classifier six times. For the video experiment, the *mwenan* classiifer occurred six times; the *an* classifier twice and non-possessable twice. So in total their is an increased usage of the general classifier for the context of eating. Also if we look at how participants altered the use of their classifier under the context of eating, only participant 5 changed to the *an* classifier when the context of eating was given, whereas four participants changed from the *an* classifier to the *mwenan* classifier. Clearly under a relational hypothesis there should be an increased change towards the *an* classifer when the context of eating is evoked but the opposite occurs.

---

[6]All clips in this section, except for the eating of paper, were sourced from www.youtube.com.

[7]As in hammer and nails.

	1	2	3	4	5	6	7	8	9	10
leaf (wordlist)	G	G	E	E	G	E	G	E	E	E
Eating leaves (video)	X	G	X	G	E	G	G	G	E	G

Table 6.13: Comparison of leaves

6.1.7. Summary

The previous sections have shown that context plays a very minor role in determining the choice of classifier. Sometimes different classifiers were given that were not the expected predetermined classifier for that lexical item. The predetermined classifier is the one that occurs predominantly regardless of context with a particular lexical item. For example, the *yumyum* 'small green coconut' has the *man* classifier predetermined but it occurred once with the *mwenan* classifier. Similarly the *vyùù* 'green coconut' has the *man* classifier as predetermined but occurred twice with the *mwenan* classifier and twice with the *an* classifier (disregarding the context of eating where the *an* classifier occurred with a different lexeme entirely). Leading on from this, is it possible to posit a hierarchy of classifiers where alternative choices could be predicted by a default alternative choice. In effect this would mean that the predetermined classifier choice is facultative or optional, not based upon context but upon some hierarchy. Table 6.14 shows classifiers (marked by red font colour) that were different from the predetermined classifier given during the video experiments. For this section I preclude any change in classifier that could have resulted from semantic context or entrenched use. For instance the drinking of eggs did result in three participants choosing the *man* classifier and thus could have come from semantic context.

	1	2	3	4	5	6	7	8	9	10
kick small green coconut	D	G	X	D	D	D	D	D	D	D
throw & catch green coconut	D	D	D	G/E	D	D	D	D	D	D
sit on dry coconut	E	G	E	G/E	E	E	E	X	E	D
kick sprouting coconut	E	E	E	G	E	E	E	E	E	E
shelling copra	G	G	E	E	G	G	G	G	G	G
area of sea	D	D	G	D/E	G/D	G	G	D	D	D

Table 6.14: Unexpected classifiers (marked in red)

From table 6.14 it appears that for those lexical items whose predetermined

classifier is *an*, such as the dry coconut or sprouting coconut, the alternative choices can be either *man* or *mwenan*. For the lexical items whose predetermined classifier is *man*, such as the green coconut or the sea, the alternative choices can be either *an* or *mwenan*. finally for the lexical item whose predetermined classifier is *mwenan*, such as copra, the alternative choice is *an*. However, the *man* classifier was not given as a second option for lexical items whose predominant classifier was *mwenan* during the video experiment. If we look further ahead to section 6.2.1 we can see that the predominant classifier for bamboo is *mwenan* and when the context of burning is evoked the *mwenan* classifier is predominantly used but also the *man* and *an* classifiers are both given once each. If there is a hierarchy of classifiers then these three classifiers are presumably on the same level.

What is noticeable is that the *bon* or *ton* classifier were never chosen as alternatives and this points to them as being non optional. If the *bon* and *ton* classifiers are not optional secondary choices for the *mwenan*, *man* and *an* classifiers then it may point to them being on a different hierarchical level. This hierarchical distinction will be picked up again in section 7.3.1.

The video experiment has shown that the relational classifier hypothesis does not hold for North Ambrym. Many of the items that were interacted with in different ways did not result in different possessive classifiers being used and when different classifiers were used it only occurred on highly entrenched uses of that item and thus hypothesis 2 holds. This hypothesis will be explored further in the following section 6.2. Evidence was also given to support hypothesis 3 and further evidence for this hypothesis will be given in the next section 6.2 and again in 7.2.

6.2. CONTEXT QUESTION EXPERIMENT

The experiment was formulated to elicit similar responses to that of the video experiment (c.f. section 6.1). Different items were chosen and put into different contexts and the participant was asked to translate the sentence from Bislama into North Ambrym, bearing in mind the context. Bislama was used as the source language as it does not have any possessive classifiers and all pos-

session is marked with *blong* 'belong', that is possessed nouns are not classi-fied semantically or relationally like other Oceanic languages and *kakae blong mi* 'my food' uses the same possessive marker as *wota blong mi* 'my water'. As with the previous experiments the questions were randomised so that similar items would not appear next to each other in the question list as to minimize influence from neighbouring contexts. The results have been grouped around interactions of a particular item and these will be discussed below.

The underlying concept of this experiment matches the video experiment in that different contextual uses of an item would be tested. This experiment was designed to evoke underlying semantic frames that would perhaps force different classifier uses as per Fillmore (1982) (c.f. section 5.1.1). It was also intended that this experiment to be freer in that after an answer was given it was asked if another classifier could be used in place of the one proffered. The construction under a context of continual use of an item in that particular context was also asked to see if it was different to occasional use in a given context so as to test hypothesis 3. If length of use affects classifier choice the classifier would change dependent upon continual use versus occasional use. This would then show that continual use leads to cultural entrenchment and thus support hypothesis 2. The results will show that the continual use of an item in a particular manner does not provoke a change in classifier, unless it is already a culturally entrenched use, and a one off use of an item in a novel fashion does not initiate a change in classifier.

6.2.1. Bamboo

Table 6.15 shows different contextual uses of bamboo. These contexts are based on different uses of bamboo that actually occur in North Ambrym, ex-cept for the final context where bamboo is used as firewood, which is never done as bamboo is not a good firewood.

Context 1: Roasting Container

The first context is the use of bamboo as a vessel for roasting food in. Meat or root vegetables are put inside a section of bamboo and it is then put on a fire and roasted to add flavour to the food. In this context the actual term for this kind of

Question	1	2	3	4	5	6	7	8	9	10
roast meat in it	G	G	X/E	E	X/E/G	G	G/X	G/E	X/E	G
build house from it	G	G	G	G	G	G	G	G	G	G
catch water in it	G	G/D	D	G/D	G	D	D	G	G	G
burn it	G	G	E	G	G	G	D	G	G	G

Table 6.15: Interactions with bamboo

bamboo is *tu bul* which loosely translates as 'the hollow of a hole' rather than the term for bamboo itself, which is *li blabo*, though this term can still be used. Four participants felt that the *mwenan* classifier should be used with *tu bul*; four participants felt that no classifier should be used as its use is transitory and the object is not really possessed, though three of these participants said that the *an* classifier could be used, and one of these three participants also said the *mwenan* classifier could also be used, but the preferred choice was no classifier. The final two participants said that the *an* classifier could be used with *tu bul*. If we just look at the first choice of these participants then we get the majority choosing no classifier and the *mwenan* classifier rather than the *an* classifier. Though, under a relational hypothesis analysis as the bamboo is used with food we would expect the *an* classifier. The participants did not overwhelmingly use the *an* classifier associated with food because of the transitory possessive nature of the item, thus no classifier was used or simply the *mwenan* classifier if people believed that a possessive relationship could exist. One participant even said that the *an* classifier would only be used in children's speak. *Tu bul* then is not thought of as a prototypical possession and therefore different classifiers occurred. Non-prototypical possessions will be examined further in section 7.3.2.

When the lexeme *li blabo* was used by the participants, bamboo is perceived of as a tree as it is preposed with the bound noun *li* 'tree' and trees, as will be shown in 7.2.1, can be both classified by *mwenan* or *an* and here seven participants chose the *mwenan* classifier and the *an* classifier was only chosen twice.

Context 2: House Building Material

The second context of bamboo that was tested was its use to build houses with. Bamboo, can be used to make floors of houses, or cut lengthways and

flattened and then weaved to make the walls of the house. As houses and their substituent parts are classified by the *man* classifier it was expected that bamboo also be classified in this way. Yet the results show that all ten participants chose the *mwenan* classifier with *li blabo* and five of these participants explicitly said the *man* classifier would be ungrammatical here. Again contextual use of an item does not result in different classifier choice. Though, this is a culturally entrenched use of bamboo, it may not be seen as an inherent part of a house, which can be classified by the *man* classifier, but simply as building material.

Context 3: Water Vessel

Bamboo was historically used for collecting water, as bamboo is made up of different sections, a length of bamboo can be cut so that it becomes a natural water holder, the top would then be bunged up with a stopper. Similar to the use as a roasting vessel for food the term for this type of bamboo is also *tu bul*, though *li blabo* can also be used. Seven participants used the *mwenan* classifier, and two of these participants said that the *man* classifier could be used when I proffered this as an alternative, though three of these participants explicitly said that the *man* classifier could not be used. The final three participants said the *man* classifier could be used. These results are quite interesting as they contrast with the roasting of meat in the bamboo as we do get a small amount of shift towards the *man* classifier, which we would expect as other vessels for liquids are classified in this way. Though, as stated there was opposition to this classifier being used by some participants showing that it is not universally recognised, and given that the majority of participants did choose the *mwenan* classifier a fully relational system does not seem to be in use and that there are huge differences due to individual speaker variation.

Context 4: Firewood

The final context was its use as firewood and nine of the ten participants chose the *mwenan* classifier and one chose the *man* classifier, with seven out of ten participants explicitly saying that the *bon* classifier would be ungrammatical.

Summary

Different classifiers can be used to classify bamboo in different contexts, yet there is huge variation amongst speakers and it is only in some established

cultural contexts where the classifier can be different, with only a minority of speakers choosing different classifiers. Thus it is cultural entrenchment rather than relationality that underpins classifier choice. Though cultural entrenched uses do not necessarily have to lead to classifier change as shown by bamboo being used as a water vessel.

6.2.2. Canoe

Canoes are normally classified with the *mwenan* classifier when used in their normal context as modes of transport or for fishing. Two different contexts were chosen, one of which was inspired from evidence from the Lewo language spoken on Epi island, one of Ambrym's neighbours where if an old canoe is no longer used as a canoe but is upturned and used as a shelter for pigs, this would evoke the classifier used for houses (Early 1994: 214).

Question	1	2	3	4	5	6	7	8	9	10
pig sleeps in it	G	G	G	D	X/G/D	X/G/D	X/G	G	G	G
catch rain in it	G	G		G	G	D	G/D	G	G	G

Table 6.16: Interactions with canoes

Context 1: Pig's House

Despite other languages being able to use different classifiers more freely, North Ambrym again seems more rigid in that six participants chose the *mwenan* classifier, and three participants said that no classifier could be used as pigs do not make prototypical possessors, though two of these did say that both the *mwenan* and *man* classifiers could be used once prompted. Only one participant proposed that the *man* classifier could be used (Table 6.16). Also six of the participants explicitly said that the *man* classifier would be ungrammatical. Interestingly two of the participants said that *man* could be used but with *tu bulbul* 'hollow of the canoe', thus classifying *tu*. As shown in section 4.2.4 holes and hollows are classified by *man*.

Context 2: Water Container

The second row of Table 6.16 shows the contextual use of a canoe that is no longer being used as a canoe but being used as a sort of well for storing water.

Eight out of nine participants[8] chose the *mwenan* classifier, with three of those saying that *man* would not be possible. Only one participant said that *man* could be used. And one participant who chose *mwenan* did agree that the *man* classifier could be used when prompted, though he preferred his first choice.

Summary

Similar to the contextual use of bamboo, the contextual use of canoes do not show much variation in the choice of classifier. As these are not prototypical uses of a canoe, the classifier choice is more limited, unlike the classifiers in Lewo. This does hamper the theory that continual use of an item in a particular way would force a reclassification of that item. However, it is possible to distinguish between two different notions of continued use. One is the continued use of an item by a possessor in a certain manner and the other notion is of cultural entrenchment. Thus as these situations are not culturally entrenched the continued use of this item does not affect classifier choice. Only continued use in a culturally entrenched way could affect classifier choice.

6.2.3. Coconuts

Even more different contexts for using coconuts were given than those already tested in the video experiment (c.f. section 6.1.1). This time the superordinate category label could be tested, which was untestable in the video experiment as superordinate categories are generally unrepresentable with an image (c.f. section 5.2.2). *Ol* 'coconut' has three related senses. The first is 'copra', the dried meat of the coconut used for making coconut oil. The second and third senses are 'moon' and also related to this, 'month'[9]. All four senses are tested below.

Contexts 1 & 2: Eating and Drinking Coconuts

Table 6.17 included the contexts of eating and drinking of coconuts, this may seem similar to those contexts already covered in the video experiments, yet as

---

[8]Participant 3 was not asked.

[9]According to North Ambrym mythology, 'moon' was the original sense of the word, which was extended to coconuts by five brothers who discovered a coconut palm growing on their mothers grave. When they drank the coconut they looked at the moon and named the fruit after it.

Question	1	2	3	4	5	6	7	8	9	10
eat coconut	E	E	E	D	E	E	E	E	E	E
drink coconut	D	D	D	D	D	D	D	D	D	D
eat copra	G/E	G/E	E	G	G	G/E	G/E	G/E	G	E
my moon	G	G	E	D/E/G	G	G	G	G	G	G
5 months old	E	E/G	E	E/G	E	E	E	E	E	E

Table 6.17: Interactions with coconuts and its subsenses

ol 'coconut' is a superordinate category label it was not covered in the video experiment (c.f. section 6.1) as only lexemes representing the different growth stages of the coconut were tested there. Nine out of ten participants chose the *an* classifier for the context of eating the coconut, with one participant choosing the *man* classifier, though also saying the *an* classifier was acceptable. The drinking of coconuts resulted in all ten participants using the *man* classifier. This is exactly what we expect under the relational hypothesis, but *ol*, being a superordinate label, is quite exceptional as it can freely change its classifier due to its contextual use. Two participants also said *vyùù* 'green coconut' when this context was evoked and this stage is the one that is used for its sweet liquid. Similarly, participant 7 insisted that you had to use *ol goro* when the context of eating occurred, and that *ol* on its own is only acceptable when it actually referred to *ol goro* which is the growth stage that is eaten rather than drunk, thus this is further positive evidence for hypothesis 2. The fact that the superordinate label *ol* can seemingly occur freely with different classifiers is because speakers, presumably, must have a particular growth stage in their minds and choose the associated classifier for that stage.

Context 3: Eating Copra

The eating of copra yielded eight responses of the *mwenan* classifier, which 'copra' is associated with by default. Four of these participants said that the *an* classifier would be ok after this option was prompted. Two of those participants said that the *an* classifier would be ok if it was eaten all the time. Again this highlights the ability of a classifier to be used if the context is not just a one off occurrence. Two participants gave the *an* classifier as their own suggestion. One participant said that the eating of roasted or dried coconut meat occurs during times of famine and thus can be seen as a culturally entrenched and this is why there is a higher instance of classifier change away from *mwenan* to *an*

and therefore supports hypotheses 2 and 3.

Contexts 4 & 5: Moon and Month

The *mwenan* classifier was given by eight participants when *ol* referred to 'moon'. Yet nine participants gave the *an* classifier when it refers 'month' and participant 10 gave *an* even though he did not know the word for month in North Ambrym, and just gave *an ge be lim* 'his are five'. One of the participants even said that the Bislama term *manis* can be used with the *an* classifier. This should not be looked at in isolation as *rrem* 'yam' also has the related sense 'year' as years are counted in yam seasons. Also *huwo* means 'year' and this is also classified with the *an* classifier and yet has no other meaning except for year. The association of time and the *an* classifier will be looked at in section 8.1.

Summary

These different contexts have reinforced the idea that a culturally entrenched use can lead to the use of a different classifier (hypothesis 2) and that this use must be continual (hypothesis 3). That is the continued use of an item in a particular fashion also be a culturally entrenched one.

6.2.4. Coconut Shells

The video experiments showed that *bwela ol* 'coconut shell' was able to occur with different classifiers and it was argued that it is not simply that the contextual use of it has changed, but that the classifier changes because of continued entrenched use.

Question	1	2	3	4	5	6	7	8	9	10
dig with it	G	G	D	D/E	G	D/G	E	G/E	X/G	G
catch water in it	G/E/D	X/D	D	D/E	D	X/D	D	E/D	D	G/D
eat from it	E	G/E	D	D/E	X/E	E	E	E	E	G/D

Table 6.18: Interactions with *bwela ol* 'coconut shell'

Context 1: Digging with a coconut shell

The main focus of the discussion of table 6.18 is not simply the difference in choice of classifier but when a participant chose a different classifier because of length of possession of that item in a given manner. Looking at the first

row, *bwela ol* was asked for in the context of using it for putting ground in it or digging with it. Participant 6 said that the classifier should be *man*, but if you use it to dig with everyday then you would use the *mwenan* classifier. In a similar vein, participant 9 said that no classifier should be used, but if you dug with it everyday then you would use the *mwenan* classifier. The *an* classifier was expected because the coconut shell is now being used as a tool.

Context 2: Water vessel

For the second context, where the coconut shell is used as a cup to fetch water in. Participant 2 said that you would not use a classifier as it is only a transitory possession, something that you pick up from the ground and use once, but if its main purpose was for drinking from then you would use the *man* classifier as its more of a personal possession. Participant 6 also said a similar thing, that you would not use a classifier as its not really a possession, but *man* would be acceptable. Finally participant 10 said that if you use it once then the *mwenan* classifier should be used, but if used all the time as a cup then *man* should be used.

Context 3: Food container

The third context is where the coconut shell is used for holding *totogma*, which is roasted and beaten breadfruit topped with coconut milk, thus its use here is akin to a plate. Participant 4 said the *man* classifier but if used all the time then the *an* classifier could be used. Participant 5 said it was unpossessable, but if used all the time as a plate then *an* would be good. Interestingly participant 10 said *mwenan* if used once but if used all the time *man* should be used, which is counter-intuitive as we would only expect this to be used under the context of the coconut shell being used as a cup for liquids. However this still shows that continual culturally entrenched use of an item results in classifier change.

Summary

The evidence in this section supports the two hypotheses 2 and 3. That is the culturally entrenched uses of coconut shells can force a classifier change only if they will continually be used in that way and not for a single one off use.

These two experiments have highlighted many important issues concerning classifier choice. The video experiment in 6.1 showed that for many of the different possessed items tested a change in classifier did not occur when different contexts were evoked. Thus the relational classifier hypothesis does not hold for North Ambrym. Hypothesis 2 was developed to explain why classifiers do not change. That is the culturally entrenched usage of a particular item is the motivating factor for classifier choice. This is why the different growth stages of the coconut occurred with just one classifier regardless of the different interactional uses as it was its culturally entrenched use that motivated classifier choice. However, sometimes context did affect classifier choice, as shown by the context question experiment in section 6.2, and a second hypothesis 3 was developed to explain this. That is an item could be reanalysed as having a different function because of its continual use in a novel way. This use leads to cultural entrenchment and one off use of an item in a different way does not result in cultural entrenchment. This is why the eating of paper or nails did not result in classifier change as this represented a one off novel use. But when an item was continually used in a different way then the classifier could change. Thus cultural entrenchment is underpinned by length of usage, as per Schmid (2007). As classifier usage is underpinned by cultural entrenchment of a particular function the classifiers in North Ambrym resemble possessed classifiers, which were defined in 3.3.2, and thus hypothesis 1 is true. The possessive classifiers do not classify a relation between the possessed and possessor but some semantic feature of the possessed noun which is defined by its culturally entrenched use.

Denny (1976) argues that classifiers can characterise a functional property of a noun as discussed in section 3.3.2 and this is the same for the possessive classifiers in North Ambrym. Finally Aikhenvald (2000) shows that nouns can occur with different classifiers which single out specific properties and this is a characteristic of noun classifiers in general. North Ambrym's classifiers work in the same way.

Chapter 7

Testing Prototypes

Chapter 6 concluded that the relational classifier theory does not hold for North Ambrym and instead the classifiers act like possessed classifiers that characterise a particular function or semantic property of the possessed noun. This chapter will explain why some nouns only occur with one classifier and other nouns occur with multiple classifiers. This is due to whether the noun is a central member of the classifier category or not. This chapter employs two experiments to test prototypicality. The same participants were used as those in the previous experiments. The first experiment in this chapter is the free listing of category members, used to help define central members, as shown in section 7.1. The second experiment employs a word list where each noun had to be classified, shown in section 7.2. The response times of classification from the wordlist experiment were also taken and these will be analysed in section 7.3. Three related hypotheses will be tested in this section.

Hypothesis 4. *The possessive classifiers in North Ambrym represent categories with graded membership.*

Hypothesis 4 argues that as the classifiers are not relational classifiers and do not freely occur with different possessed nouns, they instead represent categories whose membership is defined by prototypical members. It will be argued that prototypical members can occur with just one classifier as stated in hypothesis 5.

Hypothesis 5. *Prototypical members of classifier categories occur with just one classifier.*

The opposite is also true, non-prototypical members are non-central and thus may occur with different classifiers as defined by hypothesis 6.

Hypothesis 6. *Non-prototypical members of classifier categories may occur with multiple classifiers.*

As the non-prototypical members lie on the boundaries of the categories they are able to cross over and occur in other classifier categories. This is because they are non-prototypical possessions and speakers have trouble classifying them and thus choose different semantic features.

7.1. FREE-LIST EXPERIMENT

Free listing is the first and most important step in defining the boundaries of any category (Bernard *et al.* 1986, Weller & Romney 1988). Not only will this experiment help define the different semantic domains of the possessive classifiers, but it will find out whether speakers of North Ambrym agree that the possessive classifiers have prototypical members. In her work on animal terms, Henley (1969) conducted several experiments in order to compare different experimental techniques. One of her experiments was the free listing of animal terms and states that "The frequency with which an animal is named is related to its frequency of use in the language in general" (Henley 1969: 177). Thus, the more frequent items given in this experiment should correlate with a higher frequency count in the corpus. Again this links in with the fact that continual use of a term leads to cultural entrenchment (Schmid 2007). Rosch *et al.* (1976b) argues that when participants in free listing experiments are given the category label there is evidence to show that they will produce typical rather than atypical examples and they also found that the first member given would resemble the prototype of the category. As shown by Berlin & Kay (1969) and explained previously in section 5.2.1, a category is defined by its focal members and not by its boundaries and this experiment does just that - find

the focal members of the classifier categories.

The free listing experiment will show whether or not prototypicality effects are prevalent within the possessive classifier system. If a classifier has lexical items that are deemed to be more prototypical then most of the participants will give that lexical item as an example of what goes with a certain classifier. By contrasting these results with the corresponding frequency of classifier members in the corpus it will be shown that more frequently used lexical items are the more prototypical members of the classifier categories.

The participants were asked to give as many examples of category members as they could for each possessive classifier. There was no time limit for the exercise. In total across all the classifiers 165 lexical items were given.

Classifier	Number of Lexemes	Lowest	Highest	Mean
an	69	2	28	12.5
mwenan	61	8	15	10.2
man	25	3	10	6
bon	5	1	4	2.1
ton	5	1	4	1.8

Table 7.1: Number of lexical items elicited for each classifier

Table 7.1 shows the total number of lexical items given for a particular possessive classifier, the lowest and highest number of lexical items given by a participant and the mean average. Thus we can see that the two classifiers with the smallest amount of lexical items were the *bon* and *ton* classifiers. The two largest categories were the *mwenan* and *an* classifiers. As each participant listed a varying amount of lexemes the first ten given from each participant were given a score. The first item listed would score 10 points, then 9 points for the second item listed and so on. The scores for all items mentioned by all participants were added up and the higher scores represent the items that were mentioned first and by multiple participants and thus reflect the more central members.

Out of the two largest classifiers, *mwenan* seems to be the category that most people could give a consistently larger amount of examples for, seeing as the minimum any participant gave was 8 lexical items. However, this does not

mean that participants knew more members of this category. The participants were able to come up with a consistently higher number of examples because they simply listed what they could see in their immediate vicinity, such as *ateter* 'glasses', *arorongta* 'headphones', *semen* 'cement' and *bateri* 'battery'. Whereas, when giving examples for the other classifiers, the participants did not have the same visual stimuli. The results for the *mwenan* classifier may therefore be skewed, but for the other four classifiers no visual stimulus was present to interfere in the free listing experiment. It may be that the *mwenan* classifier is harder to find a best exemplar for as the generic classifier is normally described as being negatively defined, in that if an item does not go with any other classifier it must therefore occur with the general classifier.

Some participants listed only a few items for some of the classifier categories. This is due to the participants listing superordinate category labels as members of these classifier categories. For instance, one participant gave only two items for the *an* classifier - *meyee* 'food' and *tabu* 'cabbage'. Both these lexical items are superordinate categories and thus by simply saying these two items all their subordinate terms are included. Similarly, another participant gave just four lexical items in their list for the *an* classifier: *meyee* 'food', *skru* 'chisel', *ayi* 'knife', and *teye* 'ax'. Again the superordinate concept for food was given instead of several subordinate members. On the other hand there is no lexeme meaning 'tool' that would happily fulfill the superordinate role of the other three lexical items given. In the following sections the free-lists for each classifier will be looked at. The following tables only show the ten highest prototypical lexemes for each classifier.

Participants were also asked to give a definition as to the different semantic domains covered by the classifiers. Not all participants were able to give an overall abstract definition of a category's members, mainly due to the fact that some classifiers represent several semantic domains and that some people simply relisted the different lexical items that co-occur with each classifier. Though, the results are telling and give us an idea as to how speakers of North Ambrym conceptualise membership of the classifiers.

For the *an* classifier the most prototypical member is *bàrrbàrr* 'pig' (c.f. table 7.2). Three distinct semantic domains are represented here, that is domesticated animals, work tools and food.

Possession	Gloss	Score	Corpus Count
bàrrbàrr	pig	55	26
ayi	knife	51	0
to	fowl	46	12
lelee bwereu	bullock	35	0
kuli	dog	33	0
meyee	food	28	18
teye	ax	28	0
skru	chisel	22	2
bwelala	saucepan	11	2
rrem	yam	10	98
bwelaye	shell container	6	1
lili ol	plantation	5	0

Table 7.2: Prototypical members: *an*

There is a correlation between the most prototypical member and its occurrence in the corpus. *Bàrrbàrr* 'pig', being the most prototypical member did have a high occurrence as a lexeme in the corpus compared with all other items, except for *rrem*, which far exceeded the corpus count for pig. The terms for the different tools in the above table had a relatively low count in the corpus. This can be explained by the fact that as these items are tools, instruments or implements and therefore would normally be introduced by the instrumental preposition *ne* as shown in the following example.

(1)   *Nam   rre liye **ne**   ayi*
      1SG.REC.PST cut tree INSTR machete
      'I cut the tree with the machete'

But for the majority of the time speakers of North Ambrym never specify the instrument that is used for these actions and no instrumental clause is given. Thus for 45 occurrences of the verb *rre* 'cut' in the corpus, no instrumental phrase was given but was simply implied. Similarly, *bwelala* or *sospen*

'saucepan' occurred only twice and that was as an object in a prepositional phrase, as shown in (2).

(2) *Nam*   *fuune*   *bya lon sospen*
     1SG.REC.PST squeeze go   in   saucepan
     'I squeezed it into the saucepan'

If we are going on a purely lexical occurrence in the corpus to distinguish prototypical members of the *an* classifier category then *bàrrbàrr* 'pig' and *meyee* 'food' are going to be the highest and all others less so. Thus we could say that food and domesticated animals are the most prototypical and work instruments are less prototypical. In order to quantify the position of the more prototypical nouns with regards to frequency of occurrence in the corpus, table 7.3 shows the thirty most frequent nouns out of a possible 740 nouns. *Bàrrbàrr* 'pig' is the 20th most highly occurring noun in the corpus and also the most prototypical member of the *an* classifier category, showing that there is a meaningful relation between categorial prototypes and lexical frequency as per Henley (1969). Similarly *rrem* 'yam' was one of the more central members of the *an* classifier category and is also the third highest noun in the corpus count.

When asked for superordinate category labels to describe the different lexical items listed under the *an* classifier participants gave the following: *meyee* 'food', *sesebno* 'animal', *sese ge ten oman* 'things for work', *teter fon* 'to look after' (domesticated animals), *bwelaye nyer* 'utensils' and *stret famili* 'real family'. To summarise the following domains are conceptualised by the speakers of the North Ambrym for the *an* classifier: food, animals, tools (work and home) and family.

Position	Lexeme	Gloss	Corpus Count
1	*vanten*	person	140
2	*teere*	child	116
3	*rrem*	yam	98
4	*yafu*	respected man	94
5	*sese*	thing	85
6	*vere*	village	69
7	*vehen*	woman	60
8	*fyang*	fire	57
9	*tomo*	rat	54
10	*beta*	breadfruit	52
11	*we*	water	45
12	*verr*	stone	45
13	*atingting*	slit drum	40
14	*liye*	tree	36
15	*vii*	banana	34
16	*im*	building	31
17	*yamarr*	woman	30
18	*tutu*	grandparent	30
19	*har*	nasara	29
20	*bàrrbàrr*	pig	26
21	*tan*	ground	26
22	*mama*	mother	26
23	*bweya*	rail	25
24	*ol*	coconut	24
25	*wobung*	day	24
26	*lonorr*	garden	23
27	*bwehel*	bird	22
28	*tee*	sea	21
29	*meyee*	food	18
30	*raki*	leaf	18

Table 7.3: Nominal frequency count

7.1.2. Man Classifier

For the *man* classifier, the most prototypical member is *we* 'water' (Table 7.4).
Three distinct semantic categories are represented here, liquids or items containing liquids, vessels for holding liquids and buildings.

Lexeme	Gloss	Score	Corpus Count
we	water	75	45
im	building	48	31
ol	coconut	41	24
bwelaye	cup	38	1
tee	saltwater	20	21
baket	bucket	19	0
suu	sugarcane	18	1
ti	tea	14	0
ketel	kettle	13	0
li brrarrme	kava	10	8

Table 7.4: Prototypical members: *man*

The three most prototypical members of this classifier category all scored
highly on the corpus count. Containers of liquids scored low and we can argue in a similar fashion to work instruments (c.f. section 7.1.1) in that they
are normally introduced by prepositional phrases and thus can be easily omitted in discourse. Comparing the top three most prototypical members of the
man classifier category with the overall corpus count of nominals (c.f. table
7.3), all three occur in the thirty most frequent nouns with *we* 'water' being the
11th most frequent noun in the corpus. Again this shows the relation between
prototypicality of classifier category membership and frequency of corpus distribution.

The *man* classifier similarly has multiple semantic domains and could not be
summarised by just one label. The following superordinate category labels
were given: *ten myunan* 'for drinking, *ten lolouan* 'for washing', *we bya rru
lon* 'water goes in it', *ol* 'coconuts' and *fwerr lon* 'to sleep in'. In summary the
semantic domains represented by *man* are liquids (for drinking and washing),
containers (of liquids) and shelters (houses, buildings...).

The *bon* and *ton* classifiers have a restricted amount of lexemes associated with them (c.f. table 7.5 and 7.6). The former classifier has two related semantic categories associated with it, fire and items that can be set fire to, thought the most prototypical member is *yem* 'firewood'. The latter classifier has really only one semantic domain and that is baskets and their various subtypes. The most prototypical member is the superordinate category label *arrbol* 'basket'.

Lexeme	*Gloss*	Score	Corpus Count
yem	firewood	88	6
fyang	fire	54	57
masis	matches	26	0
fwerrye	firebrand for sleeping with	9	0
barrni	firebrand	7	0

Table 7.5: Prototypical members: *bon*

Lexeme	Gloss	Score	Corpus Count
arrbol	basket	100	1
arrbol afyal	basket type	23	0
bag	bag	18	0
arrbol bwereu	long basket	16	0
arrbol beta	basket for breadfruit	9	0
tomul	basket type	7	0

Table 7.6: Prototypical members: *ton*

Looking at the corpus count for the *ton* classifier category *arrbol* 'basket' does not have many occurrences and does not occur in the top thirty most frequent nouns in table 7.3. Here there is no evidence for corpus frequency matching categorial prototypicality. But again as baskets are, in effect, types of instruments so they may not need to be mentioned in discourse so much, similar to machetes, axes and containers of liquids as explained previously.

The superordinate category labels for *ton* were simply thought to be *ten honean* 'for putting things in', *ma btean* 'be weaved' or simply *arrbol* 'baskets'. The latter domain can be used as the overall semantic category of *ton*.

The corpus count for the *bon* classifier category shows that though *yem* 'firewood' is thought of as the most prototypical member it has less occurrences

in the corpus compared to the second most prototypical member *fyang* 'fire'. *Fyang*, though is the eighth most frequent noun in the corpus, and this still does show a correspondence between prototypicality and frequency of distribution.

Superordinate labels for *bon* were simply given as *ten fyang* 'for fire' or *yem* 'firewood', though others gave *e bya fne meyee ran* 'something that food is roasted on', *ne libung ge eb rro fwerr* 'something that is slept with through the night', *ebu nga sene fyang en* 'something that is lit with fire' or *ten huru-man* 'for cooking'. These domains can all be summarised with the following superordinate category: fire & firewood.

7.1.4. Mwenan Classifier

The *mwenan* classifier has a mixture of different semantic domains associated with it (Table 7.7). This is within keeping with the analysis that this is a general classifier whose members do not fit in with the more specific semantic criteria of the other classifiers. The most prototypical member here is *ul* 'clothes'. Though there is a sharp drop off on the rate of prototypicality scale here and the next items scored less than half as *ul* did. This is presumably because the general classifier has a large scope and it is not associated with any one semantic domain.

Lexeme	Gloss	Score	Corpus Count
ul	clothes	55	10
orr lonorr	garden	26	23
farrba la	flip flops	23	0
bwela liu	shoes	21	0
arrbol	basket	18	1
teere	child	18	116
besau	village	17	38
sorr	shirt	16	0
traoses	trousers	16	0
bulbul	canoe	15	10

Table 7.7: Prototypical members: *mwenan*

The most prototypical item *ul* 'clothes' does not register in the top thirty nouns in the corpus count but *lonorr* 'garden' was in the top thirty and *teere* 'child'

319

was the second most frequent noun. There can be two explanations as to why the two most prototypical members do not occur frequently in the corpus. The first is that the *mwenan* classifier category, being negatively defined, might not have a prototype as there may be no overarching semantic criteria for the category. Secondly, As participants found it hard to think of examples of members of this classifier category they did just look around the room and start classifying different objects that they saw. This has presumably led to a badly defined category with regards to a reliable prototype. There were no children in the room at the time of the experiment and maybe *teere* 'child' would still be a prototypical member.

The *mwenan* classifier was the hardest for participants to assign overarching superordinate category labels. The following few domains were given: *ul* 'clothes', *hilnging nyer* 'my possessions', *ten flofloan* 'for rowing' (canoe), *ten bangbangan* 'for playing' (shoes and clothing) and *famili* 'family'. It is hard to give an overall summary of the semantic domains covered by *mwenan* but a rough estimate would be that family and general possessions are the best. Looking at the items that were given as prototypical members of this classifier clothes were high up on the prototypicality scale and so were family members, though other possessions such as canoes, trucks and bamboo were also given.

7.1.5. Summary

This experiment, along with the corresponding corpus counts, has helped define the central category members of the different classifiers. The results support hypothesis 4. As participants were able to give different entities for the different classifiers, the classifiers must represent categories themselves and thus hypothesis 4 is true. The prototypical members shown in the tables did not appear in any of the other prototypical member lists of the other classifiers, with the exception of *arrbol* 'basket'. This exception will be discussed in section 7.2.5, but all other evidence so far points to the actuality of hypothesis 5.

The insights into the semantic domains as given by speakers of the language should not be overlooked. They are very important and speakers seem to give

roughly the same semantic domains as linguists working on Oceanic languages have given in the past. The fact that every classifier has lexical items that are considered prototypical entails that speakers of North Ambrym do conceptualise the classifiers as actual categories with a more or less defined set of members. If these were purely relational classifiers then presumably there would not be such a large consensus on prototypicality as each lexical item would be able to more freely associate with any of the classifiers due to intentional use of the possessed by the possessor. This experiment has shown that the possessive classifiers act as categories with prototypical members.

7.2. WORD-LIST EXPERIMENT

The Free listing experiment (c.f. section 7.1) was conducted in order to find the central members of the different possessive classifier categories. This experiment builds on those results and was designed to find out if variation of the choice of a possessive classifier existed among different speakers. Where the free-list experiment asked for items that belonged to a particular classifier category the word-list experiment gave items and asked for the associated classifier.

A list of 133 lexical items from the class of free nouns was created, based partially on the central members of the free listing experiment and on many items that were not given in the free list experiment. Participants were read each lexical item in the North Ambrym language and asked to say that the item belonged to them. They could also state that if they thought an item was unpossessable and were able to give more than one classifier as a response if they so wished. This experiment was designed to be context free. As stated in 5.2.2, one of the criticisms of the prototype view of categorisation is that it can be affected by context and therefore eliciting classifiers in a context free environment would eliminate this problem (Barsalou 1987). Also chapter 6 revealed that the possessive classifiers are not relational and therefore context should not affect the choice of classifier unless a possessed item has several culturally entrenched uses. Lexical items not elicited during the free listing experiment were also picked according to the rough semantic domains discov-

ered in the prior experiment. For example, as the semantic domain 'building' was covered by the *man* classifier, lexical items referring to different building types were also included. Other lexical items were chosen that represented the different hierarchical levels of a specific category. For example, *liye* 'tree' was chosen as the superordinate concept to be included and also several subordinates were also included, such as trees with edible parts - *li bta* 'breadfruit tree' and trees with inedible parts - *li byang* 'banyan tree'.

For 46 of the nouns there was unanimous accord in that all participants gave the same classifier and it will be argued that these represent the most prototypical members of the possessive classifier categories and offers support for hypothesis 5. For the rest of the nouns participants did not unanimously agree on classifier choice and this it will be argued that these are thought of as less prototypical possessions and is evidence for hypothesis 6. In section 7.3 the reaction times for item classification will be looked at and it will be argued that for items that were classified the same by all participants the reaction times are faster than for those items that participants differed in classifier choice.

The following subsections deal with different sets of nouns that have been grouped together thematically. Section 7.2.1 looks at all nouns referring to trees. Section 7.2.2 deals with terms denoting coconuts and their growth stages and parts of the coconut palm. Section 7.2.3 looks at items associated with fire and appeared with the *bon* classifier. Section 7.2.5 examines different basket types. Section 7.2.4 looks at different tools. Section 7.2.6 deals with different species of birds. Section 7.2.6.1 looks at different types of buildings. Finally, section 7.2.7 looks at liquids that occurred with the *man* classifier.

7.2.1. Trees

One of the interesting results that was encountered is the large differentiation in the choice of classifiers for the items denoting different trees, as shown in table 7.8. The first section of the table shows the classification of the superordinate category label *liye* 'tree'. The second section lists all the trees that have edible fruit and the third section shows all the trees that either have no fruit or inedible fruit.

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
liye	tree	E	G	E	E	E	G	G	E	E	E
li bta	breadfruit tree	E	E	E	G	E	E	E	E	E	E
li ol	coconut palm	E	E	E	G	E	E	E	E	E	D
li rra	lychee tree	E	E	E	E	E	E	E	X/E	E	D
li rrbu	bushnut tree	E	E	E	G	E	E	E	E	E	E
li rrmo	tree species	G	G	E	G	X	G	E	F	X	G
li asau	tree species	E	E/G	E	G	G/X	G	G	G	E	G
li bii	bead tree	E	G	E	E	X	E	E	G	X	E
li bolva	cottonwood tree	E	G	E	G	E	G	G	G	E	E
li byang	banyan tree	E	G	E	G	E	G	G	X	X	D
li gelarr	devil nettle tree	E	G	E	G	E/X	E	G	G	E	G
li mye	tree species	E	G	E	G	E/X	E	G	F	E	G
li uluulu	black palm tree	E	G	G	G	G	G	G	E	E	E
li unu	tree species	G	G	E	G	E	G	G	G/F	E	E
li wou	pandanas tree	G	G	E	D	G	G	G	G	G	G
li brrarrme	kava plant	G	G	E	E	D	D	D	D	D	G

Table 7.8: *liye* 'tree' category Members

The superordinate label *liye* 'tree' will be looked at first. A clear majority chose the *an* classifier showing that speakers of North Ambrym more naturally associate trees with food or edibility rather than with no specific property.

The second section of table 7.8 lists trees that have edible parts. The tree in itself is of course not edible but their fruits are and their predominant occurrence with the *an* classifier should be seen as a metonymic extension from their edible fruits, this will be looked at further in section 8.1. The first four trees; *li bta* 'breadfruit tree', *li ol* 'coconut palm', *li rra* 'native lychee tree' and *li rrbu* 'bushnut tree' are all normally found in the vicinity of the village and their fruits are continually used when in season. The last tree on the list is the *li rrmo* 'unknown tree species'[1]. For this tree five participants chose the *mwenan* classifier, two chose the *an* classifier, two said it was unpossessable and one said the *bon* classifier, which is of course associated with firewood and fire. I will try and explain the reasons for the different classifiers. Firstly, this tree is not intentionally grown on peoples ground, it just grows naturally and is used rarely, if ever, for its fruit, which explains why the majority chose the *mwenan* classifier or that it is unpossessable. Two people chose the *an* classifier as this tree's fruit can be eaten. It is one of the trees that is chopped down and turned

---

[1]I have not found an English common or Latin scientific translation for this tree yet.

into firewood, which is a possible explanation for the *bon* classifier. After the experiment Two participants were asked if this tree had any edible parts and participant 2 told me that this tree does have edible fruit, the red leaves can be turned into a drink and the roots contain a sweet drinkable liquid. However, participant 3 said that this tree's fruit is inedible. Interestingly participant 3 had chosen the *an* classifier and participant 2 the *mwenan* classifier. This is something that needs to be looked at further as someone whose lack of specialist knowledge of the tree thought that the fruit was inedible actually chose the *an* classifier. This shows that the *an* classifier was chosen despite the belief that the tree's parts cannot be eaten. This would mean that though there is never any intention to eat parts of the tree the *an* classifier can still be used to classify it, adding more credibility that classifier usage is not linked to intentional use.

The last section of table 7.8 shows all the trees that do not have edible parts to them. There is a greater move towards the use of the *mwenan* classifier here. There is also a higher instance of *non-possessable* occurring too. The occurrence of *non-possessable* (X in the table) shows that participants perceive these trees more as wild trees and these are generally non-cultivated trees and are found in the bush and not in the village, where trees are grown for a purpose. But there are still some *an* classifiers occurring, along with a few *bon* and *man* classifiers. Clearly these trees have no edible parts but may occur with the edible classifier and there is absolutely no intention to eat any part of these trees.

The participants generally gave the same classifier (the *an* classifier) for the fruit trees listed in section two of table 7.8, whereas the participants classified the trees with inedible or no fruit in the third section with varying classifiers. Sometimes *an*, sometimes *mwenan* interspersed with a few *man* and *bon* classifiers and sometimes *non-possessable*. These results confirms hypothesis 3 and hypothesis 5 as fruit trees are those that are cultivated and occur in the village and are used for their fruit and are thus thought of as more long term possessions, whereas non-cultivated trees are wild and are not thought of as possessions and thus are not prototypical members of particular classifiers and thus participants classified them with differing classifiers.

7.2.2. Coconuts

This section looks at the different words associated with coconuts to find out if all parts of the coconut palm and different growth stages occur with the same classifier or not. It will be seen that several different classifiers are used dependent on the part of the coconut palm and dependent on the growth stage of the coconut fruit itself.

Table 7.9 is split into three sections. The first section refers to the superordinate category label *ol* 'coconut'. It is important to note that this lexeme has two related senses, firstly it can be a superordinate category label under which all types of coconuts are subsumed and secondly has the meaning 'copra', which is the dried flesh of the coconut that is sold and pressed into oil. I did not tell the participants what sense I meant, yet all of them chose the *man* classifier, which only occurs with the superordinate category label sense. Copra was tested in the video experiment, shown in section 6.1.1, and always occurred with the *mwenan* classifier. It was also shown in section 6.2.3 that when *ol* 'coconut' occurred with different classifiers it was because it was referring to different growth stages and thus speakers always had a particular growth stage in mind when changing classifiers. In this experiment, however, this lexeme only occurred with the *man* classifier, showing that its prototypical and thus culturally entrenched use is thought to be associated with its liquid rather that its meat content.

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
ol	coconut	D	D	D	D	D	D	D	D	D	D
var	sprouting coconut	E	E	E	E	E	E	E	E	E	E
yumyum konkon	small green coconut w/ bitter water	D	D	D	D	D	D	D	D	D	D
yumyum	small green coconut	D	D	D	D	D	D	D	D	D	D
vyùù	green coconut	D	D	D	G	D	D	D	D	D	D
vyùù kem	green coconut w/ hardening flesh	D	D	D	G	E	D	E	D	D	D
ol goro	dry coconut	E	G	E	G	E	E	E	E	E	E
li ol	coconut palm	E	E	E	G	E	E	E	E	E	D
ngil ne li ol	edible part of trunk	E	E	E	E	E	E	E	E	E	E
hema ol	coconut bagasse	E	G	E	E	E	E	E	E	X	E
ra ol	coconut leaf	G	G	E	G	G	G	G	G	G	G
ra ol gorogoro	dry coconut leaf	G	G	G	G	G	G	G	G	G	D
asi ol	coconut stem	G	D	E	E	G	G	F/G	E	E	G
bwelabnye ne ol	midrib of frond	G	G	E	G	X	G	G/X	E	F	G
blaangi ol	skin	G	G	D	G	X	G	G	E	F	G
bwere ol	spathe	E	G	E	G	G	G	G	E	D	E
hu ol	coconut cream	D	D	D	E	D	D	D	D	D	E
we ne ol	coconut water	D	D	D	D	D	D	D	D	D	G
kili ol	coconut meat	E	E	E	E	E	E	E	E	E	E
waun ne ol	husk	G	G	E	E	G	D	G	G	G	D
wawa ne ol	frond netting	D	G	G	G	G	G	G	G	G	E

Table 7.9: *Ol* 'coconut' category members

The different growth stages of *ol* 'coconut' are depicted in the second section of the table and the classifiers they occur with differ. Again the difference underlines the hypothesis of cultural entrenched usage (hypothesis 2). *Ol goro* 'dry coconut' occurred eight times with the *an* classifier and twice with the *mwenan* classifier. Dry coconuts are primarily used for their coconut flesh which is grated for cooking, though the water can be drunk, the *man* classifier was never proffered. *Var* 'sprouting coconut' occurred consistently with the *an* classifier. The sprouting coconut has no water inside and can only be eaten. The two different types of *yumyum* the first stage of coconut growth occurred consistently with the *man* classifier. *vyùù* 'green coconut' occurred nine times with the *man* classifier and just once with the *mwenan* classifier. These two stages (*vyùù* and *vyùù kem*) of the coconuts growth are where the liquid is at its sweetest, though the *vyùù* does have a thin layer of flesh that can be eaten the *an* classifier was never proffered. Whereas, the *vyùù kem* occurred less so with the drinkable classifier with a score of just 7, it also occurred twice with the edible classifier and once with the general classifier. At this stage there is more meat content though it is still primarily drunk. These results show that the classifiers given for each growth stage were determined by their predominant cultural use and hypothesis 2 is upheld.

The third section details miscellaneous parts of the coconut palm and their associated classifiers. What is interesting is that though *ol* 'coconut' always occurs with the *man* classifier the noun phrase *li ol* 'coconut palm' predominantly occurs with the *an* classifier. As a type of tree it is thus associated with other trees and as its fruit is edible and thus it is associated with other edible trees, even though its fruit is thoroughly thought of as being a liquid. *ngil*, the edible part of the palm's trunk is of course associated with the *an* classifier and so is *hema ol*, which is the bagasse of dessicated coconut, and is thrown away - fed to either the pigs or the chickens. Though itself is not thought of as a food but as a waste product it still predominantly occurs with the *an* classifier. Again discrediting the theory of relationality as it is never intended to be eaten by the possessor.

Other parts of the coconut palm predominantly occurred with the *mwenan* classifier, such as the palm fronds, which can be used for thatch. *Waun* 'husk'

was the lexeme that had the largest amount of variation of classifiers. *mwenan* was given six times and *an* and *man* both twice. Similarly *bwere* 'skin' occurred five times with the *mwenan* classifier, four times with the *an* classifier and once with the *man* classifier. Neither of these items can be eaten or drunk and it is thus surprising that these occur with these classifiers. These items are not really considered prototypical possessions - they were not given in the free list experiment and it is thus that participants have trouble deciding on the choice of classifier for non-prototypical possessions and thus hypothesis 6 is supported. When non-prototypical possessions are possessed there must be some mechanism for deciding what classifier to choose, and clearly the choice is quite idiosyncratic.

7.2.3. Fire

This section will look at all the lexical items that were elicited with the *bon* classifier. The results are ordered in table 7.10 in descending order according to the total number of *bon* classifiers. The results in Table 7.10 reflect the answers given in the free listing experiment, where *yem* 'firewood' and *fyang* 'fire' were really considered the only prototypical members. Thus *yem* and *fyang* scored consistently high in this experiment with their occurrence with the *bon* classifier.

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
yem	firewood	F	F	D	F	F	F	F	F	F	F
fyang	fire	F	F	D	F	F	F	F	F	F	G
bulu fyang	ashes	D	F	D	G	G	D	D	F	F	G
goroye	branch	E/F	G	D	G	G/X	E	E	F	E	G
asi ol	coconut stem	G	D	E	E	G	G	F/G	E	E	G
bwelabnye ne ol	midrib of frond	G	G	E	G	X	G	G/X	E	F	G
bwelaangi ol	husk	G	G	D	G	X	G	G	E	F	G
bumriu	charcoal	G	G	D	G	G	G	G	G	F	G
li mye	tree species	E	G	E	G	E/X	E	G	F	E	G
li unu	tree species	G	G	E	G	E	G	G	G/F	E	E
li rmo	tree species	G	G	E	G	X	G	E	F	X	G

Table 7.10: *Fyang* 'fire' category members

Participant 3 gave *man* as his response in table 7.10 for fire and firewood. This is further evidence against a relational classifier hypothesis as it can not be

judged that there is an intention to drink the firewood! Participant 3 knows the existence of the *bon* classifier as he gave *yem* 'firewood', *fyang* 'fire' and *masis* 'matches' during the free listing experiment. However he consistently gave the *man* classifier for fire and firewood in this experiment. It will be shown in section 7.2.5 that participant 3 also usese the *an* classifier for baskets rather than the expected *ton* classifier. Section 7.3.1 will look into more detail speaker variation and see how this affects classification times.

The rest of the lexemes in table 7.10 have relatively few co-occurrences of *bon*. *Bulu fyang* occurred three times with *bon*, four times with *man* and three times with the *mwenan* classifier. As several classifiers were given, this lexeme represents a non-prototypically possessed item and thus different classifying processes were used to categorise it. *Bulu fyang* literally means 'hole of the fire' and holes are often thought of as places where liquids are found, *bulu we* 'water hole' is a rock pool in a creek used for drinking and *tu liye* 'hollow of a tree' is where water gathers in a tree which is used as a source of fresh drinking water. Fresh drinking water is precious in North Ambrym due to its scarcity and *bulu* is thus normally associated with liquids and it might be this semantic association that drives the use of the *man* classifier. It could also be due to classifier loss as mentioned in the previous paragraph whereby the *man* classifier appears to be encroaching into the domain of the *bon* classifier.

The other items in the table are different trees that are used for firewood and parts of the coconut tree that can also be used for fire. The coconut husk is used along with kindling for starting fires and the midribs of coconut fronds are bound together to make torches. These items, though, are non-prototypical possessions as they do not consistently occur with one classifier and none of these occurred in the free listing experiment.

In summary, the two items that were prototypical members of the *bon* classifier category occurred consistently with this classifier in the wordlist experiment. Other lexemes varied widely with their occurrence and this is due to their non-prototypicality and thus participants were forced to classify the objects using different semantic reasoning and hypotheses 5 and 6 are upheld.

7.2.4. Tools

Table 7.11 shows all the different tools that were tested in the word list experiment. They are ordered according to their collocation with the *an* classifier. That is, the top items predominantly occur with this classifier and those below start to occur more with the *mwenan* classifier.

The majority of the items listed in table 7.11 all start with the phoneme /æ/ represented in the current orthography as *a*. All except for *teye* 'ax'. This item has two senses - 'clam' and 'ax'. Clam shells were originally used as ax heads. Seeing as clams are also eaten it is probable that this is another instance of semantic extension where the classifier for the edible food is projected onto the other sense of the word (c.f. section 5.2.3). This will be looked at in more detail in section 8.1. Some of those terms beginning with an initial vowel actually begin with the derviational proclitic *a=* that creates instrumental nouns (c.f. 2.3.3.1). With the exception of *ayi*, which is related to the North-Eastern dialect form *wayi* 'bamboo', the other terms beginning with a vowel may well be derived nouns but I have yet to find their underived verb forms.

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
ayi	knife	E	E	E	E	E	E	E	E	E	E
teye	ax	E	E	E	E	E	E	E	E	E	E
abol	tongs	E	E	E	E	E	E	E	E	E	E
a=hol	forked pole	E	E	E	G	E	E	G	E	E	E
a=kin	digging stick	E	G	E	G	E	E	E	E	G	D
a=kemkem	spoon	G	G	E	G	E	G	G	E	E	G
asol	carrying pole	G	G	E	G	G	G	G	E	E	G
a=tata	pig killing club	G	G	E	G	G	G	G	G	G	G

Table 7.11: Tools

Regarding the hypothesis that was posited for the different occurrences of the classifiers with trees a similar hypothesis could be made for the different tools. *ayi* and *teye* occurred high on the list of central members for the *an* classifier (c.f. section 7.1) and again here occur with all participants solely choosing the *an* classifier. Thus, we have supporting evidence from the free list experiment that shows central members of classifiers consistently occur with that classifier. All other members of the domain of tools occur with a mixture of

mwenan and *an* classifiers (and *akin* 'digging stick' occurs once with the *man* classifier) except for *abol* 'tongs' which consistently occurs with the *an* classifier as well. It is important here to look at how people actually use these items in daily life. For those items that occur predominantly with the *an* classifier is because that they are considered possessions by everyone that are used for long periods of time whereas those items that occur predominantly with the *mwenan* classifier are more transient possessions and are used for a short amount of time and then disposed of. This evidence supports the previously stated hypothesis 3 whereby items that are possessed for long periods of time are more prototypical possessions and they are more likely to occur with one classifier.

For this part of the analysis *teye* 'ax' is excluded for reasons stated above. Machetes (*ayi*) are used on a daily basis by all rural dwelling Ni-Vanuatu. From an early age they learn to use one and they never go anywhere without one. Machetes are thus owned for a very long time and not likely to be thrown away. Similarly, *abol* 'bamboo tongs' are made and used regularly to remove hot stones from the earth ovens. *Ahol* are forked poles used for prying breadfruit and other fruit off of high branches. The *ahol* are kept around and not thrown away. *Akin* 'digging stick' is a sharpened stick that can be both used as for digging holes for planting crops in the garden or can be used in the village and stuck in the ground with the sharpened side out and used to skin the hard husks of the dry coconut. *Akemkem* 'spoon' is simply made by cutting off a small piece of wood from a branch or by cutting off a small piece of the shell of a green coconut which is then used to scrape out the soft flesh inside the coconut and after using them they are simply disposed of. *Asol* are employed when carrying produce from the garden back to the village. A long branch is cut and crops or baskets of crops are tied to either end and it is slung over the shoulder. Its just a stick and the next time you want to carry produce you cut another one. *Atata* 'pig killing club' was chosen nine out of ten times by participants to occur with *mwenan* classifier yet is definitely not a transient possession. These are highly prized, intricately carved possessions and only certain community members are able to wield one when killing a pig. The right to bear one must be bought from someone who already has a right and the buyer must also be an initiated man and taken a chiefly grade first[2]. As the

---

[2]People who do not have the right to kill a pig with an *atata* just use a big stick instead.

atata is a restricted possession that not everyone is able to use it also occurs with the *mwenan* classifier.

7.2.5. Baskets

This section looks at different basket types and their occurrence with the *ton* classifier that is reserved just for baskets. *Arrbol* 'basket' was the most central member of the *ton* classifier in the free listing experiment (c.f. section 7.1), where all ten participants responded with this lexeme. However, in this experiment, only four participants gave *ton* as the response. Four other participants gave *mwenan* as their response. It was noted in section 7.1 that *arrbol* could quite happily occur with both *mwenan* and *ton* without any difference in meaning of intentional use. Furthermore, this can be seen as evidence of speaker variation as all participants know it should be with the *ton* classifier, as per the free list experiment, but the majority chose other classifiers in this experiment (c.f. section 7.3.1)

The two members who chose the *an* classifier may be doing so for morphological and semantic reasons. Most of the tools shown in section 7.2.4 begin with *a=*, which is the instrumental nominalising proclitic, and as most tools are associated with the *an* classifier this lexeme may have been associated with morphologically similar lexical items or perhaps they even see *arrbol* as a tool. However, not all lexemes who have as their initial phoneme /æ/[3] are nominalised forms or for that matter occur with the *an* classifier. For instance *amam* 'swiftlet' is *a* initial and occurs with the *an* classifier because it is a bird. A differing example is *awa* 'vine' which occurs predominantly with the *mwenan* classifier. *Atata* 'pig killing club', which does start with the nominalising proclitic, occurs predominantly with the *mwenan* classifier rather than the *an* classifier. Finally *abyeú* 'black magic' occurs only with the *mwenan* classifier[4]. The argument that the classifier is chosen on because of its morphological form does not hold seeing as several lexical items with the same initial phoneme /æ/ occur with other classifiers.

---

[3]Written in the current orthography as *a*.

[4]This lexeme was not tested in this experiment but was tested during a preliminary experiment which used 14 participants located in several villages across North Ambrym. all participants gave the *mwenan* 'general' classifier.

For participant 3, the choice of the *an* classifier appears to be his predominant choice as he gives this classifier for the majority of the basket types. Of equal interest is particpant 3's classifier choice for items associated with fire (c.f. section 7.2.3). He does not give the *bon* classifier as would be expected but preominantly gave the *man* classifier that is associated with liquids. For this participant, though he is aware of all the classifiers and their typical associations, only uses the three classifiers *an*, *man* and *mwenan*. The *bon* and *ton* classifiers represent innovations in the languages of Ambrym and are not found in Proto Oceanic. These two classifiers also appear to have the least amount of lexical items associated with them as shown by the free listing experiment in 7.1.3. Due to the limited amount of lexemes occuring with these two classifiers the might be more 'unstable' than the other classifiers and the change in classifier choice for participant 3 might be due to him reclassifying these items.

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
arrbol	basket	G	B	E	E	G	B	G	B	B	G
arrbol afyal	basket type	G	B	E	G	G	B	B	B	B	E
arrbol bwela sam	basket type	G	B	G	G	G	B	B	B	B	G
arrbol ra manman	basket type	G	G	E	G	G	B	G	B	B	G
arrbol ra wou	basket type	G	G	E	G	G	B	B	G	B	G
arrbol ra gbul	basket type	G	G	D	E	G	E	G	G	B	G
arrbol ton vyu	basket type	G	G	E	G	G	E	E	G	G	B

Table 7.12: *Arrbol* 'basket' category members

The last item on the list, *arrbol ton vyu*, which translates as 'whiteman's basket' already has the *ton* classifier as part of the phrase. This basket represents non-local made baskets such as backpacks and rucksacks. Some participants found this hard to classify as they said it already belonged to a whiteman, clearly this is not an entrenched phrase accepted by all participants. Even though *ton* is in the phrase only one participant said *ton* could be used to classify the whole phrase. This again shows that non-entrenched phrases are less prototypical and are harder to classify than entrenched ones.

7.2.6. Birds

Different species of birds were tested to see if there is a difference in classification. The superordinate concept *bwehel* 'bird' consistently occurred with the *an* classifier. A seemingly consistent choice of *an* appeared for the most part for different members of the category bird. There was barely any alternation with the *mwenan* classifier, though quite a few participants said different birds were *non-possessable*. The reason for this is that a bird is free and not really yours, unless you kill one to eat. The *an* classifier is not just used to describe a bird that you have killed and intend to eat but also if you have caught a bird alive and intend to keep it as a pet. As shown for the different categories of trees and tools there appears to be an underlying motivation of length of possession which influences the choice of the classifier, whether *an* or *mwenan*. For the category of birds length of possession is short as you after you shoot the bird you eat it within a few hours. As length of possession is short we would expect that birds would more likely occur with the *mwenan* classifier, however the culturally entrenched use as a food source counteracts the short length of possession. For a more in-depth look at *lulfar* 'owl' see section 7.3.

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
bwehel	bird	E	E	E	E	E	E	E/X	E	E	E
amam	swiftlet	E	E	E	E	X	E	E/X	E/X	X	E
gere	flying fox	E	E	E	E	E	E	E	E	E	E
hulu	green winged fruit dove	E	E	E	E	E	E	E/X	E	E	E
lulfar	owl	E	E	E	G	X	E	E/X	E	X	E
meye	incubator bird	E	E	E	E	E/X	E	E	E	E	E
tilala	white eye	E	E	E	G	E/X	E	E/X	E	E	E
to	fowl	E	E	E	E	E	E	E	E/X	E	E
Um	pigeon	E	E	E	E	E	E	E/X	E	E	E
wereorebta	broad bellied fly catcher	E	E	E	E	E/X	E	E	E	E	E

Table 7.13: *Bwehel* 'bird' category members

7.2.6.1. Buildings

This section looks at different types of buildings and their occurrence with the *man* classifier. The lexemes denoting different types of buildings are listed in order, from those that most occurred with the *man* classifier to those that are mixed with the *mwenan* classifier. At first glance it seems quite strange as to why terms for buildings should occur with the *man* classifier which is normally associated with liquids and which other Oceanic languages label the 'drinkable' classifier. In section 8.2 I will further a hypothesis that buildings are linked to liquids via metaphorical extensions. In this section I will deal with the notion of permanency and specifically how more permanent buildings are more likely to occur with the *man* classifier and how less permanent buildings occur with the *mwenan* classifier.

The superordinate category label occurred nine times with the *man* classifier. *Rrurru im* 'kitchen' consistently occurred with the *man* classifier and *im fwerrfwerr* 'sleeping house' along with *im ten* 'local house' both occurred nine times with the *man* classifier. If we compare these with *tahi barrbarr* 'shelter' and *im kakai* 'toilet' where there is only six occurrences with *man* classifier. Shelters and toilets are temporary structures in North Ambrym. When a pit toilet is filled a new one is dug and the 'house' surrounding it rebuilt. Similarly shelters are not meant to be permanent structures. Again we can see that length of possession or permanency underlies the choice of classifier. There are some anomalies here, *mel* 'nakamal', *skul* 'school' and *jioj* 'church' all had a mixture of *man* and *mwenan*. However these structures do not actually belong to a particular person but to the community at large, this is why some participants used *mwenama jioj* 'our church' and not *mwenan jioj* 'his church' when giving their classifier choice. Similarly *ne* the associative preposition was given such as *jioj ne komuniti* 'the church of the community'. We also get this construction with *im kon* 'taboo house' where the modern meaning of this is also 'church'. So the *mwenan* classifier can be used not just to denote a lesser length of possession but less control over the possession.

At this stage it is worthwhile contrasting *im kon* 'taboo house' with *atata* 'pig killing club'. Previously, it was stated that *atata* was classified predominantly

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
im	building	D	D	D	D	D	G	D	D	D	D
rrurru im	kitchen house	D	D	D	D	D	D	D	D	D	D
im fwerrfwerr	sleeping house	D	D	D	G	D	D	D	D	D	D
im ten	local building	D	D	D	G	D	D	D	D	D	D
im kon	taboo house	D	D	D	D	ASS	D	D	D	D	D
im rrorro	hide	D	D	D	G	D	G	G	D	D	D
jioj	church	D	D	G	G	ASS	D	D	D	D	D
mel	nakamal	G	D	D	D	D	D	D	D	G	G
im kakai	toilet	G	D	D	G	D	G	G	D	D	D
skul	school	G	D	D	G	G	G	G/X	D	D	G
tahi barrbarr	shelter	D	D	D	G	G	G	D	G	D	D

Table 7.14: *Im* 'building' category members

by *mwenan* because it is only used by the person who has the right to wield it, and relatively few men have that right in North Ambrym. Similarly *im kon* 'taboo house' is a house that only a few have the right to use in North Ambrym. Once a male has attained one of the higher grades of the *mage* or namangki 'mens' graded society' then an *im kon* is built to house his wooden spirit effigies. As only a few have the right to use this we would expect that *mwenan* to be used more frequently, however this does not occur and throws doubt onto whether 'restricted use' actually underlies classifier choice.

7.2.7. Liquids

Different types of liquids and some non-liquids are shown in table 7.15 in descending order as to their occurrence with the *man* classifier. Comparing the results here to the free list experiment in section 7.1, several of the more prototypical members are high on the list in this table, such as *we* 'water', *ol* 'coconut' and *tee* 'saltwater'. Other items that appear high on the list in this table are lexemes that represent different growth stages of the coconut, such as *yumyum*, *yumyum konkon*, *vyùù* and *vyùù kem*.

The other items on this list have a relatively low amount of occurrence with the *man* classifier and it is important to note that none of these items were given in the free list experiment in section 7.1. *Aba* 'vine sp.' has an earthy potable liquid inside of it, though only occurred four times with the *man* classifier.

The argument for this is similar to that given for the trees that mainly occurred with the *mwenan* classifier, in that this vine is not grown in the garden or the village and grows naturally in the bush where it is cut and the liquid drunk from when needed. The other items on the list *watur* 'water drop', *oo* 'rain', *molrre* 'dew' and *rro vii* 'banana sap' are all items that are not really thought to be possessable or frequently used for their actual liquid properties. This adds further evidence to support hypothesis 6.

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
we	water	D	D	D	D	D	D	D	D	D	D
ol	coconut	D	D	D	D	D	D	D	D	D	D
yumyum	small green coconut	D	D	D	D	D	D	D	D	D	D
yumyum konkon	small bitter green coconut	D	D	D	D	D	D	D	D	D	D
tee	sea, saltwater	D	D	D	E/G	D	D	D	D	D	D
vyùù	green coconut	D	D	D	G	D	D	D	D	D	D
we ne ol	coconut water	D	D	D	D	D	D	D	D	D	G
hu ol	coconut juice	D	D	D	E	D	D	D	D	D	E
ra womul	orange leaf	D	G/D	D	E	E	D	D	D/X	D	D
vyùù kem	green coconut with flesh	D	D	D	G	E	D	E	D	D	D
li brrarrme	kava plant	G	G	E	E	D	D	D	D	D	G
aba	drinkable vine	D	D	E	G	X	G	D	G	D	E
watur	water drop	G	D/X	G	G	X	G	D	D	X	G
rro vii	banana sap	G	G	E	E	X	D	D/X	E	E	D
oo	rain	G	G	D	G	X	D	X	G	X	G
molrre	dew	G	D	D	G	X	G	X	X	X	G
afor	spit	X	G	E	G	X	G	G	G	G	E
wawa ne ol	frond netting	D	G	G	G	G	G	G	G	G	E

Table 7.15: *We* 'liquid' category members

7.2.8. Summary

The results from this section have given further evidence to support the hypothesis that these classifiers are not relational classifiers as many items occurred with classifiers that could never show the intention of the possessor to use the possessed in the manner signified by the classifier. The results also support the different hypotheses stated at the beginning of this chapter in that the culturally entrenched uses appear to be the underlying motivation for classifier choice (hypothesis 2). This was supported by the fact that different growth stages of the coconut have different uses which are reflected in their classifier choice. The hypothesis that length of possession underlies classifier choice is also supported here (hypothesis 3) in that different tools, that are possessed for long periods of time, occur more consistently with the *an* classifier as opposed to transiently possessed tools, which occurred with a mixture of *an* and *mwe-nan* classifiers. Similarly buildings that are more long term occurred more consistently with the *man* classifier than those that are more transient.

Speaker variation was cited here as one of the reasons for multiple classifiers being chosen for prototypical members of the *bon* and *ton* classifiers. Other reasons for multiple classifier choice are due to the fact that the lexical item is a non-prototypical possession and participants must decide which classifier is to be used on an ad hoc basis resulting in a differentiation of classifier choice. This supports hypothesis 6. It will be shown in 7.3 that the prototypical possessions that occur with different classifiers due to speaker variation differ in classification times to the non-prototypical possessions.

7.3. REACTION TIMES

Analysing reaction times has figured in cognitive psychology and information processing theory since Donders (1868). Donders thought that mental processing times increases with amount of decisions you have to make. According to Lachman *et al.* (1979: 136), Shannon's (1948) paper on a mathematical theory of communication was influential to the field of psychology. Shannon's research into quantifying information and the calculation of uncertainty led others to research how uncertainty affects reaction times. Hick (1952) tested

choice reaction time (CRT) and found that reaction time increases "as a linear function of informational uncertainty" (Lachman *et al.* 1979: 140). Hyman (1953) found that CRT increased not just by the number of alternatives but by the amount of information. Mowbray & Rhoades (1959) found that practice decreases reaction time and that Hick's law will only hold for participants who have not practiced. Lachman *et al.* (1979: 145) believe that everyday language is a skill that is highly practiced and would have different principles for reaction times as those skills tested under laboratory conditions such as Mowbray & Rhoades, Hyman and Hick's experiments. Rosch (1973) also tested reaction times and found that focal members of a category were classified faster than non-focal members (c.f 5.2.2). Following on from the above discussion a new hypothesis can be made:

Hypothesis 7. *Prototypical possessions will be classified quicker than non-prototypical possessions*

Section 7.3.1 deals with average reaction times of the wordlist experiment and looks at prototypical classifier members. Section 7.3.2 looks at lexical items where participants differed highly on their choice of possessive classifier.

7.3.1. Reaction Times of Prototypical Possessions

This section analyses the reaction times of participants for the classification of the items given in the wordlist experiment in section 7.2. Reaction times were calculated from the end of the utterance of the lexical item to the beginning of the utterance of the classifier. If a participant changed their mind then the reaction time is given according to the classifier that they perceived to be the correct and final one. Finally the mean average response time was calculated from all participants.

Figure 7.1 shows the average response times for the ten participants with the response times in ascending order. The only remarkable point about this graph is that the response times sharply increase at the 2.5 seconds mark. This shows that there may be something different about how participants classify these lexemes as it takes considerably longer for them to make a decision. As per
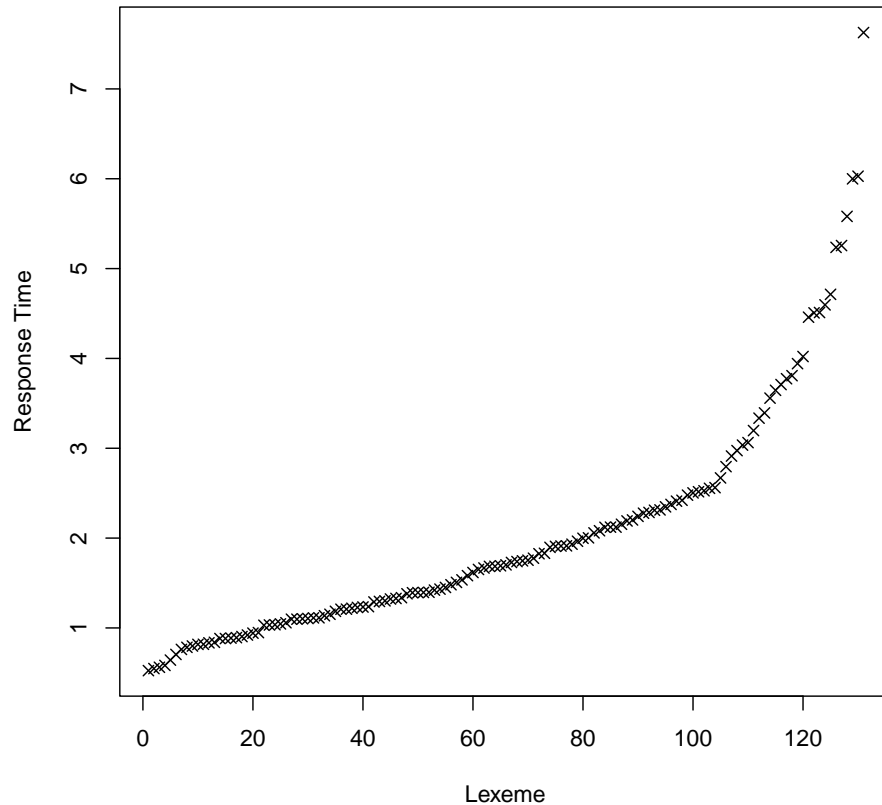
Figure 7.1: Average response times

hypothesis 7, the more prototypical members of a classifier category will have a lower response time than non-prototypical classifiers. This will be looked at in 7.3.2.

In order to ascertain that prototypical members of the classifiers that were found in the free listing experiment in section 7.1, the average response times shown in figure 7.1 were cross referenced with the lexical items that were given in the free listing experiment and were included in the word list experiment. Table 7.16 shows these lexical items and figure 7.2 shows the average response times of classifying these lexemes. The data shown in figure 7.2 is the same as that shown in figure 7.1. The red crosses in figure 7.2 show the lexemes that were given in the free list experiment. Clearly this supports the proposed hy-

pothesis as all the prototypical classifier members were responded to in under 1.5 seconds. This supports hypothesis 7 as items that were deemed prototypical members of classifiers were all classified quickly in the word list experiment.

Lexeme	Gloss	Classifier
bàrrbàrr	pig	an
ayi	knife	an
to	fowl	an
kuli	dog	an
meyee	food	an
teye	ax	an
rrem	yam	an
we	water	man
im	building	man
ol	coconut	man
tee	saltwater	man
suu	sugarcane	man
li brrarrme	kava	man
yem	firewood	bon
fyang	fire	bon
arrbol	basket	ton
arrbol afyal	basket type	ton
arrbol bwereu	long basket	ton
arrbol beta	breadfruit basket	ton

Table 7.16: Freelist prototypes in the wordlist experiment

Hypothesis 5 states that prototypical members of classifier categories are those that occur with just one classifier. The lexemes in which all participants gave the same classifier for, as shown in table 7.17, were cross referenced with the average response times given in figure 7.1 to give figure 7.3.The red crosses in figure 7.3 are the reaction times for which all participants gave the same classifier for. It can be seen that the reaction times for these lexemes is similar to the results for figure 7.2. Though we do get some slower response times, but none of these are longer than 2.5 seconds when the response times increase rapidly.

Table 7.17 reveal that the lexemes that participants gave the same classifier for were lexemes that occurred with the *an* and *man* classifiers, shown in black and
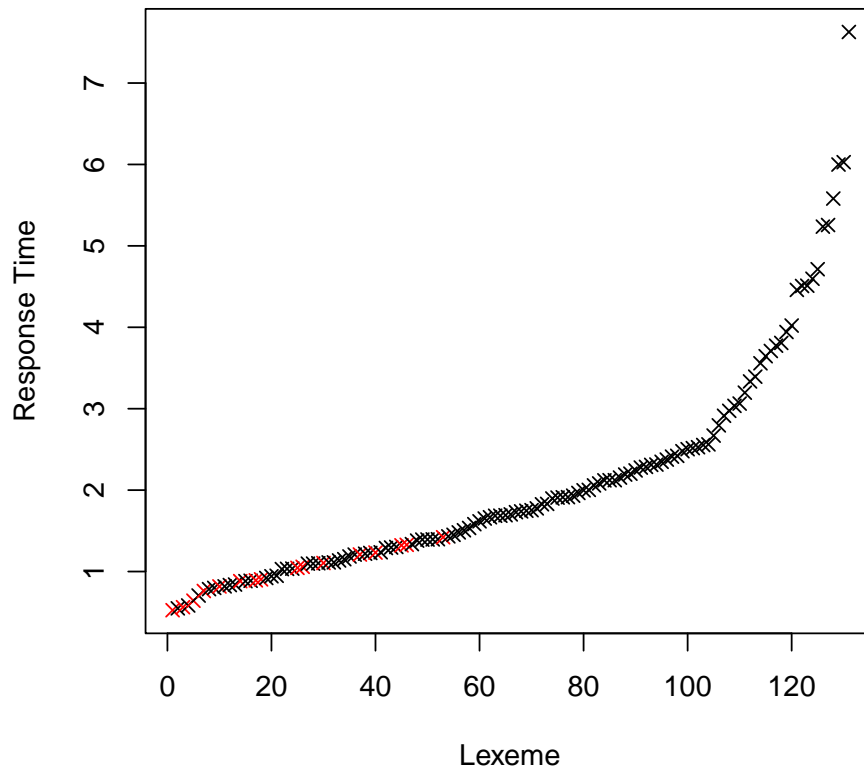
Figure 7.2: Average response times: prototypical members (in red)

blue in the table respectively. There was no such consensus for the *ton*, *bon* and *mwenan* classifiers as not one lexeme occurred consistently with these. The lexemes also reveal tendencies about classification, i.e. the *an* and *man* classifiers' overarching semantic categories are represented in 7.17. Animals, food, fruit and tools all occur solely with the *an* classifier, while buildings, coconuts, fresh and salt water occur with the *man* classifier.

There is an overlap between the prototypical members of the classifiers that were given in the free listing experiment and those that occurred consistently with one classifier, showing that there is a positive correlation between pro- totypical classifier members and fast classification times. This is positive ev- idence for hypothesis 7. However some lexical items that were thought to

343

Lexeme	Gloss	Lexeme	Gloss
abol	tongs	*sasar*	barracuda
ayi	knife	*sesebno*	animal
bàrrbàrr	pig	*siye*	table
be	shark	*tabu*	cabbage
beta	breadfruit	*tangtangli*	coconut crab
bwehel	bird	*teye*	ax
byubyu	comet (fish)	*tilala*	white eye (bird)
gere	flying fox	*to*	fowl
henyee	mullet	*um*	pigeon
homor	lobster	*var*	sprouting coconut
hulu	dove	*vyùù*	green coconut
im	building	*waiyu*	yam sp.
kerakra	crab	*wereorebta*	swiftlet
kili ol	coconut meat	*wo bta*	breadfruit
kuli	dog	*we*	water
mererr	eel	*wo bta an vyu*	papaya
meye	incubator bird	*wirii*	grouper
meyee	food	*wo rrbu*	bushnut
obwerr	taro	*wo uce*	sea almond
ol	coconut	*womul*	orange
or	prawn	*womul beta*	grapefruit
rrem	yam	*yumyum*	small green coconut
rrurru im	kitchen	*yumyum konkon*	small bitter green coconut

Table 7.17: Lexemes that occurred with just one classifier in the wordlist experiment

be prototypical members did occur with more than one classifier. Table 7.18 shows two lexemes that were perceived to be prototypical members of the bon and ton classifiers, *fyang* 'fire' and *arrbol* 'basket' respectively. However, participants did not fully agree on the same classifier. For *fyang* participant 3 gave the *man* classifier and participant 10 gave the *mwenan* classifier, though eight participants did give the *bon* classifier as expected. Participant 3 also said *man*. Similarly during the free listing experiment participants said that *arrbol* could occur with either the *ton* or *mwenan* classifier with no semantic change. As was noted in section 3.4.2 the *an*, *man* and *mwenan* classifiers are found in POc but the *bon* and *ton* classifiers are more recent innovations in North Ambrym. As more recent innovations the *ton* and *bon* classifiers would
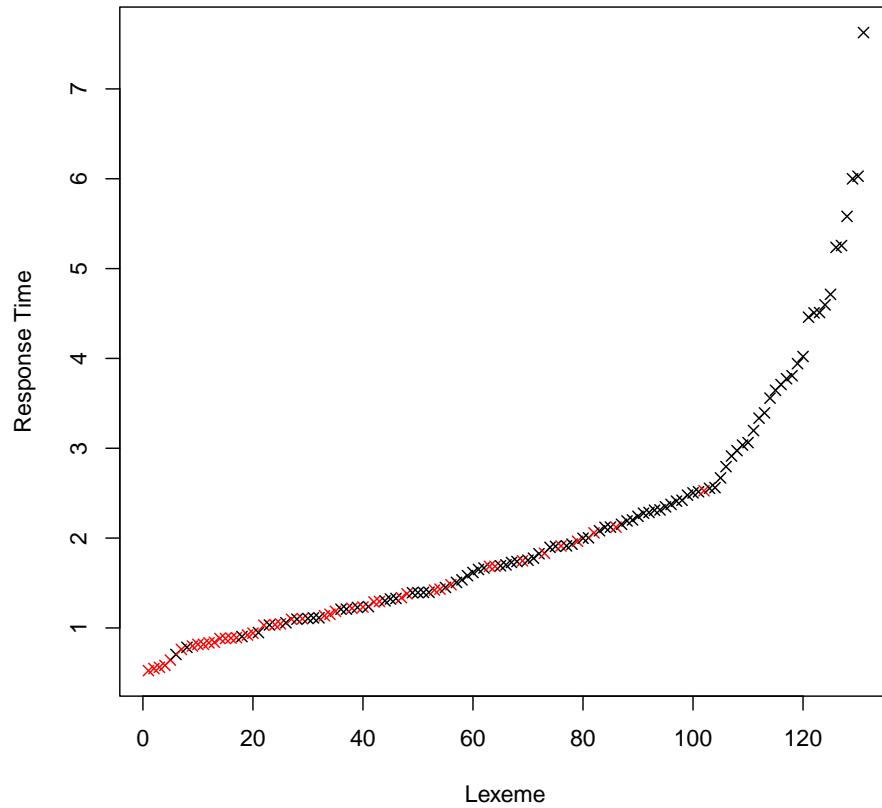
Figure 7.3: Average response times: lexemes with the same classifier (in red)

be more susceptible to speaker variation. It is possible that the *bon* and *ton* classifiers are less used than the other classifiers, seeing as these two classifiers only have a couple of members each. The terms for fire and basket are have relatively quick response times: 1.06s for fire and 1.32s for basket and therefore should be deemed protoypical possessions. Thus classifier variation for these items is not due to the non-protoypicality of them being possessions but that the limited amount of terms occuring with the *bon* and *ton* classifiers, due to their being relatively new innovations, results in variable use.

Whether this is evidence for possible language change and classifier loss can not be discussed here as there I have no comparable diachronic data. Even if we

345

Lexeme	Gloss	1	2	3	4	5	6	7	8	9	10
fyang	fire	F	F	D	F	F	F	F	F	F	G
arrbol	basket	G	B	E	E	G	B	G	B	B	G

Table 7.18: Prototypical classifier members with multiple classifiers

look at age variation amongst the participants, as shown in table 7.19[5], it would be hard to conclude that there is a process of language change. For example only two participants did not give *bon* as the classifier for fire; participant 3, aged 38 and participant 10, aged 19. Six participants did not give *ton* as the classifier for baskets and they are spread out amongst the different age groups.

Participant	Age	Fire	Basket
4	16	F	E
10	1	G	G
6	26	F	B
7	27	F	G
8	27	F	B
5	34	F	G
3	38	D	E
8	51	F	B
1	55	F	G
2	59	F	B

Table 7.19: Fire and basket responses ranked by age

What needs to be focussed on here is the alternative choice of the classifier given. For fire, the alternative choices were the *mwenan* and the *man* classifier but not the *an* classifier. for basket, the alternative choices were the *mwenan* and the *an* classifier but not the *man* classifier. In section **??** it was noted that the *mwenan*, *an* and *man* classifiers were on the same hierarchical level because if an alternative choice was given it would be one of the set of these three but never the *bon* or *ton* classifiers, This led to the conclusion that *ton* and *bon* classifiers were on a different hierarchical level. We can now link these two hierarchical levels together. Figure 7.4 depicts this classifier hierarchy.

Figure 7.4 shows that the *mwenan*, *man* and *an* classifiers are all on the same

---

[5]Table 7.19 ranked according to age and relevant deviation from the expected classifier is highlighted in red.
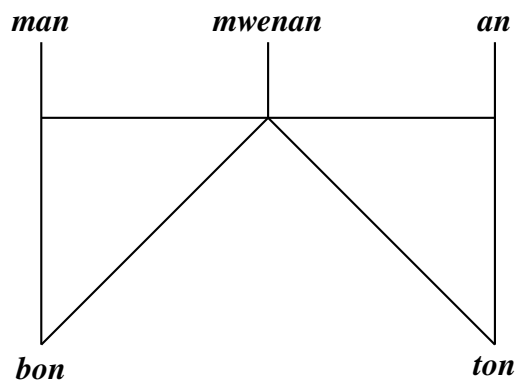
Figure 7.4: Hierarchy of Classifiers

level and can act as alternates for each other, whereas the *bon* classifier is subordinate to the *man* and *mwenan* classifier and the ton classifier is subordinate to the *an* and *mwenan* classiifer. The *bon* and *ton* classifiers are not linked in the hierarchy and thus do not act as alternative choices for each other. It is important to note that this is just a preliminary analysis of the classifier hierarchy. Further evidence is required to substantiate this analysis. What is needed is negative evidence from eliciation to show that the *bon* and *ton* classifier could never be alternative choices for each other for prototypical possessions.

7.3.2. Reaction Times of Non-Prototypical Possessions

If prototypical classifier members generally occur with one classifier and have a quick classification time it must follow that non-prototypical classifier members can occur with different classifiers and their reaction time will be much slower. Table 7.20 shows all lexical items where participants were not in total agreement and at least three different classifiers were given (including *non-possessable*)

Table 7.20 shows a disparate semantic grouping of lexical items. The majority of these lexical items did not occur during the free-listing of classifier members experiment 7.1, apart from the lexical items denoting fire and different baskets, whose occurrence with multiple classifiers was argued to be due to speaker variation in section 7.3.1. These items have been cross referenced with average response times, minus the lexical items referring to fire and baskets, and the

Lexeme	Gloss	Lexeme	Gloss
aba	potable vine	*li mye*	tree sp.
afor	spittle	*li ol*	coconut palm
arrbol	basket	*li rra*	native lychee
arrbol afyal	basket type	*li wou*	pandanas
arrbol ra gbul	basket type	*li byang*	banyan tree
arrbol ra manman	basket type	*li rrmo*	tree sp.
arrbol ra wou	basket type	*lulfar*	owl
asi ol	coconut stem	*molrre*	dew
auya	strong vine	*oo*	rain
bwelabnye ne ol	midrib of frond	*ra womul*	orange leaf
bwelaangi ol	coconut husk	*rro vii*	banana sap
bulu fyang	ashes	*vyùù kem*	green coconut with flesh
bumriu	charcoal	*walwal*	orchid
bwere ol	coconut skin	*watur*	water drop
fyang	fire	*waun ne ol*	coconut husk
goro bta	breadfruit branch	*wawa ne ol*	frond netting
goroye	branch	*wingi ol*	coconut flower
hema	coconut bagasse	*wo bo*	stinkwood fruit
jioj	church	*wo byang*	banyan fruit
li bii	bead tree	*womta karrbu*	coconut bud
li brrarrme	kava		

Table 7.20: Lexemes that occurred with three or more classifiers

results are shown by the red crosses in figure 7.5

The majority of the lexical items that occurred with more than three classifiers took a longer classification time than prototypical members, here the red crosses show that the response times were much slower, and mainly taking more than 1.5 seconds to classify. There were just three lexical items that had quicker response times. *li brrarrme* 'kava', *li ol* 'coconut palm' and *bulu fyang* 'ashes'. Kava was given as a prototypical member of the man classifier in the free listing experiment and thus is deemed a prototypical possession too and this explains its rapid classification time. However, kava has two referents, one being the plant and the second being the drink made from the roots and thus could conceivably occur with the *an* and *mwenan* classifier if the perceived referent was the tree or the *man* classifier if participants thought of it as the
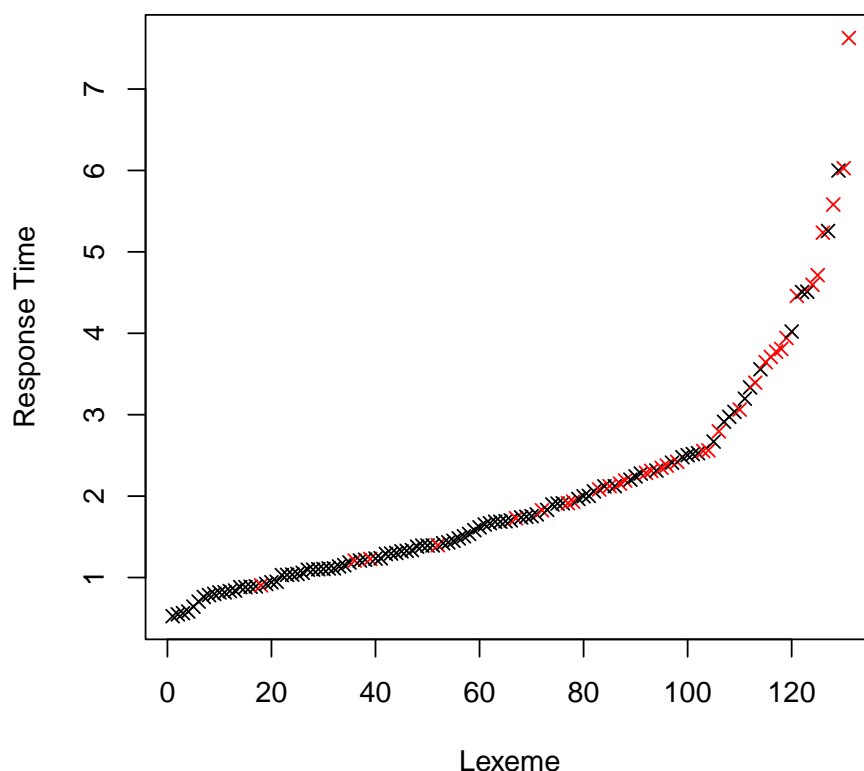
Figure 7.5: Average response times: lexemes which occurred with 3 or more classifiers (in red)

drink. *Bulu fyang* 'ashes', which literally translates as 'the hole of the fire' can thus be classified by the *man* classifier as it is a hole or with the *bon* classifier as it is associated with fire. As the majority of the results were classified slower than the prototypical possessions this evidence supports hypothesis 6, thus non-prototypical possessions may occur with multiple classifiers.

The reason why non-prototypical members of classifiers are taking longer to classify can be found in the different instances when participants were fairly verbose in their responses and vocalised their changing choice of classifiers. The following table 7.21 shows lexemes where more than three participants vocalised their thought processes and chose various classifiers before finalising their choice. The red cells in the table highlight the participants who chose a

particular classifier first and then changed their minds.

Lexeme	1	2	3	4	5	6	7	8	9	10
oo	2.32	23	0.61	2.82	7.46	0.95	2	4.21	9.81	2.63
hema ol	5.85	6.77	2.11	0.73	6.67	1.22	3.56	0.92	7.84	1.42
aba	0.84	1.02	0.91	0.53	21.82	3.28	1.49	2.3	1.35	2.91
lulfar	0.5	1.57	0.76	0.36	3.16	0.87	7.53	1.48	6.34	3.05
li asau	0.79	3.92	1.22	0.33	5.43	2.16	0.44	0.77	3.25	1.67
arrbol bwela sam	0.75	8.31	5.68	0.41	0.86	1.14	1.19	0.79	3.05	0.24

Table 7.21: Lexemes where participants vocalised their thoughts (in red)

The first noun in the table 7.21, *oo* 'rain' is clearly a liquid, which presumably should be classified by the *man* classifier, yet a mixture of classifiers were given with five respondents choosing the *mwenan* classifier, two choosing the *man* classifier and three said that it could not be possessed. Participant 2 chose the *mwenan* classifier first but then chose the *man* classifier, which is associated with liquids but then changed his mind back to the *mwenan* classifier. He then gave the following sentence to show its use: *nam lingi mweneng oo* 'I put my rain'. In this context the rain is perceived as a product made by black magic and is used to destroy peoples crops. Similarly participant 10 chose *man* first associating it with its liquid properties and then changed his mind to *mwenan* and said that it is also a product of black magic. Participant 7, who said that it was not possessable but you are able to say *mweng we ne oo* 'my rain-water' using an associative construction where the possessive classifier classifies the head of the associative construction *we* 'water'. The results from the lexeme *oo* show that the three different responses *man*, *mwenan* and no classifier result in three different strategies for classification. *Man* was chosen because of semantic association - that rain is a liquid and thus occurs with the classifier semantically denoting liquids. *Mwenan* was chosen by some participants because the possession of rain is a culturally entrenched practice, but only under the context of black magic, which appears to be classified with the general classifier. No classifier was chosen by some participants because they perceived the lexeme *oo* to be grammatically non-possessable.

The next lexeme in table 7.21, *hema ol* 'coconut bagasse' is a bound noun construction denoting dessicated coconut that has been milked and is to be thrown away. Participant 1 gave the *man* classifier first before changing his

mind to the *an* classifier. Participant 2 gave the *an* classifier first and then changed his mind to the *mwenan* classifier. Participant 9 gave *an* first and then corrected himself and said it is unpossessable but you could say *be an bàrrbàrr* 'it's the pig's', that is the discarded dessicated coconut is used as pig food. Participant 10 gave *an* then *mwenan* then finally went back to his first answer of *an*. Both participant 2 and 9 chose *an* first then settled on *mwenan* as they said that this is not something that you eat, confirming that the *an* classifier is thought of prototypically as something that classifies edible possessions. *Hema ol* is something that is generally thrown away and thus not thought of as a possession. When asked to classify this item, participants used different strategies, those who chose the *an* classifier picked out its edible properties that can be used as animal feed and others just used the general classifier as they did not find the *an* classifier suitable as the possessor never uses this as a food source.

For *aba* 'vine with potable water' three participants vocalised their thought processes. Participant 4 chose *an* then *mwenan*. Participant 5 chose *mwenan* then *an* but finally said it was unpossessable. Finally participant 10 said *mwenan* then *an*. The classifiers chosen for this lexeme were *man* 4; *an* 2; *mwenan* 3 and *non-possessable* was chosen once. The *aba*, a large black vine found in the bush which is cut and the clear earthy tasting liquid found inside is drunk. People cut this vine when they are thirsty and have no water or coconuts with them. It is not something that people would really consider a possession and therefore participants are obviously using different strategies to classify this lexeme. Clearly *man* was chosen the most because of the potable liquid found in the vine but because people do not consider this to be a typically possessable item the other participants did not identify with this property. *mwenan* was used because it is the default classifier and can be used for transient possessions.

Lulfar 'owl' is another item that is not considered to be a prototypical possession. People do not hunt and eat owls in North Ambrym. Six participants chose *an*, three said it was non-possessable and one chose the *mwenan* classifier. As *lulfar* is not eaten the use of the *an* classifier does not signal an intent to eat but because it is a bird and as other birds are eaten this is a case of semantic

association with other similar things in the world. Participant 7 said that it was non-possessable, then chose *an* and then went back to non-possessable as his final choice. He knew that you don't hunt or own owls but that because of the semantic association with meat he toyed with the idea of *an* before reverting to his original choice. He also said that if you had one as a pet then it would be *an*. Again this shows that *an* does not show an intention to eat. Participant 8 said *an* twice, and was obviously unsure of how to classify this lexeme. Participant 10 was going to say *mwenan* and classify it generally but then said *an*.

Li asau 'tree sp.' does not have edible fruit but five participants did say it could occur with the *an* classifier, though two of those said it would be acceptable to be both *an* or *mwenan*. Four participants chose *mwenan* exclusively and one said it could both be non-possessable and *mwenan*. Clearly the choice of the edible classifier is another form of semantic extension or association with other types of trees that do have edible fruit on them (c.f. 7.2.1). The *asau* tree does have fruit but it is inedible so the *an* classifier would never signal an intent to eat this fruit. The other participants chose *mwenan* as if the tree was yours you would not use it for anything in particular. This tree can be used for firewood, though no one used the *bon* classifier as this would normally only be used with the lexeme denoting firewood and not the name of a tree itself.

Finally *arrbol bwela sam* 'basket type' was chosen by half the participants to be classified by *mwenan* and the other half chose *ton*. As shown in the free listing experiment lexemes denoting baskets quite happily occur with either of these two classifiers and there is no semantic difference in the choice. Participants 2 and 9 both said *mwenan* then chose *ton* whereas participant 3 chose *man* then *mwenan*.

These vocalised thought processes are very telling in how the speakers of North Ambrym construct classified possessive phrases. For those central members of the classifiers the majority were answered with on a quicker than average basis and implies that there was little choice in the resulting classifier, regardless as to whether an array of different classifiers was given overall as this would simply suggest that there are different underlying motivations in the speakers minds. Items that were non-central and those who considered them to

be non-possessable took longer to be classified. Thus the mental processing of non-central items must go through the different motivations for classifications before a classifier is chosen.

One explanation for this can be found in the concluding remarks of Denny's (1976: 131) paper who offers a comparison to cognitive psychology in that we have both thought processes and a memory recall function of typical outputs. Denny's example is from a simple mathematics calculation of 11 + 4. Either we can remember that the answer is 15 or we can actually compute the answer for ourselves. Choosing a particular classifier in North Ambrym can be seen in the same way, either participants in these experiments simply recalled a classifier for the prototypical category members or for non-prototypical members a classifier had to be computed using analogy to other more prototypical members and this is why there is such a difference in reaction times between prototypical and non-prototypical members.

7.3.3. Summary

Analysing reaction times has added evidence to the hypothesis that central members of the classifiers are those that occur with just one classifier as the reaction times for these were much quicker than the lexical items that participants gave differing classifiers for. These results conform to Rosch (1973) as central members of a category are categorised quicker than non-central members. These results also conform to Denny's (1976) comment that there can be a difference in mental processing time depending whether simple recall is employed or whether some more complex computational process is involved in selecting the correct answer. Clearly the more prototypical members of a classifier category are accessed direct from memory and have been learnt prior to the experiment, yet the less prototypical members, those which scored above 2.5 seconds involve more complex computational procedures for selecting the appropriate classifier due to lack of entrenchment as possessions.

7.4. CHAPTER SUMMARY

This chapter has developed the idea that as the classifiers in North Ambrym are non-relational they actually represent categories with graded membership. The different experiments discussed in this chapter have shown that central members of classifier categories are recalled first and by the majority of participants in the free listing experiment. More central members were likely to only occur with one classifier in the word list experiment and have a quick response time. Non-central members were not mentioned in the free list experiment and were shown to have slower classification times than central members. These items were classified with differing classifiers because they are also non-prototypical possessions and participants did not know how to classify these items and thus differed in the classifier choice.

There is a correlation between the corpus count and prototypical members of classifier categories and these also correspond to fast reaction times. These all point to the fact that these are entrenched in the minds of the speakers as per Schmid (2007).

It was also seen that the *ton* and *bon* classifiers are relatively new innovations in North Ambrym, in that they are not found in Proto Oceanic. As new classifiers they have fewer category members and are more susceptible to speaker variation and are related hierarchically to the *an*, *man* and *mwenan* classifiers.

Finally more research is required to see why *atata* 'pig killing club' occurs with *mwenan* rather than *an* like other tools. It was proposed that it may be because of its restricted use within the culture, though it was also shown that *im kon* 'taboo house' occurs with *man*, even though it also has a restricted status and we should expect *mwenan*.

Chapter 8

Schematic Analysis

This chapter focuses on a cognitive analysis of the members of two of the possessive classifiers, *an* and *man*. This analysis is grounded in the different theories of cognitive linguistics as outlined in section 5.1 and based on the central members of the classifier categories as found in chapter 7. It will be argued that the membership of nouns with these classifiers is not arbitrary and what appears to be the classification of very different semantic types is actually a unified system with underlying schematic representations, where different members are related by semantic links to the central members. The *an* classifier is discussed in 8.1 and the *man* classifier is discussed in 8.2.

8.1. THE *AN* CLASSIFIER

One of the main underlying schematic notions of the *an* classifier appears to be edibility. The free listing experiment (c.f. section 7.1.1) revealed that the most prototypical member was *bàrrbàrr* 'pig' and that of the ten most central members four were animals. These four animals, pig, fowl, bullock and dog, are all animals that are eaten[1]. Metonymic extensions are evident in the *an* classifier category. The word list experiment (c.f. section 7.2) showed that different birds and fish were also classified quickly and consistently. However other an-

---

[1]Wild dogs and cats are eaten when caught, though these are eaten less often than pigs, fowls and cows. Dogs are primarily used as hunting dogs.

imals that are not eaten occur with this possessive classifier too. Animals such that *tamtyun* 'ant' and *alirr* 'worm' also occur with the *an* classifier[2]. These animals are not necessarily eaten but are linked via a more schematic life form node. I will argue in the following paragraphs that animals, trees and food are linked via the life form node. I will also argue that the prototypical members of these three categories are items that are edible and are also linked via the ediblilty node, yet the less prototypical members of these categories (and less prototypically possessed) can occur with the *an* classifier as they are all life forms. Regarding animals, this more schematic level of life form also covers the case of domesticated animals such as dogs, cats and birds that are kept as pets.

A free listing experiment was also conducted testing category members as opposed to classifier members. Several different categories were tested, including trees, animals and food. This experiment was conducted with just eight of the ten previous participants. As similar to the free listing of classifiers (c.f. section 7.1), the category label was given and the participants asked to list all category members that they knew. No time limit was given for responses. The more prototypical members were calculated in the same way as the free listing of classifiers in that the top ten named entities for each participant were scored with ten points for the entity in given first, nine for the second entity listed and so on. Scores for each participant were added together to give an overall score, thus the most often mentioned entities and those that occurred in initial position would have the highest scores. The highest ranked entity would be the most central member of the category.

The free listing of category members of *sesebno* 'animal' are shown in table 8.1. *Bàrrbàrr* is not only the most central member of the *an* classifier but also the most central member of the animal category too. Other prototypical animals are all the domesticated animals, dog, fowl, bullock and cat. After that the level of centrality depreciates and it is the wild animals that appear[3]. It

---

[2]These were not included in the wordlist experiment shown in 7.2 but were included in a pilot experiment conducted with 14 participants from several different villages where twelve participants said worm occurred with the *an* classifier and eleven said that ant occurred with the *an* classifier, the rest said these items occur with the *mwenan* classifier.

[3]Goats, though not wild animals, are very rare on Ambrym.

is now possible to posit that domesticated animals are thought of as category prototypes. Insects, reptiles, fish and birds are also included in the category *sesebno* 'animal' though their centrality is less as they are non-domesticated. As domesticated animals are both the most central members of *an* classifier and the *sesebno* category it can be concluded that the 'edibility' of these central members has been extended to cover all animals due to a blending of the classifier category and the animal category. As domesticated animals are thought of as protoypical possessions and as edible items they are highly prototypical members of the *an* classifier category. Other animals are thought less of as possessions and some animals are not even eaten and are therefore less prototypical members of the *an* classifier category.

Animal	Gloss	Score
bàrrbàrr	pig	77
kuli	dog	68
to	fowl	60
lelee bwereù	bullock	54
puskat	cat	29
tomo	rat	16
bwehel	bird	10
hulu	fruit dove	9
gere	flying fox	7
nani	goat	6

Table 8.1: Prototypical animals

A diagram representing the underlying schematic notion of the *an* classifier can now be built. Figure 8.1 shows that 'edibility' is the underlying notion of this classifier and that 'edibility' is elaborated by 'animals'. Domesticated animals are the most central member of this classifier and this node. Non-domesticated animals, which are less central members are still covered by the edibility node, whereas non-edible animals are still included in the an classifier as they are still animals and more schematially life forms.

Metonymic extensions can be seen within the concept TREE. *Li* 'tree' is a bound noun (c.f. section 2.3.1.2) that must occur with a free noun with an inanimate referent, generally denoting the subtype of tree or the conceptual whole and where the bound noun refers to the part of the whole. For instance
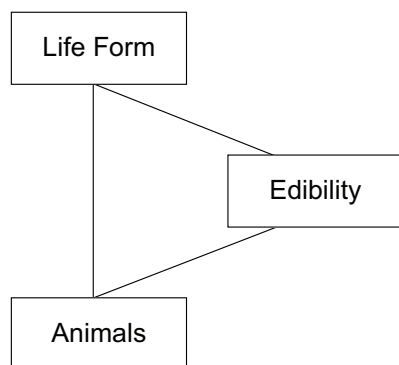
Figure 8.1: Underlying schema for *an* classifier: 1

li bta[4] 'breadfruit tree', where the free noun *beta* 'breadfruit' refers to a subtype of the bound noun *li* 'tree'. It is the free noun that is the semantic head of the phrase as this shows semantic agreement with the possessive classifier such that *li bta* 'breadfruit tree' is more likely to occur with the *an* classifier, on account of the edibility of its fruit, and *li byang* 'banyan tree' is more likely to occur with the *mwenan* residual classifier, on account if the inedibility of its fruit. Due to its schematic life form status it can also occur with the an classifier.

This edibility distinction is also reflected grammatically using metonymic restrictions. When referring to fruits the bound noun *wo* 'fruit' normally precedes the subtype, exactly the same as *li* 'tree' does. So we get constructions such as *wo bta* 'breadfruit fruit' and *wo byang* 'banyan fruit'. However many edible fruits do not need to occur in these bound noun constructions denoting the fruit as the free noun on its own is often salient enough to stand in a metonymic relationship where the type stands for a subpart or the part for the whole (Lakoff & Johnson 1980). Thus people simply often use *beta*, 'breadfruit' or *vii* 'banana' to stand for the fruit itself. However, non-edible fruits such as the fruit of the banyan tree are not salient enough for the type to stand for the subpart so the phrase *wo byang* must occur when talking about the fruit of the banyan tree and *byang* alone can not stand in a metonymic relationship

---

[4]The form for breadfruit *beta* occurs in the bound noun construction as *bta* with its initial vowel elided, due to principles set out in section 2.2.4.1.1.

for the fruit of the tree.

When a bound noun referring to trees or their parts has the -*ye* 'non-specific' suffix attached to it, such as *liye* 'tree' or *woye* 'fruit' the choice of classifier is split between the *an* classifier and the *mwenan* classifier. This is a subtype of metonymy whereby an entity that refers to a superordinate category is being used to refer to a subcategorial entity (c.f. section 5.1.2). The fact that the choice of classifier is split for the superordinate category name *liye* 'tree' is because the speaker has to choose the appropriate cognitive model of a tree, that is the choice between whether the tree has edible parts or not, as evidenced from the wordlist experiment in section 7.2.1. Thus the speaker conceptually links *liye* to either a tree that has edible parts or to one that doesn't. This can be likened to the case of *ol* 'coconut', also a superordinate label that can occur with multiple classifiers depending upon the subordinate member that is conceptualised (c.f. section 6.2.3).

It will now be shown that prototypical trees are thought to be trees with edible parts and this is why trees with non-edible parts are possessed there is a tendency to use the *an* classifier despite their non-edible parts. According to the free listing of category members, the most central member of the category *liye* 'tree' was found to be the breadfruit tree as shown in table 8.2. The most central member of the category of trees is one which has edible fruits. Not only that, but the top three ranked trees also had edible fruits, whereas the three below these, the canoe tree, the banyan tree and the beach hibiscus were all non-cultivated trees.

When deriving underlying schematic interpretations of the *an* classifier the category of trees can be split into three parts; trees with edible fruit, with inedible fruit and with no fruit. The underlying classifying principle of *edibility* of the *an* can only be linked to the trees with edible fruit, whereas the life form node is schematic for both trees with edible and inedible fruit and with no fruit. Though the life form node is the most schematic notion that underpins the *an* category it is the elaborated schema of edibility that influences category prototypes as both edible and cultivated trees are more likely to occur with the *an* classifier. Figure 8.1 can now be extended as in figure 8.2 which shows that 'edibility' is the schematic notion that binds the more central members

359

Tree	Gloss	Score
beta	breadfruit tree	55
ol	coconut palm	40
tubu	bushnut tree	40
yeyeo	canoe tree	34
byang	banyan tree	25
bolva	beach hibiscus	23
mango	mango tree	21
menmen	Malay apple tree	19
rra	native lychee	16
kaasis	tree sp.	12

Table 8.2: Prototypical trees

together but the life form node covers the non central members.
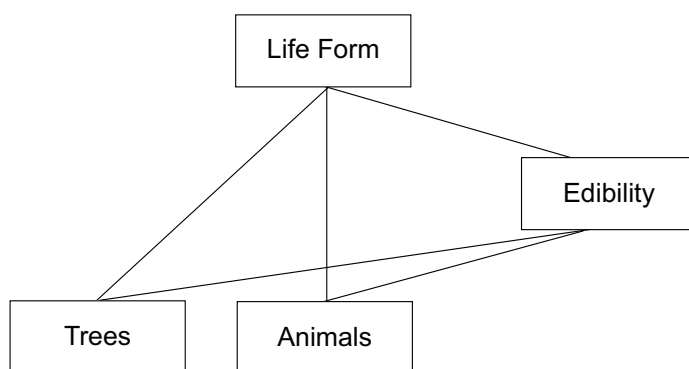
Figure 8.2: Underlying schema for *an* classifier: 2

Comparing the results of the two categories of animals and trees an interesting similarity presents itself. The animal category has domesticated animals as its most central members and the tree category has cultivated fruit trees as their most central members. Both these types of trees and animals are all found in the village setting and thus it is the continual interaction with these types of entities that makes them more prototypical possessions rather than wild animals and non-cultivated trees. This is the theory of entrenchment as defined by Schmid (2007) and discussed in section 5.1

If 'edibility' is one of the underlying schemas for the *an* classifier then should

food be considered the central member of the classifier? *Meyee* 'food' was rated the sixth most central member in the classifier free listing experiment (c.f section 7.1). *Meyee* also occurred consistently with the *an* classifier in the word list experiment (c.f. section 7.2) and it also scored an average response time of 2.03 seconds, which though not as fast as others is still under the 2.5 second cut off point. *Meyee* is of course a superordinate category label and was tested for its membership using the free listing method, as shown in table 8.3. The results show that *rrem* 'yam' is the most prototypical food and also occurred third highest in the corpus count as shown in section 7.1. It was also categorised by all ten participants as *an* in the word list experiment and this lexeme was classified with one of the fastest average response time of 0.76 seconds. That yams are the most central member of this category is also justified on cultural grounds. Yams are one of the most important foods in the North Ambrym society[5]. There are many taboos surrounding the planting and harvesting of yams such that no one is permitted to ascend to the lava lakes in the craters of Marum and Benbow and similarly fishing and collecting shellfish on the reef is prohibited during this period. People are also asked not to use black magic to make bad weather during the harvest season. It is after the yam harvest that all the major ceremonies take place such as *malyel* 'male incision rite' and *yean* 'marriage' where the exchange of yams take place and thus "the yam still stands out today as the most important ceremonial crop and in the garden it is the one that receives the most attention" (Rio 2007: 105). The importance of yams in the North Ambrym culture underlies its prototypicality in both the category *meyee* and in the classifier category *an*, again showing continual use leads to cultural and linguistic entrenchment.

The central meaning of *meyee* is restricted to root crops but also includes *beta* 'breadfruit' as it is often used as a root crop substitute. One participant said that *tabu* 'cabbage' is not included as it is something that goes with *meyee* when you eat it. Another participant said that *woye* 'fruit' is excluded and is not *meyee*, yet participants seem to disagree when it comes to the boundaries

---

[5]Interestingly, the name Ambrym supposedly derives from the words *am rrem* meaning 'your yam' which were said to Captain Cook when asked for the name of the island, where he was presented with gifts of yams along with those words. Though in reality Captain Cook never actually landed on Ambrym. A similar story is told on Epi island and its name is supposed to derive from the word for yam there (Budd 2009).

of *meyee* and therefore *meyee* is like any other category, it has graded membership. To find out what is considered *meyee* a category membership experiment was conducted to test if certain entities were considered *meyee*. The experiment was in the *sentence frame substitution* format (Weller & Romney 1988) where the sentence frame *X be meyee?* 'is X food?' was used and X replaced by a lexical items denoting different food types. Different root crops were tested along with animals, cabbage and fruit and nuts. All the root crops were considered members of *meyee* whereas there was disparity of membership of *tabu* 'cabbage', *ol* 'coconut', *tubu* 'bushnut', *bàrrbàrr* 'pig' and *to* 'fowl'. Some participants thought them to be *meyee* whereas others thought them to be separate categories. Thus these are non-prototypical members of *meyee* and it is clear that as some people do group them together under *meyee* there is a conceptual link between them, thus *meyee* prototypically means root crop but can be extended to cover all food. As non-prototypical members we should expect a lower frequency of occurrence of these items with the *an* classifier. But they all consistently occur with the *an* classifier[6]. This is because they are still considered edible, such that even if a pig is not considered *meyee* it is still considered an edible animal and can equally appear linked to the schema via another node. Similarly *tubu* 'bushnut', though not thought of as *meyee* can be thought of as an edible fruit and thus is schematically tied in with trees. On the other hand non-edible fruit trees occur less often with the *an* classifier as they are not prototypical members of trees and could never appear linked to the schema via the other nodes. Roughly put, a non-prototypical member that can appear under several nodes satisfies more of the core criteria than a non-prototypical member that can only ever occur under one node.

Another feature of the central members of *meyee* is that these are nearly all garden crops with the exception of wild yam. This again shows similarity to cultivated trees found in the village and domesticated animals. Again all these entities are the ones that are not only more prototypical members of their respective categories but also more prototypical possessions as shown by the classifier free listing experiment. Prototypicality is thus born from cultural entrenchment as these entities are more often used by speakers of North Ambrym (c.f. Schmid (2007)). Food can now be added to the *an* classifier schema.
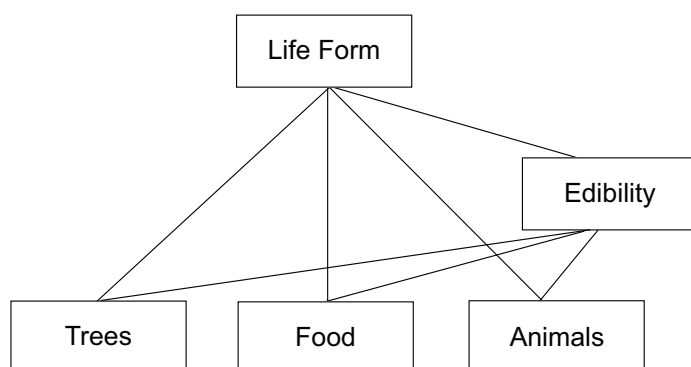
---

[6] All bar *ol* 'coconut' which normally occurs with the *man* classifier.

| Food	Gloss	Score
rrem	yam	53
obwerr	taro	49
vii	banana	45
tayou	manioc	33
taro	water taro	26
beta	breadfruit	23
kumala	sweet potato	21
rrem virr	wild yam	20
waiyu	yam sp.	11
mango	mango	9

Table 8.3: Prototypical food

This revised schema is shown in figure 8.3.

Figure 8.3: Underlying schema for *an* classifier: 3

Inextricably linked to the most central member of *meyee* is notion of time in North Ambrym. *Rrem* is polysemic in nature. It has two related senses the first being 'yam' and the second, 'year'. Years are measured in yam seasons and thus age is counted in yam seasons as in *yeng rrem be 65* 'I am 65 (lit. my yams are 65)'. Similarly *ol* 'coconut' has a separate sense, meaning 'month', and when using this sense the *an* classifier is used. According to Ambrym mythology when the first coconut was drunk the man who drank it was looking at the moon and named the coconut after the moon. The Bislama term manis 'month' is also classified by *an* and thus linked to *ol* 'month'. *Huwo* is another lexeme meaning 'year' and is monosemic and is thus not linked to any edible

item but still occurs with the *an* classifier. Thus units of time are polysemically linked to edible items and *huwo* is linked via semantic extension to *rrem* 'year' and thus are also classified with *an*. The revised schema in figure 8.4 shows this new extension.
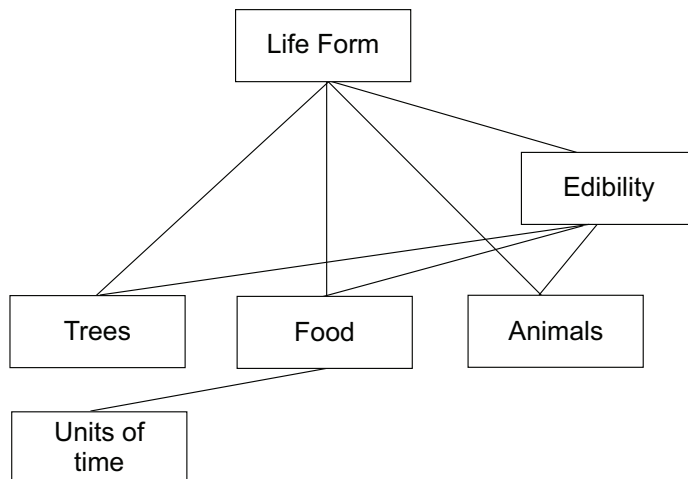
Figure 8.4: Underlying schema for *an* classifier: 4

The tools that occur with the *an* classifier also represent a case of metonymy as can be seen from the lexeme *ayi* 'knife, machete'. Osmond & Ross (1998: 91) states that the POc terms for knife rarely have a form other than the substance they are made from and typically this was bamboo. The North Ambrym term for bamboo is *li blabo* and is different from the term for knife, however the North-Eastern dialect of North Ambrym does have a term *wayi* which resembles the term for knife. The term for ax/adze is *teye* and Osmond & Ross (1998: 88) states that though basalt is the preferred substance for making the head of the ax, shells such as tridacna or giant clams were used as well. Ambrym, being an active volcanic island, has plenty of basalt, though the term for rock/stone is *verr* and bears no resemblance to *teye*. However, the term for ax is the same as the term for 'clam' *teye*. With *teye* we have a clear metonymic chain of a part standing for a whole. In this regard it is clear why axes occur with the *an* classifier, as their main part is also a source of food. On the other hand, bamboo is not a tree with edible parts, but due to metonymic extension where a part of the knife stands for the whole, that is the bamboo blade has

been metonymically extended to represent the entire knife and that other tools do occur with the *an* classifier then so does *ayi*.

Other tools all start with the instrumental nominalising prefix *a-* such as *abol* 'tongs' and *akin* 'digging stick'. These tools are all made from wood and could possibly strengthen the link between trees and tools. This link resembles the analysis of Setswana class 3 nouns given by Selvik (2001: 166) whose prototype 'tree' was also extended to cover 'long wooden objects'. Another argument could be furthered in that these tools are all associated with the gathering of or preparation of food. This was the argument given by Paton (1971: 43) when he saw knives and saucepans could occur with the edible classifier in Lonwolwol.

In section 7.2.4 it was seen that length of possession appeared to affect the use of the *an* classifier and that the permanency of the possession made it more likely that the tools would occur with the *an* classifier rather than the *mwenan* classifier. This is supported by the appearance of tools that are long term possessions in the list of prototypical members of the *an* classifier as shown in the free listing experiment in section 7.1 where *ayi*, *teye* and *skru* 'chisel' were all rated as central members and are also long term possessions. The *an* classifier schema can be revised again to include tools as shown in figure 8.5.

The final semantic domain covered by the *an* classifier is kinship. There is a split between free noun kinship terms that occur with the *an* classifier and those that occur with the *mwenan* classifier. Table 8.4 gives an overview of the kinship terms in North Ambrym, those that are bound nouns and those that are free nouns along with their denotata and possessive classifier. This table is a modified version sourced from Patterson (1976: 136-138). The denotata are the standard anthropological notations where M = mother; Z = sister; F = father; B = brother; S = son; D = daughter; H = husband; W = wife; m.s = male speaker or ego and f.s = female speaker or ego.

For the most part the differentiation between free noun kinship terms that occur with the *mwenan* and *an* classifier can be explained grammatically. *Metahal* one of the terms used for 'sister' is actually a bound noun construction itself
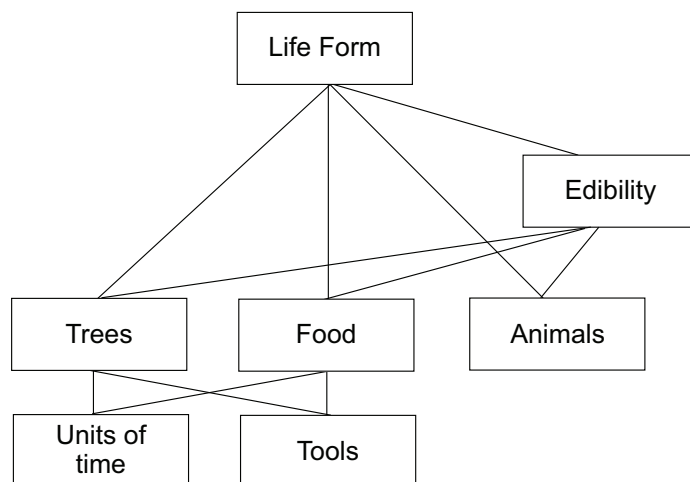
Figure 8.5: Underlying schema for *an* classifier: 5

compromising *meta* 'end of' and *hal* 'road'. *Hal* is always classifed by *mwe-nan*. *Metahal* is also more of a classifactory term and usually translated as 'a man's sister' though this is quite a vague representation of its meaning. A man's sister is also called *iyunan* (bound noun). *Metahal* can have multiple denotata, and does not just denote sisters of men but also a man's daughter, who he calls *ina* and both a daughter's and sister's husband, who he calls *song* and *maiyou* respectively. I never heard *maiyou*, which Patterson (1976) recorded but the Bislama word *taawi* was mainly used. *teoyan* also occurred and this is classified with *mwenan* and seems to be derived from a verb as the nominal-ising clitic =*an* is present and the nonrecent past tense marker *te* occurs at the beginning. All nominalisations are classified by *mwenan* (c.f. section 4.2.4.5). Similarly the recent past marker *ma* occurs on *maiyou* too showing that these two terms are related[7]. For a woman her *metahal* are her daughters (and those classified as daughters) and their husbands, both *tutu*. Thus *metahal* is a broad term that covers kin that a man and a woman call differently and encompasses both male and female kin.

Similarly, *metauno* is a bound noun construction consisting of *meta* 'end of' and *weno*, though a translation for this term could not be found, it is recon-

---

[7]Though, Patterson claims that the possessed form of *maiyou* occurs with the *an* classifier.

366

structed through the vowel elision and diphthongisation rules as set out in section 2.2.4.1.5. The other free noun term for *metauno* is *boboo*, which instead occurs with the *an* classifier. This term may also occur with the *mwenan* classifier, though a different meaning is evident:

an boboo   'his father-in-law'
mwenan boboo   'his penis'

That the word for penis is used to describe one's father-in-law is because both are considered taboo.

Byulbyulan 'brother, friend', often reduced to *byul* in speech is actually a nominalised verb as evident from the *=an* nominalising clitic attached to it. The original verb means 'to glue' and can also be found in *li byul* 'glue tree', which being a tree with no edible fruit would also occur with the *mwenan* classifier.

Teere or *tereere* 'child' occurs with the *mwenan* classifier. Grammatically, this lexeme could be a nominalised form as the initial *te* could be the nonrecent past tense marker, but this is not so plausible as no nominalising enclitic is evident. However, this term is only used when the child is small, thus it has the meaning 'child' and not 'son' or 'daughter'. When they are older the father calls his son *teta* 'father' and his daughter *ina* 'paternal auntie'. The mother calls her son and daughter *tutu* when they are married Patterson (1976: 146). All these terms, *teta*, *ina* and *tutu* occur with the *an* classifier. The fact that the *mwenan* classifier is used does not necessarily mean that there is an age distinction in the kin terms in North Ambrym but that *teere* is a cover-all term that can be replaced by three different kinship terms depending on the relation between ego and child. The terms for a woman to call her son *teere* or *tutu* also dictate her behaviour towards him. Women are in a taboo relationship with their sons, but obviously when they are children they are not considered taboo but once married a different behaviour is expected between a mother and her *tutu* and in the past women would have to crawl on the ground when near their *tutu*.

Agnatic descent is distinguished in the male line by alternating generations of father and brother. That is for the generation ego plus or minus one the term used is *teta* or *taata* 'father' and the term for ego plus or minus two would be

tate 'brother' (Patterson 1976: 89). *bataton* occurs with the *mwenan* classifier and this classifies the set of males who call each other brother. So what is the difference between *tate* and *bataton*, why is one classified by the *an* possessive classifier and the other by the *mwenan* classifier? *Bataton* is also used by men to classify all their siblings including sisters. This terms is thus a classifactory term and encompasses several different kin denotata, much like *teere* as shown above. It is also not used as a vocative unlike *tate* or the Bislama *brata*.

A few other terms for kin groups occur that are worth mentioning - *buluim* and *bulufatau*. These two terms are both translated as 'family' and they both occur with the *man* classifier. There is a simple explanation for this is that they refer to houses and parts of houses. Firstly *buluim* can be analysed as the bound noun construction *bulu im* 'hole of house' and *bulufatau* as *bulu fa tau* as 'hole under door'. That is they both refer to doorways and as houses and parts of houses are classified as *man*. This will be looked at further in section 8.2.

In summary, the kinship terms that occur with the *an* classifier refer to specific kin whereas the terms that are classified by *mwenan* are those that refer to groups of kin. Also many kin classified by *mwenan* are nominalised verbs or bound noun constructions where the possessor is normally classified by the *mwenan* classifier. Those kin classified by *an* are generally used vocatively rather than those classified by *mwenan*.

Now that the reason has been established as to why kinship terms occur with two different classifiers the only question that remains to be answered is is there a semantic link between kinship terms that occur with the an classifier and other members of the *an* classifier category? It would be useful to look back into passive possession, first discussed in section 3.4.3. Palmer (n.d.: 11) defined passive possession occurs when "a) the possessum acts on, is used on, or directly affects the possessor; or b) the possessor has no control over the possessum". A person's place in the kinship system is thus an example of a possessive relationship where one has no control over the possessed item and thus this could be an instance of passive possession. There are precedents in other Oceanic languages that Palmer surveyed. The following examples

from Paamese (1-a) and Gela (1-b)[8] show that certain kinship terms in these languages occur with the food and consumable classifiers.

(1) a. *ahol*   ***aa**-m*
         intended.spouse FOOD-2SG.PSSR
         'your intended spouse (reserved for you at birth because of your place in the kinship system)'

     b. *na **ga**-na*   *kema*
         ART CONSM-3PL.PSSR clan
         'his clan'
         Palmer (n.d.: 17)

Similarly in the Nikaura and Nuvi dialects of Lewo the edible classifier *ka* occurs with mother and father as shown in (2).

(2) a. ***ka**-na*   *tete*
         POSS-3sP father
         His/her father

     b. ***ka**-na*   *üaüa*
         POSS-3sP mother
         His/her mother
         Early (1994: 211)

As passive possession is a formal distinction of control over the possessed item it may be that there is no semantic link between kinship terms and other members of this classifier. Indeed, kinship terms were not given in the free listing of classifier members experiment, showing that these are not perceived to be focal members of these classifiers. Kinship terms were not included in the wordlist experiment so they have not been empirically tested as to whether they will always occur with the *an* classifier but during work with several consultants on the kinship system the choice of classifier does appear fixed. The consistent choice of the *an* classifier with these kinship terms is thus an exception to hypothesis 5 which states that prototypical members of the classifiers oc-

---

[8]The consumable indirect possessive host in Gela as cited in Palmer (n.d.: 17) is $\otimes a$, however this is presumably a problem with the font in the article. According to Miller (1975: 257), the correct form is *ga*, where the initial consonant is a voiced velar fricative.

cur with just one classifier and hypothesis 6 which states that non-prototypical members may occur with multiple classifiers.

There of course may be an underlying semantic motivation that links kin with edible properties under a metaphorical extension of FAMILY IS NOURISHMENT or that different family members continually receive payments and gifts of food throughout their lives for other family members again underlies this link between food and family. Finally it as kinship terms denote humans they could be included due to the fact they are life forms. Though at this point this needs further research and these links are unattested it is preferable to leave out a link between edibility and kin and leave kinship as a formal distinction of the classifier system.

In summary the life form node is the underlying schema for the *an* classifier. the definition of life forms covers animals, trees, food (and possibly kinship terms). The notion of edibility has more influence on central members of this classifier category than the notion of life form does.

Bound Noun	Free Noun	Denotata
rahe-n	*an mama*	M, MZ, FFM, BDSD, MFBD, MMZD, FMBDD, MBSD, FZSD, MFFZ, FBDDD, MFZSDD, FW, FBQ, BSW, MFMBW, ZSDSW, FZDDSW, MBDDSW, MFZDSW
tema-n	*an taata/teta*	F, FB, FFF, FFBS, MFZDS, MFMB, MBDDS, MH, MZH, ZDDH, MBSDH, FZDH, FMB-DDH (m.s.) S, BS, FBSS, WFMBS, DSDH (f.s.) BS, SDS, FBSS, DDH, HZS, HFMBS
itna-n	*an ina*	FZ, BD, MFM, FBSD, MZSD, FFFZ, BSSD, ZSDD, MFZDD, FZDDD, MBDDD, MBW, FFMBW, ZDSW (m.s) D, SSD, DSSW, WMM, SWBW (f.s) SDD, HZD, DSW, HMM
mùso-n	*an song*	MB, ZDS, BDSS, MFF, FZSS, MBSS, FFMB, FZH, BDH, BSSDH, ZSDDH (m.s.) DSS, DH, SSDH, WMF (f.s.) DS, SDDH, HMF
taala-n	*an tate* *an brata* *mwenan byulbyalan*	(m.s) B, (FF, FFB, BSS), MZS, FBS, ZDDS, MMB, MBSDS, FZSDS, FZDDH, MBDDH, FMBSDH, BDDDH, MMBDH, (ZDDS, DDDH, ZSDH, WBWB, WFMB)
taala-n	*an tate* *mwenan re*	(f.s.) as above except those kin terms in brackets. DDS, SDH, HZH, HFMB
taala-n	an tate an brata	(f.s.) Z, MZD, FBD, BSD, FFZ, MMM, FZSDD, MBSDD, FMBW, MBDSW, FZDSW, MFZSW (DDD, ZDDD, SSW)
iyunya-n		(m.s) As above except those in brackets. SD, WBW, WFMB
	mwenan metahal	(m.s) Z, D, ZH, DH ... (f.s.) D, DH ...

**Table 8.4:** Kinship terms and their denotata in North Ambrym

The free listing experiment discussed in 7.1.2 showed that the most prototypical member of the *man* classifier category is *we* 'water'. *Im* 'building' was deemed the second most central member at the time of the experiment. In the list of the ten most central members there are two liquids, *we* 'water and *tee* 'saltwater'; three containers for liquids, *bwelaye*[9] 'cup', *baket* 'bucket' and *ketel* 'kettle'; two crops that have liquid content *ol* 'coconut' and *suu* 'sugarcane'; two items that have no liquid content but are used to make liquids from *ti* 'tea' and *li brrarrme* 'kava'; and finally *im* 'building'.

It is the disparate semantic duality of the two most central members of the *man* classifier category that requires further discussion. First the most central member *we* will be looked at. *We* has two related senses, the most often used is 'fresh water' but it also simply means 'water' too and it is this sense that equates to the superordinate label 'liquid'. *tee* 'saltwater' is obviously a liquid but is also drunk as a cure for coughs in North Ambrym. As was shown for non-prototypically possessed liquids their occurrence with the *man* classifier was less frequent, such as dew and rain. Thus the more central liquids are those that are drunk as well as being liquids. Liquidity is the most schematic node of the *man* classifier category, but its elaboration, potability, influences central members of the classifier category. A schematic representation can now be built as shown in figure 8.6.

The different containers of liquids such as *bwelaye* 'cup' can be linked to the underlying schema of liquidity via a metonymic extension. It is the coconut shell *bwela ol* that are used as cups in Melanesian society and this is based on linguistic evidence as one of the proto forms for cup in POc is *$b^{(w)}ilo$* reconstructed from several related forms for 'cup, shell or container' (Osmond & Ross 1998: 73). As vessels of liquids contain liquids it is the contained that stands for the container in this type of metonymic relationship. In section 6.2 it was shown that when *bwela ol* 'coconut shell' was used all the time for containing liquids it occurred with the *man* classifier but when it was used all the time as a plate then the *an* classifier could be used. Thus in both of

---

[9]This literally means 'shell'.
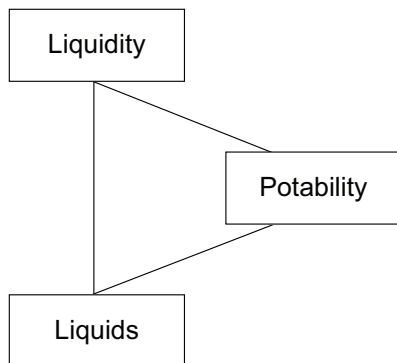
Figure 8.6: Underlying schema for the *man* classifier: 1

these cases it is the metonymic relationship of contained that stands for the container that is underlying the semantic extension. Two reconstructions have been proffered for proto North and Central Vanuatu. **Bura-ti* 'shell, empty container' and the idea of these being containers and not just shells is evident from the translation. Current reflexes from Nguna (Clark 2009: 91) show that *na-pura* can mean:

> "two halves of a clam shell; outside covering (of various things, e.g. a coconut, a tin of fish) which must be removed to get out the food, and can then be thrown away', *puruti* 'cleaned coconut shells water is stored in'."

*Bwala (**bwale*) is the second reconstruction offered by Clark (2009: 93), whose North Ambrym reflex is *bwela* and has been reconstructed as meaning 'shell, hollow thing'. Other uses of this reflex are shown for Lonwolwol as *bwele-n* 'hollow vessel, empty shell' and Paamese *voi-* 'shell, empty container' and a related lexeme *vale+nge* 'hollow part of something, cave'. The underlying concepts shared by these lexical items are HOLLOW, VESSEL and CONTAINER. The following schematic extension can now be posited as in figure 8.7

Ol 'coconut' and *suu* 'sugarcane' are the two crops listed that have liquid content. Sugarcane is chewed and the sweet liquid sucked out and then the cane detritus spat out. Thus the crop is used only for its liquid content. Though as
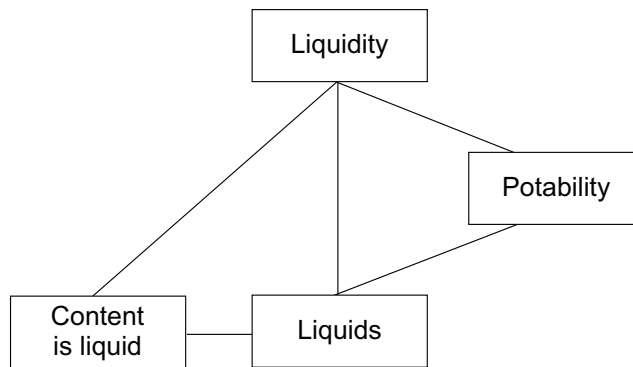
Figure 8.7: Underlying schema for the *man* classifier: 2

both of these items contain liquids are they the same as containers of liquids? clearly the same metonymic extension principle can be applied here: Contents for container. Though these two items are different, the vessels for liquids are purposely fashioned so and coconuts and sugarcane naturally contain liquids. As both types have the same underlying metonymic extension they can both be posited as members under the 'content is liquid' node in figure 8.7. Two other central members, *ti* 'tea' and *li brrarrme* 'kava' are classified by *man*, though these are not liquids themselves but from them different drinks are made. Similarly *ra womul* 'orange leaf' is used to make local tea from, simply diffused in hot water and often *ti* itself is simply hot water with sugar in it and no actual tea leaves. Both *ti* and *li brrarrme* have two related senses, either the product itself or the by-product, that is the drink. This may be the reason that *li brrarrme* was classified as *man* by only five of the participants in the word list experiment, and two people gave *an* and three *mwenan*. Kava is never eaten, though as a tree that isn't eaten could therefore be either classified by the *an* or *mwenan* classifiers also. There is also a metonymical extension as the by-product stands for the product itself. The *man* schema can be redrawn as in figure 8.8.

Though holes were not given as central members, these are often classified by *man* in possessive constructions and can also be included under the 'content is liquid' node as these are places where water collects naturally. *Bulu we* 'water hole' *tu liye* 'hollow of a tree' and *tutur* 'drinking hole' are all exam-

374
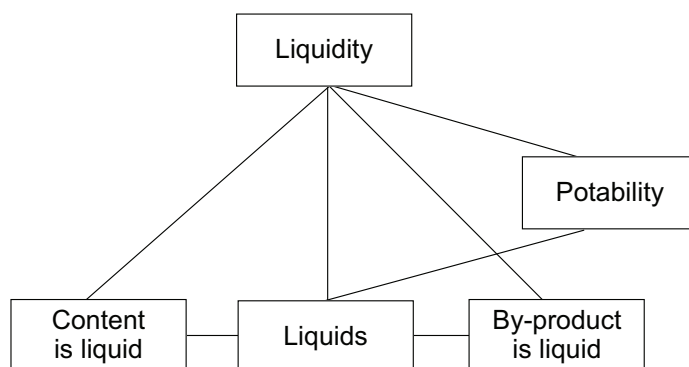
Figure 8.8: Underlying schema for the *man* classifier: 3

ples of this. *Bulu we* are large holes where water collects in creeks and people bathe, wash clothes in or drink from. *tu liye* or simply *tuye* are the hollows in the forks of trees that naturally collect rainwater and are used as mini jungle wells. Finally *tutur* are man made holes carved out of the side of creek walls where water seeps down through the undergrowth and drips down hence *tutur* is also a verb meaning 'to drip'. That holes are associated as containers of liquids can be evidenced from proto Melanesian society. Osmond & Ross (1998: 74) shows that *ipu* means 'hollow in tree holding water' in Uluwa, a Southeast Solomonic language. This lexeme is also found in the Micronesian language Kiribatese meaning '(coconut shell) toddy container', in the Fijian language Rotuman, meaning 'cup, drinking vessel' and in many others with similar meanings. More closely related to North Ambrym are the reconstructions for North and Central Vanuatu of **bulu* and **walu* (Clark 2009). **bulu* means 'hole, earth oven' and Lonwolwol has the modern reflex *bul* 'hole, hollowed vessel' where *bulbul* is a hole in the ground or a cooking oven and in Paamese *vulu=vul* is a hole for putting something in (Clark 2009: 89). Again it is the notion of holes that are used for containers. **Walu* is another reconstruction meaning 'valley, creek, (water) hole' (Clark 2009: 235). In North Ambrym the reflex is *wel* which means creek, though *bul* can also be used and in Lonwolwol *wel* means 'creek, ravine, water hole' and Paamese *po+alu* means 'gully, place where water flows between hills' (Clark 2009: 235). These

reflexes underline the integrated nature of holes and water and thus holes are often used for containing water.

Of course not every hole is where water can collect and a good example of this is *bulu marrum* 'crater of volcano' where no water is found but only fire. Similarly *bulu fyang* 'ashes' literally translates as 'hole of fire'. It was found in the word list experiment in section 7.2.3 that *bulu fyang* was classified four times with the *man* classifier and now it is no longer a metonymic extension of contents standing for container but of the inverse the container standing for the contained. Another example of holes mixing with fire can be seen from *bulfwili* 'ground oven' made up of *bul* 'hole' and *fwili* 'to bake', thus literally meaning a hole for baking. This lexical item was not tested for classification, though does underline the linking of fire and cooking with holes. As was shown in section 7.2 one of the participants used the *man* classifier for *fyang* 'fire' and *yem* 'firewood'. This participant was one of my main language consultants and he, along with another consultant, would consistently use the *man* classifier with items that would normally occur with the *bon* classifier. It was posited that as the *bon* classifier has only a few category members it is more susceptible to speaker variation and reclassification to the *man* classifier is made possible by a metaphorical sub-structure of fire being perceived as holes. The *man* schema can now be modified to figure 8.9.
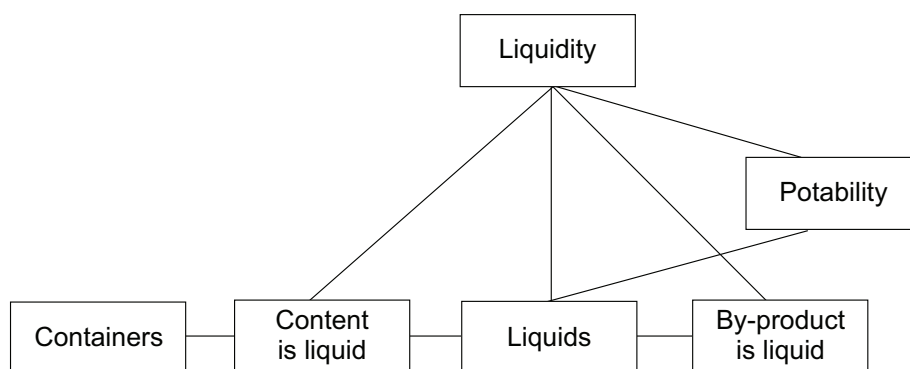
Figure 8.9: Underlying schema for the *man* classifier: 4

There are two lexical items that mean 'doorway', *bulu fa tao* 'lit: hole under

door' and *bulu im* 'lit:hole of the house'. These two lexemes have a metaphorical extension and both mean 'lineage' or 'family' and are both classified by the *man* classifier. Similarly *fa im* also means lineage, and literally means 'under the house'. Here there is a metaphorical extension that says FAMILY ARE HOUSES and blends the two concepts of HOUSE and FAMILY together. Holes are also places where spirits dwell and thus as types of dwellings and holes are classified by the man classifier as shown in (3):

(3)   *Vya lon **man** **bulubul** te   bya rru en*
        go   in   CL.3SG hole   CONJ go stay at
        '(He) went in his hole and stayed there'

In example (3) it is the spirit creature Lisepsep who is going into his hole. Not just holes can be dwellings but also caves - *bweye* or *fa bye* (lit. under the cave) as shown in (4):

(4)   *Ngate ete   rrvi rrvi te   tùrrne wovyo nan   te   tùrr*
        then   3PL.NREC.PST slice slice CONJ roll.TR heart ASS.3SG CONJ roll
        *vya fu rru fan   **man**   **bweye** nga nge le*
        go lay stay under.3 CL.3SG cave   just just MED
        Then they sliced him up and rolled his heart and laid it under his cave there'

It is containment that appears to be the linking factor between dwellings and holes that bind these two concepts together. Thus the *man* classifier denotes containers and related to that are enclosed spaces such as holes, caves and houses. The proto North and Central Vanuatu reconstruction for house is **yumwa* (Clark 2009: 236-237) and *im* is the North Ambrym reflex of this. **yumwa* has two senses, 'house' and 'indoors, inside' and thus the second sense encompasses the idea of containment by being inside something.

In section 4.2.4 it was shown that *hul* 'mat' could also occur with the *man* classifier. Other Central Vanuatu languages have similar classifications that have led this classifier to be one that classifies liquids and intimate or domestic property. Other intimate property in North Ambrym, such as clothes, are

377

classified by the *mwenan* residual classifier. Though, *im* 'house' does occur with the *man* classifier and it has been argued in other Central Vanuatu languages that this is intimate property. This idea is reinforced by North Ambrym as *tùnyù-n* 'his mat' is the bound noun alternative for the free noun *hul* 'mat'. As explained in section 4.1.4 *tùnyù-n* was grouped together with other bound nouns such as bows and arrows, penis sheaths and grass skirts. However, The link between liquids and buildings has been defined as one of containment and the same metaphorical extension can be claimed for mats as well. Mats are also containers, they are wrapped around the body like a blanket at night, they are wrapped around a corpse for burial and at one point they were used as capes and clothes and are still used in a similar fashion to a wedding veil where the bride is covered with a mat and the groom pays for the mat to be removed. Looking at lexical comparisons from North and Central Vanuatu Clark (2009: 94) reconstructs mat as *bwana and states that it could be worn for clothing, thus mats are containers for bodies. Though clothes in North Ambrym are not classified with *man* but with *mwenan*, other Central Vanuatu languages do classify clothing with *man* such as Lewo, mentioned previously in 4.2.4 where Early (1994: 212) states that "some articles of clothing, particularly those one pulls over ones head or puts around ones shoulders" are classified in this way and thus could be seen as containing or covering the body. Similarly in Beriebo clothes that cover the upper body are also classified with the *mwa* classifier and Budd (2009: 144) says that

> "it seems plausible that the classifier that is used for items associated with bedding and sleep has been extended to use with clothes covering the top half of the body since traditionally the only item worn over the shoulders would have been a blanket-like mat".

Again it is the idea of covering and containing that unifies mats with other members of the *man* classifier category. In North Ambrym when someone dies relatives bring mats that are wrapped around the corpse and act similar to a coffin that contains the body. An example is found in an excerpt from a story where a boy and his father want to trick a devil into believing the son is dead, shown in (5).

(5)   *Te*   *vya fyaane te*   *sine **hul** te*   *lingi rru ran*
       NREC.PST[3SG] go dress.up CONJ lay mat CONJ put stay on.3SG
       he te rro marr
       as.if PST CONT die
       'He went and dressed him up and laid a mat and put it on him as if he
       was dead'

The following example shows the custom of bringing mats to a funeral.

(6)   *Em*   *hol* **blanket** *rru bya a*   **kaliko** *a*   **hobati**.
       3PL.REC.PST carry blanket stay go CONJ calico CONJ mat
       Ema   *rrya bya te*   *em*   *bya birrbone*
       3PL.REC.PST take go CONJ 3PL.REC.PST go cover.TR
       'They carry blankets and calico and mats. They take them and they
       cover him'

What is interesting is the use of the verb *birrbo* which means to cover and is used when when covering something in many layers such as when making the local grated pudding laplap and wrapping it in many leaves before putting it onto the fire, thus the food is contained within the leaves. Holes, Houses and cups are all linked via the schematic concept of containment and thus the man schema can be redrawn as shown in figure 8.10
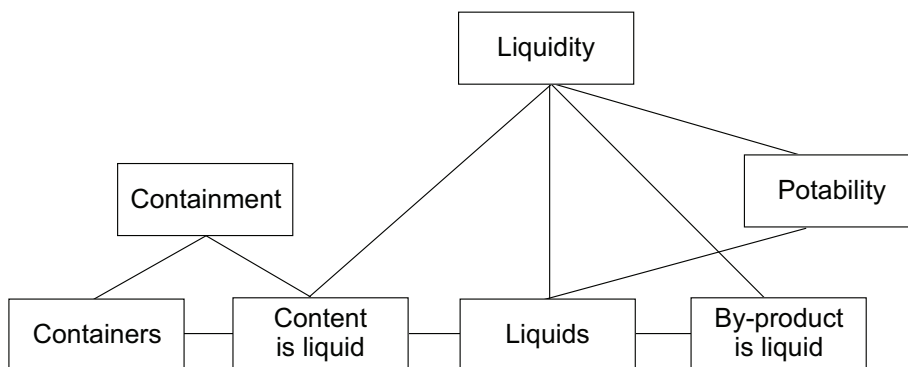
Figure 8.10: Underlying schema for the *man* classifier: 5

379

In summary the most schematic node is that of liquidity, though its elaboration potability affects the prototypes of the classifier category. Similarly another schematic node of containment also affects the prototypes and this is why there are two seemingly disparate entities as central members, house and water.

8.3. CHAPTER SUMMARY

This chapter has been an initial attempt to rationalise what appeared to be the classification of disparate semantic concepts by the two classifiers *an* and *man*. The fact different semantic concepts can occur with a single classifier is not evidence that the classifiers are homonymic lexemes but polysemic where the underlying schemas are elaborated by different semantic chaining principles such as metaphorical and metonymic extensions and are thus radial categories as discussed by Lakoff (1987). The most schematic representation of the *an* classifier is 'life form', but it is its elaboration of 'edibility' that affects the prototypes. Similarly the underlying schema for the *man* classifiers is 'liquidity' but its elaboration of potability affects the prototype. For both the classifiers' categories the continued and frequent use of an item and its valued place in the culture of North Ambrym have affected the central members of these classifiers and these have become entrenched as per Schmid (2007).

As discussed in section 5.1.3 Nikiforidou's (1991) polysemic analysis of the genitive construction showed that the more peripheral relations encoded by the genitive that were furthest away from the most schematic and central node were more susceptible to being encoded via alternative non-genitive constructions. That is the periphery is more susceptible to change. This can be seen in the two classifier categories examined in this chapter. However each node in the schematic diagram of the *an* and *man* classifier has its own internal structure with its own central members. The most central members of each node are likely to be classed as *an* or *man* respectively, whereas the less central members are more likely to occur with other classifiers, unless they could seemingly be included in other nodes of the schema of the classifier itself. Thus there is a difference between *li brrarrme* 'kava' which is a non-central member of *man* classifier (according to the free list experiment) and can be construed as

belonging in the *man* category because its by product is a potable liquid, it could also be construed as non-edible tree and thus occur with either the *an* or *mwenan* classifier. On the other hand *nani* 'goat' is a non-central member of the *an* classifier, but as it can be construed as either an animal or as food and both of these are edible then the *an* classifier is used. So a concept can be a peripheral member of a node but still be consistently classified by one classifier as it satisfies more features posited by the other nodes.

Finally, Selvik (2001) described the polysemic underlying schema of Bantu noun classes, as discussed in chapter 5.1.3. However, there was no discussion as to how she arrived at what the prototype or central members were. This chapter has shown that by using a variety of experiments, whose data support each other, the central members of the classifiers and the schematic nodes themselves can be found.

Chapter 9

Conclusion

This thesis has challenged the dominating theory of relational classifiers in Oceanic languages and instead claims that in North Ambrym the system of possessive classification is more rigid and is akin to a possessed classifier system. This thesis has used a novel experimental approach that yields more reliable data than simply using speaker intuitions on grammaticality judgements. These experiments were tailor made for North Ambrym and tested many naturalistic and un-naturalistic uses of items to see if context induced a change in classifier which would support a relational classifier hypothesis.

9.1. RESEARCH SUMMARY

Chapter 1 introduced the language, its speakers and the main research questions of this thesis. It was argued that a corpus based study would not be a valuable road to pursue due to the rarity of possessive constructions. Only possessive constructions encoding prototypical uses of possessions tend to occur in the corpus and thus by analysing the corpus alone no hypothesis could be made as to how speakers classify non-prototypical possessions. The theory of Roschian prototypes would form the main line of inquiry and thus cognitive linguistics, which employs cognitive psychological findings, would form the theoretical approach to the thesis.

Chapter 2 has given the first grammatical description of the language to ap-

pear and is based on primary fieldwork data. The data has shown that North Ambrym previously consisted of up to five different dialects, though due to population movement and subsequent levelling only two remain. Some interesting phenomena present themselves that require further research. For instance the phonological process of initial vowel elision has not been found in other CVL languages. Similarly, the cross referencing suffixes that appear in complex possessive constructions have intricate control constraints not seen in other CVL languages.

Chapter 3 gave a literature review of some of the main views of the syntactic and semantic analyses of possessive constructions. A huge amount of literature exists for this topic and it was not pertinent to discuss all of it. The main divide is between the semantic distinction of inalienable and alienable possessions. Alienable possessive constructions occur in possessive classifier constructions in Oceanic languages and an overview of noun class and classifier systems was therefore given. The remainder of the chapter focused on the relevant analyses of Oceanic possessives, the most important of which is the relational classifier hypothesis, which states that the possessive classifiers classify the relation between possessor and possessed and not a semantic feature of the possessed.

Chapter 4 gave a sketch of the different possessive constructions in North Ambrym. The typical Oceanic split of direct and indirect constructions marks the semantic inalienable/alienable distinction. The syntactic status of the possessive classifier, a contentious issue in Oceanic linguistics, was analysed as a modifier of the possessed noun as per Lichtenberk (2009b). Finally the *an* and *man* possessive classifiers were shown to also include non-canonical possessions that deviated from the canonical edible and drinkable possessions.

Chapter 5 gave a basic introduction to cognitive linguistics, paying particular attention to polysemy, metaphor, metonymy and underlying schemas. The prototype view of categorisation was introduced which argues that categories have graded memberships with a central member and that membership of a category does not rely on a set of necessary and sufficient conditions but that family resemblance and semantic extensions appear as motivating categorial membership.

Chapter 6 argued against the theory of relational classifiers in North Ambrym. Data from comparative experiments showed that when different contextual frames were evoked for the use of possessions the choice of classifiers did not change. Thus the intended use of the possessed by the possessor is not encoded by the possessive classifier. It was argued instead that possessive classifiers characterise a semantic feature of the possessed noun, which makes them similar to possessed classifiers. The salient semantic feature in North Ambrym is the culturally entrenched usage of the possession, itself based upon the continued usage of an item in that particular way.

Chapter 7 argued that as possessed items were more likely to occur with just one classifier, based on a salient functional usage, the classifiers represented categories with some members being more central than others. The free-list experiment defined those central members of the classifier categories and the word-list experiment showed that speakers consistently used the same classifier for the more central members of these classifiers. Non-central members were deemed to be non-prototypical possessions and speakers had trouble with their classification. This resulted in many different classifiers being used, though the occurrence of different classifiers does not entail the intended use of the possession. This distinction was further backed up from reaction times. Central members were classified quicker than the non-central members, thus conforming to the findings of Rosch (1973). The experiments showed that possessed items were able to occur with multiple classifiers due to their centrality of membership. Those that were less central were categorised by their similarity to members of different categories.

Chapter 8 capitalised on the findings of the previous chapters and furthered a schematic analysis of the classifier categories. Underlying semantic schemas were developed for the *an* and *man* classifiers based on the central members as defined in chapter 7. Each schematic node is motivated by metaphor, metonymy or other semantic extensions that link them together and also to the most abstract node. Each node of the schema is itself a category with its own central and non-central members as shown by the free-listing of category node members, such that for the *an* classifier category the most prototypical trees were those that were cultivated and had edible fruit. Similarly the most

prototypical animals and crops were likewise domesticated or cultivated and edible too. Thus the central members of the nodes were linked to the abstract edibility node which motivated their centrality and the non-central members were still included due to the fact that they are life forms. Further evidence linked non-prototypical possessions to the more central nodes, such that tools and units of time were linked to the *an* classifier via a historical metonymic analysis. The *man* classifier also showed how two seemingly disparate types of entities, liquids and buildings, could be semantically linked together via semantic chaining through other nodes such as containment.

9.2. THEORETICAL IMPLICATIONS

The theory of relational classifiers has largely remained unchallenged over the years. It is surprising that exceptions have not been found earlier. Only the study by Pawley & Sayaba (1990) on Wayan Fijian stated that some nouns can occur in just one type of construction and are therefore unable to occur in different constructions depending upon the intentional use of the possessor for the possessed. However, Pawley & Sayaba (1990) state that the class of bound nouns can only occur in direct possessive constructions and not in classifier constructions, whereas the free nouns are able to occur with different classifiers in indirect possessive constructions and therefore it is these constructions that should be considered relational. To date no study has focussed on whether the classifiers are non-relational and this study seeks to rectify this.

Free nouns in most Oceanic languages can appear with different possessive classifiers, whereas in North Ambrym this is much more constrained. It has been argued in this thesis that the classifiers characterise a feature of the possessed noun and not the relation between the possessor and possessed. In chapter 3 it was noted that according to Aikhenvald (2000) the only typological difference between possessed and relational classifiers is that the former classified the possessed nominal and the latter the relation between the possessor and the possessed. All other criteria were the same. Lichtenberk (1983a) also states that the relation between the possessed and possessor is constrained by semantic features or the real world nature of the possessed, for example a

pig would probably never occur with a classifier denoting a liquid. However we have that in North ambrym and other Central Vanutau languages that buildings occur with the liquid classifier and kinship terms with the edible classifier. Presumably the more classifiers a language has the more canonical the system and the fewer classifiers a language has the more likely it is that each classifier lumps related semantic categories together. Grinevald (2000) posits a continuum for noun categorisation systems and possessed classifiers and relational classifiers are clearly closely related, these two systems themselves should form a continuum so as to account for the cross over between the two. Again Denny (1976) argues that classifiers characterise a functional property of a noun's referent and in North Ambrym these functional properties are made salient by continued interactional use that leads to entrenchment.

Is North Ambrym a lonely isle amidst an ocean of relational classifier systems? No systematic study of such a scale has been carried out on other Oceanic languages and it would not be surprising if many of the languages surveyed thus far turn out to be possessed classifier systems also. For example Paamese is the oft cited example of a language that exhibits a prototypical relational classifier system because of the ability of *ani* 'coconut' being able to occur with all the different classifiers (Lynch *et al.* 2002). It was shown in North Ambrym that *ol* 'coconut' is a superordinate category label and that it could occur with different classifiers only because speakers assign different growth stages to it, where each one has its own culturally entrenched use associated with it that is characterised by the classifier. It is possible that a similar system occurs in other related languages such as Paamese. It may not have a true relational classifier system but the above could be an example of a metonymic relation existing between a superordinate label and its subordinate members that enables the different classifiers. Similar experiments need to be carried out on supposed relational classifier languages which will yield a definitive answer.

Underlying schematic analysis for categories tend to simply posit nodes without any evidence for them being central or not. Both the studies by Nikiforidou (1991) and Selvik (2001) looked at in section 5.1.3 create schemas for their categories but do not elaborate on how they posit the central nodes and simply

say that they are the most prototypical. This thesis has shown that experiments such as free-listing of category members and testing reaction times are a reliable way of determining category prototypes which can be used as motivation for central nodes. All schematic analyses need to be based on experimental data to ensure reliability.

9.3. EXTENDING THE SCOPE OF THE RESEARCH

This thesis has answered many questions as to the nature of possessive classification in North Ambrym and possibly for other Oceanic languages. There are of course many questions that have been left unanswered.

One of the problems found in section 8.1 was that some kin terms occurred with the *an* classifier and it was left undecided as to whether there was a semantic link between edibility and kinship. It was posited that kinship could be considered a form of passive possession (c.f. section 3.4.3) where the possessor has no control over the possessed. It remains to be seen as to whether classification of kin terms is passive possession or is semantically related to edibility via some metaphorical chain.

It was shown in section 7.2.4 that with other tools beginning with agentive instrumental prefix *a-* that the longer an item is possessed the more likely it is to occur with the *an* classifier. However, *atata* 'pig killing club' appeared to be exceptional in that it predominantly occurred with the *mwenan* classifier even though it is a highly prized possession. It was posited that as only certain high ranking chiefs that have bought the right for the *atata* can possess such an item and therefore it is a restricted possession which creates the exceptional classification. More research needs to be looked into agentive nominalisations to see if *atata* is the only exception. There are many more of these nominalisations that could be tested.

Further experiments could also be conducted testing semantic classification. For instance, nonsense words could be created and participants asked to classify them based upon their definition. For instance nonsense words could be defined by the different schematic nodes found in chapter 8. Thus a word X

could be defined by its ability to contain liquids or that it is edible. Extra features could be added to test length of possession, such that word Y is edible and you eat it everyday or word Z is a liquid but you only drink it rarely. Thus different variables for classification could be tested for individually and in different combinations to see how they effect classifier choice.

Do speakers understand the semantic links nodes that were posited for the underlying schemas? Is the link between houses and liquids known? This is one of the main questions that remains unanswered and also needs to be investigated further. During the free-listing experiment speakers were unable to give a unifying superordinate label and this may show that the link between houses and liquids is not known.

Bibliography

Aikhenvald, Alexandra Y. 2000. *Classifiers: A Typology of Noun Categorization Devices*. Oxford: Oxford University Press.

Aitchison, Jean. 1994. *Words in the Mind: An Introduction to the Mental Lexicon*. 2nd edn. Oxford: Blackwell Publishers.

Alpi, Baleng, & Laan, Alpi. 1995. Ambrym. *Pages 321–328 of:* Van Trease, Howard (ed), *Melanesian Politics: Stael Blong Vanuatu*. Fiji: Macmillan Brown Centre for Pacific Studies, University of Cantebury & Institute of Pacific Studies, University of the South Pacific.

Bangdor, Johanin. 2009. *Legends of Ambrym*. Vanuatu: Alliance Français.

Barker, Christopher. 1995. *Possessive Descriptions*. Stanford, California: Centre for the Study of Language and Information.

Barsalou, Lawrence W. 1987. The instability of graded structure: implications for the nature of concepts. *Pages 101–140 of:* Neisser, Ulric (ed), *Concepts and Conceptual Development: Ecological and Intellectual Factors in Categorization*. Emory symposia in cognition, no. 1. Cambridge: Cambridge University Press.

Berlin, Brent. 1978. Ethnobiological Classification. *Pages 9–26 of:* Rosch, Eleanor, & Lloyd, Barbara B (eds), *Cognition and Categorization*. Hillsdale, N.J: L. Erlbaum Associates.

Berlin, Brent, & Kay, Paul. 1969. *Basic Color Terms: Their Universality and Evolution*. London: University of California.

Bernard, H. Russell, Pelto, Pertti J., Werner, Oswald, Boster, James, Romney, A. Kimball, Johnson, Allen, Ember, Carol R., & Kasakoff, Alice. 1986. The Construction of Primary Data in Cultural Anthropology. *Current Anthropology*, **27**(4), 382–396.

Bickel, Balthasar, & Nichols, Johanna. 2011. Obligatory Possessive Inflection. *In:* Dryer, Matthew S., & Haspelmath, Martin (eds), *The World Atlas of Language Structures Online*. Munich: Max Planck Digital Library. Chapter 58.

Bohnemeyer, Jürgen, Bowerman, Melissa, & Brown, Penelope. 2001. Cut and break clips, version 3,. *Pages 90–95 of: Field Manual 2001*. Language and Cognition Group.

Bril, Isabelle. 2004. Complex nuclei in Oceanic languages: an areal typology. *Pages 1–48 of:* Bril, Isabelle, & Ozanne-Rivierre, Françoise (eds), *Complex predicates in Oceanic languages: studies in the dynamics of binding and boundness*. Empirical approaches to language typology, no. 29. Berlin; New York: Mouton de Gruyter.

Bril, Isabelle, & Ozanne-Rivierre, Françoise (eds). 2004. *Complex predicates in Oceanic languages: studies in the dynamics of binding and boundness*. Empirical approaches to language typology, no. 29. Berlin; New York: Mouton de Gruyter.

Brugman, Claudia. 1981. *Story of Over*. Ph.D. thesis, University of California, Berkely.

Budd, Peter. 2009. *Topics in the grammar of Bierebo, Central Vanuatu, with a focus on the Realis/Irrealis categories*. Ph.D. thesis, SOAS, London.

Census. 2009. *National Population and Housing Census*. Basic Tables Report 1. Vanuatu National Statistics Office.

Chappell, Hilary, & McGregor, William. 1996. Prolegomena to a theory of inalienability. *Pages 3–30 of:* Chappell, Hilary, & McGregor, William (eds), *The grammar of inalienability: a typological perspectiveon body part terms and the part-whole relation*. Empirical approaches to language typology, no. 14. Berlin: Mouton de Gruyter.

Cienki, Alan. 2007. Frames, Idealized Cognitive Models, and Domains. *Pages 170–187 of:* Geeraerts, Dirk, & Cuyckens, Hubert (eds), *The Oxford handbook of cognitive linguistics*. Oxford University Press.

Clark, Ross. 2009. **Leo tuai: a comparative lexical study of north and central Vanuatu languages*. Pacific linguistics, no. 603. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, the Australian National University.

Codrington, R.H. 1885. *The Melanesian Languages*. Clarenden Press.

Corbett, Greville G. 1991. *Gender*. Cambridge: Cambridge University Press.

Council, Vanuatu National Language. 2005. *Nasonal Lanwis Polisi*.

Craig, Colette G. 1986. Jacaltec Noun Classifiers. *Pages 263–93 of:* Craig, Colette (ed), *Noun Classes and Categorization: Proceedings of a Symposium on Categorization and Noun Classification, Eugene, Oregon, October 1983*. Amsterdam: John Benjamins.

Croft, William, & Cruse, D. Alan. 2004. *Cognitive Linguistics*. 1st edn. Cambridge University Press.

Cronin, S. J., & Sharp, D. S. 2002. Environmental impacts on health from continuous volcanic activity at Yasur (Tanna) and Ambrym, Vanuatu. *International Journal of Environmental Health Research*, **12**, 109–123.

Crowley, Terry. 1987. Serial Verbs in Paamese. *Studies in Language*, **11**(1), 35–84.

Crowley, Terry. 1990. *Beach-la-Mar to Bislama: the emergence of a national language in Vanuatu*. Oxford studies in language contact. Oxford: Clarendon Press.

Crowley, Terry. 1996. Inalienable possession in Paamese grammar. *Pages 383–432 of:* Chappell, Hilary, & McGregor, William (eds), *The grammar of inalienability: a typological perspectiveon body part terms and the part-whole relation*. Empirical approaches to language typology, no. 14. Berlin: Mouton de Gruyter.

Crowley, Terry. 2002. *Serial Verbs in Oceanic: A Descriptive Typology*. Oxford: Oxford University Press.

Crowley, Terry. 2006. *Tape: A Declining Language of Malakula (Vanuatu)*. Pacific linguistics, no. 575. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, The Australian National University.

Deacon, Bernard. 1927. The Regulation of Marriage on Ambrym. *Journal of the Royal Anthropological Institute*, **57**, 325–42.

Denny, Peter J. 1976. What are noun classifiers good for? *Papers from the twelfth regional meeting of the Chicago Linguistics Society*, 122–33.

Denny, Peter J. 1986. The Semantic Role of Noun Classifiers. *Pages 297–308 of:* Craig, Colette Grinevald (ed), *Noun Classes and Categorization: Proceedings of a Symposium on Categorization and Noun Classification, Eugene, Oregon, October 1983*. Typological studies in language, no. 7. Amsterdam: John Benjamins.

Dixon, Robert M. W. 1977. *A grammar of Yidin*. Cambridge studies in linguistics, no. 19. Cambridge: Cambridge University Press.

Donders, F.C. 1868. On the speed of mental processes. *Archiv für Anatomie und Physiologie und wissenschaftliche Medizin*, 657–681.

Downing, Pamela. 1986. The Anaphoric Use of Classifiers in Japanese. *Pages 345–376 of:* Craig, Colette Grinevald (ed), *Noun Classes and Categorization: Proceedings of a Symposium on Categorization and Noun Classification, Eugene, Oregon, October 1983.* Typological studies in language, no. 7. Amsterdam: John Benjamins.

Early, Robert. 1994. *A Grammar of Lewo, Vanuatu.* Ph.D. thesis, Australian National University, Canberra.

Eriksen, Annelin. 2007. *Gender, Christianity and Change in Vanuatu: An Analysis of Social Movements in North Ambrym.* Series: Anthropology and cultural history in Asia and the Indo-Pacific. Burlington, VT: Ashgate.

Evans, Bethwyn, & Ross, Malcolm D. 2001. The History of Proto-Oceanic *ma-. *Oceanic Linguistics*, **40**(2), 269–290.

Evans, Vyvyan, & Green, Lydia. 2006. *Cognitive Linguistics: An Introduction.* 1 edn. Lawrence Erlbaum Associates.

Eysenck, Michael W, & Keane, Mark T. 2000. *Cognitive Psychology: A Student's Handbook.* 4th edn. Hove: Psychology Press.

Fillmore, Charles J. 1982. Frame Semantics. *Pages 111–137 of: Linguistics in the Morning Calm.* Seoul: Hanshin Publishing Co.

Foley, William A. 1997. *Anthropological Linguistics: An Introduction.* Language in society, no. 24. Malden, Mass: Blackwell Publishers.

Foley, William A, & Olson, Michael L. 1984. Clausehood and verb serialization. *Pages 17–60 of:* Nichols, Johanna, & Woodbury, Anthony C. (eds), *Grammar inside and outside the clause : some approaches to theory from the field.*

François, Alexandre. 2002. *Araki: A Disappearing Language of Vanuatu.* Pacific linguistics, no. 522. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, Australian National University.

Freeze, Ray. 1992. Existensials ond other locatives. *Language*, **68**(3), 553–95.

Gabelentz, Hans Conon von der. 1861. *Die Melanesischen Sprachen Nach Ihrem Grammatischen Bau Und Ihrer Verwandtschaft Unter Sich Und Mit Den Malaiisch-Polynesischen Sprachen Untersucht.* Leipzig: S. Hirzel.

Grinevald, Colette. 2000. A morphosyntactic typology of classifiers. *Pages

50–92 of: Senft, Gunter (ed), *Systems of Nominal Classification*. Cambridge University Press.

Haberkorn, Gerald. 1985. *Recent population trends in Vanuatu*. Islands/Australia working paper ; no. 85/4. Australia National University: National Centre for Development Studies.

Haiman, John. 1983. Iconic and Economic Motivation. *Language*, **59**(4), 781–819.

Harrison, Sheldon P., & Albert, Salich Y. 1976. *Mokilese reference grammar*. PALI language texts. Honolulu: University Press of Hawaii.

Haspelmath, Martin. 1999. Article-Possessor Complementarity: Economic Motivation in Noun Phrase Syntax. *Language*, **75**(2), 227–243.

Heine, Bernd. 1997. *Possession: cognitive sources, forces and grammaticalization*. Cambridge studies in linguistics, no. 83. Cambridge: Cambridge University Press.

Henley, Nancy M. 1969. A Psychological Study of the Semantics of Animal Terms. *Journal of Verbal Learning and Verbal Behaviour*, **8**, 176–184.

Herslund, Michael, & Baron, Irène. 2001. Introduction: Dimensions of possession. *Pages 1–26 of:* Baron, Irène, Herslund, Michael, & SÃ¸rensen, Finn (eds), *Dimensions of possession*. Typological studies in language, no. 47. Amsterdam: John Benjamins.

Hick, William E. 1952. On the rate of gain of information. *Quarterly Journal of Experimental Psychology*, 11–26.

Hyman, R. 1953. Stimulus information as a determinant of reaction time. *Journal of Experimental Psychology*, **45**, 423–432.

Hyslop, Catriona. 2001. *The Lolovoli Dialect of the North-East Ambae Language, Vanuatu*. Pacific linguistics, no. 515. Canberra: Pacific Linguistics, Research School of Pacific and Asian Studies, Australian National University.

Jauncey, Dorothy. 2011. *Tamambo: The Language of West Malo, Vanuatu*. Canberra, A.C.T: Pacific Linguistics.

Katz, Jerrold J. 1972. *Semantic Theory*. Studies in language. New York; London: Harper and Row.

Kempson, Ruth M. 1977. *Semantic theory*. Cambridge textbooks in linguistics. Cambridge: Cambridge University Press.

Koptjevskaja-Tamm, Maria. 2002. Adnominal possession in the European languages: form and function. *Sprachtypologie und Universalienforschung*, **55**(2), 141–172.

Koptjevskaja-Tamm, Maria. 2003. A woman of sin, a man of duty and a hell of a mess: Non-determiner genitives in Swedish. *Pages 515–558 of:* Plank, Frans (ed), *Noun Phrase Structure in the Languages of Europe*. Berlin: Mouton de Gruyter.

Lachman, Roy, Lachman, Janet L., & Butterfield, Earl C. 1979. *Cognitive psychology and information processing: an introduction*. New York: Lawrence Erlbaum Associates.

Lakoff, George. 1987. *Women, Fire, and Dangerous Things: What Categories Reveal About the Mind*. Chicago: University of Chicago Press.

Lakoff, George. 1999. Cognitive Models and Prototype Theory. *Pages 391–422 of:* Margolis, Eric, & Laurence, Stephen (eds), *Concepts: Core Readings*, 1st edn. The MIT Press.

Lakoff, George, & Johnson, Mark. 1980. *Metaphors We Live By*. Chicago: University of Chicago Press.

Lane, B, & Lane, R. 1956. A Re-interpretation of the "anomolous" Six Section Marriage System of Ambrym, New Hebrides. *Southwestern Journal of Anthroplogy*, **12**, 406–14.

Langacker, Ronald W. 1991. *Concept, image and symbol: the cognitive basis of grammar*. Cognitive Linguistics Research, no. 1. Berlin ; New York: Mouton de Gruyter.

Langacker, Ronald W. 1995. Possession and possessive constructions. *Pages 51–80 of:* Taylor, John R., & MacLaury, Robert E. (eds), *Language and the cognitive construal of the world*. Trends in linguistics, no. 82. Berlin; New York: Mouton de Gruyter.

Lee, David. 2001. *Cognitive linguistics: an introduction*. Oxford University Press.

Lewandowska-Tomaszczyk, Barbora. 2007. Polysemy, Prototypes, and Radial Categories. *Pages 139–169 of:* Geeraerts, Dirk, & Cuyckens, Hubert (eds), *The Oxford handbook of cognitive linguistics*. Oxford University Press.

Lichtenberk, Frantisek. 1983a. *A Grammar of Manam*. Oceanic linguistics special publications, no. no. 18. Honolulu, HI: University of Hawaii Press.

Lichtenberk, Frantisek. 1983b. Relational Classifiers. *Lingua*, **60**(2-3), 147–176.

Lichtenberk, Frantisek. 1985. Possessive Constructions in Oceanic Languages and in Proto-Oceanic. *Pages 93–140 of:* Pawley, Andrew, & Carrington, Lois (eds), *Austronesian Linguistics at the 15th Pacific Science Congress*. Pacific linguistics, no. 88. Canberra, A.C.T., Australia: Dept. of Linguistics, Research School of Pacific Studies, Australian National University.

Lichtenberk, Frantisek. 2009a. Attributive possessive constructions in Oceanic. *Pages 249–252 of:* McGregor, William B. (ed), *The expression of possession*. Berlin and New York: Mouton de Gruyter.

Lichtenberk, Frantisek. 2009b. Oceanic Possessive Classifiers. *Oceanic Linguistics*, **48**(2), 379–402.

Longacre, Robert E. 2007. Sentences as combinations of clauses. *Pages 372–420 of:* Shopen, Timothy (ed), *Language typology and syntactic description*, 2nd edn., vol. 3. Cambridge: Cambridge University Press.

Lynch, John. 1973. Verbal aspects of possession in Melanesian languages. *Oceanic Linguistics*, **12**, 69–112.

Lynch, John. 1982. Towards a theory of the origin of the Oceanic possessive constructions. *Pages 243–268 of:* Halim, Amran, Carrington, Lois, & Wurm, S. A. (eds), *Papers from the third international conference on Austronesian linguistics*. C, vol. 1, no. 74. Canberra: Department of Linguistics, Research School of Pacific Studies, Australian National University.

Lynch, John. 1996a. Banned National Language: Bislama and Formal Education in Vanuatu. *Pages 245–257 of:* Mugler, France, & Lynch, John (eds), *Pacific Languages in Education*. Suva: Institute of Pacific Studies.

Lynch, John. 1996b. Proto Oceanic Possessive Marking. *Pages 93–110 of:* Lynch, John, & Pat, Fa'afo (eds), *Oceanic Studies: Proceedings of the First International Conference on Oceanic Linguistics*. C, no. 133. Canberra: Pacific Linguistics.

Lynch, John. 2001. Passive and food possession in Oceanic languages. *Pages 193–214 of:* Pawley, Andrew, Ross, Malcolm D., & Tryon, Darrell (eds),

The boy from Bundaberg: studies in Melanesian linguistics in honour of Tom Dutton. Canberra: Pacific Linguistics.

Lynch, John, & Crowley, Terry. 2001. *Languages of Vanuatu: A New Survey and Bibliography*. Pacific linguistics, no. 517. Canberra: Pacific linguistics, Research School of Pacific and Asian Studies, Australian National University.

Lynch, John, Ross, Malcolm, & Crowley, Terry (eds). 2002. *The Oceanic Languages*. Curzon language family series, no. 1. Richmond, Surrey: Curzon.

Lyons, Christopher. 1986. The Syntax of English Genitive Constructions. *Journal of Linguistics*, **22**(1), 123–143.

Lyons, John. 1968. *Introduction to Theoretical Linguistics*. Cambridge: Cambridge University Press.

Margetts, Anna. 2008. Transitivity Discord in Some Oceanic Languages. *Oceanic Linguistics*, **47**(1), pp. 30–44.

Miller, Ingrid. 1975. *Gela Syntax*. Ph.D. thesis, School of Oriental and African Studies, London.

Milner, G. B. 1972. *Fijian grammar*. 3rd edn. Suva, Fiji: Government Press.

Mithun, Marianne. 1986. The Convergence of Noun Classification Systems. *Pages 379–397 of:* Craig, Colette Grinevald (ed), *Noun Classes and Categorization: Proceedings of a Symposium on Categorization and Noun Classification, Eugene, Oregon, October 1983*. Typological studies in language, no. 7. Amsterdam: John Benjamins.

Mowbray, G. H., & Rhoades, M. V. 1959. On the reduction of choice reaction times with practice. *Quarterly Journal of Experimental Psychology*, **11**, 16–23.

Murray, Rev. Charles. 1894. Varieties of Breadfruit, New Hebrides. *Journal of the Polynesian Society*, **3**, 36.

Newman, Paul. 1980. *The Classification of Chadic within Afroasiatic*. Leiden: Universitaire Pers Leiden.

Newman, Paul. 1990. *Nominal and verbal plurality in Chadic*. Publications in African languages and linguistics, no. 12. Dordrecht, Holland: Foris Publications.

Nichols, Johanna. 1988. On alienable and inalienable possession. *Pages 557–609 of:* Shipley, William (ed), *In Honor of Mary Haas: From the Haas Festival Conference on Native American Linguistics*. Berlin: Mouton de Gruyter.

Nikiforidou, Kiki. 1991. The meanings of the genitive: A case study in semantic structure and semantic change. *Cognitive Linguistics*, **2**, 149–205.

Osmond, Meredith, & Ross, Malcolm. 1998. Household artefacts. *Pages 67–114 of:* Ross, Malcolm, Pawley, Andrew, & Osmond, Meredith (eds), *The lexicon of Proto Oceanic: The culture and environment of ancestral Oceanic society*. C, vol. 1: Material culture, no. 152. Canberra: Pacific Linguistics.

Palmer, Bill. *Semantically non-canonical possessive marking and hierarchies of possession*.

Palmer, Bill, & Brown, Dunstan. 2007. Heads in Oceanic Indirect Possession. *Oceanic Linguistics*, **46**(1), 199–209.

Paton, W. F. 1971. *Ambrym (Lonwolwol) Grammar*. Pacific linguistics, no. no. 19. Canberra: Department of Linguistics, Research School of Pacific Studies, Australian National University.

Paton, W. F. 1973. *Tales of Ambrym*. Canberra: Department of Linguistics, Research School of Pacific Studies, Australian National University.

Paton, W. F. 1979a. *Ambrym (Lonwolwol) Dictionary*. Canberra: Dept. of Linguistics, Research School of Pacific Studies, Australian National University.

Paton, W. F. 1979b. *Customs of Ambrym: Texts, Songs, Games, and Drawings*. Pacific linguistics, no. no. 22. Canberra: Dept. of Linguistics, Research School of Pacific Studies, Australian National University.

Patterson, Mary. 1976. *Kinship, Marriage and Ritual in North Ambrym*. Ph.D. thesis, University of Sydney, Sydney.

Pawley, Andrew, & Sayaba, Timoci. 1990. Possessive-marking in Wayan, a Western Fijian language: Noun class or relational system. *Pages 147–171 of:* Davidson, J. H. C. S. (ed), *Pacific Island Languages: Essays in honour of G. B. Milner*.

Ray, Sidney Herbert. 1926. *A Comparative Study of the Melanesian Island Languages*. London: Cambridge University Press.

Rehg, Kenneth L. 2007. Does Hawaiian have diphthongs? And how can you tell? *Pages 119–131 of:* Siegel, Jeff, Lynch, John, & Eades, Diana (eds), *Language Description, History and Development: Linguistice indulgence in memory of Terry Crowley*. Creole language library, vol. 30. Amsterdam ; Philadelphia: John Benjamins.

Rehg, Kenneth L., & Sohl, Damian G. 1981. *Ponapean reference grammar*. PALI language texts. Honolulu: University Press of Hawaii.

Rio, Knut Mikjel. 2007. *The Power of Perspective: Social Ontology and Agency on Ambrym Island, Vanuatu*. New York: Berghahn Books.

Rivers, W. H. R. 1915. Descent and Ceremonial in Ambrim. *Journal of the Royal Anthropological Institute*, **45**, 229–233.

Robin, Claude, Eissen, Jean-Phillipe, & Monzier, Michel. 1993. Giant tuff cone and 12-km-wide associated caldera at Ambrym Volcano (Vanuatu, New Hebrides Arc). *Journal of Volcanology and Geothermal Research,*, **55**, 225–238.

Rosch, Eleanor. 1973. On the Internal Structure of Perceptual and Semantic Categories. *Pages 111–144 of:* Moore, Timothy E (ed), *Cognitive Development and the Acquisition of Language*. New York: Academic Press.

Rosch, Eleanor. 1977. Classification of real-world objects: Origins and representations in cognition. *Pages 212–222 of:* Wason, P. C, & Johnson-Laird, P. N (eds), *Thinking: Readings in Cognitive Science*. Cambridge: Cambridge University Press.

Rosch, Eleanor. 1978. Principles of Categorization. *Pages 27–48 of:* Rosch, Eleanor, & Lloyd, Barbara B (eds), *Cognition and Categorization*. Hillsdale, N.J: L. Erlbaum Associates.

Rosch, Eleanor, Mervis, Carolyn B, Gray, Wayne D, M, David, & Boyes-braem, Penny. 1976a. Basic objects in natural categories. *Cognitive Psychology*.

Rosch, Eleanor, Simpson, Carol, & Miller, R. Scott. 1976b. Structural Bases of Typicality Effects. *Journal of Experimental Psychology: Human Perceptions and Performance*, **2**(4), 491–502.

Saeed, John I. 2003. *Semantics*. 2nd edn. Introducing linguistics, no. 2. Malden, Mass. ; Oxford: Wiley-Blackwell.

Schmid, Hans-Jörg. 2007. Entrenchment, Salience, and Basic Levels. *Pages*

117–138 of: Geeraerts, Dirk, & Cuyckens, Hubert (eds), *The Oxford handbook of cognitive linguistics.* Oxford: OUP.

Schneider, Cynthia. 2010. *A Grammar of Abma: A Language of Pentecost Island, Vanuatu.* Pacific linguistics, no. 608. Canberra: Pacific Linguistics.

Seiler, Hansjakob. 1983. Possessivity, Subject and Object. *Studies in Language*, **7**(1), 89–117.

Selvik, Kari-Anne. 2001. When a dance resembles a tree: A polysemy analysis of three Setswana noun classes. *Pages 161–184 of:* Cuyckens, Hubert, & Zawada, Britta (eds), *Polysemy in cognitive linguistics: selected papers from the International Cognitive Linguistics Conference, Amsterdam, 1997.* Amsterdam; Philadelphia: John Benjamins.

Shannon, C.E. 1948. A mathematical theory of communication. *The Bell System Technical Journal*, **27**, 372–423.

Siegel, Jeff. 1996. The Use of Melanesian Pidgin in Education. *Pages 154–175 of:* Mugler, France, & Lynch, John (eds), *Pacific Languages in Education.* Fiji: Institute of Pacific Studies.

Smith, Edward E, & Meding, Douglas L. 1981. *Categories and Concepts.* Cognitive science series, no. 4. Cambridge, Mass: Harvard University Press.

Sokal, Robert R. 1977. Classification: purposes, principles, progress, prospects. *Pages 185–211 of:* Wason, P. C, & Johnson-Laird, P. N (eds), *Thinking: Readings in Cognitive Science.* Cambridge: Cambridge University Press.

Sugita, Hiroshi. 1973. Semitransitive Verbs and Object Incorporation in Micronesian Languages. *Oceanic Linguistics*, **12**(1/2), pp. 393–406.

Taylor, John R. 2003. *Linguistic Categorization.* 3rd edn. Oxford textbooks in linguistics. Oxford: Oxford University Press.

Thieberger, Nick. 2006. *A Grammar of South Efate: An Oceanic Language of Vanuatu.* Oceanic linguistics special publication, no. no. 33. Honolulu: University of Hawai'i Press.

Thomas, Earl W. 1969. *The syntax of spoken Brazilian Portuguese.* Nashville: Vanderbilt University Press.

Tryon, Darrell T. 1976. *New Hebrides Languages: An Internal Classification.*

Pacific Linguistics Series C, no. 50. Canberra: Department of Linguistics, Research School of Pacific Studies, The Australian National University.

Tryon, Darrell T. 1987. *Bislama: An Introduction to the National Language of Vanuatu*. Pacific Linguistics, no. 72. Canberra: Dept. of Linguistics, Research School of Pacific Studies, Australian National University.

Ultan, Russell. 1978. Toward a typology of substantival possession. *Pages 11–49 of:* Greenberg, Joseph H. (ed), *Universals of human language*, vol. 4. Stanford: Stanford University Press.

Von Prince, Kilu. 2012. *A Grammar of Daakaka*. Ph.D. thesis, Humboldt-Universität, Berlin.

Wasow, Thomas, & Arnold, Jennifer. 2005. Intuitions in linguistic argumentation. *Lingua*, **115**, 1481–1496.

Weller, Susan C., & Romney, Antone Kimball. 1988. *Systematic data collection*. SAGE.

Wilson, William H. 1982. *Proto-Polynesian possessive marking*. Pacific linguistics, no. 85. Canberra, Australia: Dept. of Linguistics, Research School of Pacific Studies, Australian National University.

Wittgenstein, Ludwig. 1953. *Philosophische Untersuchungen = Philosophical Investigations*. Oxford: Blackwell.

Zavala, Roberto. 2000. Multiple classifier systems in Akatek (Mayan. *Pages 114–146 of:* Senft, Gunter (ed), *Systems of Nominal Classification*. Language, culture and cognition, no. 4. Cambridge: Cambridge University Press.

Zwicky, Arnold M. 1993. Heads, bases and functors. *Pages 292–316 of:* Corbett, Greville G., Fraser, Norman M., & McGlashan, Scott (eds), *Heads in Grammatical Theory*. Cambridge University Press.