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AMBAI: an Austronesian language of Irian Jaya, Indonesia

by

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No PAGE 276 TEXT O.K.

This study is partly based on a concordance produced by J.B.M. Guy from a corpus of texts, using a subset of CONCRD (copyright J.B.M. Guy 1980), a software package written in Simula 67.

Except where otherwise acknowledged in the text this thesis represents the original research of the author

A handwritten signature in cursive script, reading "Peter James Silzer".

Peter James Silzer

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Finally I would like to share with you my gratitude to God that man was created capable of communication with his fellows and able to learn from those around him.

TABLE OF ABBREVIATIONS

SYMBOLS

[]	phonetic value
/ /	phonemic value
// ---> []	is realized as
{ }	variant choices
()	optional elements
x/y	x or y
	free variation
*	proto forms/
	ungrammatical examples
X < *Z	X is derived from Z
+	morpheme boundary
++	word boundary
'	primary stress
"	secondary stress
Ø	zero realization

PERSON/NUMBER ABBREVIATIONS

1	first person
2	second person
3	third person
lex	first person exclusive
lin	first person inclusive
s	singular
dl	dual
tr	trial
pl	plural
unspec.	unspecified

ORIENTATION ABBREVIATIONS

NE	proximate article
WA	distal 1 article
FO	distal 2 article
NIN	proximate demonstrative
NAN	distal 1 demonstrative
WAN	distal 2 demonstrative

DIACHRONIC
ABBREVIATIONS

AN	Austronesian
NAN	Non-Austronesian
PAN	Proto-Austronesian
PWY	Proto-Western Yapen
SHWNG	South Halmahera -
	West New Guinea
WY	Western Yapen

OTHER ABBREVIATIONS

an	animate
?	Consonant
C'S	Classifier
EXT	Extrovert
IMP	Imperative
inan.	inanimate
INT	Introvert
NEC	Necessity
O	Object
OBL	Oblique
P	Predicate
PERF	Perfect
POS	Possession
POSSIB	Possibility
RC	Referential Core
S	Subject
V	Vowel

ABSTRACT

Ambai is a little-known Austronesian language of Irian Jaya, Indonesia. In this work we discuss the more common elements of the phonology, morphology, and clause-level syntax. This work is basically a synchronic description of the Ambai dialect of the Ambai language, but mention is also made of comparative materials in other Austronesian languages, especially in the morphology section, where they shed light on the Ambai data. We have chosen to limit the scope of this work by not discussing any level higher than the simple sentence or what we will call the expanded clause so as to be able to provide some depth of discussion on those areas covered.

Chapter 1 places Ambai in its geographical and linguistic setting as a member of Blust's (1978) South Halmahera - West New Guinea group. The theoretical models used are summarized in 1.2 and the scope and purpose of this study in 1.3.

In chapter 2 the sound system of Ambai is described in terms of distinctive features, morpheme-structure rules, and phonological processes.

An overview of the basic open and closed word classes is given in chapter 3. We also relate Ambai syntax to syntactic universals as put forth by Greenberg (1966) to provide a concise summary of Ambai word order constraints.

Chapter 4 discusses the Ambai noun phrase employing a function-based model which describes the NP as consisting of a referential core modified by Association, Qualification, Quantification, and Orientation elements.

The final three chapters of this dissertation employ a layered clause model which sees the clause as consisting of a nuclear predicate, core arguments, and peripheral arguments. The clause nucleus is discussed in chapter 5, along with aspect and directionals which are held to be operators over the clause nucleus. The clause core is considered in chapter 6 where the core arguments (i.e. Subject and Object) are defined. Modality, which expresses the intent or ability of the Actor of the predication to perform the action is discussed as the core-level operator. Chapter 7 completes the discussion of the clause by analyzing the peripheral arguments (e.g. GOAL, LOCATION, etc.) and the operators which obtain to the entire clause (i.e. Status, which includes a realis - irrealis continuum; Tense; and Illocutionary Force, which involves declarative, interrogative, and imperative.

Appendix A continues the discussion of the verbal Subject affixes presenting diachronic aspects of the problem. Appendix B presents a narrative text in Ambai and Appendix C provides a basic vocabulary list with the Proto-Austronesian roots from which the words are derived. References cited conclude the dissertation.

Chapter 1. INTRODUCTION

Detailed descriptive studies of Irian Jaya languages are not plentiful; studies of the Austronesian (AN) languages are limited for the most part to surveys or comparative sketches. The most complete studies of Irian Jaya AN languages are those of the van Hasselts (1863, 1876, 1890, 1905, 1947) concerning Biak/Numfoor,¹ Held (1942, 1942a, 1956) regarding Waropen and Cowan (1955) concerning Wandamen/Windesi. In 1962 Capell stated that the other AN languages 'are hardly more than names, and at best are represented by short vocabularies in obscure journals' (1962:4).² This study of the Ambai language of Yapen Island in the Geelvink or Sarera Bay³ is presented with the intention that the data provided will further linguistic understanding of the Ambai language in particular and of the wider Yapen Island subgroup as it has received scant attention in the past.

In this introductory chapter we will first discuss the position of the Ambai language in terms of geography and of both the previous and my own present linguistic research (1.1). Secondly, we will discuss the theoretical framework within which Ambai will be described (1.2). Thirdly, we will summarize the scope and purpose of this dissertation (1.3).

1.1 LANGUAGE

The position of the Ambai language may be described in terms of three factors: geography, previous studies, and linguistic relations. In this subsection we will discuss each of these points in turn to provide a general overview of the position of Ambai.

1.1.1 Geography

The language which we are calling Ambai (following Anceaux 1961) is spoken by approximately seven thousand people situated in villages along the south coast of Yapen Island east of Serui and on the island of Ambai (see Map 1). The area encompassed by Ambai speakers extends from 136 degrees 19 minutes to 136 degrees 46 minutes east longitude and from 1 degree and 48 minutes to 1 degree and 58 minutes south latitude.⁴ Progressing from the west to the east along the south coast of Yapen, we note the following Ambai-speaking villages with population estimates in parentheses⁵

: Menawi/Borai (1800), Wadapi Laut (100), Randawaya I (Warironi)(1200), Randawaya II (1300), Sumberbaba (Aisumbewawafi)(400), and Dawai (100). Of these villages Wadapi Laut also contains Mora speakers (a Non-Austronesian language) and Dawai contains Wabo speakers (an AN language in the two-member Eastern Yapen subgroup). On the island of Ambai itself, again from west to east, we find Rondefi (1000), Ambai (1200), Kawifi (100), and Wamori (Rondawaiiaifi)(100). All of the above villages are in the governmental district (kabupaten) of

Yapen-Waropen; all but Sumberbaba and Dawai are in the subdistrict (kecamatan) of South Yapen (Yapen Selatan). Ambai speakers may also be found in the city of Serui and in other major cities of Irian Jaya including Jayapura where approximately two thousand Ambai people live although few people under twenty years of age speak Ambai outside of the Ambai villages.

The Ambai people, as coastal dwellers, are fishermen and subsistence gardeners for the most part and the language is replete with terms for fish and other seafood. The staple food is sago served as anan(BI papeda) which is eaten with fish or leafy vegetables. Other major crops include maize (kasamberei), cassava (timuri), sweet potato (ubi), taro (barimu), coconut (ankadi), banana (rando), and papaya (ansawaibon).

1.1.2 Previous studies

Ambai itself has not been studied in detail before. Early Dutch studies in the Sarera Bay centred around Biak/Numfoor, Waropen, and Wandamen/Windesi.

Galis (1955-6), in his maps of Irian Jaya, shows the borders of Ambai to be basically as those described above, including Wadapi Laut as a part of Ambai, rather than separate from it as later posited by Anceaux (1961:11).

Salzner (1960, map 47) includes the Ambai islands within the Serui language which is in his Windesi Group. Salzner echoes Adriani and Kruijt (1914) who put the South Halmahera languages (the Buli group) with the Biak and Windesi groups. Salzner also includes Kowiai, Taburuasa, and Karas in this larger group and says that they are 'als Ubergang von Indonesischen zum

Ozeanischen anzusprechen'(1960:21, fn.61) 'to be viewed as a transition between Indonesian and Oceanic'.

Anceaux's (1961) survey of the Yapen languages entitled 'The linguistic situation in the islands of Yapen, Kurudu, Nau and Miosnum, New Guinea' gives a good wordlist for Ambai and we will discuss his survey in more detail below (1.1.3). Here we only note the surprising decision to separate Wadapi-Laut and Ambai despite a 99% shared vocabulary calculated from Anceaux's field materials. Voorhoeve (1977) and the more recent linguistic atlas of the south Pacific compiled by Wurm and Hattori (1982) follow Anceaux's boundaries.

Capell (1962) posits that the languages along the south coast of Yapen are dialects of Wandamen created by the influences of the various 'original Yapen languages' (1962:4). In his comparative study of 1969 Capell does not discuss Yapen island, but places Wandamen in his then ANII typological group, which he changed to ANI in 1971. In 1976 Capell put the entire Geelvink Bay within his ANI group. Capell's ANI group is a typological class of AN languages of the greater New Guinea area which have basic SVO word order and have generally simpler morphology.

Dyen (1965) discusses a 'Japen' language in his lexicostatistical analysis of the AN language family. This list was taken by George Grace in 1957 and is, in fact, from Ambai. Dyen's study will be discussed further in 1.1.3.2.

Blust (1978) is the latest scholar to refer to Ambai in connection with comparative studies. Blust's work will be discussed in 1.1.3.3.

In all of the above studies the actual Ambai data is quite minimal. Anceaux (1961) provides the most data with over two

hundred lexical items as well as paradigms of the inalienably possessed body part 'hand' (pages 160-1) and the kin terms 'father' and 'mother' (page 163) and conjugations of five basic verbs (pages 152-3). The present dissertation will examine more complete data on Ambai and throw further light on the subject of the subgrouping of the AN languages of Yapen Island and thus also of the Sarera Bay (cf. 1.1.3.4).

1.1.3 Linguistic relations

The linguistic relations of Ambai and its Sarera Bay neighbours have long been unclear. Forrest's Biak list (1779) was the first information on Sarera Bay languages. In 1885 Kern suggested that Numfoor, a dialect of Biak, was Austronesian. By 1912 Ray had noted that Numfoor and Wandamen, north and west of Ambai respectively, agreed in some aspects of vocabulary and grammar and hypothesized that they fell into the same linguistic group, i.e. Austronesian (1912:325). Held (1942:7) suggested that the languages of south Yapen (e.g. Ansus, Serui Laut, Ambai) as well as Kurudu, to the east of Yapen, might be separated from this Biak and Wandamen group. Not until Anceaux's survey of 1961 was the linguistic picture made somewhat clearer as regards Ambai and the other Sarera Bay languages. The relation of Ambai to the larger AN grouping will be discussed in 1.1.3.3.

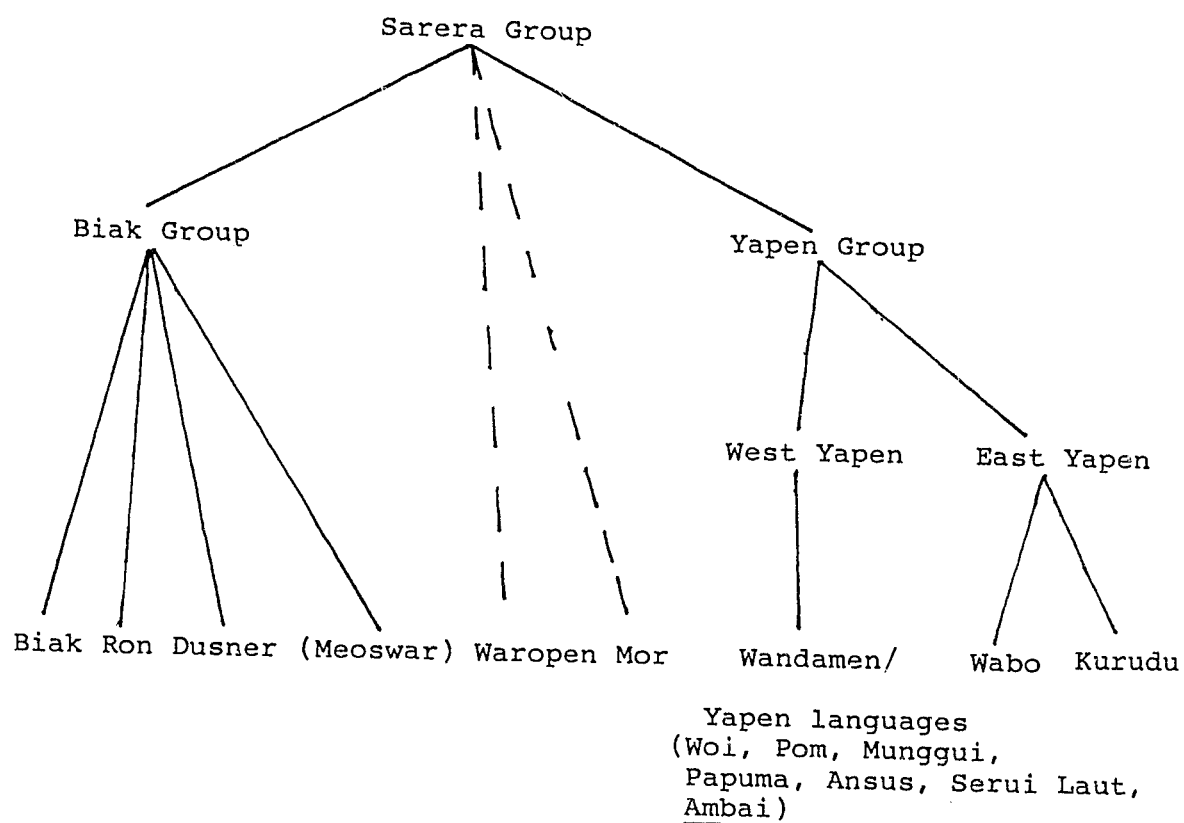
In this section we will note the contributions of Anceaux (1961), Dyen (1965), and Blust (1978). At the conclusion of this section we will note our personal research. We will see that Ambai is closely related to other Western Yapen languages and Wandamen and more distantly related to Woriasi/Wabo and Kurudu.

All Sarera Bay AN languages, however, may be seen as part of a larger subgroup distinct from languages outside the Sarera Bay.

1.1.3.1 Anceaux

In 1961 Anceaux published a survey of the Yapen languages employing lexicostatistics to ascertain linguistic grouping. Anceaux used wordlists of varying lengths and also include some 'non-basic' vocabulary. On the basis of his wordlists Anceaux concluded that the Yapen languages, excluding Wabo and Kurudu, 'form a closely related group, to which Wandamen-Windesi also belong' (1961:147). Figure 1.1 presents a summary of Anceaux's study based on comparisons of ninety-eight words or more. Note that the Western Yapen languages and Wandamen usually share over 60% of cognate words on Anceaux's list, while they generally share less than 50% of cognate words with the Eastern Yapen group, to Biak or to Waropen (also see Map 2).

Figure 1.2: Anceaux's classification of the Sarera Bay languages

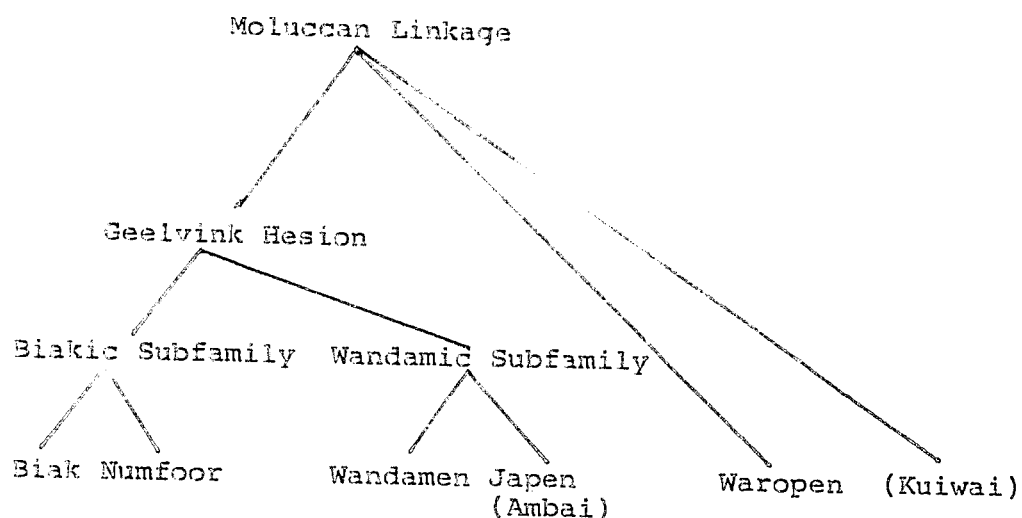


In Figure 1.2 we have added the term West Yapen to cover Wandamen and the Yapen languages which are not a part of the East Yapen group; we also note that Anceaux's Meoswar data were limited to seventeen items.

1.1.3.2 Dyen

Dyen (1965), apparently unknowingly, included Ambai in his computer-assisted analysis of the AN languages, for his 'Japen' language was in fact Ambai. Dyen concluded that Ambai and Wandamen (and presumably the other Western Yapen languages) belonged to a Wandamic subfamily, which in turn was a part of a Geelvink Hesion which also included Biak and Numfoor. Dyen's conclusions result from a comparison of the cognate percentages between the Biakic Subfamily (i.e. Biak, Numfoor) and Kuiwai and those of the Wandamic Subfamily (i.e. Wandamen and 'Japen' or Ambai) with Kuiwai. By computing a 'critical difference' between the two sets of cognate figures, Dyen grouped the Biakic and the Wandamic Subfamilies into a Geelvink Hesion. Dyen's critical difference is defined as 'the amount of difference between the lowest basic percentage of the group and the highest percentage of any member of the group with a non-member' (1965:19). For further discussion on Dyen's methods and results the reader is referred to Blust (1978). At the Yapen Island level Dyen agreed with Anceaux's 1961 findings. Dyen does not, however, include Waropen in his Geelvink Hesion. Blust provides the following display of Dyen's revised classification of what he called the Moluccan Linkage which includes Ambai (Figure 1.3).

Figure 1.3. Dyen's Moluccan Linkage
(following Blust (1978:190))



1.1.3.3 Blust

In 1978 Blust reconsidered Dyen's findings regarding the relationships between the languages of South Halmahera and Sarera Bay and posited the existence of a South Halmahera-West New Guinea subgroup as was previously suggested by Adriani and Kruijt (1914) and also followed by Esser (1938). Blust (1978:183) quotes Adriani and Kruijt as saying that '...east Makian belongs with the languages of south Halmahera and the area of the Kalana Fat (Waigeo, Salawati, Misool), Numfoor and it's relatives.' Adriani and Kruijt based their subgrouping on four features shared by east Makian and Numfoor. Blust considers these four features and then develops other shared features as subgrouping criteria. It is important to note that Blust used shared phonological innovations rather than lexical comparisons as the

basis for his subgrouping (cf. Guy 1983). Blust suggests thirteen shared innovations between the South Halmahera languages (as represented by Buli) and the West New Guinea languages (as represented by Biak) (1978:192-3). Following his preliminary discussion on Buli and Biak Blust illustrates that the Sarera Bay languages all share five or six of the thirteen shared innovations used to establish the larger subgroup (1978:206). These five or six innovations are as follows:

	PAN (Blust)	
Innovation 2	e2	> o
Innovation 4	C,t,T/ i;c,-j-,s	> s
(Innovation 5)	k,q,ʔ,ḥ,S,x	> ∅
Innovation 6	d,D,z,Z,l,r,R	> r
Innovation 9	a,el	> e
Innovation 12	syncope	

Blust uses el to refer to PAN *e in the ultimate syllable and *e2 to refer to PAN *e in the penultimate syllable of a word.

Evidence from Ambai shows agreement with Biak in Blust's innovations 2,4,5,and 6, but disagreement with Biak in innovations 9 and 12. Examples of these innovations are given below.⁷

Innovation 2: e2 > o

PAN	Ambai	
*tebaN	> roban	'to cut down'
*(h)enem	> wonan	'six'
*teluh	> toru	'three'
*belih	> wori	'buy'

Innovation 4: t,s > s

PAN	Ambai	
*bītil	> wawisi	'hungry'
*hutih	> si	'penis'
*hasem	> sisasa	'sour'
*basaq	> wawasa	'wet'

Innovation 5: k > Ø

PAN	Ambai	
*kutuh	> Øutu	'louse'
*kayuh	> Øai	'tree'
*kaw	> Øau > wau	'you (sg)'

Innovation 6: d,D,l,R > r

PAN	Ambai	
*baRuh	> weworu	'new'
*Rumaq	> romi	'garden'
*zalan	> ran	'path'
*lima	> rin	'five'
*Dalem	> roron	'inside'
*DuSa	> ru	'two'
*daSun	> reraun	'leaf'

In innovation 9: a,el > e in Numfoor, a in Buli; Ambai forms correspond to the Buli forms (as do the other Western Yapen languages). 8

Innovation 9: a,el > a in Buli and Ambai

PAN	Ambai	
*tanem	> tanam	'to plant'
*wayeR	> waya	'river'
*daqan	> arawan	'branch'
*henem	> wonan	'six'

Ambai does not evidence syncope (innovation 12). Compare Biak and Ambai in the following examples:

<u>PAN</u>	<u>syncope</u>	<u>no syncope</u>	
	<u>Biak</u>	<u>Ambai</u>	
*hinah	sna	ina	'mother'
*tijan	sne	ene	'abdomen'
*ma-takut	mkak	matai	'afraid'
*likuD	kru	kuru	'back'
*taRiNah	kna	tara	'ear'
*tama	kma	tama	'father'

Despite the differences between Biak and Ambai, however, it is evident that Blust's South Halmahera West New Guinea Group (SHWNG) group is upheld by the Ambai data. Further materials can be found in Appendix B. The present dissertation will be more concerned with presenting the Ambai material within a synchronic framework without referring to the entire Yapen or Sarera group at each point.

1.1.3.4. Current research

We turn next to a brief look at Ambai's relationships within what we will call the Western Yapen family (as opposed to the Eastern Yapen family consisting of Woriasi and Kurudu) based on research in which we have been engaged since 1977.⁹

As was mentioned before, Anceaux's survey of Yapen Island included some very short wordlists and many words not a part of Swadesh's 'basic' vocabulary. In an attempt to improve on Anceaux's wordlist and on the validity of the resultant cognate percentages, we compiled a list of over six hundred items which also included as many of Swadesh's 200 wordlist as were deemed elicitable and non-redundant (182).¹⁰ Based only on the Swadesh words within the longer wordlist, we arrived at the cognate percentages found in figure 1.4. Figure 1.4 presents the cognate

percentage between Ambai and the other Yapen languages first as we counted them and second as per Anceaux, with Anceaux's figures in parentheses. (Note that Marau has been added as Anceaux had only thirty-one lexical items in his survey.)

Figure 1.4: Ambai cognate percentages with other Yapen Island languages taken from personal research compared to Anceaux (Anceaux's percentages in parentheses)

WOI

75 POM
(70)

73 78 MUNGGUI
(65)(75)

77 84 84 MARAU
(84)(100)(96)

70 77 83 82 PAPUMA
(71)(78)(82)(94)

69 62 63 67 65 WANDAMEN
(76)(63)(69)(65)(72)

77 73 77 82 83 76 ANSUS
(81)(70)(71)(77)(87)(80)

64 68 72 73 68 59 67 BUSAMI
(61)(62)(65)(64)(64)(59)(54)

73 68 68 73 70 74 81 64 SERUI LAUT
(79)(65)(65)(71)(75)(80)(84)(61)

69 62 61 56 66 72 74 58 77 AMBAI
(71)(59)(63)(77)(66)(72)(74)(52)(85)

49 47 47 51 46 46 48 46 48 49 WABO
(49)(44)(47)(63)(43)(49)(47)(43)(51)(47)

46 44 44 47 43 48 44 42 44 43 69 KURUDU
(50)(42)(42)(52)(42)(51)(49)(55)(54)(48)(75)

A comparison of our research with that of Anceaux reveals few startling differences. The major differences (e.g. Marau) are due to the extremely short wordlists taken by Anceaux in some languages. When the two sets of figures are analyzed in terms of 10% statistical significance (cf. Simons 1977) the differences between the two sets disappear. Thus, despite the cursory nature of Anceaux's 1961 survey the basic lexicostatistic subgroupings of Western Yapen (WY) versus Eastern Yapen are not changed by a more detailed study.

We conclude this section by presenting four diagnostic sound changes evidenced in Ambai as compared to other languages within the Western Yapen subgroup. These sound changes are related to PAN forms where possible, but are not always related to Blust's larger SHWNG group.

We have seen in 1.1.3.3 that Ambai and the other Western Yapen languages can be grouped with Biak in Blust's SHWNG group on the basis of innovations 2,4,5, and 6 (i.e. *e2 > o; *t > s; *k > Ø; *D,*R,*l > r) and that Ambai and the Western Yapen languages form a separate subgroup from Biak on the basis of Blust's innovations 9 and 12 (i.e. *a, *el > WY a, Biak e; syncope). Next we will consider four distinctions made by Ambai within the Western Yapen group. The Proto Western Yapen (PWY) forms are based on only a preliminary study as the present work is more synchronically biased.

The four sets of sound correspondences given in this section serve to show some of the internal diversity within the closely related WY languages. The four sound changes are as follows:

1. Proto WY *C > Ambai \emptyset / __ ++
2. Proto WY *p > Ambai p
3. Proto WY *S > Ambai \emptyset
4. Proto WY *VkV > Ambai VkV, others VV

The first sound change concerns the loss of PWY final consonants in Ambai. The discussion of this change will be divided into those places where the consonant reappears in what Capell calls a 'thematic consonant' and those where it is lost absolutely,

PWY final *C is retained in transitive verbs in Wandamen. In Ambai and the other WY languages, however, PWY final C is lost except when the verb is followed by the third person singular object suffix. We have posited the phonemic existence of these final consonants in chapter 2, but we present them as optional here since they are only evidenced in suffixed forms.

(2)

		'pull'	'pay'	'hold'
PWY		*pot	*bait	*rut
Wandamen		pot	bait	rut
Ansus		po(t)	bai(t)	ru(t)
Ambai		po(t)	bai(t)	ru(t)
		'wash'	'lick'	
PWY		*ruais	*rarep	
Wandamen		ruas	rep	
Ansus			rare(p)	
Ambai		ruai(s)	rere(p)	

Other words in this set in which Wandamen retains PAN final C, but Ambai drops it are seen in (3).

(3)

PWY	'heavy'	'four'
Wandamen	*marabat	*at
Ansus	marabat	-at
Ambai	memba	-a
	maraba	-a

The second sound change to be discussed deals with PWY *p which is reflected as Ambai /p/. PWY *p' is derived from a merger of PAN *b and *p. Only Serui Laut agrees with Ambai in this fricativization.

(4)

PWY	'pull'	'grow'	'wipe'
Wandamen	*pot	*tipu	*upiS
Ansus	pot	tipu	upis
Serui	po(t)		upi
Ambai	po(t)	tipu	
		tipu	upi

PWY	'pull out'	'back'	'year'
Wandamen	*patin	*pui	*puida
Ansus	pati	pui	puda
Serui	patin	pui	puda
Ambai	patin	pui	puina
		pui	puina

Ambai, along with Ansus and Serui Laut, is distinguished from Wandamen in that it reflects PWY *S as \emptyset . PWY *S is distinguished from PWY *s by the \emptyset reflexes of *S in Ambai, Ansus, and Serui-Laut. (We will not discuss PWY *s as it reflects as /s/ in all languages.)

(7)

PWY	'breast'	'mother'	'net'
	*SuSu	*Sinia	*Seran
Wandamen	su	sinia	sera
Ansus	u	ina	eran
Serui	su	ina	eran
Ambai	ui	ina	eran

Other PWY forms with *S include those in (8).

(8)

PWY	'moon'	'buttocks'	'bushknife'
	*Sembai	*Sama	*Sumbe
Wandamen	sembai	sama	sumbe
Ansus	yembai	ama	umbe
Serui	embai	ama	umbe
Ambai	embai	ama	umbe

(Biak:sumber)

A few forms with PWY *S are later epended with /w-/ word initially in Ambai (9).

(9)

PWY	'baking dish'	'straits'
	*Sirio	*Sora
Wandamen	sirio	sora
Ambai	woro	wora

One further sound correspondence distinguishes Ambai from all the other WY languages: Ambai /VkV/: Wandamen, Ansus, Serui Laut /vv/. Examples are given in (10).

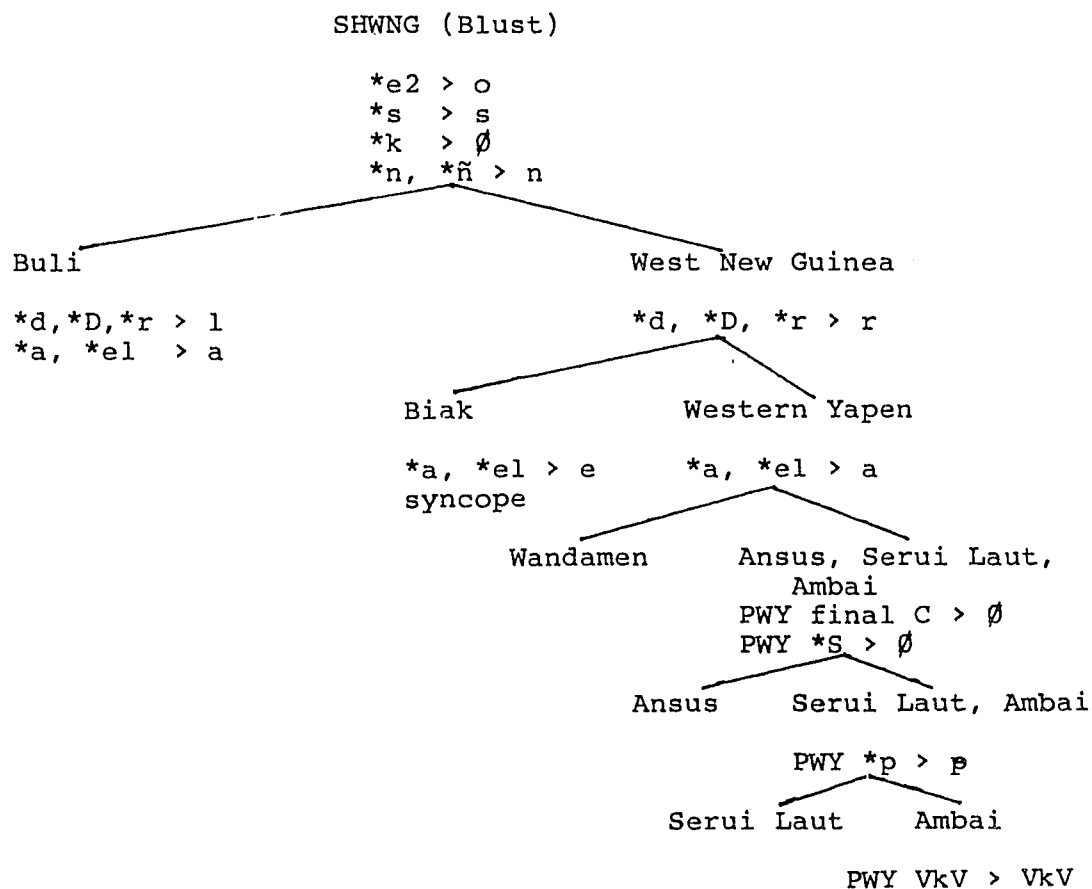
(10)

		'digit'	'water/river'
	PWY	*keka	*mareka
	Wandamen	kia	maria
	Ansus	kea	maria
	Serui	kea	marea
	Ambai	keka	mareka

		'sing'	'defecate'
	PWY	*roki	*kakeri
	Wandamen	roi	kaeri
	Ansus	roi	
	Serui	roi	
	Ambai	roki	kakeri

We can summarize this cursory discussion of Ambai's subgrouping relationships in a tree diagram showing the phonological innovations discussed above. (Figure 1.5)

Figure 1.5: Phonological subgrouping evidence



1.2 THEORETICAL BACKGROUND

Linguistic theories come and go with amazing alacrity, but certain constants remain. Writing this description of Ambai involved perusing many old and new theories for a model which would be intuitively satisfying and descriptively adequate. The ultimate choice of one theory over another may often be quite subjective and pressures from the theory currently in vogue may ultimately prove to be the deciding factor. In this section I will explain some of the theoretical background of the current dissertation. I will attempt to introduce the models which will be further explained in the appropriate chapters following.

Apollonius Dyscolus (ca. 100 A.D.) is described by David Blank as insisting 'that each part of speech can be discussed with reference to its form or to its meaning' (Blank 1980:79). Bernard Comrie, in his most recent book 'Language universals and linguistic typology' (1981) defines three parameters for the adequate description of language: semantic roles, pragmatic roles, and grammatical relations (1981:51-63). Simon Dik, in his book Functional grammar (1978), defines these three parameters as follows:

Semantic functions specify the roles which the referents of the terms involved play within the 'state of affairs' designated by the predication in which they occur. Pragmatic functions specify the informational status of the constituents within the wider communicative setting in which they occur. Syntactic functions specify the perspective from which the state of affairs is presented in the linguistic expression.

(1978:13)

These three discussions above all reflect the multifaceted nature of language. An adequate description of language must discuss not only the linguistic forms and their interaction, but also their relationships to meaning and to the pragmatics of the speech event.

The choice of a particular theory is usually difficult as each theory has its limitations as well as its genius. Kenneth L. Pike likens theories to tools and concludes that 'the value of a theory is determined by one's purposes and goals' (1967:70). Pike also states that:

a theory may be viewed rather broadly as a statement purporting to describe, or to explain, or to help one to understand a phenomenon. More narrowly, a theory may present a claim of truth, or assert the presence of relationships between phenomena, or predict the occurrence of phenomena.

(1967:68)

The present study of Ambai seeks to explain the various elements of Ambai phonology, morphology, and clause syntax in terms of their forms, their functions, and their relations to the speech event. The organization of the bulk of this dissertation

follows the strategy expressed by Jeffrey Heath (1978) as follows:

our framework takes it as a major goal of grammatical theory to describe a set of functions which, by means of different combinations of formal units and with inevitable variations in (sociocultural) environmental detail, play fundamental roles in shaping the formal grammars of individual languages.

(1978:89)

Lest this function-based model result in a description like the Latin-based models of past centuries, Heath stresses that one 'must nevertheless patiently analyze the range of formal implementation of each obligatory function' (1978:92). Van Valin and Foley (1980), in their summary of what they call Role and Reference Grammar, state that:

the formal properties of linguistic elements and constructions are not ignored in a functional approach; indeed, one of the major questions to be investigated is the relationship between (communicative) function and form, in particular, how the same form may have different functions and how the same function may be carried by different forms.

(1980:830)

The organization of this dissertation proceeds 'from bottom to top'. Basic building blocks of sound are presented before morphology and syntax. In chapter 2 the sound system of Ambai is described in terms of both features and phonemes, morpheme-structure conditions, and phonological processes. The description owes much to K.L.Pike's tri-modal understanding of units as consisting of contrast, variation, and distribution (cf.

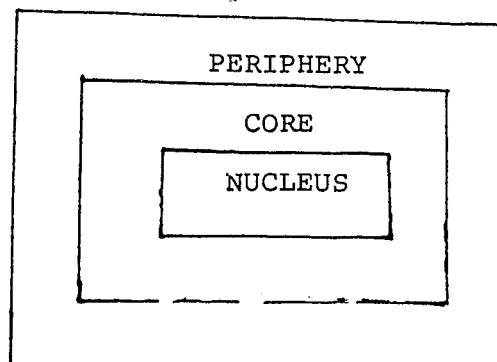
Pike 1947, 1967). The presentation of the sound system is cast in a generative phonology format, however, to make it more intelligible to the reader who is not acquainted with Pike's system.

In chapter 3 I introduce the open and the closed word classes found in Ambai and present an overview of Ambai word order constraints. The Ambai word classes are defined in terms of grammatical distinctions such as distribution, functional range, and categorization following Schachter (to appear). The common syntactic universals presented by Greenberg (1966) form the background for the short summary of Ambai word order at the end of chapter 3.

Chapter 4 discusses the nominal elements in Ambai. These nominals form the basic arguments of the Ambai clause discussed in the remainder of the dissertation. In my discussion I follow a hierarchical model in which the phrase is seen as an expansion of the word and both are used to label items or arguments (cf. Huttar 1963). The Noun Phrase is seen as centred around a nominal term which we call the referential core. The model I have followed is found in Oguri (1976). The referential core of the Noun Phrase is modified by optional Association, Qualification, and Quantification elements and by an obligatory Orientation element which locates the referential core in space.

The remaining three chapters (5,6,7) discuss the Ambai clause. The clause expresses a predication consisting of arguments and a predicate. The descriptive model employed for the clause is taken from work by Olson (1982), Foley and Olson (in press), and Foley and Van Valin (to appear), on what they call the 'layered clause'. The model posits three layers within the

clause, with each layer embedded in the next higher layer as illustrated in the figure below:



The three clause layers are the NUCLEUS, the CORE, and the PERIPHERY. Each layer is modified by 'operators' (cf. Seuren 1969). The nucleus of the clause is the predicate, which by its logical and semantic content determines the arguments associated with it. The nucleus is modified by two nuclear operators: aspect and directionals. The next layer of the clause is the clause core, which consists of the nucleus, the nuclear operators, and the core arguments, i.e. the one or two obligatory arguments of the predicate. The core is modified by the core operator modality. The final layer of the clause is the clause periphery, consisting of the non-core arguments of the predicate which express secondary participants such as beneficiary or the space and time setting of the predicate. The periphery is modified by the peripheral operators: status, tense, and illocutionary force. Each of these clause levels and their associated operators will be discussed in more detail in later sections.

Within the clause nucleus, i.e. the predicate, we follow the logical decomposition model presented in Foley and Van Valin (to appear). In this system each predicate can be broken down into certain minimal logical parts and can be discussed in terms of

Dowty's (1979) four verb classes (Stative, Achievement, Activity, Accomplishment). The logical decomposition of the predicate leads into a discussion of the semantic and syntactic functions of the nominal arguments in chapter 6. We employ a two-part role system of Actor and Undergoer following Foley and Van Valin (and echoing Pike and Pike 1977) rather than the multiple cases of case grammar to discuss the core arguments. The syntactic relationships of Subject and Object are defined on syntactic grounds. In chapter 7 I present the peripheral arguments in terms of the case-marking prepositions.

1.3 SCOPE AND PURPOSE

The scope of this dissertation is limited to those aspects of the languages typically called phonology, morphology, and clause-level syntax. The decision to stop at the expanded clause or the simple sentence was motivated by pragmatic not theoretical reasons. While agreeing with Pike that 'the sentence is a totally inadequate starting or ending point' (1967:147) for linguistic studies, space and time considerations forced me to omit any analysis of such important areas as interclausal relations and the discourse constraints on clause-level syntax (cf. Grimes 1975,1978). This dissertation is also limited basically to the synchronic analysis of the Ambai dialect of the Ambai language as spoken by the male speakers who provided me with the data.

The purpose of the present work is to provide a synchronic description of the basic patterns of Ambai phonology, morphology, and syntax. It is hoped that the description of Ambai will further the understanding of the Yapen Island Austronesian languages in general as no detailed information is currently available in English regarding Ambai or the other Yapen languages.

NOTES

- 1 See also the recent contribution by Patz (1978) which attempts

to reinterpret the older materials in terms of current linguistic theory. Also see Soeparno's 1977 dictionary.

2 Laycock's recent (1978) study of Mor should be mentioned here. Mor is, however, only distantly related to Ambai and thus falls outside the scope of this study.

3 The term Sarera is found in Koentjaraningrat and Bachtjar (1963:26-27). Blust uses the term in his 1978 article. The term will probably replace the older Dutch term 'Geelvink Baai'. The current Indonesian term is Teluk Cenderawasih which reflects the meaning of Geelvink, i.e. 'bird of paradise'.

4 Ambai is thus very close to Grace's 1976 OC boundary. Only Woriasi/Wabo and Kurudu occur between Ambai and the Mamberamo River, which marks the boundary currently proposed. Sobei, near the town of Sarmi, is the first AN language east of the proposed border. In 1955 Grace put the boundary at 140 degrees east longitude. This was revised to 138-139 degrees in 1972. In 1976 Grace stated:

It seems to be generally accepted that the languages of the west coast of New Guinea and of the Raja Empat Islands do not belong to the Oceanic subgroup. There also appears to be general agreement that the Austronesian languages of the eastern part of Irian Jaya, the vicinity of Jayapura and the Sarmi coast, are Oceanic. The uncertainty focuses on the Geelvink Bay languages. (1976:62)

Milke (1958) included the Sarera Bay area in Oceanic, but he revised his position in 1965 when he said, 'The history of the Geelvink Bay languages seems to a considerable extent independent of that of the more eastern languages.' (1965:346 as quoted in Pawley 1974:176, fn. 5)

5 Data on population were extracted from the 1980 census figures. The census does not give language use nor are there figures given per village, but rather per desa, a governmental unit which may contain several different villages speaking several different languages.

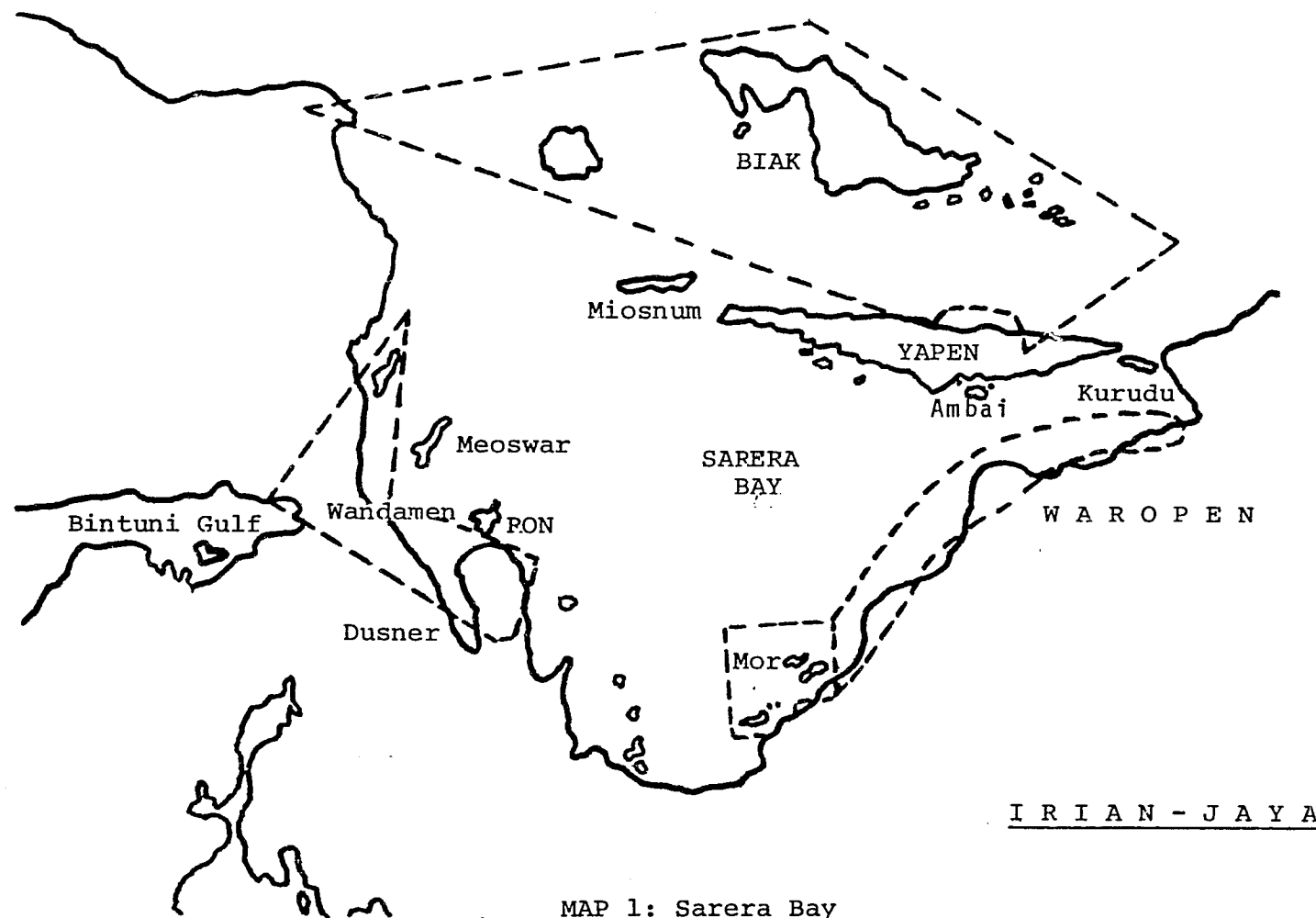
6 See Guy (1983) for a critical study of lexicostatistics and glottochronology. I use the cognate percentages of Anceaux and those computed on the basis of personal research only to give a general picture in terms familiar to other linguists. Also see McElhanon (1971) regarding the classification problems specific to the greater New Guinea area.

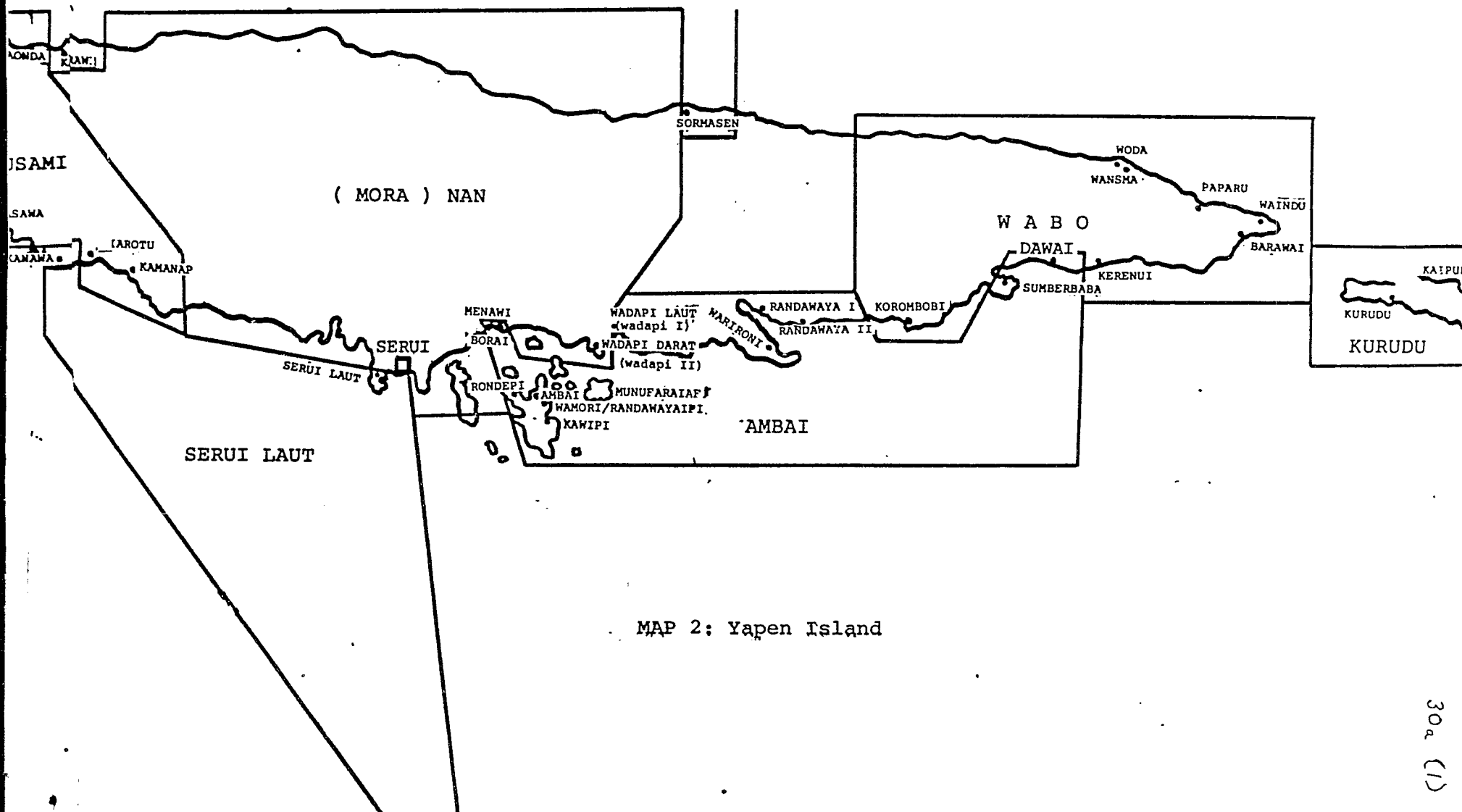
7 The PAN forms are taken from either Blust (1978) or the Lopez forms from Wurm and Wilson (1975).

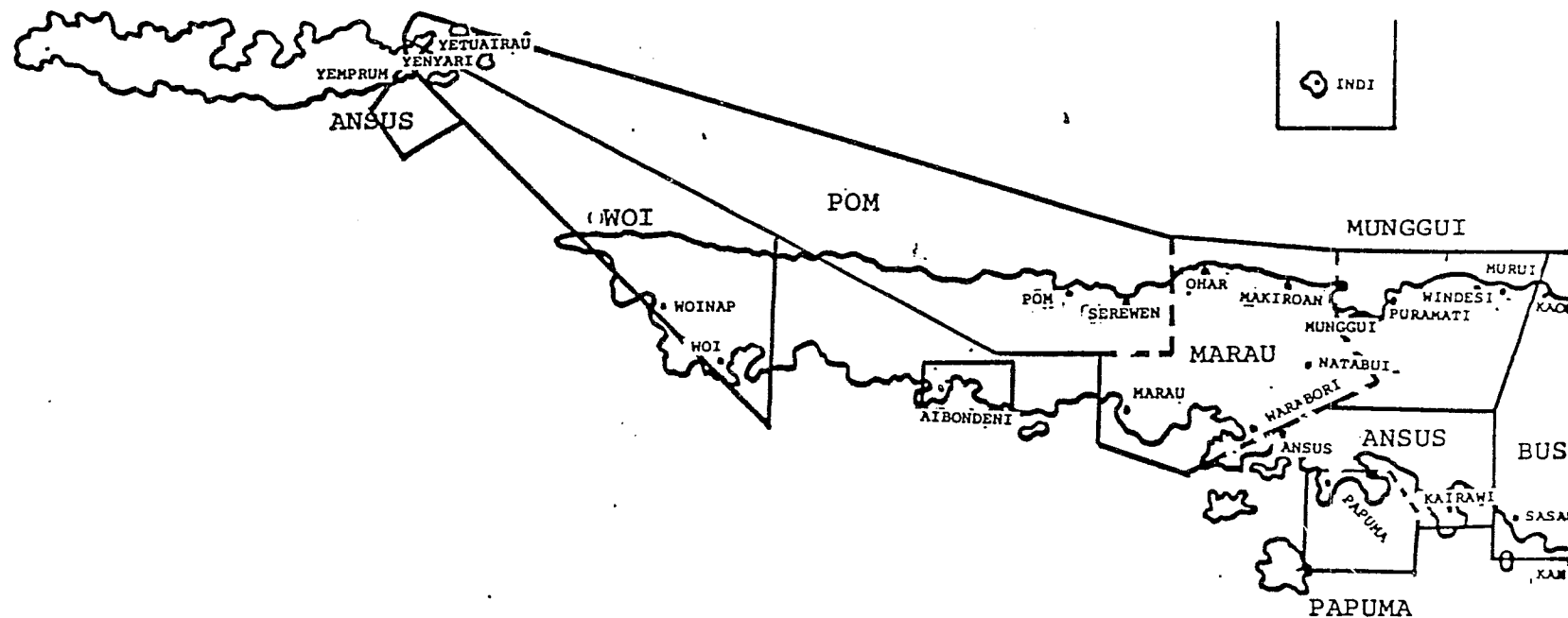
8 For example: Woi wonaN, Pom wonan, Munggui wonaN, Papuma onaN, Ansus wonaN.

9 I am also indebted to unpublished materials by colleagues in the Proyek Kerjasama Universitas Cenderawasih - Summer Institute of Linguistics. These materials include all references listed under Saggers, Ongkodharma, and Flaming as well as the survey of Yapen Island undertaken with Dr. D.C.Ajamiseba reported in Silzer and Ajamiseba (1981) and Ajamiseba and Silzer (to appear).

10 Words omitted from the Swadesh list were: and, animal, bark ('skin'), because, dust ('ashes'), few, freeze, guts, hunt ('seek'), husband ('man'), ice, if, leg ('foot'), river ('water'), rotten ('bad'), seed ('stone'), snow, some, wife ('woman'). Words which were modified for the survey were: blow (wind) > blow (flute), cold (weather) > cold (water), cut > cut (grass), feather > body hair, in > inside, meat > body. Two words were difficult to elicit satisfactorily: heart, liver. (cf. Laycock 1970 and Ezard 1977).







Chapter 2. PHONOLOGY

2.0 INTRODUCTION

The sound system of Ambai is a fairly straightforward Austronesian one. The eleven consonants and five vowels posited have few allophones or variants. Nevertheless, as the system has not previously been described, we present a summary of the word-level phonology in this chapter. The description of the Ambai sound system employs three basic concepts (cf. Pike 1967):

1. the existence of certain basic elements
2. the syntagmatic and paradigmatic relations between the basic elements
3. the variations of the basic elements

2.1 THE BASIC ELEMENTS

2.1.1 Distinctive features

Ten features have been found to present a simple and complete description of the systematic phonemes of Ambai. The features are presented in a binary display as this convention will prove useful in later discussions of Morpheme Structure conditions and P-rules. The ten features include two major class features: syllabic and sonorant; one manner of articulation feature: continuant; one source feature: voice; and five cavity features: labial, coronal, high, low, and back. Figure 2.1 presents the distinctive feature composition of the Ambai phonemes.

Figure 2.1: Distinctive features of Ambai systematic phonemes

	stops															
	non-nasal					nasal		fricatives			vowels					
	p	t	k	b	d	m	n	ɸ	β	s	r	i	e	a	o	u
syllabic	-	-	-	-	-	-	-	-	-	-	-	+	+	+	+	+
sonorant	-	-	-	-	-	+	+	-	-	-	+	+	+	+	+	+
continuant	-	-	-	-	-	-	-	+	+	+	+	+	+	+	+	+
voice	-	-	-	+	+	+	+	-	+	-	+	+	+	+	+	+
labial	+	-	-	+	-	+	-	+	+	-	-	-	-	-	-	-
coronal	-	+	-	-	+	-	+	-	-	+	+	-	-	-	-	-
nasal	-	-	-	-	-	+	+					high	+	-	-	+
												low	-	-	+	-
												back	-	-	+	+

The distinctive features differentiate sixteen phonemes in Ambai. The major class syllabic divides the eleven consonants from the five vowels. Sonorant divides the eight obstruents /p,t,k,b,d,ɸ,β,s/ and the eight sonorants /m,n,r,i,e,a,o,u/. The

eight obstruents are further separated by the manner feature continuant into five stops /p,t,k,b,d/ and three fricatives /p,b,s/. The obstruent stops are divided by the source feature voice into three voiceless stops /p,t,k/ and two voiced stops /b,d/. The obstruents are further divided by the cavity feature labial and coronal into three sets: [-labial, +coronal] /t,d,s/; [-labial, -coronal] /k/; and [+labial, -coronal] /p,b, p,b/. The sonorants are divided by the major class feature syllabic into sonorant consonants /m,n,r/ and sonorant vowels /i,e,a,o,u/. The non-syllabic sonorants are divided by the manner feature continuant into two stops /m,n/ and one continuant /r/. The sonorant vowels are differentiated on the basis of the cavity features high, low, and back.

A lack of symmetry may be noted in the Ambai consonants if we display them on a traditional phonetic chart as in Figure 2.2. In section 2.3 we will see that allophones of the basic phonemes fill in some of the velar positions, e.g. /k/ --> [g] and [h], and /n/ --> [N] (i.e. the velar nasal).¹

Figure 2.2: Phonetic chart of Ambai consonants

		Bilabial	Alveolar	Velar
stop	vl.	p	t ²	k
	vd.	b	d	
	vd. nasal	m	n	
fric.	vl.	p	s	
	vd.	b	r	

2.1.2 Contrastive sets

The voiceless and voiced obstruents contrast in the following sets of words:

/p/ vs. /b/		
word initial	/paria/	'unsuccessful'
	/bari/	'2s.rise'
	/pia-/	'twenty'
	/bia/	'2s.descend'
word medial		
	/tupa/	'2s.rise'
	/tuba/	'2s.leave'
/p/ vs. /b/		
word initial	/pi/	'thing'
	/bibin/	'woman'
word medial		
	/nopi/	'dipper'
	/ubi/	'yam'
/t/ vs. /d/		
word initial	/taua/	'2s.fall'
	/da/	'3s.walk'
	/totoru/	'lin.trial'
	/dotu/	'3s.sound'
word medial		
	/antarin/	tree species
	/andari/	'mango'

The obstruent stops and fricatives contrast in the following sets.

/p/ vs. /p/		/p/ has a limited distribution and seldom occurs word medially or before /o/ or /u/.
word initial	/pinan/	'large'
	/pian/	'food'
word medial		
	/neopi/	'gall'
	/nopi/	'dipper'
/b/ vs. /b/		
word initial	/bia/	'2s. descend'
	/bioai/	' <u>Lorius</u> sp.'
word medial		
	/aburun/	'piece'
	/baburu/	'body hair'

/t/ vs. /s/		
word initial	/taua/	'2s.fall'
	/saua/	'3s.fall'
word medial	/antun/	'child'
	/ansun/	'clothes'

The alveolar [-labial,+coronal] sounds contrast in the following sets.

word initial	/t/	/tan/	'2s.arrange'
	/r/	/ran/	'path'
	/d/	/dan/	'3s.eat'
	/s/	/san/	'3s.arrange'
	/n/	/nan/	palm type
word medial	/t/	/tota/	'2s.dismantle'
	/r/	/tora/	'lin.tr.walk'
	/d/	/bodai/	'2s.tall'
	/s/	/tosai/	'lin.tr.weep'
	/n/	/tonai/	'lin.tr.reside'

The two sonorant stops (henceforth called 'nasals' contrast in the following sets:

/moi/	palm type	/aman/	'his buttocks'
/noi/	'knife'	/anan/	'sago pudding'

The three fricatives contrast in the following sets:

word initial	/p/	/paperan/	'3s. cut repeatedly'
	/b/	/baboru/	'new'
	/s/	/sasera/	'3s. seek continually'
word medial	/p/	/sisepa/	'very full'
	/b/	/kaiʒeba/	'lightning'
	/s/	/andesā/	'waves'

The vowels contrast in word initial, medial, and final position in the following sets:

word initial	/i/	/ira/	'1s.walk'
	/e/	/era/	'3pl.walk'
	/e/	/embai/	'moon'
	/a/	/ambai/	language name
	/a/	/arora/	'empty'
	/o/	/oropa/	family name
	/u/	/uroman/	language name
	/i/	/dira/	'narrow'
	/e/	/terai/	'only'
	/a/	/tara/	'lin.pl.walk'
word medial	/o/	/tora/	'lin.tr.walk'
	/u/	/tura/	'lin.dl.walk'
	/i/	/riraun/	'smoke'
	/e/	/reraun/	'leaf'
	/i/	/rin/	'five'
	/e/	/ren/	'blade'
	/a/	/ran/	'path'
	/o/	/ron/	'ironwood'
	/i/	/miti/	'3s.leaks'
	/e/	/pite/	'sago strainer'
word final	/a/	/sita/	'3s.peel(s.t).'
	/o/	/mito/	'3s.run'
	/u/	/mitu/	'3s.strong'
	/i/	/uori/	'2s. buy'
	/e/	/uore/	'fence'
	/a/	/uora/	'narrows (n.)'

2.2 MORPHEME-STRUCTURE CONDITIONS

2.2.0 Introduction

The phonemes of Ambai have been described in 2.1.1 in terms of basic elements; i.e. distinctive features. Now we will describe the relations between and among the elements in terms of what Stanley has called Morpheme Structure (MS) conditions (1967:424ff.). MS conditions are, according to Stanley's use of the term, exclusively redundancy rules which do not change features nor operate across morpheme boundaries as do Phonological rules. In this section we will discuss 1) the canonical shape of the word in Ambai (2.2.1), 2) sequence structure conditions (2.2.2), and 3) segment structure conditions (2.2.3).

2.2.1... Syllabification

Syllable breaks occur between any sequence of a vowel plus a vowel of the same height or lower; between two consonants; or following a vowel if that vowel is followed by CV. A sequence of a vowel plus a higher vowel is analysed as a diphthong as stress can occur on only the initial member of the sequence. The following examples show each of these conditions.

V.V	/di.an/ 'fish'	/bo.a/ '2s.rise'
.VV.	/dai/ 'my father'	/noi/ 'knife'
C.C	/ran.do/ 'banana'	/an.tun/ 'child'
V.CV	/to.ra/ 'lin.tr.walk'	/a.nan/ 'sago pudding'

2.2.1.1 Stress

The statement on stress placement depends on the syllabification processes above. The major stress pattern in Ambai is penultimate. Major stress is penultimate. Secondary stress occurs two syllables before major stress. These two rules are illustrated in (1) below.

- (1)
- | | | |
|---|-----|-------------|
| S | --> | 'S / __S ++ |
| S | --> | "S / __S 'S |

Examples of this major and secondary stress pattern are presented in (2). We note that diphthongs, although seen as one syllable, attract stress.

- (2)
- | | |
|------------------|-----------|
| /'ran.do/ | 'banana' |
| /'a.to/ | 'arrow' |
| /a.'ri.kan/ | 'child' |
| /bo.'to.ru/ | 'three' |
| /"pi.ran.'di.ma/ | 'bitter' |
| /"bi.o.'mi.nin/ | 'yellow' |
| /"re.an.'te.nan/ | 'first' |
| /"man.ku.'kei/ | 'chicken' |

The major stress rule is not affected by the addition of most postclitics; i.e stress does not move when clitics are added.

- (3)
- | | | |
|--------|--------|-------------|
| /'munu | ne-i/ | |
| house | NE-sg. | 'the house' |

- (4) /'reti am.pa/
1s.see PERF 'I already saw'
- (5) /'bam.pi pa.nai/
2s.eat PROHIBITIVE 'Don't eat'
- (6) /'bam.pi to/
2s.eat IMP 'Eat!'
- (7) /'bo.ti ma/
2s.see INT 'Look here'

Question marker -re and the demonstratives, however, cause stress to shift. Thus:

- (8) /'i-u.num/ 'I drink'
/'i-u.nu.mi/ 'I drink it'
/i-u.'nu.mi re/ 'Shall I drink it?'
- (9) /'munu/ 'house'
/'munu ne-i/
house NE-sg 'the house'
/munu 'nin-i/
house NIN-sg 'this house'

The major stress rule has two minor exceptions which will be explained in the following paragraphs.

First, there exists a closed set of nouns in Ambai ending in -Ci which exhibit antepenultimate stress. The set is limited to fish, animal, and plant names and may be explained as originating from earlier forms ending in a consonant which is no longer permitted to occur in word final position. The final /i/ is seen

as epenthesis and the stress rule ignores the newly created syllable. Examples of the set include the following:

- (10)
- | | |
|--------------------|---|
| /a.'mu.ma.ri/ | 'fly (n.) (cf. Wandamen <u>amumar</u>) |
| /a.'du.ru.mi/ | shell type |
| /po.'da.mi.ri/ | fish type |
| /'am.pa.'pu.re.mi/ | fish type |

Second, it is convenient to posit ultimate stress for a closed set of transitive verbs to explain the vowel changes which occur with the affixation of the Subject prefix and the stress shifts which occur with the addition of the third person singular object suffix. These processes will be discussed in more detail in 5.1.

2.2.1.2 The canonical shape of the Ambai word

The canonical shape of the word in Ambai may be expressed in terms of 'positive conditions' as proposed by Stanley (1967). The word in Ambai is the domain of one main stress, which is accompanied by non-distinctive vowel length and is bordered by 'potential' pause. The shape of the word in Ambai can be formulated as follows:

++ (S1) 'S (S2) ++

In the above formula ++ stands for potential pause, (S1) stands for up to four optional syllables preceding main stress, and 'S stands for the syllable receiving main or primary stress and (S2) stands for zero to two syllables following the stressed syllable. Ambai words may consist of from one to seven syllables. The syllable in Ambai may be summarized as (C1) V (C2) where C1 is any consonant and C2 is /m,n,r,t,s,p/. The combinations of syllables into words will be explained further below. Further expressions of the formula include the following generalizations:

- a. a word consists minimally of V

/i/ 'he, she, it'
/u/ 'comb (n.)'

- b. a word may contain vowel sequences
(which will be explained in 2.2.2.2 below)

/ai/ 'tree'
/rau.re.si/ fish type

- c. a word may begin with V, VC2, ClV, or ClVC2

V /a.'na.na/ 'ant'
VC2 /'um.be/ 'bushknife'
ClV /'mu.nu/ 'house'
ClVC2 /'fan.do/ 'banana'

- d. a word may end in either C2 or V

C2 /'tanam/ 'to plant'
/e'ran/ 'net'
/rut/ 'to hold'
/harir/ 'to make'
/ru'ais/ 'to wash'
/re'rep/ 'to lick'

V /da/ '3s.walk'
/ro/ '2s.walk'

- e. the maximum sequence of C is C2C1 and this sequence occurs only across syllable boundaries word medially.

/am.pa/ 'shell armband'
 /ran.do/ 'banana'
 /an.sun/ 'clothes'

Further limitations to consonant sequences will be discussed in (2.2.2.1).

Given the canonical shape of the Ambai word, we turn to syllabification and stress placement.

2.2.2 Sequence structure conditions

Sixteen phonemes have been posited for Ambai. In this section we will present Morpheme Structure (MS) conditions which characterize the Ambai sound system in regard to consonant sequences, vowel sequences, and final consonants (i.e. consonant plus word boundary sequences). The MS conditions are stated as 'If-Then conditions' following Stanley (1967).

2.2.2.1 Consonant sequences

Consonant sequences in Ambai are limited to word medial position and to a maximum of two consonants. Within morpheme boundaries the two consonants are further limited in that the first consonant must be a nasal (i.e. sonorant stop) and the

second must be a non-nasal obstruent with the same labial feature. These conditions may be summarized as in (12).

- (12)
- | | | |
|------|---|---|
| If | [-syllabic] | [-syllabic] |
| Then | $\begin{bmatrix} +\text{sonorant} \\ -\text{continuant} \\ \text{labial} \end{bmatrix}$ | $\begin{bmatrix} -\text{sonorant} \\ \text{labial} \end{bmatrix}$ |

Sequences permitted thus include the following:

/mp/	/ampa/	'shell armband'
/mb/	/embai/	'moon'
/nt/	/antun/	'child'
/nd/	/rando/	'banana'
/ns/	/ansun/	'clothes'
/nk/	/uonkan/	'board'

Across morpheme boundaries (+) consonant sequences are limited to morpheme final /n/ plus any consonant. Later allophonic changes which occur are described in 2.3.

/n+s/	/uanan+sai/	'wind'
/n+m/	/uanan+muran/	'east wind'
/n+b/	/uanan+ba/	'north wind'
/n+p/	/uanan+pui/	'west wind'
/n+n/	/uanan+ne/	'the wind'
/n+r/	/man+rirau/	'married man'
/n+k/	/man+kukei/	'chicken'
/n+t/	/man+tei/	'who?'
/n+d/	/man+doni/	'which person?'

2.2.2.2 Vowel sequences

Five vowels have been posited for Ambai. They may occur in sequences of up to five vowels. Most vowel sequences are not homogeneous, but sequences of same vowels are evidenced in a few words such as /aai/ 'my mother' and /uu.'ai/ 'mountain' in which the intervocalic /u/ is interpreted as the semivowel [w]. Thus, /uu.ai/ --> [u.wai].

2.2.2.3 Consonant plus boundary

Morpheme final and word final consonants have certain limitations of occurrence. The only consonants which can occur before morpheme boundary (+) are /t,p,s,m,r,n/. Of these the final member /n/ is the only morpheme-final consonant which occurs in words other than transitive verbs. The first five consonants in this set may be associated with what Capell calls 'thematic consonants' which are normally lost except when a suffix is added. (1976b:241). Examples of these consonants are listed in (13).

(13)			
/t/	/rabit+/	'to pull'	(rabi++)
/p/	/rerep+/	'to lick'	(rere++)
/s/	/ruais+/	'to wash'	(ruai++)
/m/	/tanam+/	'to plant'	(tanam++)
/r/	/narir+/	'to make'	(nari++)
/n/	/man+/	'male'	

The Ambai sound system restricts word-final consonants to only /n/. Thus, MS condition (14).

- (14)
- | | |
|------|--|
| If | [-syllabic] ++ |
| Then | <div style="display: inline-block; vertical-align: middle;"> <div style="display: inline-block; vertical-align: middle;">+sonorant</div>
 <div style="display: inline-block; vertical-align: middle;">+coronal</div>
 <div style="display: inline-block; vertical-align: middle;">-continuant</div> </div> |

Examples of word-final /n/ are given below.

- (15)
- | | |
|-----------|--------|
| /uanan++/ | 'wind' |
| /rotan++/ | 'bag' |

In 2.3 we will see that word-final /n/ is evidenced as the velar nasal [N].

2.2.3 Segment structures

The distinctive feature display in Figure 2.1 delineates each of the systematic phonemes of Ambai. It does not, however, highlight the generalizations specific to the Ambai sound system. Segmental 'If-Then' conditions will be used to specify the redundant features which follow from other features in the same segment.

2.2.3.1 Consonants

All consonants in Ambai are [-syllabic], i.e. there are no syllabic consonants.

All sonorant consonants (/m,n,r/) are redundantly voiced.

(16)

If $\begin{bmatrix} -\text{syllabic} \\ +\text{sonorant} \end{bmatrix}$

Then [+voiced]

All voiceless consonants (/p,t,k,p,s/) are redundantly obstruant; although not all obstruants are voiceless (/b,d,b/).

(17)

If $\begin{bmatrix} -\text{syllabic} \\ -\text{voiced} \end{bmatrix}$

Then [-sonorant]

No nasals are velar (18):

(18)

If $\begin{bmatrix} +\text{sonorant} \\ -\text{continuant} \end{bmatrix}$

Then * $\begin{bmatrix} -\text{labial} \\ -\text{coronal} \end{bmatrix}$

The only segment specified as [+son,-syl,+cont] is the liquid /r/, which is also redundantly marked [-lab,+cor,+voc].

(19)

If $\begin{bmatrix} +\text{sonorant} \\ -\text{syllabic} \\ +\text{continuant} \end{bmatrix}$
 Then $\begin{bmatrix} -\text{labial} \\ +\text{coronal} \\ +\text{voiced} \end{bmatrix}$

A voiceless continuant is redundantly an obstruant (20):

(20)

If $\begin{bmatrix} +\text{continuant} \\ -\text{voiced} \end{bmatrix}$
 Then $[-\text{sonorant}]$

The only consonant marked $[-\text{lab}, -\text{cor}]$ is /k/, which is redundantly marked $[-\text{con}, -\text{voc}]$.

(21)

If $\begin{bmatrix} -\text{syllabic} \\ -\text{labial} \\ -\text{coronal} \end{bmatrix}$
 Then $\begin{bmatrix} -\text{continuant} \\ -\text{voiced} \end{bmatrix}$

2.2.3.2 Vowels

All vowels are redundantly voiced sonorants; i.e. there are no voiceless vowels in Ambai (22).

(22)

If [+syllabic]
 Then $\begin{bmatrix} +\text{sonorant} \\ +\text{voiced} \end{bmatrix}$

The only vowel with the feature specifications [+syl,+low] is /a/, which is redundantly [-high,+back] (23).

(23)

If $\begin{bmatrix} +\text{syllabic} \\ +\text{low} \end{bmatrix}$
 Then $\begin{bmatrix} -\text{high} \\ +\text{back} \end{bmatrix}$

Front vowels in Ambai are redundantly marked [-low] (24):

(24)

If $\begin{bmatrix} +\text{syllabic} \\ -\text{back} \end{bmatrix}$
 Then [-low]

2.3 PHONOLOGICAL RULES

2.3.0 Introduction

The sound system of Ambai includes units (2.1) which are arranged in certain restricted orders (2.2). These units also interact with each other. In traditional phonology the basic units, phonemes, are said to have certain allophones in particular environments. In Generative Phonology features of the

systematic phonemes are said to change under certain conditions. The changes are expressed in terms of P-rules. Such changes may be considered as an aspect of the variation or manifestation mode used by Pike. Stanley states that 'P-rules may change feature values...they may permute segments' (1976:398).

Phonological changes or processes observed in Ambai may be summarized in the form of the following P-rules which are separated into those involving syllable structure processes (2.3.1), word-medial processes (2.3.2), and word-final processes (2.3.3), and reduplication processes (2.3.4).

2.3.1 Syllable structure processes

The two high vowels /i/ and /u/ are realized as semivowels intervocalically and preceding vowels word initially. These processes can be summarized in the rule (25).

$$(25) \quad \begin{bmatrix} +\text{syllabic} \\ +\text{high} \end{bmatrix} \rightarrow [-\text{syl}] / \left\{ \begin{bmatrix} +\text{syl} \\ ++ \end{bmatrix} \right\} _ [+ \text{syl}]$$

Thus the following examples (26).

(26)			
/++i+isan/	-->	[yisaN]	'1s. spear'
/maiari/	-->	[mayari]	'2s. desire it'
/++uanan/	-->	[wanaN]	'wind'
/maua/	-->	[mawa]	'easy'

In the case that a word has two high vowels word initially, the intervocalic shift must be ordered before the word-initial shift as illustrated in (27).

- (27) /uuai/ --> [uwai] 'mountain'
 *[wuai]

2.3.2 Word-medial processes

Word-medial processes have to do with assimilation and reduction. In consonant sequences assimilation occurs if the initial nasal differs from the following consonant in place of articulation (2.3.2.1), voicing (2.3.2.2), or continuance (2.3.2.3). Two other phonemes undergo types of weakening assimilation: /k/ (2.3.2.4) and /e/ (2.3.2.5). A sequence of two nasals undergoes reduction (2.3.2.6). The postclitics -rampa 'PERFECT TENSE' and -re 'QUESTION MARKER' undergo several phonological processes seen in (2.3.2.7) - (2.3.2.9).

2.3.2.1 Assimilation to point of articulation

The phoneme /n/ assimilates to the same point of articulation as the following consonant or semivowel.

- (28)
$$\begin{bmatrix} +\text{son} \\ -\text{cont} \\ +\text{cor} \end{bmatrix} \rightarrow \begin{bmatrix} \alpha \text{ cor} \\ \beta \text{ lab} \end{bmatrix} / \text{---} + \begin{bmatrix} -\text{syl} \\ \alpha \text{ cor} \\ \beta \text{ lab} \end{bmatrix}$$

This assimilation process is illustrated in (29) in which the systematic phonemic representation is presented on the left side and the ultimate phonetic representation appears on the right side.

(29)

/uan.kori/	-->	/waNgori/	'crocodile'
/uanan+po/	-->	/wanam+po/	'the wind'
/uanan+ba/	-->	/wanam+ba/	'north wind'
/uanan+muran/	-->	/wana+muran/	'east wind'
/rotan+wa/	-->	/rotam+ba/	'the bag'
/dunum+re/	-->	/dunu+ne/	'did he drink?'

We will see in the next two rules, which are not necessarily ordered with this rule, that further assimilation will take place.

2.3.2.2 Assimilation to voicing

The phoneme /k/ is realized as the voiced velar obstruant stop [g] when preceded by /n/.

(30)

$$\begin{bmatrix} -\text{syl} \\ -\text{cor} \\ -\text{lab} \\ -\text{voc} \end{bmatrix} \quad \rightarrow \quad [+ \text{voiced}] / \begin{bmatrix} -\text{syl} \\ +\text{son} \\ -\text{lab} \\ -\text{cont} \end{bmatrix} (+) \text{ ---}$$

Thus /waN.kori/ is realized as [waNgori] 'crocodile'.

2.3.2.3 Assimilation to continuance

The labial continuant /p/, the labial semivowel /w/, and the liquid /r/ become the stops /p,b,d/ respectively following a nasal.

$$(31) \quad \left\{ \begin{array}{c} -\text{syl} \\ [+cont] \\ [+lab] \\ [+son] \end{array} \right\} \quad \rightarrow \quad [-cont] / \left\{ \begin{array}{c} [-\text{syl}] \\ [+son] \\ [-cont] \end{array} \right\} (+) \text{ ---}$$

This process is seen in the following examples.

$$(32) \quad \begin{array}{llll} /wanam+pui/ & \rightarrow & [wanampui] & \text{'west wind'} \\ /tamam+wai/ & \rightarrow & [tamambai] & \text{'the axe'} \\ /man+rirau/ & \rightarrow & [mandirau] & \text{'married man'} \end{array}$$

This rule is also extrinsically ordered with + rule concerning assimilation to point of articulation. Thus, /wanan+pui/ 'west wind' can be realized as the correct form [wanampui] by applying either rule first: /wanan+pui/ \rightarrow [wanampui] or /wanan+pui/ \rightarrow [wanampui].

2.3.2.4 /k/ \rightarrow [h]

The phoneme /k/ is realized as [h] intervocalically between two high vowels or between a non-high vowel and any other vowel.

$$\left[\begin{array}{c} -\text{syl} \\ -\text{voc} \\ -\text{cont} \\ -\text{lab} \\ -\text{cor} \end{array} \right] \quad \rightarrow \quad [+cont] / \left\{ \begin{array}{cc} [+syl] & [+syl] \\ [+high] & [+high] \\ [+syl] & \text{---} \\ & [+syl] \end{array} \right\}$$

The conditioning factors, while not simple, are evidenced in many words. The most common occurrence of the /k/ to [h] shift is in /k/-initial verb stems which receive the Subject prefixes

illustrated in (33). (Note that the final /r/ of the verb is deleted before pause.)

- (33)
- | | | | |
|---------|-----|-------|-------------|
| /+kar/ | | | 'to take' |
| /i+kar/ | --> | [ika] | '1s. take' |
| /e+kar/ | --> | [ɛha] | '3pl. take' |

The first person possessive suffix /-ku/ is always realized as [-hu] as it is always preceded by either a high vowel or a low vowel, both of which condition the shift to [h]:

- (34)
- | | | | |
|-----------|-----|----------|-----------|
| /nu+ku/ | --> | [nuhu] | 'my head' |
| /wara+ku/ | --> | [warahu] | 'my hand' |

The Bahasa Indonesia word paku 'nail' becomes Ambai [pahu] by this same process.

2.3.2.5 /e/ --> [ɛ]

The front mid vowel /e/, which is phonetically tense, becomes [-tense] ([ɛ]) preceding sonorant non-syllabics (i.e. m,n,r), in unstressed syllables, and before a juncture (i.e. + or ++).

$$\left[\begin{array}{l} +\text{syl} \\ -\text{low} \\ -\text{back} \\ +\text{tense} \end{array} \right] \rightarrow [-\text{tense}] / \begin{array}{c} *' \text{---} \\ \text{---} \end{array} \left\{ \begin{array}{l} -\text{syl} \\ +\text{son} \\ + \\ ++ \end{array} \right\}$$

- (35)
- | | | | |
|--------------|-----|------------|------------|
| /te'kende++/ | --> | [tehɛndeɛ] | 'steps' |
| /u're+mu/ | --> | [urɛmu] | '2s. eyes' |
| /'peran/ | --> | [pɛraN] | '2s. cut' |

2.3.2.6 [w] epenthesis

The semivowel [w] is inserted between two low vowels when they occur across morpheme boundaries.

- (36)
- | | | | | | |
|---------|---|-------|-----|-----------|-----------------------|
| da | + | a-rei | --> | [dawarei] | '3s walked landwards' |
| /di-ra/ | | | | | |
| 3s-walk | | | | | |

2.3.2.7 Reduction of consonant sequences

The first nasal of a sequence of two nasals across a morpheme boundary is lost.

- (37)
- $$\begin{bmatrix} -\text{syl} \\ +\text{son} \\ -\text{cont} \end{bmatrix} \rightarrow \emptyset / _ + \begin{bmatrix} -\text{syl} \\ +\text{son} \\ -\text{cont} \end{bmatrix}$$

Thus, the following examples:

- (38)
- | | | | |
|---------------|-----|-------------|-------------|
| /uanam+muran/ | --> | [wanamuraN] | 'east wind' |
| /uanan+nei/ | --> | [wananei] | 'the wind' |

We note again that this rule is unordered in relation to the assimilation to point of articulation rule. If the reduction rule applies first, there is no need to assimilate. If the assimilation rule applies first, the reduction rule still applies.

Sequences of two non-nasal consonants resulting from the presence of post-clitics -rampa 'PERFECT TENSE' and -re 'QUESTION MARKER' are both deleted.

- (39)
- | | | | |
|-----------------|-----|-------------|---------------------|
| /rabit + rampa/ | --> | [rabi-ampa] | '2s already pulled' |
| /rabit + re/ | --> | [rabi-e] | 'Did you pull?' |
| /medur + rampa/ | --> | [medu-ampa] | '3s already spoke' |
| /medur + re / | --> | [medu-e] | 'Did he speak?' |

2.3.2.8 /r/ --> [y]

The initial /r/ of the postclitics -rampa and -re are realized as [y] when preceded by a sequence of /Vi/ or /Vki/ [Vhi] in a process of palatalization which will also be seen in the Subject prefixation in 5.1.3.1.2.

- (40)
- | | | | |
|------------------|-----|----------------|-------------------|
| /wairoi + rampa/ | --> | [wairoi-yampa] | 'already far' |
| /wairoi + re/ | --> | [wairoi-ye] | 'Is it far?' |
| /roki + rampa/ | --> | [rohi-yampa] | '3s already sang' |
| /roki + re/ | --> | [rohi-ye] | 'Did he sing?' |

2.3.2.9 /r/ --> ∅

The initial /r/ of the post-clitics -rampa and -re is deleted following /Ci/ where C ≠ /k/ or following any vowel except /i/.

- (41)
- | | | | |
|-----------------|-----|--------------|-----------------------|
| /kuramati + re/ | --> | [kuramati-e] | 'Did you scratch it?' |
| /mito + re/ | --> | [mito-e] | 'Did he run?' |

2.3.3 Word-final processes

Any non-nasal consonant permitted by MS conditions to occur in morpheme-final position is deleted before word boundary (++).

- (42)
- $$\left\{ \begin{array}{l} [-\text{syl}] \\ [-\text{son}] \\ [+ \text{son}] \\ [+ \text{con}] \end{array} \right\} \div \quad \rightarrow \quad \emptyset / \quad _ \quad ++$$

Thus, the non-nasal morpheme-final consonants posited for transitive verbs are lost when not followed by a suffix.

- (43)
- | | | | |
|-------------|-----|--------|-----------|
| /rut+/ ++ | --> | [ru] | '2s.hold' |
| /narir+/ ++ | --> | [nari] | '2s.make' |
| /ruais+/ ++ | --> | [ruai] | '2s.wash' |
| /rerep+/ ++ | --> | [rɛrɛ] | '2s.lick' |

A nasal is realized as the velar nasal [N] before word boundary (++).

- (44)
- $$\left[\begin{array}{l} -\text{syl} \\ +\text{son} \\ -\text{cont} \end{array} \right] \quad \rightarrow \quad \left[\begin{array}{l} -\text{lab} \\ -\text{cor} \end{array} \right] / \quad _ \quad ++$$

Thus, /tanam+/ becomes [tanaN] 'to plant' and /ran/ becomes [raN] 'path' when not suffixed.

In the rest of this description /f/ will stand for /p/ and /v/ for /b/. Morphophonemic variants will be listed in their phonetic forms and the semivowels [w] and [y] will be written.

2.3.4 Reduplication processes

Ambai manifests a productive pattern of partial reduplication affecting nominals and verbs. (The semantics of the reduplication will be discussed in chapters 4 and 5.) The Ambai phonological pattern of partial reduplication consists of the initial consonant of the stressed syllable plus either /a/, /i/, or /e/ depending on the vowel found in the stressed syllable. Reduplication immediately precedes stress, i.e. it is left of stress. This pattern is illustrated in (45).

(45)

$$(CV) \text{ Cl } \begin{Bmatrix} a \\ i \\ e \end{Bmatrix} \text{ 'Cl V (V) (C) s}$$

The vowel of the reduplicated syllable is conditioned by the vowel of the stressed syllable as follows in (46).

(46)

Reduplication	Stressed syllable
Cl a	Cl V [-low] /i,e,o,u/
Cl i	Cl V [+back] /a,o,u/
Cl e	Cl V [+low] /a/

We note that some vowels in the stressed syllable may condition more than one form of reduplication, e.g. /a/ is both [+back] and [+low] and can condition either /i/ or /e/ in the reduplicated

syllable. Examples of each of the three vowel variations in reduplication are presented in (47) - (49).

(47) Ca

'feran 'to cut' ----> fa'feran 'to cut repeatedly'
 'sera 'to seek' ----> sa'sera 'to keep seeking'
 'boi 'to hit' ----> ba'boi 'to keep hitting'
 'roban 'to cut down' ----> ra'roban 'to fell many things'
 'kutu 'to cut through' ----> ka'kutu 'to cut through'
 fo'bera 'to pull' ----> foba'bera 'to keep pulling'
 ma'reka 'to die' ----> mara'reka 'to be exhausted'
 mi'risin 'to be happy' ----> mira'risin 'to be very happy'

(48) Ce

'fatin 'to pull out' ----> fe'fatin 'to pull out many things'
 'baur 'to split' ----> be'baur 'to split many things'

(49) Ci

'bua 'white' ----> bi'bua 'greyish'
 rei'fofa 'tiny' ----> reifi'fofa 'very tiny'
 ra'buan 'middle' ----> rabi'buan 'approximately the middle'

NOTES

1 Patz suggests that Numfoor-Biak /n/ has a velar variant only before /g/ (1978:143).

2 Ambai has an alveo-palatal consonant [tʃ] which occurs only in

third person plural forms in certain idiolects. The form results from the palatalization of the /t/ phoneme following the high front vowel /i/: /itoru ---> [tʃoru] 'they plural'

Chapter 3. WORD CLASSES

3.0 INTRODUCTION

Ambai distinguishes two open word classes and ten closed classes of words based on the grammatical distinctions of distribution, functional range, and categorization. The open and closed classes are defined in this chapter and will be referred to throughout the remaining chapters of this study (cf. Schachter (to appear)).

Open classes are defined by Robins as those classes 'whose membership is in principle unlimited, varying from time to time, and between one speaker and another' (1964:230). Such open classes need to be defined in the lexicon of the language and fail to fall into neat semantic categories. Two open classes of words exist in Ambai: nouns and verbs. These open classes will be discussed and further subdivided in 3.1.

Closed classes are defined by Robins as those classes or sets of words which 'contain a fixed and usually small number of member words, which are the same for all the speakers of the language, or the dialect' (1964:230). Closed classes are specified within the grammar, not the lexicon, and can often be negatively specified, e.g. first versus second versus third

person in the pronominal system. Ambai contains ten closed classes of words: proforms such as pronouns and interrogatives (3.2.1), adjectives (3.2.2), adverbs (3.2.3), noun adjuncts (including prepositions and numerals (3.2.4), conjunctions (3.2.5), clitics (3.2.6), the copula (3.2.7), the possessive particle (3.2.8), negators (3.2.9), and interjections (3.2.10). Each of these classes will be defined and illustrated in the rest of this chapter.

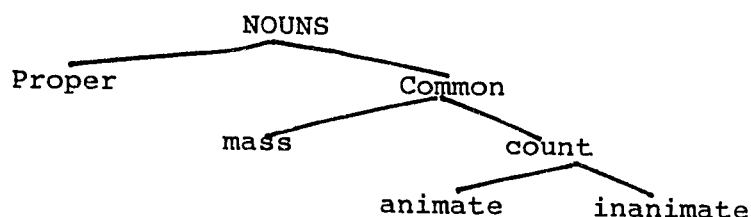
3.1 OPEN CLASSES

The two open classes of words in Ambai are nouns and verbs. Each of these two classes contains a large number of lexical items and is theoretically unlimited as new forms are constructed or borrowed. The nouns and verbs in Ambai form the backbone of all predication: nouns are arguments or predicates and verbs are predicates. Various syntactic features may be used to define each class. In this section we first define and illustrate nouns (3.1.1) and then verbs (3.1.2). These two basic classes will be further discussed along with their associated closed classes in chapter 4 on the Noun Phrase and chapter 5 on the Clause Nucleus.

3.1.1 Nouns

Nouns in Ambai are defined as words which can function as heads of arguments, e.g. subject of predicate, object of predicate, complement of the copula. Figure 3.1 summarizes the subtypes of nouns in Ambai.

Figure 3.1: Noun subclasses in Ambai



Semantically, nouns refer to animate and inanimate entities. Nouns can be further divided into common and proper nouns. Common nouns divide into mass and count nouns. Count nouns are further specified as being either animate or inanimate. The possession classes alienable and inalienable relate to common nouns as will be seen in chapter 4.

3.1.1.1 Common Nouns

Common nouns in Ambai are defined as those nouns which must take determiners and which may be modified by qualifying verbs and adjectives and by quantifiers. Common nouns include mass and count nouns, animate and inanimate nouns.

Mass nouns are defined as those common nouns which take only non-numeral quantifiers. Mass nouns include entities which are seen as uncountable such as sand and water (1).

- (1)
- | | |
|----------|---------|
| numbuain | 'sand' |
| mereka | 'water' |
| wanan | 'wind' |
| kakofa | 'soil' |

Mass nouns may be specified for definiteness by the determiners NE, WA, FO (Proximate, Distal 1, Distal 2) or by demonstratives:

- (2)
- | | | |
|--------|----------|-------------|
| mereka | fo-Ø | 'the water' |
| water | FO-unsp. | |

Mass nouns can be modified by qualifiers and quantifiers:

- (3)
- | | | | |
|--------|-----------|-------|-----------------|
| wanan | fuba | fo-i | 'the big wind' |
| wind | big | FO-sg | |
| mereka | bitoiya | | 'lots of water' |
| water | much/many | | |

Count nouns in Ambai are those common nouns which can be modified by numerals. The numerals from one to four distinguish between animate and inanimate referents. Animate count nouns are quantified by numerals with the base man-; inanimate count nouns cooccur with numerals with the base bo- (cf. 4.1.4). Examples of count nouns are given in (4) below. (Note that /man+ru/--> [mandu]).

(4)

inontarai	<u>mandu</u>			'two people'
rando	<u>boru</u>			'two bananas'
dian	fuba	<u>mandu</u>	fo- \emptyset	'the two big fish'
fish	big	two	FO-unsp	
munu	kerira	fo-i		'the delapidated house'
house	bad	FO-sg		

Common nouns can also be separated into those words which are 'inalienably' possessed by possessive suffixes on the noun root and those which are 'alienably' possessed by a possessive particle preceding the noun root.¹ These distinctions will be discussed in chapter 4.

3.1.1.2 Proper nouns

Proper nouns are by definition unique referents (at least within a given context). Proper nouns include the names of people, places, and certain objects such as canoes and houses. Most personal names are now borrowed from what are considered to be 'Christian' names (e.g. Dutch, English) and are adapted to the phonology of Ambai. Examples of personal names are given in (5).

(5)

Peterusi	Doli/Dolince
Salmoni	Pince
Yance	Fane/Fanelda
Pithein	Martai
Sergiusi	Mariai

Place names are based on Ambai roots, many of which are no longer productive. Each island, bay, peninsula, mountain, etc. have a separate name often associated with cultural history.

(6)

Pakimi	'the mountain behind Ambai village'
Nu - airifi island-	'a small island in the Ambai bay'
munu-faraiafi house-	'a small island east of Ambai'
kamutun-fi anchor-	'the peninsula between Serui and Ambai'

3.1.2 Verbs

Verbs in Ambai are defined as those words which may be specified for person and number of the grammatical Subject. Verbs function as predicates in non-equative clauses (cf. 3.2.7 on the copula). Verbs may be further subdivided on the basis of transitivity (3.1.2.1) or lexical decomposition (3.1.2.2).

3.1.2.1 Transitivity

Verbs may be either intransitive or transitive. Intransitive verbs have one core argument, the Subject. Transitive verbs have two core arguments, the Subject and the Object. These distinctions will be discussed further in chapter 5. Here we present a few examples of each verb type (7).

(7)

Intransitives

Yani	sai /di-sai/ 3s-weep	'Yan weeps/wept'
Doli	sawa /di-taua/ 3s-fall	'Doli fell'

Tomi mito 'Tom ran'
 /di-mito/
 3s-run

(8)

Transitives

Yani bioi Edui 'Yan hit Edu'
 /di-boi/
 3s-hit

Doli d-an rando boru 'Doli ate two bananas'
 /di-an/
 3s-eat banana two

Tomi d-okon rando boru we Isaki
 /di-okon/
 3s-give banana two to

'Tom gave two bananas to Isak'

Fane d-anun andaun
 /di-anun/
 3s-plait mat

'Fane plaited a mat'

3.1.2.2 Lexical decomposition

Verbs in Ambai can also be syntactically distinguished as being either states, achievements, activities, or accomplishments by their cooccurrence with the completive aspectual adverbs kai/kiai. These subclasses will be discussed in 6.4 where we will explain the theoretical background of these distinctions. Again we present only a few examples of each verb type.

- (9) States
- | | |
|-------|-----------|
| adai | 'be tall' |
| kasou | 'angry' |
| we | 'be' |
| wati | 'see' |

- (10) Achievements
- | | |
|------|----------|
| sobu | 'arrive' |
| ka | 'get' |

- (11) Activities
- | | |
|-------|--------|
| ra | 'walk' |
| roki | 'sing' |
| feran | 'cut' |

- (12) Accomplishments
- | | |
|------|--------|
| mun | 'kill' |
| okon | 'give' |

3.2 CLOSED CLASSES

Closed classes in Ambai are limited sets of words defined by various syntactic features. Each of the ten classes is defined and discussed in the following sections.

3.2.1 Proforms

Proforms are those words which take the place of other words or clauses. Proforms in Ambai may be divided into pronouns, which replace nouns in declarative sentences and interrogative proforms which replace various other words and clauses in questions.

Pronouns in Ambai are specified for person and number, but cannot be modified by qualifiers or quantifiers. Pronouns are

discussed further in 4.2. A list of the free pronouns in Ambai is given in Figure 3.2. We note that the categorization of pronouns in Ambai includes four categories of person and four of number.

Figure 3.2: Ambai free pronouns

	singular	dual	trial	plural
1 exclusive	yau	auru	antoru	amea
1 inclusive		turu	totoru	tata
2	wau	muru	muntoru	mea
3	i	uru	itoru	ea

Interrogative proforms take the place of nouns, quantifiers, and clauses in questions. These uses will be discussed in 7.2.3. The interrogative proforms are not specified for number or definiteness, but animate and inanimate distinctions are made. A few examples of interrogative proforms are given in (13).

- (13)
- | | |
|---------|-------------------------|
| mondoni | 'who?' |
| fiani | 'what?' |
| maneiru | 'how many (animate)?' |
| beiru | 'how many (inanimate)?' |

3.2.2 Adjectives

Ambai has a small closed class of adjectives. Adjectives function as one-place predicate in intransitive clauses or as modifiers of a noun. Adjectives are distinguished from verbs by the fact that adjectives are not marked for person or number.

Dixon, in his article 'Where have all the adjectives gone?' states that a closed set of adjectives will usually include the semantic concepts of dimension, colour, age, and value (1977:56). In Ambai only a few dimension words are adjectives; all the other

adjectival concepts are expressed as intransitive verbs.² Ambai adjectives include fuba 'large' and reifofo 'tiny', neither of which can receive Subject marking.

- (14)
- | | | |
|-----------|---------|----------------|
| inontarai | fuba | 'large person' |
| person | large | |
| kamiai | reifofo | 'tiny stone' |
| stone | tiny | |

3.2.3 Adverbs

Adverbs are defined in Ambai as those words which modify verbs, adjectives, other adverbs, and sentences. Adverbs may be divided into directional adverbs, degree adverbs, time adverbs, and manner adverbs.

Directional adverbs modify the clause nucleus (cf. 5.2.2) by indicating the location of a predicate in relation to the speaker or to main events of a discourse. Directional adverbs are based on one of two roots: a- 'away from speaker' or 'extroverted' and man- 'towards speaker' or 'introverted'. Direction is further specified as being in relation to various dichotomous pairs such as sea/land, up/down, and front/back. Examples of directional adverbs are presented in (15).

- (15)
- | | |
|--------|--------------------------------|
| a-rei | 'landwards away from speaker' |
| mandei | 'landwards towards speaker' |
| a-rau | 'oceanwards away from speaker' |
| mandau | 'oceanwards towards speaker' |
| a-fui | 'back away from speaker' |
| mampui | 'back towards speaker' |

a-fon
mampoN

'forwards away from speaker'
'forwards towards speaker'

Degree adverbs modify verbs, adjectives and other adverbs. Examples of degree adverbs are given in (16). We note that beyari and beiri both mean 'very' and are used interchangeably.

(16)

mutu		'strongly'
d-eriai	mutu	'he swam strongly'
3s-swim		
deriai	pampan mutu	'he swam continually (strongly)'
beyari/beiri		'very; one'
inontarai	bitoiya beyari/beiri	'very many people'
person	many very	

Time adverbs modify sentences by specifying the relative time of the situation. Ambai has several time adverbs including katu 'soon' and fafompa 'before' as illustrated in (17) and (18).

(17)

katu	mani	tu-wo	Urui	ki
soon	TOPIC	1in.dl-paddle	Serui	FUTURE

'Soon we will paddle to Serui'

(18)

fafompa	mani	i-nai	na	Jayapura
before	TOPIC	1s-reside	at	Jayapura

'(Before) I used to live in Jayapura'

Manner adverbs qualify verbs. In Ambai there are only a few manner adverbs, including the following (19)-(22):

- (19)
- | | | |
|---------|--------|------------------------|
| pampan | | 'continuously' |
| d-eriai | pampan | |
| 3s.swim | | 'He swam continuously' |
- (20)
- | | | |
|------------|---------|----------------------------|
| fatamai | | 'slowly' |
| e-wo | fatamai | ma |
| 3pl-paddle | slowly | INT |
| | | 'They paddled here slowly' |
- (21)
- | | | |
|---------|-----------|------------------|
| nariai | | 'carefully' |
| ro | nariai | |
| /bu-ra/ | | |
| 2s-walk | carefully | 'Walk carefully' |
- (22)
- | | | |
|-------------|-------|-----------------------|
| eka | | 'again' |
| d-isani-i | eka | |
| 3s-stab-3sO | again | 'He stabbed it again' |

3.2.4 Noun adjuncts

Noun adjuncts are those words which are not adjectives, but which modify nouns. The prenominal adjuncts are the case-specifying prepositions. The postnominal adjuncts are the numerals.

Prepositions specify the semantic role of the nouns they modify. These roles will be discussed in 7.1. The prepositions in Ambai include the following:

(23)	to	'to (inanimate directional GOAL)'
	we	'to/for (animate GOAL/BENEFACTEE)'
	na	'at/from/with (LOCATION,directional SOURCE,INSTRUMENT)'
	riat	'with (COMITATIVE)'
	pi	'object of comparison'

Numerals occur as the second postnominal modifier in the Ambai NP; they follow any qualifiers present (cf. 4.2.4). Ambai numerals one,two,three, and four distinguish two major classes of nouns: animate and inanimate. Numerals above four do not distinguish noun classes. The numerals will be listed and discussed in 4.2.4.

3.2.5 Conjunctions

Ambai possesses a closed set of conjunctions which function to link similar levels together; e.g. NP with NP, clause with clause. This dissertation does not extend to interclausal syntax so few of the conjunctions are mentioned. The following list is representative of the many conjunctions found in Ambai (24)-(28).

(24)

ete 'or'
 Yani ete Doli 'Yan or Doli'

(25)

mae 'while/and'
 i-minoki mae y-anum-i
 ls-sit and ls-plait-3s0
 'I sat and plaited it'

(26)

manamo 'but'
 sera we fiai manamo sobu kaka
 /di-sera/ /di-sobu/
 3s-look for pig but 3s-find NEG
 'He looked for pigs but he didn't find any'

(27)

ainanaiya 'then'
 d-ontai Urui ainanaiya da a-rei
 /di-ra/
 3s-travel then 3s-walk EXT-land
 'He travelled to Serui and then he walked inland'

(28)

ampefe 'therefore'
 Yani pari doi ampefe w-i-ori fi kaka
 /di-wori/
 NEG money therefore 3s-buy thing NEG
 'Yan had no money therefore he did not buy anything'

3.2.6 Clitics

Ambai has several enclitics which modify either the NP or the clause. The NP enclitics are the determiners which specify the definiteness, number, and spatial deixis of the NP. The clause enclitics express Perfect Tense (-rampa) and the illocutionary force of yes/no questions (-re) and prohibition (-fanai). Each of these enclitics will be discussed under the grammatical level to which they refer; i.e. the determiners in 4.1.5 and the tense and illocutionary force enclitics in 7.2. The morphophonemic variations of the enclitics were discussed in 2.3.

(29)

rampa 'PERFECT TENSE'

i-wo Urui ampa
 /rampa/
1s-paddle Serui PERFECT

'I already paddled to Serui'

(30)

re 'QUESTION MARKER'

wo man-dei ye
/bu-uo man-rei re/
2s-paddle INT-land-Q

'Are you paddling here to the land?'

(31)

fanai 'PROHIBITIVE'

boi Samueli fanai
/bu-boi/
2s-hit PROHIBITIVE

'Don't hit Samuel'

3.2.7 The copula

Ambai has one copula: di. It functions as a linker between two NPs. The copula is not inflected for person or number of the Subject as a verb would be. The copula will be discussed in 6.1 with the other basic clause types. We note that dino occurs between NPs and dine occurs following the NPs linked.

(32)

ne-ku	guru	dino	Yani
POS-1s	teacher	BE	

'My teacher is Yan'

(33)

Yani	ne-ku	guru	dine
	POS-1s	teacher	BE

'Yan is my teacher'

3.2.8 The possessive particle

Ambai has one possessive particle: ne. The possessive particle is inflected for person and number of the possessor by a set of prefixes and suffixes which are also used to indicate inalienable possession on nouns. The possessive particle premodifies the noun possessed. The forms and uses of the possessive particle will be discussed in 4.5.

(34)	ne-ku	munu	'my house'
	ne-mu	munu	'your (sg.) house'
	ne-Ø	munu	'his house'
	ta-ne	munu	'our (in.pl) house'

3.2.9 Negators

Ambai has two negative words and the prohibitive enclitic mentioned in 3.2.6 above. The negative words function on the clause periphery (cf. chapter 7) to negate the predication. The general negator kaka is used in transitive and intransitive clauses as well as equative clauses. The negative bireri is used as an existential negator to mean 'there is/are no ____' or 'it is not the case that ____'. Further discussion on the negative particles will be given in 7.2.1 which deals with what we call the Status category.

3.2.10 Interjections

Ambai contains a small set of interjections which function as one word sentences expressing various emotional states, as illustrated in (35).

(35)	kei	SURPRISE
	boe	'hey!'
	ande	'a-a-ah' (RELAXED FEELING)
	oba	DISBELIEF

3.3 OVERVIEW OF AMBAI SYNTAX

3.3.0 Introduction

Comrie (1981) presents a good introduction to an understanding of the use of language universals in the study of language (1981:1-29). The universals to which I will make reference are either absolute implicational universals or implicational tendencies. Comrie illustrates absolute implicational universals with the generalization that VSO languages have prepositions (1981:19). Implicational tendencies are illustrated by the pattern that SOV languages will 'probably' have postpositions (ibid). Ambai is an SVO language with grammatical word order. Ambai is basically analytic in structure, although it exhibits some synthetic verb morphology. In this section we will briefly summarize the basic word order of Ambai and compare the Ambai patterns to the generalizations concerning word order put forth by Greenberg (1966).

3.3.1 Basic clause order

The non-equative clauses in Ambai may be summarized as in (36) as being SVO with Oblique arguments following the Object and Time arguments optionally preceding Subject.

- (36) (TIME) (S) V (O) (OBLIQUE)

The following examples (37) - (39) illustrate minimal clauses with an overt Subject.

- (37) S V
 Tomi d-ampi
 3s-eat (intrans)
 'Tom is eating'

- (38) S V O
 Tomi d-an rando
 3s-eat (trans) banana
 'Tom is eating bananas'

- (39) S V O OBLIQUE
 Tomi d-okon rando we yau
 3s-give banana to ls
 'Tom gave some bananas to me'

3.3.2 Noun Phrase order

SVO languages most typically have the descriptive adjective following the head noun. Greenberg's universal number 20 also states:

When any or all of the items (demonstrative, numeral, and descriptive adjective) precede the noun, they are always found in that order. If they follow, the order is either the same or the exact opposite.

(1966:87)

The Ambai NP exhibits the mirror image post-head order suggested here. Thus, (40) summarizes the order of the Ambai NP and (41) and (42) provide examples.

(40)
NP = NOUN (Adjective) (Numeral) Demonstrative

(41)
dian katui siri nani
fish small one there

'that one small fish'

(42)
munu fuba boru fo
house large two FO

'the two large houses'

VO languages characteristically have prepositions. Ambai follows this pattern using prepositions to signal case roles of Oblique arguments as will be seen in 7.1. We give a few examples in (43) and (44).

(43)
i-minoki na munu ne-i
ls-sit in house NE-sg

'I am sitting in the house'

Inalienable possession is signalled by possessive suffixes on the noun as illustrated in (48)-(50) below and discussed further in chapter 4.

(48)

nu-ku
head-1s POS

'my head'

(49)

tama-mu
father-2s POS

'your father'

(50)

wara-n
arm-3s POS

'his arm'

3.3.3 Verb phrase order

Following a pattern similar to the Noun + Adjective order mentioned above, Ambai also places the Adverb after the Verb as seen in (51) and (52).

(51)

Verb	Adverb
ro	variai
/bu-ra/	
2s-walk	carefully

'Walk carefully'

(52)

Verb	Adverb
d-autai	fatamai
3s-ascend	slowly

'He climbed up slowly'

VO languages usually place the intentional verb prior to the main verb. In Ambai the modality verb ai 'to intend to' and the causative verb okon 'to give' both precede the main verb.

(53)

dei	d-autai
/di-ai/	
3s-intend	3s-ascend

'He intends to climb up'

(54)

d-okon-i	dewoki
	/di-awoki/
3s-give-3s.O	3s-float

'He made it float'

We can summarize the word order patterns of Ambai in Figure 3.3 below. Each of the patterns will be discussed further in the appropriate chapter in the rest of this work.

Figure 3.3: Ambai word order patterns

	VERB	OBJECT
	Noun	adjective
	Noun	relative
	Verb	adverb
Preposition	Noun	
Intent verb	Verb	
Genitive	Noun	

NOTES

1 Capell notes that this distinction is important in the other New Guinea AN languages also (1976a:16).

2 Cowan, in his discussion of Wandamen notes:

The type of words here discussed under the head 'adjectives' could in a way also be dealt with in the chapter on the Verb, because when used predicatively they are 'conjugated' like 'verbs'.
(1955:47)

Chapter 4. NOMINALS

4.0 INTRODUCTION

Nominals in Ambai are notionally defined as those words which refer to 'people, places, and things' which are syntactically nouns or pronouns. Nouns are subdivided into common nouns which refer to a non-unique referent and proper nouns which refer to a unique referent. Pronouns take the place of either common or proper nouns. In this chapter we will discuss the nominals in terms of their composition (morphology) and in terms of their relations with other words (syntax). We will begin with the common Noun Phrase (NP) which consists of a nucleus or 'referential core' made up of a common noun plus an Orientation element (e.g. an article) and optional modifying elements which we will term Association, Qualification, and Quantification and the obligatory category Orientation (4.1).¹ In (4.2) we discuss the Ambai pronouns. Proper nouns are discussed in (4.3). Compound NP's (4.4) and possession NP's (4.5) allow any of the three nominals types to occur.

4.1 THE COMMON NP

The common NP in Ambai consists of a central nominal element which we will term 'the referential core' and associated modifying elements. The referential core in Ambai can be only a common noun; i.e. not a pronoun nor a proper noun. The associated elements modify the referential core in four areas: Association, Qualification, Quantification, and Orientation. Briefly, Association defines noun to noun relationships such as whole-part and characteristic use; Qualification expresses various semantic concepts as Physical Dimension, Age, Colour, etc; Quantification expresses numeric and non-numeric modification; and Orientation defines the referential core in terms of its real world deixis or in terms of text deixis. Of the four modifying elements only Orientation is obligatory. In this section we will first discuss the referential core (RC) (4.1.1) and then each of the four modifying elements in turn (4.1.2 - 4.1.5). The simple NP in Ambai can be summarized as follows:

Figure 4.1: The Ambai common noun phrase

(ASSOC) REFERENTIAL CORE (ASSOC) (QUAL) (QUAN) ORIENTATION

We will look at each element separately and then consider the relationships between and among the elements.

4.1.1 The Referential Core

The referential core or nucleus of the Ambai simple NP is a common noun. Syntactic elements of the definition of a common noun include the possibility of being modified by a possessive or by an article. Common nouns may refer to 'noun'-like concepts or 'verb'-like concepts. The 'verb'-like concepts are nominalized by the addition of the possessive particle and the orienting article as seen in examples (7) -(9).

In this section we will first look at the common noun in terms of its derivation. Ambai common nouns can be composed by compounding, reduplication, or nominalization.

Compound nouns in Ambai are formed along the same lines as we will see in the simple NP, i.e. the main element or RC precedes the modifying element or qualifier. The main element is always a noun root. The qualifying element can be either a noun root, a verb root, or an adjectival root. Note the following examples:

- | | | | | |
|------------|----------|-----------|---------|------------------------------------|
| NOUN | | NOUN | | |
| (1) wonkan | 'board' | eran | 'net' | > wongaeraN
'board to hold net' |
| NOUN | | VERB | | |
| (2) man | 'male' | rirau | 'marry' | > mandirau
'married man' |
| NOUN | | ADJECTIVE | | |
| (3) wanan | 'wind' | muran | 'east' | > wanamuraN
'east wind' |
| (4) wanan | 'wind' | ba | 'north' | > wanamba
'north wind' |
| (5) wanan | 'wind' | sai | 'south' | > wanansai
'south wind' |
| (6) wiwin | 'female' | kutun | 'old' | > wiwiNgutuN
'old woman' |

In each of the above examples phonological features of stress and morphophonemic rules as discussed in chapter 2 distinguish the compound words from a noun plus modifier NP; i.e. each compound noun has only one major stress and the stem-final nasal of the first noun interacts with the stem-initial sound of the second element.

Partial reduplication on nouns in Ambai are rare. Most reduplication occurs within verbs. The two nouns noted in both unreduplicated and reduplicated forms are kamiai 'rock' and aburun 'piece'. In their reduplicated forms kamamiai 'rocks' and abirarun 'pieces' both indicate general plurality of referent.

The most common derivational process involving nominals is the nominalization of verbs. A verb is nominalized by the presence of the possessive particle preceding the verb and the presence of an Orientation element following the verb. Examples are given in (7a) and (7b).

(7a)

arikan	fo-sa	e-kasou
child	FO-pl	3pl-angry

'The children are angry'

(7b)

arikan	fo-sa	e-ne	e-kasou	fo-i
child	FO-pl	3pl-POS	3pl-angry	FO-i

'the children's anger'

We note that the nominalized verb in (7b) is marked by a singular suffix on the Orientation element despite the plural possessor. Further examples of nominalization are given in (8) and (9).

(8)

ne-ku i-matai ne-i
 POS-1s 1s-fear NE-sg

'my fear'

(9)

ne-mu murira wa-i
 /bu-marira/
 POS-2s 2s-dislike WA-sg

'your dislike'

Certain Ambai nouns can be inflected for what we will call 'inalienable' possession.² Inalienable possession refers to a closed class of body parts and kin terms which receive possessive affixes indicating person and number of the possessor and a plural suffix -mi which is used in conjunction with non-singular possessors. The forms of the possessive affixes are given in Figure 4.2.

Figure 4.2: Ambai 'inalienable' possessive affixes

	singular	dual	trial	plural
1 exclusive	-ku	au-X-mi	anto-X-mi	ame-X-mi
1 inclusive		tu-X-mi	to-X-mi	ta-X-mi
2	-mu	mu-X-mi	munto-X-mi	me-X-mi
3	-n/-na	u-X-mi	ito-X-mi	e-X-mi

We note that the third singular possession suffix is either -n or -na. The -na form occurs only with kinterms, e.g. tamana 'his father'.

Words which receive possessive affixes include various body parts and kin terms as illustrated in (10) and (11).

(10) Body parts

awe	'foot'	awe-ku awe-mu awe-n	'my foot' 'your foot' 'his foot'
nu	'head'	nu-ku ta-nu-mi	'my head' 'our (in.pl) heads'
wara	'hand'	wara-n e-wara-mi	'his hand' 'their (pl) hands'
tara	'ear'	tara-ku	'my ear'
tafere	'tongue'	tafere-n	'his tongue'
ene	'abdomen'	ene-mu	'your abdomen'

(11) Kin terms

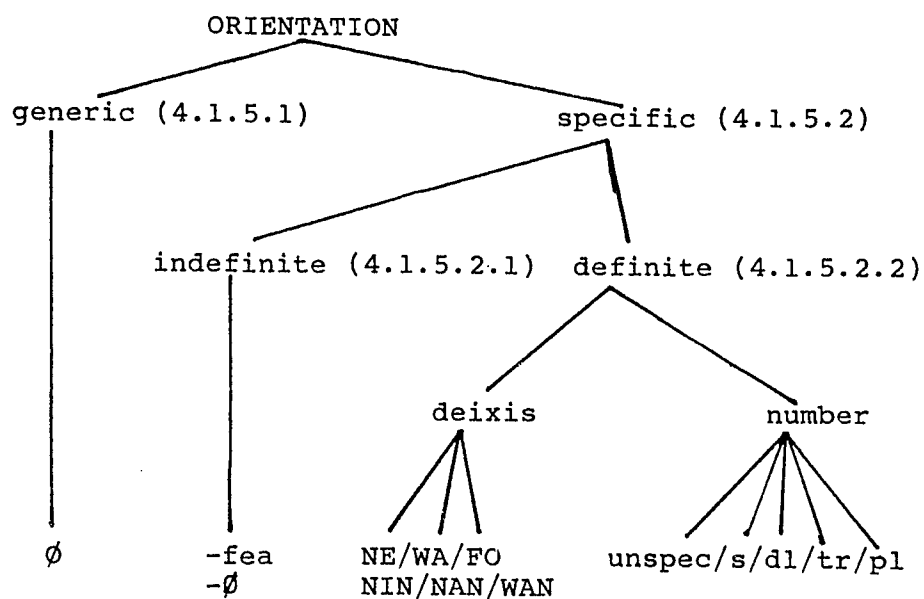
tama	'father'	tama-mu e-tama-mi	'your father' 'their father'
roro	'cross-sibling'	roro-ku win ta-roro-mi win	'my sister' 'our sister'
ina	'mother'	ina-na	'his mother'
tafu	'grandparent'	tafu-mu	'your grandparent'
nio	'parent-in-law'	nio-ku	'my parent-in- law'

4.1.2 Orientation

Every Ambai simple NP is oriented as being either generic or specific by means of determiner clitics which attach to the final word of the NP. Generic referents are unmarked; specific referents are subdivided into definite and indefinite referents. Definite NPs are further specified as to their distance from the speaker (or the discourse theme) and as to their number. In this

section we will discuss each of these Orientation categories and consider the elements by which it is signalled. We will use the following display to summarize the Orientation possibilities expressed in Ambai (Figure 4.3).

Figure 4.3: Ambai Orientation



4.1.2.1 Generic

Generic NPs have no determiner in Ambai. We will mark generic NPs as having \emptyset determiner. Generic NPs are used to express general statements as illustrated below.

(12)

inontarai Ambai- \emptyset e-nari romi- \emptyset
 person Ambai-gen. 3pl-make garden-gen.

'Ambai people make gardens'

This example (12) contrasts with (13) in which both NPs are specific and are marked by determiners.

(13)

inontarai Ambai fo-sa e-nari romi fo-i
 person Ambai FO-pl 3pl-make garden FO-sg

'The Ambai people made the garden'

4.1.2.2 Specific

4.1.2.2.1 Indefinite specific NPs

Specific NPs in Ambai are either indefinite or definite. Indefinite NPs are signalled by the postclitic indefinite article -fea or by \emptyset if the NP is quantified by a numeral or an indefinite non-numeral quantifier such as kuteai 'some' or bitoiya 'many'. Indefinite NPs express such meanings as 'a man', 'some men', and 'some food'. The following examples show the possibilities observed:

(14)

Yani miun dian fea
 /di-mun/
 Yan 3s-kill fish indef.

'Yan killed a fish/some fish'

(15)

Inontarai manei minoki na munu bowei
 /di-minoki/
 person one 3s-sit at house one

'A person sat/lived in a house'

(16)

Tom i wiori ankadi botoru
 /di-wori/
 Tom 3s-buy coconut three

'Tom bought three coconuts'

(17)

i-ka mereka kuteai
 ls-take water some

'I took some water'

NPs which are quantified by a numeral may be changed to definite NPs by the addition of a definite determiner. The indefinite clitic -fea cannot cooccur with the definite determiners. Thus (16) becomes (18).

(18)

Tom i wiori ankadi botoru fo- \emptyset
 /di-wori/
 Tom 3s-buy coconut three FO-unspec

'Tom bought the three coconuts'

4.1.2.2.2 Definite specific NPs

Definite NPs are signalled by either of two sets of determiners: the definite articles or the demonstratives. The articles will be discussed first and later we will discuss the demonstratives and then compare the two sets of definite determiners.

The definite articles are postclitics on the NP. They consist of a deictic root and a pronominal suffix indicating number. The forms are listed below Figure 4.4.

Figure 4.4: Ambai definite articles

	near spk.	near hearer	far from both
unspec.	ne- \emptyset	wa- \emptyset	fo- \emptyset
singular	ne-i	wa-i	fo-i
dual	ne-uru	wa-uru	fo-uru
trial	ne-coru	wa-coru	fo-coru
plural	ne-sa	wa-sa	fo-sa

We note the deictic elements NE, WA, and FO in the above list of definite articles. The three roots indicate the distance of the referent from the speaker and the hearer either in real world space or in terms of discourse theme. In this discussion we will only concern ourselves with the real world deixis. We will see below, however, that there is also a relationship between the deictic roots and pronominal deixis and also with time deixis (i.e. tense). The pronominal suffix on the articles indicates number. In this section we will first discuss the spatial deixis of the articles and then the number suffix, although the two elements are bound together.

The spatial deixis of the definite articles distinguishes three degrees of distance: NE 'close to speaker', WA 'closer to hearer than to speaker', and FO 'far from both speaker and hearer'. Consider the following examples noting that the English gloss may not always reflect the Ambai spatial deixis as English articles do not make deictic distinctions (as do demonstratives).

(19)

munu ne-i
house NE-sg

'the house (near me)'

- (20) munu wa-i 'the house (near you)'
 house WA-sg
- (21) munu fo-i 'the house (far from us both)'
 house FO-sg

The spatial deixis of the Ambai articles interact with the pronominal system, i.e. there are cooccurrence restrictions between different articles and different pronouns. This interaction is most easily seen with NPs which are marked for inalienable possession as below.

- (22) wara-ku ne-i 'my hand'
 hand-1sPOS NE-sg
- *wara-ku wa-i
 *wara-ku fo-i
- (23) wara-mu wa-i 'your hand'
 hand-2sPOS WA-sg
- *wara-mu ne-i
 *wara-mu fo-i
- (24) wara-n fo-i 'his hand'
 hand-3sPOS FO-sg
- *wara-n ne-i
 *wara-n wa-i

In a similar manner the spatial deixis of the definite articles relates to the person of the subject and the tense of the clause in which it appears. The following examples give a general idea of these relationships.

(25)

i-minoki na munu ne-i
 ls-sit at house NE-sg

'I am sitting/sat at the house (here)'

i-minoki na munu wa-i
 WA-sg

'I sat/*am sitting at the house(there by you)'

i-minoki na munu fo-i
 FO-sg

'I sat/*am sitting at the house (over there)'

In the above examples we note that a first person referent can use NE in either present or past reference in regard to sitting in the house, but he can only mean past action when the house is marked by either WA or FO. Following the same pattern a second person referent could not be presently sitting at munu-FO as FO indicates a location far from both first and second person.

The definite articles also indicate the number of the NP they modify by means of three person number suffixes. The number suffixes distinguish five categories of number:

Figure 4.5: Ambai person number suffixes

unspecified number	∅
singular	-i/-ni ³
dual	-uru
trial	-coru
plural	-sa

Of these five categories dual and trial are the most infrequently used.

The number distinctions of the definite articles have certain cooccurrence restrictions with the noun classes which

were first discussed in chapter 3: count versus mass, animate versus inanimate, and human versus non-human animate. Mass nouns are by definition not specifiable for number. Inanimate nouns can not be specified for non-singular number (except munu 'house'). Only human nouns can be specified for dual or trial. The following display (Figure 4.6) summarizes the interaction between number and noun classes.

Figure 4.6: Animacy and number in Ambai

	COUNT			MASS
	human	non-human animate	inanimate	
∅	+	+	+	+
sing.	+	+	+	-
plural	+	+	-	-
dual-trial	+	-	-	-

Each of the noun classes will be discussed below in relation to the definite article number.

MASS nouns cannot be specified for number. The definite article appears without any number suffix. Mass nouns are also redundantly inanimate.

(26)

e-ka mereka fo-∅
3pl-take water FO-unspec

'They carried the water'

(27)

minoki na rei fo-∅
/di-minoki/
3s.sit on land FO-unspec

'He sat on the land'

NPs which express a part-whole relationship are not specified for number.

(28)

munu roron fo- \emptyset
house inside FO-unspec

'the inside of the house'

INANIMATE COUNT nouns can be either unmarked for number or marked as specifically singular. They cannot be marked as plural or as dual or trial.

(29)

et-au to wa fo- \emptyset
3pl-go up to canoe FO-unspec

'They got into the canoe/canoes'

(30)

e-minoki na wa fo-i
3pl-sit in canoe FO-sg

'They sat in the canoe/*canoes'

NON-HUMAN ANIMATE COUNT nouns can be either unspecified for number or specified as either singular or plural.

Non-human animate count nouns may be unspecified for number.

(31)

e-feran dian fo- \emptyset
3pl-cut fish FO-unspec

'They cut the fish (sg.or pl.)'

Op.pp Non-human animate count nouns may also be specified as being singular by the singular suffix on the definite article.

- (32)
- | | | |
|----------|-------|-----------|
| mankukei | fo-i | bibe |
| | | /di-babe/ |
| rooster | FO-sg | 3s-crow |
- 'The rooster crowed'

Groups of non-human animate beings are marked as singular when seen as a unit.

- (33a)
- | | | | | | |
|------|----------|-------|---------|------|-----------|
| dian | e-fau | fo-i | d-an | keri | fo-∅ |
| fish | 3pl-many | FO-sg | 3sg-eat | bait | FO-unspec |
- 'The group of fish eats the bait'

Compare (83b):

- (33b)
- | | | | | | |
|------|----------|-------|---------|------|-----------|
| dian | e-fau | fo-sa | et-an | keri | fo-∅ |
| fish | 3pl-many | FO-pl | 3pl-eat | bait | FO-unspec |
- 'The fish (all) ate the bait'

Non-human animate count nouns can also be specified as plural by the suffix -sa.

- (34)
- | | |
|------|-------|
| romu | fo-sa |
| bird | FO-pl |
- 'the birds'

HUMAN COUNT nouns may be either unspecified for number or specified as being singular, plural, dual, or trial.

Human count nouns may be unspecified for number. In Subject position, however, the noun must be cross-referenced for number by the verbal prefix.

- (35)
- | | | |
|--------|-----------|-----------------|
| i-wati | inontarai | fo- \emptyset |
| ls-see | person | FO-unspec |
- 'I saw the person/the people'

- (36)
- | | | |
|--------|-----------------|---------|
| arikan | fo- \emptyset | et-ampi |
| child | FO-unspec | 3pl-eat |
- 'The children/*child ate'

Specifically singular human nouns are marked by the singular suffix on the definite article.

- (37)
- | | | | |
|-----------|-------|---------|-----|
| inontarai | fo-i | da | ma |
| | | /di-ra/ | |
| person | FO-sg | 3s.walk | INT |
- 'The person came'

- (38)
- | | | | |
|-----------|--------|-------|-----------|
| ne-mu | arikan | fo-i | dedai |
| | | | /di-adai/ |
| POS-2sPOS | child | FO-sg | 3s-tall |
- 'Your child is tall'

Specifically plural human nouns are signalled by the plural suffix -sa on the definite article:

- (39)
- | | | | |
|-----------|-------|----------|-----|
| inontarai | fo-sa | e-ra | ma |
| person | FO-pl | 3pl-walk | INT |
- 'The people came'

Certain human nouns can be seen as either singular or plural (cf. English 'committee'). The number of these collective nouns is signalled by the number suffix on the article and also on the

subject prefix on the verb if the noun is the subject of its clause.

- (40)
- | | | |
|---------|-------|--------------|
| kaiwasa | fo-i | mirisin |
| | | /di-marisin/ |
| people | FO-sg | 3s-happy |
- 'The group of people is happy'

- (41)
- | | | |
|---------|-------|-----------|
| kaiwasa | fo-sa | e-marisin |
| people | FO-pl | 3pl-happy |
- 'The people are happy'

Only human nouns can be specified as being dual or trial.
Note the following examples:

- (42)
- | | | |
|-------|---------|----------|
| wiwin | fo-suru | u-minoki |
| woman | FO-dual | 3dl-sit |
- 'The two women sat down'

- (43)
- | | | | | |
|-----------|----------|----------|----|----------|
| inontarai | fo-coru | co-nai | na | Jayapura |
| person | FO-trial | 3tr-stay | at | Jayapura |
- 'The three people lived in Jayapura'

Demonstratives

Ambai possesses a set of demonstrative articles which modify definite NPs. The demonstrative articles are enclitics on the NP in complementary distribution with the definite articles. The demonstratives also distinguish three degrees of distance from the speaker's point of reference: proximate nin-, distal 1 nan and distal 2 wan-. Distal 1 is used slightly differently than with the definite articles. Distal 1 with demonstratives is not

near either speaker and hearer; distal 2 is out of sight of both. Demonstratives also distinguish five degrees of number by number suffixes: unspecified number -ai, singular -i, dual -suru, trial -coru, and plural -sa. The resultant demonstratives are listed in Figure 4.7.

Figure 4.7: Ambai demonstratives

	unspecified	singular	dual	trial	plural
Proximate	nin-ai	nin-i	nin-suru	nin-coru	nin-sa
Distal 1	nan-ai	nan-i	nan-suru	nan-coru	nan-sa
Distal 2	wan-ai	wan-i	wan-suru	wan-coru	wan-sa

All of the demonstratives may occur either as noun modifiers (orienters) or in conjunction with the copula di. In the following examples we compare the demonstratives with the definite articles.

- (44)
- | | |
|------------|-------------------------|
| munu ne-i | 'the house (proximate)' |
| munu nin-i | 'this house' |
| munu nan-i | 'that house (distal 1)' |
| munu wan-i | 'that house (distal 2)' |
- (45)
- | | |
|---------------------|-------------------------------|
| ne-ku munu di-ne-i | 'It is my house' |
| ne-ku munu di-nin-i | 'This is my house' |
| ne-ku munu di-nan-i | 'That is my house (distal 1)' |
| ne-ku munu di-wan-i | 'That is my house (distal 2)' |

The unspecified demonstrative articles can be used either as NP enclitics or as what we might call demonstrative pronouns; i.e. they can occur without their head noun. The demonstratives which are marked for number cannot occur without a head noun. Note the following examples:

(46)

i-minoki	na	munu	nin-i	'I am sitting in this
ls-sit	in	house	NIN-sg	house'
*i-minoki	na	∅	nin-i	
i-minoki	na	munu	nin-ai	'I am sitting in this
ls-sit	in	house	NIN-unspec.	house'
i-minoki	na	∅	nin-ai	'I am sitting here'
ls-sit	in		NIN-unspec	

4.1.3 Association

Association occurs as the first modification position either before or after the RC in the Ambai common NP. Association expresses various semantic relationships between the RC and the following noun which depend on the semantic nature of each of the elements. The various relationships can be summarized as being that between the referent of the RC and (1) the whole of which it is a part, (2) its typical use, or (3) its typical material composition. Note that these RC plus Association pairs are not compound words as they have separate stress and morphophonemic rules do not apply across word boundaries in Ambai. Note also that Association is not the same as Possession. We will discuss Possession in (4.5) below and we will see that possession in Ambai occurs either preceding the RC when expressed by the possessive particles or suffixed to the RC but prior to any Association argument when expressed by possessive suffixes.

4.1.3.1 RC and its larger part

The pre-RC Association modification indicates the relationship between the Association element as the whole and the RC as the part. The RC is most typically a body part, although other common nouns also occur as RC. Thus, Ambai contains what has been termed by earlier Dutch scholars the 'reversed genitive' of the type 'the head its hair' (Capell 1976a:19). We note that phonological reasons do not allow these pairs of words to be considered as compound nouns. Note first the following examples of body parts:

- | | | | |
|------|--|----------------------------|-------------|
| (47) | <u>ASSOCIATION</u>
wara
arm/hand | <u>RC</u>
keka
digit | 'finger' |
| (48) | awe
leg/foot | keka
digit | 'toe' |
| (49) | nu
head | kamiai
stone | 'skull' |
| (50) | nu
head | randau
hair | 'head hair' |
| (51) | ene
abdomen | roron
insides | 'viscera' |
| (52) | wara
arm/hand | fan
palm | 'palm' |
| (53) | awe
leg/foot | fan
sole | 'sole' |

We note in passing that the Association element in each of the

above examples typically receives what we will call inalienable possession marking with the typical Austronesian possessive suffixes. Thus, the possessive suffixes occur between the Association element and the RC.

Other whole-part pairs expressed by the Association noun plus the RC in Ambai include the following:

- (54)
- | | | |
|--------------------|-----------|-------|
| <u>ASSOCIATION</u> | <u>RC</u> | |
| romu | aibon | 'egg' |
| bird | fruit | |
- (55)
- | | | |
|-------|--------|-------------------|
| munu | roron | 'inside of house' |
| house | inside | |
- (56)
- | | | |
|-------|------|------------------|
| wa | fui | 'stern of canoe' |
| canoe | back | |

We also note that Orientation elements may occur either before the Association noun or after the RC, but with different meanings. If the article occurs after the Association element as in (57) the Association form is seen as possessed and is preceded by the possessive particle ne. Thus, we have a possessive NP as will be seen in 4.5.

- (57)
- | | | |
|------------|-----------------|-------|
| romu fo-i | ne- \emptyset | aibon |
| bird FO-sg | POS-3s | fruit |
- 'the bird's egg'

When the article follows Association word plus RC word phrase as in (58) the two words are seen as a unit, (although not a compound word).

(58)

romu aibon fo-i
bird fruit FO-sg

'the (bird) egg'

4.1.3.2 RC and its characteristic use

A limited set of Ambai nouns are modified by an Association noun which expresses the typical use of the RC. The most common noun which undergoes this modification is kaiwo 'language'. The Association word which modifies kaiwo is a proper noun such as Ambai, Wondama 'Wandamen', or Ambe < the local Malay word amberi 'non-Irianese Indonesian'. Thus (59):

(59)	RC	Association	
	<u>kaiwo</u>	<u>Ambai</u>	'the Ambai language'
	<u>kaiwo</u>	<u>Wondama</u>	'the Wandamen language'
	<u>kaiwo</u>	<u>Ambe</u>	'the Indonesian language/ Bahasa Indonesia'

Note that kaiwo Ambe is not a possessive relationship as would normally be expressed by a possessive phrase (60):

(60)

inontarai Ambe e-ne kaiwo
person Indonesian 3pl-POS language

'The Indonesian people's language'

4.1.3.3 RC and its material composition

A limited set of nouns accept an Association argument which specifies the material of which the referent of the RC is made. The Association element is a noun. Note the following example:

(61)	<u>RC</u>	<u>Association</u>	
	u	mamuran	'bamboo comb'
	comb	bamboo	

4.1.4 Qualification

The second post-RC modification slot in the Ambai simple NP is Qualification. Qualification includes the semantic concepts of Age, Colour, Dimension, Physical Property, Human Propensity, Speed, and Value discussed by Dixon (1977) in his paper on adjectives. As we saw in chapter 3, Ambai has a very limited set of true adjectives. Thus, these Qualification modifiers are usually verbs or embedded relative clauses. In this section we will look at the various Qualifiers which occur in Ambai as well as any ordering constraints relevant between different Qualifiers.

A single Qualifier following the RC or the RC and its Association noun can express various semantic concepts. In the following examples we list some of the possibilities of RC plus Qualification sets. Later we will see that certain semantic sets tend to occur in different syntactic positions when used in a

series of two or more qualifiers. ('3s' indicates third person singular subject marking and that the qualifier is a verb).

(62) AGE

wa	weworu	'a new canoe'
canoe	/di-waworu/ 3s-new	
munu	tewa	'an old house'
house	/di-tawa/ 3s-old	

(63) COLOUR

dian	niumetan	'a black fish'
fish	/di-numetan/ 3s-black	
ansun	berika	'a red cloth'
cloth	/di-barika/ 3s-red	
romu	biominin	'a yellow bird'
bird	/di-bominin/ 3s-yellow	

(64) DIMENSION

inontarai	dedai	'a tall person'
person	/di-adai/ 3s-tall	
wonkan	simbena	'a thin board'
board	/di-sambena/ 3s-thin	
arikan	tewawa	'a short child'
child	/di-tawawa/ 3s-short	
wai	dewaroi	'a long vine/rope'
vine	/di-awaroi/ 3s-long	

(65) PHYS. PROPERTY

mereka	denunana	'cold water'
water	/di-anunana/ 3s-cold	
ansun	wewasa	'a wet cloth'
cloth	/di-wawasa/ 3s-wet	
ai	mutu	'hard/strong wood'
tree	hard/strong (adj.)	

(66) HUM.PROPENSITY

arikan	kesou	'an angry child'
child	/di-kasou/ 3s-angry	
wiwin	mirisin	'a happy woman'
woman	/di-marisin/ 3s-happy	

(67) SPEED

inontarai	sikera	'a quick person'
person	/di-sakera/ 3s-quick	
arikan	fatamai	'a slow child'
child	slow	

(68) VALUE

munu	kerira	'a bad house'
house	/di-karira/ 3s-bad	
inontarai	memuna	'an evil person'
person	/di-mamuna/ 3s-evil	
kaiwo	makikai	'good words'
language	good (adj.)	

The semantic classes of qualifiers mentioned in the discussion above are also syntactically differentiated in terms of sequence or ordering constraints. In unelicited discourse qualifiers occur only singly or in pairs. Even in elicited forms a string of three qualifiers is unusual. Nevertheless, certain patterns have been observed regarding the relative ordering of the Qualification modifiers and these observations tend to support the semantic sets discussed in Dixon's work (1977). The semantic sets that are readily assigned a relative order in qualifiers series are Colour, Dimension, Physical Property, and Value which occur in that order. Speed also precedes Value when

the two occur together. Age and Human Propensity do not fit into the system as well as the others. Examples of various qualifier pairs are given below:

- (69) fiawera niugetan fuba 'a big black dog'
 /di-nur-etan/
 dog 3s-black big (adj.)
- (70) wonkan deuroid miraba 'a long, heavy board'
 /di-auroi/ /di-maraba/
 board 3s-long 3s-heavy

All Qualifiers discussed so far can be modified by intensifying adverbs. Thus, there is a Qualification Phrase consisting of one or more qualifiers plus one or more intensifiers which follow and modify the last qualifier. The intensifiers are bitoiya 'much' and beiri or beyari which as adverbs both mean 'very' although they also mean 'one' as numerals. The Qualification Phrase can be summarized as follows:

Figure 4.8: The Ambai Qualifier phrase

(Qualifier) (Qualifier) Qualifier ((bitoiya) beiri/beyari)

dian	fuba	bitoiya	beyari
fish	large	many	very

'very many large fish'

The types of Qualification discussed thus far may be characterized as involving adjectival states. We have seen that in Ambai these adjectival concepts are usually handled by verbs.

In this section we will see that intransitive and transitive clauses can also appear in the Qualification slot. Such active qualifiers must be marked as definite by the definite clitics -NE, -WA, or -FO. In Ambai one can talk about 'the crying child' or 'the person who is coming' but not about 'a crying child' or 'a person who is coming'. These two latter examples would be interpreted as 'a child is crying' and 'a person is coming'. Note the following examples:

- (71)
- | | | | |
|--------|----------|-------|--------------------|
| arikan | sai | fo-i | 'the crying child' |
| | /di-sai/ | | |
| child | 3s-cry | FO-sg | |
- (72)
- | | | | |
|--------|-------|----------|---------------------|
| arikan | fo-i | sai | 'the child cried/is |
| | | /di-sai/ | crying' |
| child | FO-sg | 3s-cry | |
- (73)
- | | | | | |
|-----------|-------------|----|-------|-------|
| inontarai | minoki | na | wana | fo-i |
| | /di-minoki/ | | | |
| person | 3s-sit | at | there | FO-sg |
- 'the person who is sitting over there'
- (74)
- | | | | | |
|-----------|-------|-------------|----|-------|
| inontarai | fo-i | minoki | na | wana |
| | | /di-minoki/ | | |
| person | FO-sg | 3s-sit | at | there |
- 'the person is sitting over there'

The RC to which the active relative clauses function as qualifiers in the Ambai simple NP can have one of several semantic roles in relation to the relative clause. In the following examples we see the roles of Actor (75), Undergoer (76), and Oblique (77).

(75a) Actor

inontarai niari munu fo-i
 /di-nari/
 person 3s-make house FO-sg

'the person who makes houses/*a person made the house'

(75b)

inontarai manei niari munu fo-i
 /di-nari/
 person one 3s-make house FO-sg

'A person made the house'

(76a) Undergoer

dian i-mun-i ne-i
 fish lsg-kill-3sgO NE-sg

'the fish that I killed'

(76b)

i-mun dian ne-i
 ls-kill fish NE-sg

'I killed the fish'

(77a) Oblique

katai e-minoki na-i fo-i
 place 3pl-sit at-3sgO FO-sg

'the place where they sat/lived'

(77b)

e-minoki na katai fo-i
 3pl-sit at place FO-sg

'They sat at the place'

4.1.5 Quantification

Quantification of the RC in the Ambai simple NP occurs after Association and Qualification if they occur. Quantification expresses the quantity of the RC in either specific numeric terms or in terms of general non-numeral quantifiers. Thus, we note examples such as the following:

(78) RC Quantification
 inontarai pia-ura '200 people'
 person twenty-ten

(79)
 inontarai bitoiya (beyari) '(very) many people'
 person many very

In relation to Association and Qualification we note the following examples which show the relative order of the three modifying elements discussed thus far:

(80) RC Assoc. Qual. Quant.
 wa arawin fuba ko-wei
 canoe sail big CLS-one
 'one big sailing canoe'

(81) RC Assoc. Qual. Quant.
 wara-Ø keka damirai bo-ru fo-Ø
 hand-3sgPOS digit painful CLS-two FO-unspec
 'his two sore fingers'

4.1.5.1 Numerals

Numerals in Ambai form a closed word class which is functionally defined as those words which quantify nouns and which are semantically definite quantifiers (as contrasted with the indefinite quantifiers to be discussed in 4.1.4.2). Numerals are specified for class by a classifying root (CLS) and for number by a numeric suffix. Numerals distinguish two major classes which we will term 'animate' and 'inanimate' and three minor classes which relate to inanimate objects. The class

distinctions differentiated by the numerals are only specified by the numerals from one to four; i.e. the numerals from five upward are the same for all noun classes. We will begin this section with a discussion of the numerals from one to four noting the noun classes with which they co-occur before we go on to the numerals above four.

The two major classes animate and inanimate are distinguished by the classifying roots man- and bo- respectively. Man- only occurs in Ambai in compounds such as man-kukei 'chicken' and man-biriu 'Goura pigeon'. Bo- is derivable from PAN *buah 'fruit' which is bon in Ambai. The animate and inanimate numerals from one to four are listed below in Figure 4.9.

Figure 4.9: Ambai numerals from one to four

	<u>animate</u>	<u>inanimate</u>
1	<u>man-siri</u> <u>man-ei</u> <u>man-siari</u>	<u>bo-siri</u> <u>bo-wei</u> <u>bo-yari</u>
2	<u>man-du</u> < / <u>man-ru</u> /	<u>bo-ru</u>
3	<u>man-toru</u>	<u>bo-toru</u>
4	<u>man-a</u>	<u>bo-a</u>

We note three alternates for 'one' in both sets. No systematic pattern has been discovered to distinguish the first two forms. The third form in each set, i.e. mansiari and boyari, is the form used in counting. The forms for 'two' are readily seen to come from PAN *Dua and those for 'three' from PAN *telu. The -a numeral root is not so readily seen as derived from PAN *empat, but the closely related language Wandamen, which maintains word-final /t/ has bo-at for 'four'.

In chapter 3 we noted that animate common nouns collocate with the animate numerals. The class of nouns which are

considered to be animate in Ambai includes human, animal, and spirit world referents.

(82)	<u>RC</u>	<u>Quant.</u>	
	arikan	mandu	'two children'
	romu	mantoru	'three birds'
	wori	manei	'one sea spirit'

Nouns which collocate with the inanimate numerals include plants, natural objects, manufactured objects, and certain animate creatures such as starfish and shellfish (the latter two of which are readily perceived as being in the same class as stones due to lack of apparent independent motion).

(83)	<u>RC</u>	<u>Quant.</u>	
	rando	bowei	'one banana'
	kamiai	boru	'two stones'
	rarun	botoru	'three bailers'
	firai	boa	'four shellfish'

Time nouns are also quantified with the inanimate numerals:

(84)	<u>RC</u>	<u>Quant.</u>	
	rakida	bowei	'one day'
	diru	boru	'two nights'

Three minor sets of numerals occur with a limited set of inanimate referents. The classifying roots for these three numeral sets are ko-, rowo-, and roa-. These roots combine with the numeral roots seen above to form the following numerals:

Figure 4.10: Ambai minor classes of numerals

1	ko-wei	rowo-iyari	roa-siri
2	ko-ru	rowo-ru	roa-ru
3	ko-toru	rowo-toru	roa-toru
4	ko-a	rowo-a	roa-ra

The ko- and rowo- numeral sets both refer to objects which are basically long and thin and no systematic distinctions have been observed. The following nouns occur with ko-. Note the inclusion of the non-physical 'song':

wa	'canoe'	wombua	'spear'
eran	'fishnet'	afaigoro	'speargun'
waya	'river'	ai	'tree'
rarun	'song'	rayato	'paddling song'

The following words can collocate with the rowo- numerals:

wa	'canoe'	aiso	'digging stick'
ato	'arrow'	wai	'vine'
aisian	'pole'	aireraun	'paper'
ai	'tree'		

The roa- numerals refer to nouns in terms of length. Roa means 'armspan'. Nouns which commonly collocate with roa- include:

romi	'garden'	wai	'vine'
wa	'canoe'	ai	'tree'
eran	'fishnet'		

We note that some nouns, such as 'canoe' or 'tree', may occur with any of the three sets of numerals with no definable meaning difference.

The numerals from five upwards do not distinguish any classes of nouns; i.e. all nouns take the same numerals from five upwards. The Ambai numeral system has separate roots for five (rin), six (wonan), seven (itu), ten (sura), and twenty (pia-) (a bound form) plus the numerals one to four already discussed. These roots can be combined to form numbers up to two thousand, although most speakers now use Bahasa Indonesia numbers for larger figures. The Ambai numerals are illustrated below in Figure 4.11.

Figure 4.11: Ambai numerals above four

5	rin	< PAN *lima	
6	wonan	< PAN *henem	
7	itu	< PAN *pitu	
8	indea-toru	< '? - three'	
	or boru kondarai sura	'two add (makes) ten'	
9	indea-tan		
	or boiyari kondarai sura	'one add (makes) ten'	
10	sura		
11	sura ya boiyari		
12	sura ya boru		
13	sura ya botoru		
14	sura ya boa		
15	sura ya rin		
16	sura ya wonan		
17	sura ya itu		
18	sura ya indeatoru		
19	sura ya indeatan		
20	piar-ei		'twenty - one'
21	piarei ya boiyari		
30	piarei ya sura		
33	piarei ya sura ya botoru		
40	piaru	< /piar + ru/	'twenty - two'
60	piatoru	< /piar + toru/	'twenty - three'
80	piar-a	< /piar + a/	'twenty - four'
100	piarin	< /piar + rin/	'twenty - five'
120	piawonan	< /piar + wonan/	'twenty - six'
140	piaitu	< /piar + itu/	'twenty - seven'
160	piaindeatoru	< /piar + indeatoru/	'twenty - eight'
180	piaindeatan	< /piar + indeatan/	'twenty - nine'
200	piaura	< /piar + sura/	'twenty - ten'
1000	piaura we rin		'two hundred times five'
2000	piaura we sura		'two hundred times ten'

One other minor counting system will be noted in passing: a base four system for counting large fish. Ambai demonstrates a system of counting by fours which is used in the process of dividing a catch of large fish. The folk etymology of the system is that four men are usually involved in netting large fish and that the base four system assures an equal distribution of the catch. The numerals are transparently composed of the inanimate numeral boa 'four' and a numeric suffix. The forms of these base-four numerals are given in Figure 4.12 and the use of the forms is illustrated in (51).

Figure 4.12: Ambai base-four numerals

4	boa-siri	'four - one'
8	boa-ru	'four - two'
12	boa-toru	'four - three'
16	boa-ra	'four - four'
20	boa-rin	'four - five'

- (85)
- | | | |
|------------|----------------|---------------------------|
| e-mun dian | boa-rin | 'They caught twenty fish' |
| 3pl-kill | fish four-five | |

Ordinal numbers (except 'first') in Ambai are expressed in the simple NP by a combination of a cardinal number and a phrase final singular determiner. In non-ordinal expressions the determiner must agree in number with the numeral. Note the following contrastive sets:

- (86a)
- | | | |
|--------|-------|------------------|
| arikan | itu | 'seven children' |
| child | seven | |
- (86b)
- | | | | |
|--------|-------|-------|----------------------|
| arikan | itu | fo-sa | 'the seven children' |
| child | seven | FO-pl | |
- (86c)
- | | | | |
|--------|-----|------|---------------------|
| arikan | itu | fo-i | 'the seventh child' |
|--------|-----|------|---------------------|

child seven FO-sg

(87a)

rakida botoru 'three days'
day three

(87b)

rakida botoru fo-i 'the third day'
day three FO-sg

The ordinal number for 'first' is suppletive: reantenan.

(88)

arikan reantenan fo-i 'the first child'
child first FO-sg

4.1.5.2 Non-numeral quantifiers

Ambai contains a closed set of non-numeral quantifiers which may occur in the Quantification slot of the simple NP. There are four limiters :

maneiru 'some (animate)'

manea 'a few (animate)'

beiru 'some (inanimate)'

kuteai 'a little; a few (inanimate)'

One word expresses a large quantity : bitoiya. The limiters collocate with different classes of nouns as seen in the following examples:

- (89) i-mun dian maneiru 'I caught some fish'
ls-kil' fish some
- (90) i-mun dian manea 'I caught a few fish'
ls-kill fish few
- (91) i-wori buku beiru 'I bought some books'
ls-buy book some
- (92) y-unun mereka kuteai 'I drank a little water'
ls-drink water a little

Both maneiru 'some' and manea 'a few' refer to animate entities, one expressing indefinite quantity (maneiru) and the other expressing paucity (manea). Beiru 'some' is used only with inanimate referents and expresses indefinite number. Kuteai 'a little' is used with inanimate mass nouns to indicate paucity.

The non-numeral quantifier bitoiya 'many/much' is used to express indefinite large quantity for either animate or inanimate referents. Adverbial intensifiers may optionally follow bitoiya. Thus, the following examples:

- (93) dian bitoiya (beyari) '(very) many fish'
kaiwasa bitoiya (beiri) '(very) many people'
metan bitoiya (beyari) '(very) much rain'

Quantification in Ambai can be expressed by either numerals or non-numerals. In the next section on Orientation we will see how determiners and quantifiers interact.

4.2 PRONOUNS

Ambai pronouns take the place of nouns in non-Subject positions; e.g. Object, Oblique, Topic. The pronouns are specified for person and number, distinguishing four categories of person (1 exclusive, 1 inclusive, 2, 3) and four categories of number (singular, dual, trial, plural). The pronominal forms are presented in Figure 4.13.

Figure 4.13: Ambai free pronouns

	singular	dual	trial	plural
1 exclusive	yau ⁴	auru	antoru	amea
1 inclusive		turu	totoru	tata
2	wau	mururu	muntoru	mea
3	i	uru	itoru ⁵	ea

The non-singular pronouns are readily segmented into a person root and a numeral suffix. The dual forms all end in -ru < PAN *DuSa and the trial forms in -toru < PAN *telu. The plural forms, which all end in -a may be seen as originating in a quadruple (cf. Capell 1976a:15) as coming from PAN *(em)pat with the final /t/ lost in Ambai but retained in Wandamen -at. Capell notes that dual and trial forms are typical in eastern Indonesia (1976a:14) and that the trial often has the value of 'a limited plural' (1976a:15) as it does in Ambai. The Ambai plural is usually reserved for large groups; i.e. more than six.

The person roots of the non-singular pronouns are less easily derived from PAN forms. The first person exclusive forms appear to relate in an irregular fashion to **(k)ami*; the first inclusive to **(ki)ta*; the second person form to **(ka)mu*; and the third person roots to **si(Dah)*.

The pronouns are used in non-Subject positions as arguments of the predicate. Examples of the various uses are given below (94)-(96).

- (94) OBJECT
 bioi yau 'He hit me'
 /di-boi/
 3s.hit 1s
- bioi sa 'He hit them'
 /di-boi/
 3s.hit 3pl
- (95) OBLIQUE
 y-okon dian boru we mea
 ls-give fish two to 2pl
- 'I gave two fish to you all'
- b-okon fiani we yau ?
 2s-give what to ls
- 'What did you give to me?'
- i-ra tuti wau
 ls-walk with 2s
- 'I walked with you'
- (96) TOPIC
 i mani guru dine-i
 3s TOPIC teacher BE-sg
- 'As for him, he's a teacher'

The Ambai pronouns are not used as free forms in Subject position. Person and number information is already marked on the verb by subject prefixes .

4.3 PROPER NOUNS

Proper nouns in Ambai refer to unique referents such as people, places, or certain objects such as canoes or houses. Proper nouns cannot be specified for definiteness nor by quantifiers. Numerals may follow a proper noun to indicate an associated group of people, however. This pattern is similar to the Irian Jaya Malay 'Yan dorang' meaning 'Yan and the others with him'.

(97)

Yani coru

'Yan and the others'

4.4 COMPOUND NP

Noun phrases can be conjoined in Ambai if they fill the same grammatical role in the clause. The NPs may be conjoined by either tutir or konta, which both mean 'with'. The normal pattern is for two NPs to be conjoined, but three or more NPs may be conjoined with the conjunction appearing only between the last pair. The Ambai compound NP is diagrammed in Figure 4.14.

Figure 4.14: The Ambai compound NP

(NP) (NP) NP CONJUNCTION NP

Examples of the compound NP are given below.

(98)

yau, Simoni, tuti Yan

'I, Simon, and Yan'

(99)

dian manei tuti romu mandu
fish one and bird two

'one fish and two birds'

(100)

ne-ku arikan ne-sa konta ne-ku munu ne-i
POS-1s child NE-pl add POS-1s house NE-sg

'my children and my house'

(101)

wariboai ne-i konta roro-ku win ne-i
young.man NE-sg add cross.sib-1s female NE-sg

'the young man and my sister'

4.5 POSSESSIVE NP

Ambai has two means of marking possession which have been called 'inalienable' and 'alienable' for want of better terms. Inalienable possession has been discussed as a part of the morphology of the noun in 4.1.1 above. We now turn to 'alienable' possession which functions on the NP level.

Alienable possession encompasses the vast majority of possessible items in Ambai, including some body parts and kin

terms. Possession is marked by the preposed possessive particle ne which is specified for person and number of the possessor by a set of prefixes and suffixes. Examples of some lexical items which are modified by alienable possession are as follows (102)-(104):

(102) Body parts

ina	'bone'	ne-ku	ina	'my bone'
tarai	'body'	ne-mu	tarai	'your body'
anteni	'heart'	ne-Ø	anteni	'his heart'

(103) Kin terms

arikan	'child'	mu-ne	arikan	'your (dl) child'
kaisun	'son'	u-ne	kaisun	'their (dl) son'
kamutun	'daughter'	ne-ku	kamutun	'my daughter'
tafuai	'older sibling same sex'	ne-mu	tafuai	'your (sg) older sibling (s.sex)'

(104) Other items

munu	'house'	e-ne	munu	'their (pl) house'
wa	'canoe'	ne-ku	wa	'my canoe'
fian	'food'	ne-mu	fian	'your food'
rotan	'bag'	ne-Ø	rotan	'his/her bag'
wombua	'spear'	ne-ku	wombua	'my spear'
romi	'garden'	ta-ne	romi	'our (in.pl) garden'

The non-singular alienable forms differ depending on whether the possessed noun is a body part or not. Body parts are preceded by the possessive particle ne which is suffixed by -mi indicating the plurality of the possessed word. Thus (105)

(105a)

ta-ne-mi	tarai	ne-sa	'our (in.pl) bodies'
lin.pl-POS-pl	body	NE-pl	

but
(105b)

ta-ne	munu	ne-sa	'our houses'
lin.pl-POS	house	NE-pl	

Common nouns and proper nouns occur as separate possessor words; pronouns occur only within the possessive particle.

(106)

inontarai	fo-i	ne-Ø	munu	fo-i
person	FO-sg	POS-3s	house	FO-sg

'the person's house'

(107)

Yani	ne-Ø	munu	fo-i
Yan	POS-3s	house	FO-sg

'Yan's house'

(108)

*yau	ne-ku	munu	ne-i
ls	POS-ls	house	NE-sg
Ø	ne-ku	munu	ne-i

'My house'

NOTES

1 I owe this model to Kenneth Gregerson. The model is illustrated in Oguri (1976).

2 Lynch (1973) provides a good summary of possession in Melanesian languages. Capell notes that these possessive suffixes 'represent the normal western [AN] system' (1976a:16).

3 Certain idiolects prefer -ni as the singular suffix, although -i is the more common.

4 Collins (1981) proposes a prothetic /y/ and /w/ for the first and second person pronouns in Central Maluku as coming from PAN noun markers *si and *u respectively (1981:9-12). Anceaux hypothesized a PAN form *ia(-ku) (1961:76). Capell notes that there are many forms with prothetic /y/ 'along most of the north coast of New Guinea' (1976a:15).

5 The third person plural pronoun is realized as [coru] in the speech of many people.

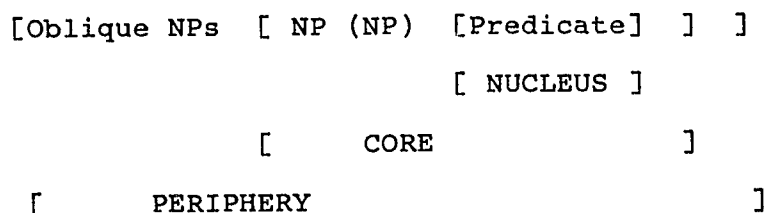
Chapter 5 THE CLAUSE NUCLEUS

5.0 INTRODUCTION

The clause in Ambai may be seen as consisting of three layers: a nucleus consisting of the verb, a core consisting of the nucleus plus the one or two essential arguments required by the verb, and a periphery consisting of all oblique arguments.¹ Further specifics of each of the three layers will be discussed in this chapter on the nucleus and in the following two chapters on the core (6) and the periphery (7).

The three-part structure of the clause is presented in Figure 5.1.²

Figure 5.1: The layered clause model



In Figure 5.1 we see that each larger layer incorporates the layer(s) below it. F/VV also propose that each layer of the clause has a set of 'operators' which 'have as the domain of their scope the corresponding layer' although 'they are not constituents of the layer' (5:23).³ In each of the following chapters we will discuss the operators which occur on each of the three levels of the clause.

The clause nucleus in Ambai consists of a verb or a verb complex. A verb in Ambai is a word which may be specified for person and number of the Subject. The verb is discussed in this chapter in terms of the subclasses of verbs (5.1.1), the formation of the verb (5.1.2), and the inflection of the verb for Subject and/or Object (5.1.3). In the last section of this chapter (5.2) we consider two elements which are considered to be operators on the clause nucleus: aspect (5.2.1) and directionals (5.2.2).

5.1 VERB TERMS

5.1.1 Verb Classes

Ambai verbs can be classified on the basis of their semantic or their syntactic characteristics. In this section we will first consider the semantic or logical categories proposed by Dowty (1979) as discussed in Foley and Van Valin (to appear) chapter 2 and then the syntactic categories of transitivity. We shall see that if one knows the logical or meaning structure of a verb one

can ascertain the syntactic form it will take, although knowing the form of the verb does not readily account for the meaning.

The semantic structure of a verb may be expressed in great detail or by a simpler model. In this discussion I will use Dowty's (1979) four semantic classes of predicates: states, activities, accomplishments, and achievements. Each of these four classes can be defined by semantic and syntactic tests. Dowty's examples of the four classes are given in (1).

(1)	States	Activities	Accomplishments	Achievements
	know	run	paint a picture	recognize
	believe	walk	make a chair	spot
	have	swim	deliver a sermon	find
	desire	push a cart	draw a circle	lose
	love	drive a car	recover from illness	die

Dowty (1979:60) gives semantic and syntactic tests which distinguish these four classes of predicates.

Ambai has three syntactic tests which distinguish the four classes. The Ambai syntactic tests concern the completive aspectual modifiers kai/kiai, and the qualifier nariai 'carefully'. Figure 5.2 summarizes the Ambai tests.

Figure 5.2: Ambai syntactic tests distinguishing verb classes

	State	Achieve.	Activity	Accomp.
1. complement of <u>kiai</u>	no	no	no	yes
2. complement of <u>kai</u>	yes	no	yes	no
3. occurs with <u>nariai</u>	no	no	yes	yes

These four verb classes plus F/VV's lexical decomposition will

prove helpful in the discussion of Ambai clause types in chapter 6 where we will see that each semantic verb type corresponds to only one syntactic clause type. Examples of the four semantic verb types are given in (2) -(5).

- (2) State
 wawasa 'wet'
 adai 'tall'
 tawawa 'short'
 nai 'reside'
- (3) Achievement
 sobu 'arrive'
 mareka 'die'
- (4) Activity
 roban 'to cut down'
 ra 'to walk'
 wo 'to paddle'
 eriai 'to swim/bathe'
 mito 'to run'
- (5) Accomplishment
 mun 'kill'
 wo Urui 'paddle to Serui'
 an rando boru 'eat two bananas'

Dowty takes the States to be basic and posits logical structures for each of the four verb classes as illustrated in Figure 5.3.

Figure 5.3: Dowty's logical structures

<u>Verb class</u>	<u>Logical structure</u>
STATES	stative(s)
ACHIEVEMENTS	BECOME stative(s)
ACTIVITIES	(DO) predicate
ACCOMPLISHMENTS	a CAUSE b (where 'a' is normally an ACTIVITY and 'b' an ACHIEVEMENT)

Dowty's logical structures show the interrelationships between the four verb classes in ways that will prove useful to our understanding of Ambai predicates also. STATES are basic; ACHIEVEMENTS are the situations where something becomes a STATE. ACTIVITIES are again more basic than ACCOMPLISHMENTS which are activities which result in an achievement (BECOME STATE).

F/VV subdivide Dowty's four classes further on the basis of the type of state involved and the volitionality and motion involved in achievement verbs.

Statives may be divided into five categories; one locative and four non-locative as follows:

Figure 5.4: STATE verbs

A. Locative	be at (x,y)	where x = theme y = location
B. Non-locative		
1. State or condition	predicate (x)	where x = patient
2. Perception	see (x,y)	where x = location y = theme
3. Cognition	believe (x,y)	where x = location y = theme
4. Possession	have (x,y)	where x = location y = theme

The five STATE classes are distinguished by the basic type of predicate they represent and the number and the roles of the arguments. The predicates 'see' and 'believe' are representative of similar predicates of perception (e.g. hear, feel) and cognition (e.g. know). Examples of Ambai state verbs are given in (6).

(6) Ambai state verbs

nai	'reside'
maraba	'heavy'
tara-oa	'hear'
roasoa	'believe'
kasou	'angry'

To F/VV's five state classes I propose to add a sixth which we will see will help explain Ambai syntax: Status state. Status state has the logical structure nominal (x) where x=patient and expresses such concepts as 'to be a married person', 'to be a male', etc. The nominal term functions as the predicate of the clause, but I have avoided the term 'predicate' in order to distinguish this subclass from F/VV's condition state.

ACHIEVEMENT predicates have the logical structure 'BECOME state', in which the state can be any of the state predicate already described. Examples of achievements are presented in Figure 5.5.

Figure 5.5: Achievement verbs

BECOME	be at (x,y)	arrive
	predicate (x)	die (i.e. become dead)
	nominal (x)	become a married man
	see (x,y)	notice
	believe (x,y)	recognize
	have (x,y)	receive

Thus, achievements can be one of six different types with the initial argument of BECOME being the same as the initial argument of the state; e.g. BECOME (x) married man (x) 'x became a married man'. Thus, 'receive' is BECOME have (x,y) where x is the new possessor (location) and y is the item possessed (theme). The

achievement verb 'to spot' can be represented as BECOME see (x,y) where x is the receiver of the sensory perception (location) and y is the item spotted (theme). An Ambai achievement verb is sobu 'to meet/to arrive'.

ACTIVITIES are divided into those potentially controllable and those not controllable (-DO). The potentially controllable predicates are divided into those actually controlled (indicated by WANT) and those uncontrolled (indicated by DO).

Figure 5.6: ACTIVITY verbs

A. Potentially controllable

- | | | |
|-----------------|----------|--------------------|
| 1. controlled | WANT (x) | where x = agent |
| 2. uncontrolled | DO (y) | where y = effector |

B. Uncontrolled

-DO (x)	where x = theme
---------	-----------------

Combining the three operators WANT, DO and -DO with the two possibilities [+motion] and [-motion], we arrive at the following six types of activity verbs Figure 5.7.

Figure 5.7: Activity predicates

WANT	+motion	walk, call, look at
WANT	-motion	eat, sing
DO	+motion	slide
DO	-motion	cough
-DO	+motion	fall, slip
-DO	-motion	sneeze

Ambai activity verbs include the following (7).

(7)			
	feram	'to cut'	WANT
	boi	'to hit'	
	sea	'to cough'	DO
	tawa	'to fall'	-DO

We will see the relationship between these semantic classes of verbs and the syntactic clause types in 6.1.

F/VV define ACCOMPLISHMENT predicates as 'x CAUSE y' where 'x' is usually an activity verb and 'y' an achievement verb (2:14). Assuming that the activity verbs might have both [+motion] and [-motion] possibilities we arrive at a large number of accomplishment types when they interact with the six state predicate types. I present only a few of the more productive possibilities in (8) - (10).

(8) Joan broke the glass

WANT (Joan)	CAUSE BECOME broken (glass)	WANT
DO (Joan)	CAUSE BECOME broken (glass)	DO

(9) Tom taught Bill linguistics

WANT (Tom) CAUSE BECOME know (Bill, linguistics)

(10) Bill gave Tom the book

WANT (Bill) CAUSE BECOME have (Tom, the book)

5.1.2 Verb Formation

Ambai verbs can be formed by compounding, by reduplication, or by class-changing derivation. In this section we discuss the forms and meanings of each of these processes.

5.1.2.1 Compounding

A limited set of Ambai verbs consist of a basic verb root followed by a verb indicating either a more specific action or by a qualifying adverbial root. Examples of this process are listed in (11).

- (11)
- | | | | | |
|-------|-------------|------|-----------|----------------------|
| fot | kutu | ---> | fokutu | 'to pull apart' |
| pull | cut through | | | |
| feran | kutu | ---> | ferankutu | 'to cut through' |
| cut | cut through | | | |
| ara | berak | ---> | araberak | 'to turn around' |
| turn | around | | | |
| fot | berak | ---> | foberak | 'to pull in circles' |
| pull | around | | | |
| isan | tiri | ---> | isantiri | 'to pierce through' |
| stab | make a hole | | | |

5.1.2.2 Reduplication

A small set of Ambai verbs accept partial reduplication to form new verb roots. The phonological processes affecting reduplication are discussed in 2.3 where we saw that the reduplication is left-moving from stress and that the consonant of the stressed syllable is reduplicated. The vowel of the reduplicated syllable can be either /e/ preceding the [+low] vowel, /a/ preceding [-low] vowels, or /i/ preceding [+back] vowels.

(12)		
	fatin	'to pull out'
	fefatin	'to pull out many items'
	baur	'to split'
	bebaur	'to split many items'
	feram	'to cut'
	faferam	'to cut many items; to cut repeatedly'
	roban	'to fell'
	raroban	'to fell many items'
	boi	'to hit'
	haboi	'to hit repeatedly'
	sera	'to seek'
	sasera	'to seek for a long time'

In this section we will discuss the various semantic shifts which occur when a verb undergoes reduplication. We shall see that the semantic shift varies with the semantic class of the original root.

Activity verbs take on the idea of magnitude of the action or of the objects when reduplicated. Several of the examples in (12) are intrinsically single-action type verbs; e.g. 'to fell' as the same tree can be felled only once. In these instances reduplication can only refer to multiplicity of the objects involved.

State verbs are used as qualifiers of nouns in Ambai or as predicates. Most reduplicated state verbs signify intensification. The examples in (13) show emotion states and condition states.

(13)

kasou	'angry'
kasisou	'very angry'
matai	'afraid'
matitai	'very afraid'
marisin	'happy'
mararisin	'very happy'
katui	'small'
katitui	'very small'

Colour states which receive reduplication are seen as intensified or mitigated (i.e. attenuated) depending on the speaker questioned. It is interesting to note that the five colour verbs in Ambai exhibit a hierarchy similar to that proposed by Berlin and Kay (1969): black and white are either intensified or mitigated by reduplication; red and yellow are only mitigated; and green cannot be reduplicated at all.

(14)

numetan	'black'
numametan	'very black' or 'speckled black'
bua	'white'
bibua	'very white' or 'greyish'
berika	'red'
berarika	'reddish'
bominin	'yellow'
bomaninin	'yellowish'

5.1.2.3 Derivation

Ambai has one class-changing suffix which may be attached to certain nouns to change their grammatical class, i.e. from nouns to verbs. A limited set of inalienably possessed body parts may be verbalized by the addition of the suffix -o after the possessive suffix. The semantic connections between the basic noun and the verbal form are that between the body part and what is perceived as its basic use. The following examples constitute all those found to date.

(15)			
tara	'ear'	tara-ku-o	'I hear'
wara	'hand'	wara-mu-o	'you reach out'
awe	'foot'	awe- \emptyset -o	'he steps on; he reaches out with his foot'
aro	'chest'	ta-aro-mi-o	'we (in.pl) remember'
boro	'mouth'	boro-mu-o	'you order some- one around'
ene	'abdomen'	ene-ku-o	'I love'

These verbalized words can also receive the third person singular object suffix or the introvert (INT) or extrovert (EXT) directional clitics indicating direction away from or towards the speaker as illustrated in (16).

- (16)
- | | |
|----------------|-----------------------|
| tara-mu-o-i | 'listen to him' |
| ear-2s-VBL-3s | |
| tara-mu-o-a | 'listen to that' |
| ear-2s-VBL-EXT | |
| tara-mu-o-ma | 'listen (to me) here' |
| ear-2s-VBL-INT | |

Other Yapen languages exhibit a similar set of lexical items which can be verbalized. Papuma, Woi, and Ansus also verbalize the word 'eye' which becomes 'to see' and 'nose' which becomes 'to smell'.

5.1.3 Inflection

Ambai verbs must be inflected for the person and number of the grammatical Subject and transitive verbs can receive a suffixed form of the third person singular pronoun. In this section we discuss each of these processes from the synchronic aspect as well as from a diachronic aspect in which we compare Ambai to other Western Yapen languages and to PAN and Oceanic characteristics.

5.1.3.1 Subject Inflection

Each Ambai verb is marked for the person and number of the grammatical Subject.⁴ Capell notes that in this regard New Guinea Austronesian languages (NGAN) 'come nearest to the general Oceanic model' and that most of the NGAN languages 'use a shortened form (or root form) of pronoun to indicate person' (1976a:25). We will note that Oceanic languages are not the only

Austronesian languages to cross-reference Subject by verbal prefixes in 5.1.3.2.2. In this first part of this section we will explain the synchronic forms of the Ambai prefixes, the allomorphic variation of which is complex, in terms of a set of underlying forms and P-rules via which the various alloforms may be derived.

5.1.3.1.1 Underlying Subject Prefix Forms

Four categories of person (1 exclusive, 1 inclusive, 2 and 3) and four categories of number (singular, dual, trial, and plural) are distinguished by the Subject prefixes. No other prefixes occur on the verb. The posited underlying forms of the Subject prefixes are presented in Figure 5.8 below.

Figure 5.8: Underlying Subject prefix forms

	singular	dual	trial	plural
1 exclusive	i-	aur-	antor-	amet-
1 inclusive		tur-	tor-	tat-
2	bu-	mur-	muntor-	met-
3	di-	ur-	itor-	et-

Certain patterns are evident in the chart of Subject prefixes. Looking across the rows one notes that the first exclusive non-singular forms all begin with /a/; the first inclusive non-singular forms with /t/; and the second person non-singular forms with /m/. Proceeding down the columns one notes that all dual forms end in -ur-; all trials in -tor-; and all plurals in -t-. We will see later that the non-singular surface forms are very similar to the underlying forms posited here.

The singular prefixes present a more complicated picture. Figure 5.9 presents the various surface forms of the singular subject prefixes. Note that the different columns in Figure 5.9 represent the various allomorph sets as they occur in different environments; i.e. on different verb stems. Note also that some of the subject markers, which in their underlying forms are prefixes, are realized as infixes.

Figure 5.9: Surface forms of Ambai singular Subject prefixes

1s	/i-/	y-	ye-	i-	i-	i-	i-	i-	i-	i-	i-	i-
2s	/bu-/	b-	bo-	-u-	-u-	-o-	w-	wo-	∅	∅	∅	∅
3s	/di-/	d-	de-	-i-	∅	-e-	∅	-e-	-i-	s-	y-	∅

The rules which generate the various surface forms of the Subject prefixes are presented in 5.1.3.1.2. Before presenting those rules we give a few examples of the many surface forms of the Subject prefixes in (17).

(17)		1s	2s	3s
-ampi	'to eat'	yampi,	bampi,	dampi
-adai	'to be tall'	yedai,	bodai,	dedai
-matai	'to be afraid'	imatai,	mutai,	mitai
-kasou	'to be angry'	ikasou,	kosou,	kesou
-sai	'to weep'	isai,	wai,	sai
-sansun	'to be clothed'	isansun,	wonsan,	sensun
-nari	'to make'	inari,	nari,	niari
-tanam	'to plant'	itanam,	tanam,	sanam
-roki	'to sing'	iroki,	roki,	yoki
-feram	'to cut'	iferam,	feram,	feram

5.1.3.1.2 Morphophonemic rules

In current discussions on phonology, 'naturalness' is considered by many as being more important than 'power'. By these two terms I refer to the historical feasibility that the posited phonological processes actually might have occurred and the generative power of phonological rules respectively. Hooper (1976) summarized many of the constraints or conditions placed on phonological rules by those linguists who consider themselves adherents of Natural Generative Phonology (NGP). The constraints of NGP include the No-Ordering Condition which disallows the use of extrinsic ordering as practiced by Transformational Generative Phonology (TGP). NGP also disallows highly abstract underlying forms with the True Generalization Condition which states that underlying forms must not merely be relatable to, but must also reflect in a rather direct fashion, the surface forms. NGP seeks to formulate those rules which best account for the surface forms

and which can be considered 'natural' in the sense that they represent the processes employed by speakers of the language in question. Schane states that rules should 'point to significant processes operating in the language' (1973:82). Schane continues:

There is little point in having abstract representations just for the sake of abstractness, because in each case one must show that the additional abstractness and the accompanying rules are well-motivated - that they actually have a simplifying effect on the grammar.
(ibid)

In the spirit of 'naturalness' I have posited underlying forms and phonological rules which are not highly abstract, mindful of what Schane calls 'the price of abstractness' (1973:82) which refers to the fact that the more abstract the underlying forms, the more rules are required to generate the surface forms. We begin with the simpler non-singular forms before we discuss the singular prefixes.

Non-singular Subject prefixes

The non-singular prefixes all end in either /r/ or /t/. Only one rule is needed to generate the proper surface forms: prefix final /r/ and /t/ are deleted before another Consonant, before a consonant-initial verb root. This is, in fact, a Morpheme-structure condition which states that only /n/ can occur as the initial consonant of a consonant cluster.

(18) Prefix consonant deletion rule

$$\left\{ \begin{array}{l} r- \\ t- \end{array} \right\} \rightarrow \emptyset / _ + C$$

In (19) and (20) we compare the addition of the non-singular prefixes tur- 'lin.dl' and tat- 'lin.pl' to the vowel-initial verb ampi 'to eat' where the prefix-final C is retained and the consonant-initial verb madu 'to speak' where the prefix-final C is dropped.

- (19)
- | | | | | | |
|------|---|------|-----|---------|-----------------|
| tur- | + | ampi | --> | turampi | 'lin.dl. eat' |
| tur- | + | madu | --> | tumadu | 'lin.dl. speak' |
- (20)
- | | | | | | |
|------|---|------|-----|---------|-----------------|
| tat- | + | ampi | --> | tatampi | 'lin.pl. eat' |
| tat- | + | madu | --> | tamadu | 'lin.pl. speak' |

We note here that other Western Yapen (WY) languages do not require the consonant deletion rule, but rather have an assimilation rule which creates a cluster of a nasal plus a homorganic stop. Comparative data from Wandamen as an example of the other WY languages demonstrate the consonant sequences resulting from prefixation which Ambai does not allow (21).

(21)		'to walk'	'to recline'	'to bite'
1 sg	Ambai	i-ra	i-wata	i-kiri
	Wandamen	i-ra	i-vata	i-kari
lin.dl	Ambai	tu-ra	tu-wata	tu-kiri
	Wandamen	tun-da	tum-bata	tuN-gari
3 pl	Ambai	e-ra	e-wata	e-kiri
	Wandamen	sen-da	sem-bata	seN-gari

Singular

The singular subject prefixes have been abstracted from the many surface forms displayed in Figure 5.9 on page xxx above. None of the first person singular surface manifestations could be used as the underlying form without complicating the rules which explain the various assimilation and deletion processes which will be evident using a slightly more abstract form. We shall see, however, that the underlying forms posited have diachronic justification. The singular Subject prefixes are /i-/ first person, /bu-/ second person, and /di-/ third person. These singular prefixes interact with the verb stem through processes of labialization, palatalization, syllabification, vowel assimilation, and vowel loss which will be discussed in this section.

In 2.2.2.2 we recognized two types of verbs which are distinguished by differences in the underlying stress assigned to each class. The validation of the stress classes was seen in the stress shift resulting from the addition of the third person singular Object suffix. In this section we also see the importance of stress to the interaction of the vowels of the

Subject prefix and that of the verb stem. Examples of the membership of the two classes are given in (22).

(22) Examples of stress differentiated verb types

Stem-initial syl. stressed		Stem-initial syl. unstressed	
'kafar	'to fold'	ka'far	'to kick'
'tanam	'to plant'	ta'nan	'to be short'
'watai	'to recline'	ma'tai	'to be afraid'
Most verbs with non-low vowel in first syllable		a'tor	'to count'

The two types of verbs exemplified in (22) above reflect different underlying stress patterns: verbs which receive underlying stress on the first syllable of the stem (antepenultimate or penultimate) and verbs which receive stress on the second syllable of the stem (ultimate or penultimate). The importance of this stress distinction is that the initial vowel of the stem, which will interact with the vowel of the Subject prefix, is either stressed or unstressed.

A second major verb class distinction can be made between V-initial and C-initial stems. We have already seen that C-initial stems cause the loss of the final consonant of the subject prefix. We will now look at the P-rules dealing with singular prefixes as they relate to C-initial stems.

C-initial verb stems

The singular prefixes /bu-/ for second person and /di-/ for third person become the infixes /-u-/ and /-i-/ respectively when added to C-initial verb stems irrespective of the stress class distinctions. The first person singular prefix /i-/ remains unchanged. The process by which the prefixes become infixes is at

this point simply put forward as a series of possible steps in rules (23a-23c) which are seen as common sound changes in languages. The rules are not, however, seen as the only way to summarize the process involved. We present the rules for Ambai first and then show comparative data from Wandamen and Slaru, a WAN language spoken in the Moluccas east of Timor.

(23a) labialization/ palatalization of root-initial C

$$\begin{Bmatrix} /bu-/ \\ /di-/ \end{Bmatrix} + C \longrightarrow \begin{Bmatrix} [buCw] \\ [diCy] \end{Bmatrix}$$

(23b) syllable reduction

$$\begin{Bmatrix} [bu-] \\ [di-] \end{Bmatrix} \longrightarrow \emptyset / \text{---} \begin{Bmatrix} [Cw/] \\ [Cy] \end{Bmatrix}$$

(23c) syllabification

$$++ \begin{Bmatrix} [Cw] \\ [Cy] \end{Bmatrix} \longrightarrow ++ \begin{Bmatrix} /Cu/ \\ /Ci/ \end{Bmatrix}$$

The three rules presented in (23a-c) demonstrate how the prefixes /bu-/ and /di-/ might become the infixes /-u-/ and /-i-/ by first causing the following C to be labialized or palatalized after which process the prefix is dropped and the labialized or palatalized C becomes C plus /u/ or /i/ by syllabification. We will see later (152 ff.) that the infixed vowels will undergo or cause further changes in interaction with the first vowel of the verb stem. Examples of Ambai derivation using rules (23a-c) are given in (24).

- (24)
- | | |
|-----------------------------------|---------------|
| /bu- + 'tanam/ | |
| plant (initial syllable stressed) | |
|
/butwanam/ | (by rule 23a) |
| /ʔwanam/ | (by rule 23b) |
| /tuanam/ | (by rule 23c) |
|
/di- + 'tanam/ | |
| /dityanam/ | (by rule 23a) |
| /tyanam/ | (by rule 23b) |
| /tianam/ | (by rule 23c) |

In Wandamen the process of infixation is more obvious than in Ambai since the infixed vowel does not undergo further changes; e.g it is not deleted as in some Ambai verbs we will see in later rules. Thus, Wandamen t-u-ana(m) '2s plant' as opposed to Ambai tanam and Wandamen t-i-ana(m) 'he plants' as opposed to Ambai sanam.

Mills and Grima (1980) document a similar process of infixation of the Subject marker in Lettinese and Slaru as what they call 'possible "pseudo-metathesis"'. They explain that what looks like metathesis in these languages could also be explained as being 'progressive assimilation of the palatal/rounded quality of the conditioning high vowel, with the later deletion thereof'(1980:282). We note especially the Slaru third person singular /i- + tabar/ which becomes tyabar 'he dances'.

Certain verb initial consonants are further changed by the Consonant Shift rule (25) which changes /r/ and /t/ to [y] and [s] respectively preceding infixed /-i-/ of the third person in verbs with the initial syllable stressed and /s/ to [w] preceding the infixed /-u-/ of second person in any verbs.

(25) Consonant Shift Rule

$$\left\{ \begin{array}{l} /t/ \\ /r/ \\ /s/ \end{array} \right\} \longrightarrow \left\{ \begin{array}{l} s \\ y \\ w \end{array} \right\} / \text{---} \left[\begin{array}{l} (/i-/ \text{ 'v}) \\ (/i-/ \text{ 'v}) \\ /u-/ \end{array} \right]$$

The consonant shift rule (25) is illustrated in (26). Again we note that the infix vowel will undergo further changes by rules as yet not discussed. Following the Ambai examples we again present data from Papuma, Busami, Ansus, and Serui Laut which share certain of the rules with Ambai.

(26) AMBAI

/di- + 'roki/

sing

/r-i-oki/

(by rules 23a-c)

/y-i-oki/

(by rule 25)

/di- + 'tanam/

plant

/t-i-anam/

(by rules 23a-c)

/s-i-anam/

(by rule 25)

/bu- + 'sai/

2s weep

/s-u-ai/

(by rules 23a-c)

/w-u-ai/

(by rule 25)

Papuma and Busami share the /r/ --> [y] rule with Ambai as illustrated in the following examples (27) with the verb 'to sing'.

(27)

	1s	2s	3s
Papuma	e-roi	roi	yoi
Busami	ya-ro	ro	yo
Ambai	i-roki	roki	yoki

Papuma and Ansus share the /t/ ---> [s] rule with Ambai as shown in the verb 'to plant' in (28).

(28)

	1s	2s	3s
Papuma	e-tanan	t-u-anan	sanan
Ansus	e-tanan	t-u-anan	sanan
Ambai	i-tanam	tanam	sanam

Papuma and Serui Laut share the /s/ ---> [w] rule with Ambai as illustrated in (29) with the verb sea 'to cough'.

(29)

	1s	2s	3s
Papuma	e-sea	wea	sea
Serui	i-sca	wea	sea
Ambai	i-sea	wea	sea

V-initial verb stems

The subject prefixes /i-/, /bu-/ and /di-/ are attached directly to V-initial verb stems and then either cause or undergo further changes in interaction with the first vowel of the verb stem. We now note that C-initial and V-initial stems can be discussed together since rules 14a-c infixed the prefix vowel to immediately precede the first vowel of the verb stem.

The first person prefix /i-/ becomes the semivowel [y] by a P-rule. Thus, /i- + -ampi/ becomes [yampi] 'I eat'.

There are four possible interactions between the prefix high vowel and the first vowel of the verb stem:

1. both vowels can stay the same.
2. the prefix vowel can be lost
3. the vowels can mutually affect each other
4. the stem vowel can be lost

In Ambai all four possibilities are evidenced. We will examine each of the four patterns below and we will see that the presence or absence of stress on the stem initial vowel and the phonetic features of the first stem vowel explain the four patterns of interaction.

No vowel loss

The first possibility when the high vowel of the prefix and the stem vowel interact is that both vowels will remain the same. This situation only occurs with the third person singular Subject marker and verbs which have a stressed low vowel in the first syllable and a non-low vowel in the following syllable. Examples of this rule are given in (37).

(30)

/di-'baur/
3s-split

/b-i-aur/
/biaur/

(by rules 23a-c)

/di-'narir/
3s-make

/n-i-arir/
/niarir/

(by rules 23a-c)

Prefix vowel loss

The vowel of the prefix is lost in verbs which have a stressed /a/ in the first syllable of the stem followed by another /a/ in the next syllable or when the first vowel of the stem is a stressed non-low vowel (31).

(31)

$$\left\{ \begin{array}{l} /-u-/ \\ /-i-/ \end{array} \right\} \longrightarrow \emptyset / C \text{ — } \left\{ \begin{array}{l} 'aCa \\ 'V [-low] \end{array} \right\}$$

Note that this rule must be ordered to occur after the consonant shift rule or that the initial C of the environment cannot be one of the three consonants which undergo shift in the environment specified.

We note the following examples of prefix vowel loss (32)-(35).

(32)

/bu- + 'tanam/
2s-plant

/t-u-anam/ (by rules 23a-c)
/tanam/ (by rule 31)

(33)

/bu- + 'ena/
2s-sleep

/bena/ (by rule 31)

(34)

/di- + 'tanam/
3s-plant

/t-i-anam/ (by rules 23a-c)
/s-i-anam/ (by rule 25)
/sanam/ (by rule 31)

(35)

/di- + 'roki/
3s-sing

/r-i-oki/ (by rules 23a-c)
/y-i-oki/ (by rule 25)
/yoki/ (by rule 31)

Mutual assimilation

In certain environments as specified in rule (36) the high vowel or the semivowel [y] and the unstressed low vowel of the stem mutually assimilate and are reduced to a single mid front vowel or [y] plus mid front vowel.

(36) Mutual assimilation

$$\begin{Bmatrix} -u- \\ -i- \\ y- \end{Bmatrix} + a \longrightarrow \begin{Bmatrix} -o- \\ -e- \\ ye- \end{Bmatrix} / \text{---} (C) C 'V [-low]$$

The Mutual Assimilation rule states that the combination of the high vowel or [y] with the unstressed low vowel of the verb stem which contain a stressed non-low vowel in the second syllable results in an assimilated mid vowel /o/ or /e/ or in [ye]. Examples of this assimilation of prefix and stem vowels are given in (37)-(39).

(37)

bu- + san'sun
2s-be clothed

s-u-ansun
w-u-ansun
wonsun

(by rules 23a-c)
(by rule 25)
(by rule 36)

(38)

di- + ka'sou
3s-angry

k-i-asou
kesou

(by rules 23a-c)
(by rule 36)

(39)

i- + a'tor
1s-count

y-ator
yetor

(by P-rule)
(by rule 36)

We note an identical assimilation process occurring in Papuma and Ansus, but with verbs which have a low vowel in the second syllable of the stem:

(40)

	1s	2s	3s	
Papuma/Ansus	e-matai	motai	metai	'afraid'

We also note a similar process of assimilation in Wandamen although in Wandamen the prefix vowel remains unaffected and only the stem vowel is changed to a mid front vowel (41).

(41) Wandamen

	1s	2s	3s
matai 'afraid'	i-matai	m-u-etai	m-i-etai
vavisi 'hungry'	i-vavisi	v-u-evisi	v-i-evisi

Stem Vowel loss

The first unstressed vowel of some verbs is deleted following the high vowels of the prefixes in the environment specified in rule (42).

(42) Stem Vowel loss

$$V [\alpha_{low}] \rightarrow \emptyset / C \left\{ \begin{array}{l} -u- \\ -i- \end{array} \right\} \text{---} C 'V[\alpha_{low}]$$

Note the following examples of stem vowel loss in (43)-(45).

(43)

/bu- + ma'tai/
2s-afraid

/m-u-atai/ (by rules 23a-c)
/mutai/ (by rule 42)

/di- + ma'tai/
3s-afraid

/m-i-atai/ (by rules 23a-c)
/mitai/ (by rule 42)

/bu- + mi'noki/
2s-sit

/m-u-inoki/ (by rules 23a-c)
/munoki/ (by rule 42)

In the last two rules we noted that those verbs in which the first vowel of the stem did not receive stress underwent either assimilation to mid position or lost the first unstressed stem vowel.

Irregular forms

The four types of interaction between the prefix and stem vowels described in the four sections above account for almost all Ambai verbs. There are a few verbs which are best considered to be 'irregular' forms which can be described most simply by list rather than by rules. The irregularity of the following verbs is limited to the singular forms. The forms that would be expected of regular verbs are placed in parentheses.

(46)

	1s	2s	3s
ra 'to walk'	i-ra (i-ra) (i-ra)	ro (ra) (ro)	da (r-i-a) (re)
wati 'to see'	i-wati (i-wati) (i-wati)	boti (wati) (woti)	deti (wiati) (weti)

5.1.4 Object inflection

Transitive verbs in Ambai occur in one of two forms: with a free form as Object or with a third person singular Object suffix /-i/. Ambai does not allow an object suffix before a free Object. In this section we will discuss the third person singular object suffix from both synchronic (5.1.4.1) and diachronic (5.1.4.2) aspects. Portions of this discussion have already appeared in chapter 2 as a part of the phonological rules of the sound system of Ambai.

5.1.4.1 The synchronic situation

Initial investigations of transitive verbs in Ambai presented a confusing picture. The surface forms of the third person singular object suffix included: -i, -mi, -fi, -ri, -wi, -ti, -ki, and -si. These forms were initially posited because Ambai allows only /n/ in word-final (i.e. pre-pause) position. The consonants of the object suffix were at first taken to be a part of the suffix, not a part of the verb root. Needless to say, no pattern could be found to explain the various consonants. Following the pattern which Bloomfield used on Samoan data in Language (1933:219), the consonants were analyzed as part of the

verb root, even though they only occurred preceding the object suffix. On synchronic grounds, then, underlying word-final consonants were posited to explain the suffix alloforms. The P-rules in chapter 2 delete these verb-final consonants (except /n/) before pause. Examples of transitive verbs with and without the object suffix are presented in (47).

(47)	ruti	ru	'to hold'
	bayari	baya	'to pay'
	unumi	unun	'to drink'
	rerepi	rere	'to lick'
	ruaisi	ruai	'to wash'
	ani	an	'to eat'

The synchronic position in Ambai then is that the third singular Object suffix /-i/ is attached directly to the verb root and that the underlying forms of transitive verb roots may end in not only /n/, but also /t,r,m,f, and s/.

5.2 NUCLEAR OPERATORS

Each layer of the clause, (i.e. nucleus, core, periphery) comes under the control of specific operators.⁵ The operators, while not constituents of any layer, 'have as their domain or their scope the corresponding layer' (F/VV 5:23). In this chapter we will consider two nuclear operators evidenced in Ambai: aspect and directionals. Both of these nuclear operators directly modify the predicate without regard to the other clause layers. We will discuss each operator in turn. A diagram of the clause Nucleus plus its two operators is presented in Figure 5.10.

Figure 5.10: The clause Nucleus and its operators

([NUCLEUS] Aspect, Directionals)

5.2.1. Aspect

Aspect involves 'different ways of viewing the internal constituency of a situation' (Comrie 1976:3). Aspect is how the speaker characterizes the dynamism of a situation in terms of situation-internal time, as opposed to situation-external time marked by Tense (a peripheral operator discussed in chapter 7). F/VV (5:23) quote Jakobson as defining Aspect as characterizing 'the narrative event itself without involving its participants and without reference to the speech act' (1971:134) while Tense 'characterizes the narrated event with reference to the speech event' (1971:135).⁶ In Ambai we will see that Aspect and Tense may be syntactically differentiated by relative ordering in relation to the predicate (with Aspect occurring closer to the predicate).

Aspect in Ambai can be divided into COMPLETIVE, DURATIVE, and FREQUENTIVE aspects (cf. Bee 1973:96-97).

5.2.1.1. Completive aspect

In Ambai completeness is signalled by the COMPLETIVE particles kai and kiai.⁷ The completive particles kai and kiai indicate that the event predicated is viewed as complete. We have seen in 5.1.1.1 that kai can only occur with states and activities and that kiai occurs only with accomplishments.

Examples of the use of these completive aspect operators are given in (48)-(50).

(48) State

i-sansun	kai	
ls-clothe	COMPLETIVE	'I am completely dressed'

(49) Activity

amet-an	kasamberei	kai
lex.pl-eat	maize	COMPLETIVE

'We finished eating maize (although not all was eaten)'

(50) Accomplishment

amet-an	kasamberei	fo-Ø	kiai
lex.pl-eat	maize	FO - unspec	COMPLETIVE

'We finished eating the maize'

Tense, on the other hand, as a peripheral operator occurs outside the clause nucleus and relates to the real-world time of the speech event. Tense can occur with the kai/kiai completive aspect markers as shown in (51a) and (51b).

(51a)

i-sansun	kai	ampa
ls-clothe	COMPL	PERFECT

'I am already completely dressed'

(51b)

anto-wo	Urui	kiai	ampa
lex.tr-paddle	Serui	COMPL	PERFECT

'We already finished paddling to Serui'

5.2.1.2 Durative aspect

DURATIVE as an aspectual operator is signalled in Ambai by paria directly after the predicate. Duration can only be expressed with State and Activity predicates since the other two predicate types (i.e. Achievements and Accomplishments) cannot be durative. Duration with Activity predicates indicates that the activity is seen as taking place over a certain space of time; i.e. it is not instantaneous.

- (52)
- | | | | |
|-----------|-------|-------|------------|
| e-wo | paria | munu | fo-Ø |
| 3s-paddle | DUR | house | FO-unspec. |
- 'They kept paddling towards the house(s)'

We note in (52) that the aspectual operator paria may occur between the predicate and the object. This ordering helps confirm the fact that aspect is an operator on the nucleus (i.e. the predicate).

Duration with State predicates indicates an intensified State as illustrated in (53).

- (53)
- | | | |
|------------|-------|--------------------|
| Kesou | paria | |
| /di-kasou/ | | |
| 3s-angry | DUR | 'He is very angry' |
| | | |
| dedai | paria | |
| /di-adai/ | | |
| 3s-tall | DUR | 'He is very tall' |

5.2.1.3. Frequentive Aspect

Aspectual markers indicating frequency include such concepts as REPETITIVE, RECURRENT, and HABITUATIVE situations.

Repetitive actions which are signalled in Ambai are marked by partial reduplication of the verb root. The phonological details of this process were discussed in 2.3.4. Examples include:

- (54)
- | | | | | | | | | |
|-----|----|---------------|----------|-----|----|---------------------------|---|---------------------|
| fat | in | 'to pull out' | fe | fat | in | 'to pull out many things' | | |
| bo | i | 'to hit' | ba | bo | i | 'to hit repeatedly' | | |
| fe | ra | m | 'to cut' | fa | fe | ra | m | 'to cut repeatedly' |

Recurrent actions are signalled by the word e(a)ka following the predicate or the object if one appears.

- (55)
- | | | |
|----------|------|-------|
| b-i-oi | Yani | eaka |
| /di-boi/ | | |
| 3s-hit | Yan | again |

'He hit Yan again'

- (56)
- | | | |
|------------|-------|-----|
| e-wo | eka | ma |
| 3pl-paddle | again | INT |

'They paddled here again.'

Habitulative states and activities are signalled by the lexeme biri following the predicate.

(57)

sai	biriu	'He cries habitually'
dampi	biriu	'He eats habitually'
medu	biriu	'He talks habitually'
mei	biriu	'He plays habitually'
dena	biriu	'He sleeps habitually'
mitai	biriu	'He is always afraid'
merira	biriu	'He dislikes everything'

5.2.2 Directionals

The second nuclear operator in Ambai is the category of directionals. F/VV state that directionals 'express a directional orientation of the nucleus, whether the action is up, down, toward or away from the speaker' (5:27). As Lyons (1977:690) observes language is anthropocentric, relating the position of other entities to that of the people involved in the speech situation. In Ambai the speaker is taken as the zero point for all directional formatives (ignoring metaphorical usage of directionals in discourse cohesion). Two directional roots distinguish motion toward the speaker man (Introvert) and away from the speaker a (Extrovert). Both are postclitics on the clause occurring after the directional GOAL or SOURCE if it occurs.⁸ Other directionals express dichotomous relations of verticality (up/down), front-back, and landwards-seawards.

We begin with the basic introvert-extrovert dichotomy. The speaker-oriented formatives man and a occur only with predicates involving motion. These directionals occur as clause final clitics.

(58)

ro	ma	
/bu-ra/		
2s-walk	INT	'Come here'

ro	a	
/bu-ra/		
2s-walk	EXT	'Go away'

(59)

w-i-o	na	Urui	ma	
/di-wo/				
3s-paddle	from	Serui	INT	'He paddled from Serui to here'

ro	na	munu	ne-i	a
/bu-ra/				
2s-walk	from	house	NE-sg	EXT 'Go away from the house'

Other horizontal directionals may be suffixed to the basic introvert-extrovert roots to form more specific directionals (60).

(60a) Introvert

mandei	'toward speaker on land'
mandau	'toward speaker on sea'
mampon	'towards speaker in front'
mampui	'towards speaker in back'
mambaru	'towards speaker across'

(60b) Extrovert

arei	'away from speaker to land'
arau	'away from speaker to sea'
afon	'away from speaker to front'
afui	'away from speaker to back'
awaru	'away from speaker across'

These compound directionals occur clause final (61a-b).

(61a)

i-wo (to Ambai) a-waru
 ls-paddle to Ambai EXT-across

'I paddled across (to Ambai)' (Speaker is not at Ambai
 at time of speech event)

(61b)

i-wo (to Ambai) man-waru
 ls-paddle to Ambai INT-across

'I paddled here (to Ambai)'

Verticality is expressed by the dichotomous distinction between yai 'up' and weu 'down' as measured from the position of the speaker. These two vertical elements are suffixed to the introvert-extrovert roots to form manai 'towards speaker up', mambeu 'towards speaker down', ayai 'away from speaker up', and aweu 'away from speaker down'.

(62)

minoki a-weu
 /di-minoki/
 3s-sit EXT-down

'He sat down'

(63)

d-autai a-yai
 3s-go up EXT-up

'He went up'

NOTES

1 This concept of a layered clause has been developed by Olson (1982), Olson and Foley (1981), and by Foley and Van Valin (to appear)(F/VV). F/VV describe the layered clause as follows:

The innermost layer of the clause is the NUCLEUS, which contains the predicate. It is the heart of the clause. The nucleus may be complex and consist of more than one predicate... Surrounding the nucleus is the CORE of the clause, which consists of the nucleus plus usually one or two arguments, depending on the valence of the verb... The outermost layer of the clause is the PERIPHERY, which contains arguments expressing the spatio-temporal setting of the event, as well as secondary participants in the event, e.g. beneficiaries.

(F/VV 3:3)

2 Figure 5.1 is taken from F/VV 5:1.

3 F/VV note that:

The most common operators are the usual categories of verb inflection, tense, aspect, and mood, etc., but.. these inflectional possibilities correspond to operators of different layers. This is reflected in the ordering constraints in different languages for these inflectional categories.

(F/VV 3:3)

4 Patz, however, suggests that Numfoor-Biak 'verb forms are not concordial for person or number' but are rather marked by free pronoun forms (1978:142). I consider this hypothesis to be the result of Patz's data base of written texts, however.

5 Rivero (1972) states, however, that there is 'strong evidence against the assumption that both modalities and operators belong

to a common constituent which is separated from the relation elements (i.e. verbs and nouns) in a given Phrase-Marker' (1972:209).

6 F/VV explain:

When reporting an event the speaker chooses a particular point from which to view the internal temporal phrases of the event. If the event is viewed as complete and of no continuing relevance, then the perfective or non-durative aspect is used. The imperfective indicates the event is not complete and may highlight the internal development of the event. Sub-types of the imperfective are the habitual, imperative or progressive. Finally, the event may be viewed as complete, but its consequent result may be of continuing relevance. This is the perfect aspect. In all cases aspect is concerned with the structure of the narrated event itself. The speech event and its participants are of no importance.

(F/VV 5:24-25)

7 The word kai is also found in Wandamen where it appears to be a stative verb meaning 'finished'. Note the following examples:

i-ne rau-pa kai
ls-POS leaf-the finished

'My vegetables are finished/all gone'

i-ne rau-pa si-kai
ls-POS leaf-the 3pl.inan-finished

'My vegetables (lots) are all finished/gone'

8 Cowan describes ma in Wandamen as 'morphologically and syntactically treated as one whole with the stem' (1955:56).

Chapter 6. THE CLAUSE CORE

6.0 INTRODUCTION

The clause core is the level of the layered clause between the NUCLEUS, which consists of just the predicate as discussed in chapter 5, and the PERIPHERY, which includes Oblique arguments to be discussed in chapter 7. The clause core, then, consists of the clause nucleus (i.e. the predicate) and the nuclear operators (i.e. aspect and directionals) plus the one or two essential arguments of the predication, which are called the core arguments. The model of the clause core is presented in Figure 6.1.

Figure 6.1: The clause core

```

([([Pred]   Asp., Dir.) S, O] Modality)
  [NUCLEUS]
  [CORE           ]

```

The core arguments of the Ambai clause are distinguished from Oblique or peripheral arguments syntactically and semantically. In this chapter we will discuss first the role structure of the

clause (6.2) in terms of traditional transitivity sets. We shall see that an understanding of the semantic nature of Ambai predicates leads to correct predictions of the syntax of the various clause types, i.e. to know the semantics of a clause is to know the syntax. In the final part of this chapter (6.3) we will discuss the core operator, Modality, which expresses such concepts as intensive, desiderative, etc.

6.1 THE ROLE STRUCTURE OF THE CLAUSE CORE

As Foley and Van Valin (F/VV) state 'one of the most fundamental problems in the analysis of clause structure is the characterization of predicates and the semantic relations which obtain between them and their arguments.' (2:1) We have seen in chapter 5 that each Ambai predicate can be decomposed lexically by the four verb classes posited by Dowty (1979) and by F/VV's subclasses. Each predicate has one or two core arguments which are in one of five etic role relationships with the verb: Agent, Effector, Locative, Theme, or Patient. Agent involves the higher predicate WANT signalling [+intention], as in 'John intentionally hit Bill'. Effector is [-intention] signalled by DO, as in 'John bumped into Bill (unintentionally)'. Theme refers to the non-locative argument in perception, cognition, and possession states, e.g. what is perceived, known, believed, possessed. Locative indicates the physical location in locative states and the more metaphorical location of perception, cognition, and possession states, 'Bill' in 'Bill is in the house' or 'Bill saw the island'. Patient is defined by F/VV as being 'the semantic

relation of the single argument of a one-place stative predicate' (F/VV 2:23). Thus, 'window' is Patient in 'The window is broken'. 'Window' is also Patient in the transitive clause 'Bill broke the window'.

F/VV present a two-part opposition between Actor and Undergoer to explain the semantics of the clause core. In this section we will first define Actor and Undergoer and then briefly compare this system to that of case grammar and to that of Pikean tagmemics.

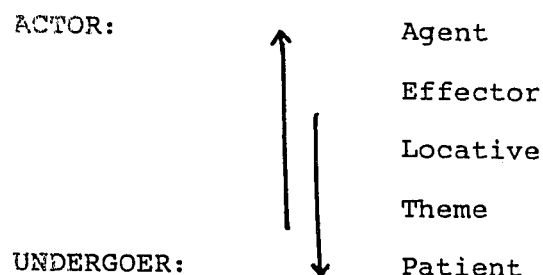
Actor and Undergoer may be defined as 'the two arguments in a transitive predication, either one of which may be the single argument of an intransitive verb' (F/VV 2:1). Actor and Undergoer are thus not the same as the syntactic relations Subject and Object which we will discuss in the section on syntax. Nor are they the same as case grammar's Agent and Patient. F/VV state that both Actor and Undergoer may bear a number of different case roles:

..they do not have a constant semantic content. While all actors have in common that they are potential initiators and/or controllers of the predicate, their exact interpretation in any clause is a function of the nature of the predicate and, to a lesser extent, the inherent lexical content of the NP argument serving as actor. Similar considerations apply to the undergoer. (F/VV 2:6)

Taking the five argument 'roles' which F/VV use to discuss the logical structures of verbs (agent, effector, locative, theme, patient) F/VV propose a hierarchy for accessibility to both Actor and Undergoer which is displayed in Figure 6.2 (cf. F/VV 2:36). We note that the same underlying 'role' might be

either Actor or Undergoer depending on the logical structure of the predication.

Figure 6.2: Hierarchy of access to Actor and Undergoer



The hierarchy in Figure 6.2 states that agent, if present, will always be Actor and that Patient, if present, is always Undergoer. If a clause has both a locative and a theme, the locative will be Actor and the theme will be Undergoer, e.g. cognition states. Thus, 'Bill', the location of the cognition verb 'see', is Actor, while 'island', the theme, is Undergoer: 'Bill saw the island'. A clause with both agent and locative, such as 'Bill gave Tom the book', has a locative for Undergoer (Tom). Thus, locative can be either Actor or Undergoer depending on the clause.

Case grammar (as explained by Fillmore (1968), Cook(1979), Longacre (1976) inter alia) presents a much more complex picture of the 'roles' taken by arguments. Depending on the scholar and the languages he has studied, a case grammarian may posit a given number of cases which are then assigned to verbs. F/VV, on the other hand, posit that the various role relationships are 'derived from the very semantic structure of predicates themselves'(2:1) as we saw in the lexical decomposition and the logical structures of the verbs. Thus, the many possible etic

'roles' can be summarized in an Actor and Undergoer dichotomy. This two-part dichotomy will prove useful in a discussion of the syntactic relations Subject of and Object of in Ambai.¹

6.2 THE SYNTAX OF THE AMBAI CLAUSE CORE

The clause core is defined as a nuclear predicate (chapter 5) and its core arguments. The core arguments are diagnostic of the basic clause types (cf. Cook 1969:67). In tagmemic terms the clause core consists of the obligatory predicate and the nuclear tagmemes, i.e. those tagmemes necessary to the definition of the basic clause type. Longacre discusses how the nuclear (i.e. core) tagmemes can be identified: all obligatory tagmemes are core, core tagmemes are often marked by verbal agreement, and core tagmemes tend to be contiguous to the nuclear predicate (1964:48f). F/VV note that 'core arguments tend to occur morphologically unmarked and peripheral arguments morphologically marked, often adpositionally' (3:5). They also state that the two core arguments 'are very often distinguished by their ordering alone' and that it is possible for them to be cross-referenced in the verb. (ibid)

Clause types may be defined in terms of which core tagmemes occur and the composition of each tagmeme. The essential part of the tagmeme for our purposes here will be the grammatical slot (i.e. Subject, Object) and the semantic role (i.e. Actor, Undergoer).

We consider two grammatical relations to be core in Ambai: Subject and Object. They are considered core arguments because

they occur unmarked by case prepositions immediately before (Subject) and after (Object) the predicate and can be cross-referenced on the verb by Subject affixes or Object suffixes.

SUBJECT in Ambai is the argument which immediately precedes the predicate with no case-marking preposition. Subject is obligatorily marked on verbs by the Subject person and number affixes discussed in 5.1.3. Since Subject is obligatorily marked on the verb, the free form of the Subject is readily omitted in discourse and conversation when the identity of the Subject is assumed to be known to the hearer or when the free form Subject would be a pronoun. We will see that the choice of the syntactic Subject is semantically determined in Ambai.

OBJECT in Ambai is the argument which immediately follows the predicate with no case-marking preposition. Third person singular Object is marked by a suffix /-i/ when no free form of the Object occurs.

All other arguments of the Ambai predicate are considered OBLIQUE or PERIPHERAL arguments and are obligatorily marked by a preposition. Oblique arguments follow the Object when an Object occurs and may be separated from the Object by aspectual operators. Oblique arguments are not a part of the clause core, but will be mentioned occasionally in this chapter as we consider the basic clause types in Ambai since certain clause types, such as bitransitive, take three arguments.

The basic clause structure of Ambai is S V O (OBL) as demonstrated in (1a-c) below.

(1a)

S	V	O	OBL
Doli	d-okon	noi fo-i	we Yani
	3s-give	knife FO-sg	to

'Doli gave the knife to Yan'

(1b)

Yani	feran	afui	na umbe
	/di-feran/		
	3s-cut	grass	with bushknife

'Yan cut grass with a bushknife'

(1c)

Fane	fiafi	ansun	na waya fo-i
	/di-fafi/		
	3s-wash	cloth	at river FO-sg

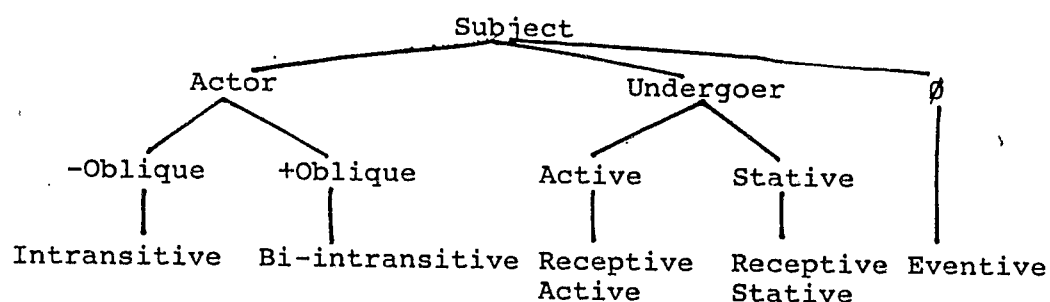
'Fane washed clothes at the river'

The basic clause types in Ambai can now be defined in terms of the two core roles (Actor and Undergoer) and the two core grammatical relations (Subject and Object). The Ambai Subject may be either Actor or Undergoer. If Actor is Subject there may or may not be an Undergoer as Object. A single argument clause has either Actor or Undergoer as Subject (6.2.1). A clause which has Subject as Actor and Object as Undergoer is termed transitive (6.2.2). A third major clause type is the equative clause which is considered to have Undergoer as both Subject and Object (6.2.3). Further subdivisions will be made as we consider the syntactic and semantic nature of particular clauses.

6.2.1 One argument clauses

Some clauses in Ambai have only one core argument (the Subject) governed by the nuclear predicate. The one argument clauses can be divided into two main subclasses on the basis of the role of the Subject: Subject as Actor and Subject as Undergoer as seen in Figure 6.3.

Figure 6.3: One argument clause types



A one argument clause with S as Actor will be called 'intransitive', following common usage. Intransitive verbs in Ambai include ampi 'to eat (intrans.)' and sea 'to cough'. One argument clauses with S as Undergoer are called 'receptive', following Pike and Pike (1977). One argument clauses with the S unexpressed are called 'eventive, also following Pike and Pike (1977:146). Eventive clauses refer to a very small set of meteorological or ambient occurrences. Receptive clauses may be either stative or active. Intransitive clauses can be further divided into those intransitives which usually occur with an Oblique argument ('bi-intransitive' according to Pike and Pike) and those which do not ('intransitive').

6.2.1.1 Intransitive clauses

Intransitive clauses in Ambai have a Subject which functions as Actor and may be summarized as 'X acts' (Pike and Pike 1977:146). In terms of F/VV's verb classes the Ambai intransitive clause includes only non-motional activities which have the logical structure: WANT (x) or DO (y). Examples of Ambai intransitive clauses are given in (2)-(4).

- (2)
- | | | | |
|---------|-------|------------|--------------------|
| S:Actor | | P | |
| arikan | fo-i | mikai | 'The child danced' |
| | | /di-makai/ | |
| child | FO-sg | 3s-dance | |
- (3)
- | | | | |
|-----------|-------|----------|--------------------|
| S:Actor | | P | |
| inonkutun | fo-i | sai | 'The old man wept' |
| | | /di-sai/ | |
| old man | FO-sg | 3s-weep | |
- (4)
- | | | | |
|---------|--|--------|-----------|
| S:Actor | | P | |
| Yani | | d-ampi | 'Yan ate' |
| | | 3s-eat | |

Intransitive concepts can also be expressed by verbs made up of we plus an NP indicating, as Cowan says of Wandamen be, 'occupying oneself with or indulging in the thing indicated by the stem' (1955:56). The stative verb we receives Subject affixes, but second and third person singular forms are manifested as [we] due to morphophonemic processes.

- (5a)
- | | |
|------|-------------------|
| Yani | we - sikora |
| | /di-we/ |
| | 3s-STATIVE-school |
- 'Yan goes to school'

- (5b)
- | | |
|-------------------|--|
| i-we-sikora | |
| ls-STATIVE-school | |
| 'I go to school' | |

Intransitive clauses may also omit the free form of the Subject when it is understood (6).

- (6)
- | | |
|--------------|-----------------|
| P | |
| i-sea | 'I coughed' |
| ls-cough | |
| ta-makai | 'we all danced' |
| lin.pl-dance | |

6.2.1.2 Bi-intransitive clauses

Bi-intransitive clauses have a Subject as Actor, a predicate as Nucleus, and an Oblique argument expressing direction or location. They may be either active or stative.

Bi-intransitive active clauses have a Subject functioning as Actor, a motional activity verb which is under the unmediated control of the Actor (WANT), and an Oblique argument which expresses the source or goal of the activity which completes the meaning of the clause (i.e. it serves as 'inner' locative). Pike and Pike state that these clauses express 'X acts in reference to Z' (1977: 146). Examples of this clause type are given in (7)-(9).

(7)

S:Actor	P	OBLIQUE	
Yani	da	to	Urui
	/di-ra/		
	3s-walk	to	Serui

'Yan went to Serui'

(8)

S:Actor	P	OBLIQUE	
Edui	saku	we	Samui
	/di-saku/		
	3s-call	to	

'Edu called to Samu'

(9)

S:Actor	P	OBLIQUE	
Yani	deti	we	yau
	/di-wati/		
	3s-look	to	ls

'Yan looked towards me'

Bi-intransitive stative clauses have a Subject as Actor, a location state verb as Nucleus, and an Oblique argument expressing the location. Pike and Pike summarize these clauses as expressing 'X is in a state in reference to Z' (1977:146.). Examples are given in (10) and (11).

(10)

S:Actor	P	OBLIQUE		
Yani	minoki	na munu	roron	fo
	/di-minoki/			
	3s-sit	in house	inside	FO

'Yan sat inside the house'

(11)

S:Actor	P	OBLIQUE	
Piteri	wiatat	na fata	fo-i
	/di-watai/		
	3s-lie	on bed	FO-sg

'Peter lay on the bed'

The Oblique argument in these clauses is seen as the goal or location of the activity or state. We will see that the grammatical relation we call Object includes a notion of affectedness which is missing in Oblique. (cf. Hopper and Thompson 1981). We will leave this discussion until later when we will see that certain activity verbs can also be seen as accomplishment verbs when the goal of the predicate is actually obtained and is expressed as the Object of the verb rather than the Oblique argument.

6.2.1.3 Receptive clauses

Receptive clauses in Ambai have a Subject as Undergoer. Receptives may be divided into receptive actives which express Pike and Pike's 'Action on X' category and receptive statives which are characterized as 'a state affects X' in Pike's terms (1977:146).

Receptive active clauses express such concepts as 'die', 'sink', 'fall', and 'boil' in which the S of the clause functions as the Undergoer. These concepts include physical achievements ('die'), certain non-volitional activities ('fall'), as well as physical states contained in certain accomplishment verbs ('boil'). Examples of receptive active clauses are given in (12) - (14).

- (12)
- | | |
|--------------|-----------------------|
| S:Undergoer | P |
| arikan fo-i | mireka |
| child FO-sg. | /di-mareka/
3s-die |
- 'The child died'

- (13)
- | | |
|-------------|----------------------|
| S:Undergoer | P |
| Yani | sawa |
| | /di-sawa/
3s-fall |
- 'Yan fell'

- (14)
- | | |
|-----------------|----------------------|
| S:Undergoer | P |
| mereka fo-Ø | wiwu |
| water FO-unspec | /di-wiwu/
3s-boil |
- 'The water boiled'

Receptive statives express physical states (15) - (17) or
Status states (18) and (19).

- (15)
- | | |
|-------------|---------------------------|
| S:Undergoer | P |
| Yani | meninkapoi |
| | /di-maninkapoi/
3s-hot |

'Yan is hot'

- (16)
- | | |
|-------------|------------------------|
| S:Undergoer | P |
| Doli | meninan |
| | /di-maninan/
3s-ill |

'Doli is ill'

- (17)
- | | |
|-------------|--------------|
| S:Undergoer | P |
| munu ne-i | fiabai |
| house NE-sg | large (adj.) |

'The house is large'

Status states have stative verbs formed from we plus an NP indicating a state. Cowan describes Wandamen be as a prefix 'added to stems, both verbal and other, to form words meaning "being in or changing into the state or situation indicated by the stem"' (1955:56).

(18)

Yani we - mandirau ampa
 STATIVE-married man PERFECT

'Yan is already a married man'

(19)

Ina-n we - kabomi ampa
mother-3s STATIVE-widow PERFECT

'His mother is already a widow'

Ambient states such as 'It's hot out' are also considered to be receptive statives, although the S (i.e. the atmosphere) is not expressed (20) and (21).

(20)

 P
 meninkapoi
 /di-maninkapoi/
 3s-hot 'It's hot out'

(21)

 P
 denunana
 /di-anunana/
 3-.cold 'It's cold out'

Pike calls these ambient states 'circumstantials' (1977:146).

6.2.1.4 Eventive clauses

The last one-argument clause type is the eventive clause which expresses such ambient activities as 'It is raining'. In Ambai eventive clauses do not express the S, which would presumably be something like 'Nature' or 'the sky'. The eventive clause type is very limited. Examples are given in (22).

- (22)
- | | | | |
|---|----|------------------|-----------------------|
| ∅ | we | metan
rain | 'It is raining' |
| ∅ | we | embai
moon | 'There is a moon out' |
| ∅ | we | dobarai
storm | 'It is stormy' |

These eventive clauses are listed as being one-argument clauses despite the lack of a surface S since the NP which does appear can be seen as the Undergoer of an existence state, i.e. 'rain exists at this moment'.

Figure 6.4 summarizes the various one-argument clauses presented above in terms of Subject role and logical structure. We see that each syntactic clause type relates to certain specified semantic or logical structures. If one knows the semantics of the clause he can predict the syntactic clause type, e.g. stative (x) is mapped as a stative receptive clause.

Figure 6.4: One-argument clause types in Ambai

Clause type	S role	Pike's summary	Logical structure
Intransitive	A	X acts	WANT (x) [-motion] DO (x) [-motion]
Bi-intransitive	A	X acts in reference to Y	WANT (x) [+motion]
Receptive active	U	Action on X	BECOME stative (x) -DO (x)
Receptive stative	U	a state affects X	stative (x)
Eventive		action	exist (x)

6.2.2 Two-argument transitive clauses

Two-argument clauses in Ambai have a Subject functioning as either Actor or Undergoer and an Object which functions as Undergoer. The clauses which are considered to have two Undergoers will be discussed in 6.2.3 as Equative clauses. In this section we will discuss those two-argument clauses which fit the traditional definition of transitive clauses: S as Actor and O as Undergoer. In the following sections we will divide the larger class transitive into transitives and bi-transitives. Transitives will be further divided into stative and active transitives on semantic grounds. Again we will see that the syntax of the two-argument clauses are closely related to the logical or semantic structure of the predications.

6.2.2.1 Stative transitives

Stative transitive clauses in Ambai have a Subject as Actor, a stative transitive verb as Nucleus, and an Object as Undergoer. Pike and Pike summarize these clauses as 'X is in a state relation to Y'. In terms of Foley and Van Valin's (F/VV) logical structures, stative transitives express cognition and perception states in which the first NP is locative and the second NP is theme. Examples of these stative transitive clauses are given in (23) - (27).

- | | | | |
|------|---------|-------------|-------------|
| (23) | S:Actor | P | O:Undergoer |
| | Yani | yoasoa | Sempaishi |
| | | /di-roasoa/ | |
| | | 3s-believe | God |

'Yan believes God'

- | | | | |
|------|---------|-------------|-------------|
| (24) | S:Actor | P | O:Undergoer |
| | Edui | merira | wau |
| | | /di-marira/ | |
| | | 3s-dislike | 2s |

'Edu dislikes you'

- | | | | |
|------|---------|------------|-------------|
| (25) | S:Actor | P | O:Undergoer |
| | Doli | mitai | wankori |
| | | /di-matai/ | |
| | | 3s-fear | crocodile |

'Doli fears crocodiles'

- | | | | |
|------|---------|-----------|-------------|
| (26) | S:Actor | P | O:Undergoer |
| | Fane | deti | wau |
| | | /di-wati/ | |
| | | 3s-see | 2s |

'Fane sees you'

- | | | | |
|------|---------|-------------------|-------------|
| (27) | S:Actor | P | O:Undergoer |
| | Salmoni | tara-Ø-o | Samui |
| | | ear-3s-Verbalizer | |

'Salmon hears Samu'

In the above examples we note that what we may call emotion states (e.g. matai 'fear' in (25)) function similarly to the cognition and perception states posited by F/VV. In all of the above examples the locative argument (i.e. the experiencer of the emotion or perception) receives the Actor role while the theme of the perception or emotion becomes Undergoer as predicted by F/VV's hierarchy of accessibility to Actor and Undergoer (Figure 6.2).

6.2.2.2 Active transitives

Active transitive clauses in Ambai have a Subject as Actor, an active transitive verb as Nucleus and an Object as Undergoer. In Pike and Pike's terms 'X acts on Y' (1977:146). In terms of the F/VV verb classes Ambai active transitives include various accomplishments which are seen as directly affecting the second NP (i.e. the Object). Examples of these clauses are given in (28) and (29).

- | | | | |
|------|--------------------------|-----------|--------------------|
| (28) | S:Actor | P | O:Undergoer |
| | Yani | miun | dian fo-sa |
| | | /di-mun/ | |
| | | 3s-kill | fish FO-pl |
| | 'Yan killed the fish' | | |
| (29) | S:Actor | P | O:Undergoer |
| | Yani | biau | aimasa fo-Ø |
| | | /di-baur/ | |
| | | 3s-split | firewood FO-unspec |
| | 'Yan split the firewood' | | |

We note that in the archetypical active transitive clause above the Object is definite and that the S is acting volitionally.

These questions of definiteness and volitionality bring us to the question of degrees of transitivity raised by Hopper and Thompson in their seminal article of 1980 'Transitivity in grammar and discourse'. In the remainder of this section we will discuss the Hopper and Thompson article and see how it applies to Ambai clauses.

Hopper and Thompson, in the abstract to their article, state:

Transitivity involves a number of components, only one of which is the presence of an object of the verb. These components are all concerned with the effectiveness with which an action takes place, e.g. the punctuality and the telicity of the verb, the conscious activity of the agent, and the referentiality and degree of affectedness of the object. (1980:251)

In a traditional understanding of transitivity, Hopper and Thompson state, 'an activity is "carried over" or "transferred" from an agent to a patient' (1980:251). In contrast to this simple picture, Hopper and Thompson propose a ten-point scale by which clauses can be ranked as being more or less transitive. The ten points are: number of participants (1,2, or more); kinesic (i.e. the degree of activity involved); aspect (telic/atelic), i.e. whether the action aims at an 'endpoint'; punctuality, e.g. 'kick' versus 'glide' as more and less 'punctual'; volitionality; affirmation; mode (realis/irrealis); Agency (high/low), e.g. intentional versus unintentional actions; affectedness of the Object, e.g. 'ball' in 'I hit the ball' versus 'I saw the ball'; and individuation of the Object, e.g. 'I ate the apple' versus 'I ate apples'. Of these ten points we will use only three to explain some of the variations in the Ambai

transitive clauses: aspect, affectedness of the Object, and individuation of the Object.

The archetypal transitive clause in Ambai always contains two expressed arguments (i.e. S:Actor and O:Undergoer) where the Subject is acting volitionally in some sense and the Object is definite (i.e. individuated). Certain transitive verbs, however, vary from this archetypal pattern. The three variations observed are those clauses which either allow the Object to be dropped or to be expressed as an Oblique argument or to be indefinite.

Although transitive clauses in Ambai are defined as those clauses having both Subject and Object, a few transitive verbs can appear without an Object. These verbs are atelic in lexical aspect (Aktionsart) and the Object of such verbs are unaffected. Examples include (30) and (31). Here we see two verbs which although transitive can occur without an expressed Object.

(30)	S:Actor	P	O:Undergoer
	Yani	yoki	rarun kowei
		/di-roki/	
		3s-sing	song one

'Yan sang a song'

Yani	yoki	Ø
------	------	---

'Yan sang'

(31)	S:Actor	P	O:Undergoer
	Yani	saku	yau
		/di-saku/	
		3s-call	ls

'Yan called me'

Yani	saku	Ø
------	------	---

'Yan called out'

A limited set of Ambai verbs which may occur with an Object may also occur with the same argument expressed as an Oblique argument, i.e. preceded by a preposition. Again, these verbs are characterized as having unaffected Objects and are, for the most part, atelic verbs. In terms of F/VV's verb types, these verbs are perception or emotion statives, or motional activities. Examples include (32) - (34).

- | | | | |
|-------|--|--------------------------------------|------------------------------|
| (32a) | S:Actor
Yani | P
deti
/di-wati/
3s-see | O:Undergoer
yau

1s |
| | 'Yan saw me' | | |
| (32b) | S:Actor
Yani | P
deti | OBL
we yau |
| | 'Yan looked towards me' | | |
| (33a) | S:Actor
Yani | P
kesou
/di-kasou/
3s-angry | O:Undergoer
yau

1s |
| | 'Yan acted angrily towards me' (e.g. scolded me) | | |
| (33b) | S:Actor
Yani | P
kesou | OBL
we yau |
| | 'Yan is angry with/at me' | | |
| (34a) | S:Actor
Yani | P
saku
/di-saku/
3s-call | O:Undergoer
wau

2s |
| | 'Yan called you' | | |
| (34b) | S:Actor
Yani | P
saku | OBL
we wau |
| | 'Yan called to you' | | |

In the above examples the second argument can be seen as somehow

more affected when it is the Object than when it is an Oblique argument of the clause. In the last example (34) we understand that the act of calling was successful when the second argument is expressed as the Object (34a), whereas the Oblique argument is simply the direction toward which the action was directed (34b). While the differences between the above clauses are not easily expressed in English, Ambai speakers consider the clauses to be distinct.

The third variant of transitive clauses is that class of verbs which allows an indefinite (i.e. unindividuated) Object. These verbs can be considered 'less transitive' with an indefinite Object and 'more transitive' with a definite Object. Examples are given in (35) and (36).

- | | | | |
|-------|-----------------------|----------------------------------|---|
| (35a) | S:Actor
Yani | P
miun
/di-mun/
3s-kill | O:Undergoer
dian fo-sa
fish FO-pl |
| | 'Yan killed the fish' | | |
| (35b) | Yani | miun | dian |
| | 'Yan kills fish' | | |
| (36a) | S:Actor
Yani | P
d-an
3s-eat | O:Undergoer
rando boru
banana two |
| | 'Yan ate two bananas' | | |
| (36b) | Yani | d-an | rando |
| | 'Yan eats bananas' | | |

The second clause of each example above expresses only a general truth rather than a definite statement of activity in regard to a

particular Object and are seen as less transitive on the Hopper and Thompson scale.²

6.2.2.3 Bi-transitive clauses

Within the set of transitive clauses (i.e. those clauses with S:Actor and O:Undergoer) there is a small set of bi-transitive clauses which also include an Oblique argument as part of their basic definition. In Pike and Pike's terms bi-transitive clauses are 'X acts on Y in reference to Z' (1977:146). In terms of F/VV's classes Ambai bi-transitives are all accomplishments. Examples of Ambai bi-transitive verbs include okon 'to give', ainau 'to teach', madu 'to speak'. Each of these three bi-transitive verbs behaves slightly differently syntactically and will be discussed separately below.

The bi-transitive verb okon 'to give' may only occur with the item transferred as the Object and the recipient of the giving as Oblique. The Oblique argument is preceded by we and is optionally deleted.

(37a) S:Actor P O:Undergoer OBL
 Yani d-okon noi fo-i we Doli
 3s-give knife FO-sg to

'Yan gave the knife to Doli'

(37b) *Yani d-okon Doli noi fo-i

(37c) Yani d-okon noi foi Ø

'Yan gave the knife'

The bi-transitive verb ainau 'to teach' can have either the content of the teaching or the recipient of the teaching as the Object or as the Oblique argument. The Oblique argument in either case can be omitted.

(38a) S:Actor P O:Undergoer OBL
 Yani deinau kaiwo Ambai (we yau)
 /di-ainau/
 3s-teach language to ls

'Yan teaches the Ambai language (to me)'

(38b) S:Actor P O:U OBL
 Yani deinau yau (na kaiwo Ambai)

'Yan teaches me (the Ambai language)'

The bi-transitive verb madu 'to speak' can only have the content of the speaking as the Object. The content of the speaking can also be expressed as the second of two Oblique arguments. The addressee can only be expressed as an Oblique argument of the clause.

- (39a) S:Actor P O:Undergoer OBL
 Yani medu kaiwo Ambai (we yau)
 /di-madu/
 3s-speak language Ambai to 1s

'Yan speaks the Ambai language (to me)'

- (39b) *ani medu yau na kaiwo Ambai

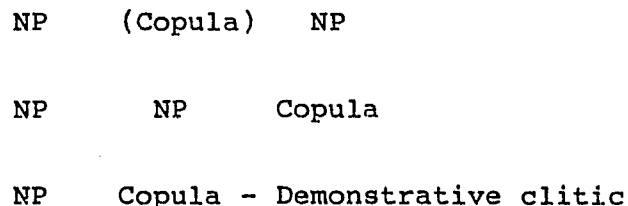
- (39c) S:Actor P OBL OBL
 Yani medu we yau (na kaiwo Ambai)

'Yan speaks to me (in the Ambai language)'

6.2.3 Other clause types

A third major clause type exists in Ambai which is neither a one-argument intransitive nor a two-argument transitive clause. This third clause type will be termed EQUATIVE. Equatives in Ambai express the equivalence of two arguments, neither of which can be considered more Actor-like or more Undergoer-like than the other. The general shape of equative clauses in Ambai is presented in Figure 6.5.

Figure 6.5: Equative clauses in Ambai



The two NPs in Figure 6.5 each express F/VV's Theme relationship.

There are three major sub-types of Equative clauses in Ambai: those with two arguments and a copula; those with one NP argument, a copula, plus a deictic which functions as the second argument; and those equatives with two NP arguments but no copula. These three sub-types are illustrated in (40a-c).

(40a)

ne-Ø	guru	dino	Yani
POS-3s	teacher	BE	

'His teacher is Yan'

(40b)

ne-ku	munu	di	nin-i
POS-1s	house	BE	NIN-sg

'This is my house'

(40c)

ne-ku	doi	Ø	piarin
POS-1s	money		one hundred

'I have one hundred (rupiahs)'
[Lit. My money one hundred]

The most productive on the three sub-types of equatives is that with two arguments plus the copula di as seen in (40a). The equation of two NPs is expressed either by two NPs separated by di-no (41a) or by two NPs followed by di-ne (41b).

(41a)

ne-Ø	man	dino	Tomi
POS-3s	man	BE	

'Her husband is Tom'

(41b)

muna	nin-i	ne-ku	munu	dine
house	NIN-sg	POS-1s	house	BE

'This house is my house'

Pronouns may occur either following the copula (42a) or as Topic before the clause (42b).

(42a)

tama-mu	di(no)	yau
father-2s	BE	ls

'I am your father'

(42b)

yau	mani	tama-mu	di	yau
ls	TOPIC	father-2s	BE	ls

'As for me, I am your father'

The two-argument equative clause with dino can also have a clause as the second argument as seen in (43) and (44).

(43)

Isaki	dino	bia	a-weu
		/di-bia/	
	BE	3s-descend	EXT-down

'Isak is the one who went down'

(44)

Sempaishi	dino	niari	tata
		/di-nari/	
God	BE	3s-make	lin.pl

'God is the one who made us all'

The second equative clause sub-type involves one NP before the copula and a demonstrative clitic suffixed to the copula as the second argument. Examples are given in (45) - (47).

(45)

ne-ku	arikan	di	nin-i
POS-1s	child	BE	NIN-sg

'This is my child'

(46)

ne-mu	wa	di	wan-i	e
POS-2s	canoe	BE	WAN-sg	Q

'Is that your canoe?'

(47)

Yani	ne-Ø	fiawera	di	nin-i
	POS-3s	dog	BE	NIN-sg

'This is Yan's dog'

The third equative clause sub-type involves two NPs juxtaposed with no copula. These equatives without the copula express what Longacre calls 'measure states' (1976:69-71). Examples are presented in (48) and (49).

(48)

ne-Ø	doi	(*dino)	pia-ura-we-rin
POS-3s	money		twenty-ten-times-five

'He has one thousand (rupiahs)'
[Lit. His money one thousand]

(49)

ne-ku	fuina	(*dino)	pia-ru
POS-1s	year		twenty-two

'I am forty years (old)'
[Lit. My years forty]

6.3 MODALITY

Foley and Van Valin propose that there is an operator over the clause core which expresses 'the relationship between the actor and his accomplishment of the action' (F/VV 5:31). This operator is termed 'modality' and includes the concepts of the

obligation, the intention, and the ability of the actor of the event to perform it.

Modality words in Ambai occur as auxiliary verbs between the Subject and the main verb. Two modality auxiliaries have been noted: a indicating desire or intent and aitawan indicating ability. The modality markers are illustrated in (50) - (53).

(50)
 Yani de d-ampi
 /di-a/
 3s-want 3s-eat

'Yan wants to eat'

(51)
 bo b-ampi e
 /bu-a/
 2s-want 2s-eat Q
 'Do you want to eat?'

(52)
 Tomi deitawan miun dian
 /di-aitawan/ /di-mun/
 3s-ABLE 3s-kill fish
 'Tom is able (knows how) to catch (kill) fish'

(53)
 inontarai Ambai et-aitawan e-nari wa
 person 3pl-ABLE 3pl-make canoe
 'Ambai people are able (know how) to make canoes'

NOTES

1 Pike's tagmemic theory includes three 'primitives' in semantic 'roles': Actor, Undergoer, and Scope, which interact with the grammatical 'slot' to form such tagmemes as 'Subject as Actor' or 'Subject as Undergoer'. Pike and Pike's 1977 terminology reflects Hale (1973) and continues the system employed in tagmemic research in the Philippines by the Summer Institute of

Linguistics in the early 1960's according to Longacre (1976:24). The two core arguments Actor and Undergoer in Pike's system are defined as follows by Pike and Pike (1977:481,491):

Actor: the term (participant) which performs the action of the verb; or is in an analogous relation to the verb, with etic semantic variants.

Undergoer: the term (participant) which receives the action of the verb; or is in an analogous relation to the verb, with etic semantic variants.

Pike's third role Scope is defined in Pike and Pike (1977:489) as follows;

Scope: the term (participant) which denotes the direction or goal toward or away from which the action of the verb is directed; with etic variants.

F/VV's logical structures of the predicates make Scope unnecessary as the goal or source of an action can be handled as either Actor or Undergoer unless it is marked by a preposition, in which case it is considered to be an Oblique or Peripheral argument.

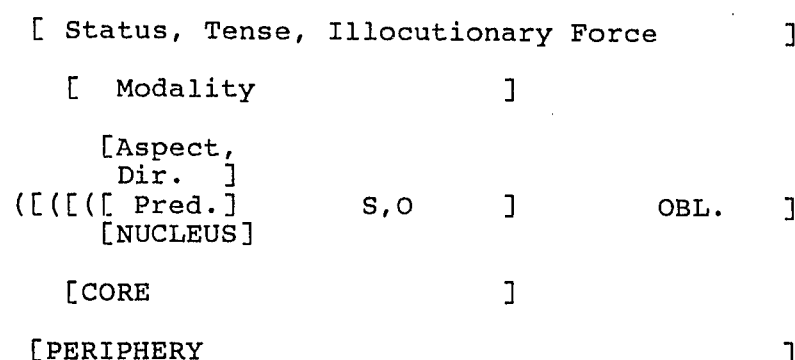
2 The variations in Ambai transitivity have been discussed only in relation to the syntax of the clause and have not yet been researched in relation to discourse and thus have 'only a provisional validity' according to Hopper and Thompson (1980:295) since we have not taken into account the 'discourse motivation' for the variations. Such discussion is not within the scope of the present work.

Chapter 7. THE CLAUSE PERIPHERY

7.0 INTRODUCTION

In the last two chapters we have discussed the clause nucleus (5) and the clause core (6). Continuing with the layered clause model we now arrive at the clause periphery. The layered clause model posits that the nucleus and the core as well as all Oblique arguments are included in the clause periphery. A diagram of the layered clause is presented in Figure 7.1.

Figure 7.1: The layered clause



In this chapter we will discuss only those elements of the periphery which are not also a part of the nucleus or of the core; i.e. peripheral arguments and peripheral operators.

Peripheral arguments in Ambai are defined as all arguments preceded by a preposition. In 7.1 we will discuss each preposition in terms of the semantic roles it indicates. We will also note an accessibility hierarchy in Ambai which controls which peripheral arguments can be raised to the clause core.

Peripheral operators in Ambai include Status (7.2.1), Tense (7.2.2), and Illocutionary Force (IF) (7.2.3). The three operators are all syntactically outside the peripheral arguments. Status describes the actuality of a situation predicated along a continuum from realis to irrealis. Tense positions the predicated situation temporally in reference to the speech event. IF, the outermost operator, expresses the modal concepts of assertion, interrogation, and command. We will see that the peripheral operators in Ambai are ordered syntactically. We will also note that certain restrictions obtain between the peripheral operators and the logical verb classes presented in chapter 5.

7.1 PERIPHERAL ARGUMENTS

Peripheral arguments of the Ambai clause are defined as those arguments preceded by a preposition. The prepositions indicate various semantic roles which will be discussed in the following sections. All peripheral arguments occur outside the clause core; i.e. either before the Subject or following the Object. The peripheral arguments are discussed in terms of the prepositions rather than in terms of semantic roles since several prepositions signal multiple roles and since syntactic processes such as advancement to Object are not conditioned exclusively by

semantic roles. The prepositions discussed are : to (7.1.1), we (7.1.2), na (7.1.3), riat (7.1.4), and pi (7.1.5).

7.1.1 Inanimate locational GOAL: to

The preposition to indicates the inanimate locational GOAL of the predicate. The preposition may be followed by NPs or location proper nouns as illustrated in (1) and (2) below.

- (1)
- | | | |
|---------|----|--------------|
| i-ra | to | romi-fo-i |
| 1s-walk | to | garden-FO-sg |
- 'I am going to the garden'

- (2)
- | | | |
|---------|----|-------|
| i-ra | to | Urui |
| 1s-walk | to | Serui |
- 'I am going to Serui'

The preposition may also be followed by determiners without an accompanying NP as seen in (3).

- (3)
- | | | | |
|---------|----|------------|-----|
| ro | to | nin-ai | ma |
| 2s.walk | to | NIN-unspec | INT |
- 'Come here'

The presence or absence of the preposition to with an NP distinguishes volitional motional activities (with to) from volitional motional accomplishments (without to). That is to say an NP marked by to is seen as less affected than an NP unmarked by to, i.e. already accomplished. Note the following pair of examples (4a-b).

- (4a) i-wo to Urui Activity
 ls-paddle to Serui
 'I paddle/am paddling to Serui'
- (4b) i-wo Urui Accomplishment
 'I paddled/(*am paddling) to Serui'

That the two examples in (4a-b) above are distinct can be seen by the syntactic test involving the completive aspectuals kai and kiai.

- (5a) ta-wo to Urui kai/*kiai Activity
 lin.pl-paddle to Serui COMPLETIVE
 'We all were paddling to Serui'
- (5b) ta-wo Urui kaii/*kai Accomplishment
 'We all paddled to (and arrived at) Serui'

The second example above also illustrates the locational GOAL appearing in Object position (with no preposition), i.e. that Object is seen as more affected than the peripheral GOAL.

7.1.2 Animate GOAL/non-locational GOAL: we

The preposition we indicates the animate GOAL or BENEFICIARY or the inanimate non-locational GOAL of the predicate. It may precede animate NPs, proper nouns or personal pronouns. All three meanings of we may be subsumed under the more abstract understanding of GOAL.¹ Examples of the various uses of we are given in (6) - (8).

- (6a) animate GOAL
 y-okon fian we Yani
 ls-give food Yan
 'I gave food to Yan'
- (6b)
 i-saku we wau
 ls-call 2s
 'I called to you'
- (6c)
 deti we inontarai woriai fo-sa
 /di-wati/
 3s-look person outside FO-pl
 'He looked at the outsiders'
- (6d)
 mito we Tomi
 /di-mito/
 3s-run Tom
 'He ran to Tom'
- (7) BENEFICIARY
 i-wori dian we wau
 ls-buy fish 2s
 'I bought fish for you'
- (8) inanimate GOAL
 i-maya we rando
 ls-like banana
 'I like bananas'

As with the preposition to marking inanimate locational GOAL, we may be deleted following some predicates and the NP formerly preceded by we advances to Object of the verb with the accompanying more-affected meaning characteristic of Objects. Not all NPs which can be marked by we can become Objects; the individual predicate determines the advancement. Thus we note the following bi-transitive clauses involving the verbs 'teach', 'give' and 'speak' (9) - (11).

- (9)
- | | | | | |
|------------|----------|-------|----|-----|
| deinau | kaiwo | Ambai | we | yau |
| /di-ainau/ | | | | |
| 3s-teach | language | | | ls |
- 'He taught Ambai to me'
- (10)
- | | | | | |
|-----------|----------|-------|----|-----|
| medu | kaiwo | Ambai | we | yau |
| /di-madu/ | | | | |
| 3s-speak | language | | | ls |
- 'He spoke Ambai to me'
- (11)
- | | | | | |
|---------|-------|-------|----|-----|
| d-okon | noi | fo-i | we | yau |
| 3s-give | knife | FO-sg | | ls |
- 'He gave the knife to me'

Of the three bi-transitive verbs in (9) - (11), only 'teach' permits the GOAL to advance to Object position (12).

- (12)
- | | | | |
|------------|-----|----------|-------|
| deinau | yau | na kaiwo | Ambai |
| /di-ainau/ | | | |
- 'He taught me in Ambai'
-
- | | | | |
|-------|-----|----------|-------|
| *medu | yau | na kaiwo | Ambai |
|-------|-----|----------|-------|
-
- | | | | |
|--------|-----|-----|-----|
| *dokon | yau | noi | foi |
|--------|-----|-----|-----|

Some intransitive clauses with a we NP may become transitive by the deletion of the preposition. The verbs which allow this deletion include perception states ('to see'), emotion states ('to like'), and various activity verbs which are directed towards a GOAL (e.g. 'to call', 'to praise').

- (13)
- | | | | |
|-----------|----|------|--------------------|
| deti | we | Yani | 'He looked at Yan' |
| /di-wati/ | | | |
| 3s-see | | | |
| deti | Ø | Yani | 'He saw Yan' |
- (14)
- | | | | |
|------------|----|------|----------------|
| miaya | we | Yani | 'He likes Yan' |
| /di-mayar/ | | | |
| 3s-like | | | |
| miaya | Ø | Yani | 'He likes Yan' |
- (15)
- | | | | |
|---------|----|-----|-------------------|
| i-saku | we | wau | 'I called to you' |
| ls-call | | 2s | |
| i-saku | Ø | wau | 'I called you' |
- (16)
- | | | | |
|-----------|----|-----|----------------|
| i-somi | we | wau | 'I praise you' |
| ls-praise | | 2s | |
| i-somi | Ø | wau | 'I praise you' |

We note that the intransitive clauses with prepositions are activities or states, but the transitive clauses without the prepositions can be seen as achievements or accomplishments.

The non-directional inanimate Goal of verbs of desire such as maya 'to like' must always be preceded by we.

- (17)
- | | | | |
|---------|----|--------|------------------|
| i-maya | we | rando | 'I like bananas' |
| ls-like | | banana | |
| *i-maya | Ø | rando | |

Beneficiaries must always be preceded by we ; they cannot become Object.

(13)

i-wori dian we wau

'I bought fish for you'

*i-wori dian Ø wau
*i-wori wau dian

7.1.3 LOCATION, SOURCE, INSTRUMENT: na

The preposition na indicates that the following NP expresses either the Instrument employed in a transitive clause, the spatial or temporal Location or Source of the predicate, or the Manner in which a predicate occurs. No NP marked by na is eligible to become Object through advancement. The specific meaning of the na NP is clarified by the nature of the predicate and/or the NP. Examples of the various uses of na are given in (19) - (22).

(19)

				<u>INSTRUMENT</u>
i-mun	fiai	fo-i	na	wombua
ls-kill	pig	FO-sg		spear

'I killed the pig with a spear'

(20)

		<u>LOCATION</u>	
i-minoki		na	munu ne-i
ls-sit			house NE-sg

'I am sitting in the house'

(21)

		<u>SOURCE</u>	
i-ra	na	munu	fo-i mandei
			/man-rei/
ls-walk	house	FO-sg	INT-land

'I walked from the house landwards'

- (22)
- | | | | | | |
|----------|----|-----------------|------|---------|--|
| e-nari | | <u>LOCATION</u> | | | |
| 3pl-make | na | rakida | neun | ne-Ø | |
| | | day | each | NE-unsp | |
- 'They worked every day'

Verbs of motion may take both Source and Goal peripheral arguments marked by na and to respectively. Source always precedes Goal (23).

- (23)
- | | | | | |
|------|---------|---------------|-------------|----|
| Yani | da | <u>SOURCE</u> | <u>GOAL</u> | |
| | | na | Urui | to |
| | 3s.walk | from | | to |
- Turu
- 'Yan walked from Serui to Turu'
- *Yani da to Turu na Urui

Even when the Goal is expressed by a directional clitic, rather than by a prepositional phrase, Source precedes Goal (24).

- (24)
- | | | | | |
|------|-----------|----|------|-------------|
| Yani | wio | na | Urui | <u>GOAL</u> |
| | 3s.paddle | | | ma |
| | | | | INT |
- 'Yan paddled here from Serui'
- *Yani wio - ma na Urui

Time words and time phrases are not always preceded by na. Time phrases are often found preceding the Subject, but also occur following the Object.

- (25) TIME
 Rakida nin-i tu-wo Manawi
 day NIN-sg lin.dl.-paddle Manawi
 'Today we paddled to Manawi'
- TIME
 Tu-wo Manawi rakida nin-i
 'We paddled to Manawi today'

7.1.4 COMITATIVE: riat²

The preposition riat indicates that the following NP accompanies the Subject of the predicate; i.e. that the NP could be a co-Subject as well as an Oblique NP.³ The riat NP occurs before Locative (na) or Goal (to) arguments.

- (26) d-ontai ria Yani na Urui ma
 3s-ride Yan Serui INT
 'He rode with Yan from Serui to here'
- (27) d-ontai ria Yani to Urui
 'He rode with Yan to Serui'

The examples in (26) and (27) could be paraphrased with a complex Subject as in (28).

- (28) Edu tuti Yani ur-ontai na Urui ma
 and 3dl-travel from INT
 'Edu and Yan rode from Serui to here'

7.1.5 OBJECT OF COMPARISON/DIRECTION PAST: pi

The preposition pi indicates the object of a comparison or direction past an NP. The two meanings of pi may be summarized as 'surpass'.

(29)

Yani dedai pi Edui
 /di-adai/
 3s-tall

'Yan is taller than Edu'

(30)

Yani da pi yau
 /di-ra/
 3s-walk

'Yan walked past me'

7.2 PERIPHERAL OPERATORS

7.2.0 Introduction

Foley and Van Valin (F/VV) posit four peripheral operators: Status, Tense, Evidentials, and Illocutionary Force. The four operators have as their domain the entire clause, in contrast to Modality which relates only to the clause core and Aspect and Directionals which relate only to the clause nucleus. It is further posited that in languages which have a definable ordering relationship between operators the peripheral operators will be ordered outwards from the clause core as follows: Status, Tense, Evidentials, and IF.

In this section we will define and discuss each peripheral operator in relation to Ambai. Before we begin, however, we present a short definition of the four operators. Status has to do with the reality of a situation as defined along a continuum between realis and irrealis (7.2.1). Tense has to do with the temporal relations between a situation and the time of the speech event (7.2.2). Evidentials deal with the truthfulness of a situation and the means by which the speaker ascertains that truthfulness. Ambai does not manifest any evidentials, but they are common in many other languages; e.g. the 'hearsay' particles in Amerindian languages. IF, the outermost peripheral operator, indicates what are traditionally termed modes: declarative, imperative, interrogative.

7.2.1 Status

Status is the innermost peripheral operator. It refers to the speaker's view of the actuality of the predicated situation. F/VV follow Whorf (1956) including the realis-irrealis continuum under Status. The Status continuum is presented in Figure 7.2.

Figure 7.2: The Status continuum

Realis - necessary - likely - possible- Irrealis

We note in Figure 7.2 that the continuum is not binary, but includes epistemic necessity, likelihood, and possibility as well as realis and irrealis. In Ambai realis is unmarked and is thus the neutral category within Status. Necessity (7.2.1.1) in the

Cause and effect statements connected by the conjunction wori take ki in the apodosis. The effect clause is then seen as certain or epistemically necessary given the prothesis (32) and (33).

(32)

b-ampi	kaka	wori	muninan	ki
2s-eat	NEG	then	2s.sick	NEC

'If you don't eat, then you will get sick'

(33)

boi	Samui	wori	sai	ki
/bu-boi/			/di-sai/	
2s-hit		then	3s-weep	NEC

'If you hit Samu then he will cry'

Second person statements with ki are typically imperative-like statements urging the addressee to continue in a certain state or activity. The most frequent use of ki with second person referents is exemplified in (34).

(34)

bento,	munoki	ki	'Alright, you stay seated'
alright	2s.sit	NEC	

7.2.1.2 Likelihood: rai

Likelihood in Ambai is marked by the clause enclitic -rai. Likelihood contrasts with the other Status markers in the degree of certainty or reality of a situation. Likelihood and necessity contrast in example (35).

(35)

i-wo Urui ki 'I will (certainly) go to Serui'
 NEC

i-wo Urui rai 'I will probably paddle to Serui'
 LIKELIHOOD

Likelihood also occurs in cause and effect statements, but with a weaker sense of the apodosis clause eventuating than we saw with the necessity marker ki. There is a further syntactic limitation in that rai does not cooccur with the effect conjunction wori.

(36)

b-ampi kaka mani muninan rai
 2s-eat NEG TOPIC /bu-maninan/
 2s-ill LIKELIHOOD

'As for your not eating, you will probably get sick'

(37)

boi Samui mani sai rai
 /bu-boi/ /di-sai/
 2s-hit TOPIC 3s-weep LIKELIHOOD

'As for your hitting Samu, he will probably cry'

7.2.1.3 Possibility: te

Possibility in Ambai is marked by the clause enclitic te. Possibility is the last category of Status before the negatives and thus indicates less certitude than either Necessity or Likelihood. Unlike either Necessity or Likelihood, Possibility can refer to non-future situations as well as to future situations.

(38) d-ampi te 'Maybe he is eating/will eat/ate'
 3s-eat POSSIBILITY

(39) wio Urui te 'Maybe he is paddling/will
 3s.paddle Serui POSSIB. paddle/paddled to Serui'

Possibility may also occur in complex sentences, but occurs in the prodosis, not the apodosis.

(40) muninan te b-okon surati we yau ma
 /bu-maninan/
 2s-sick POSSIB. 2s-give letter 1s INT
 'If you get sick, send a letter to me'

7.2.1.4 Irrealis:negators

The final Status category is irrealis. In Ambai irrealis is only marked by negators; i.e. unrealized situations in the future or in imperatives or interrogatives may occur without a Status marker. There are four negators in Ambai, all of which are uninflected particles (cf. Dahl 1980): kaka, kakarai, bireri, pari. All Ambai negators occur post-verbally.

Kaka and kakarai signal negation of intransitive, transitive, and identive clauses. The negative particle occurs as a clause postclitic outside the clause core and outside the peripheral arguments as the layered clause model would suggest. Kaka indicates simple negation of the predicate; kakarai combines negation and temporal reference meaning 'not yet'. Examples of both kaka and kakarai are given in (41) - (44).

- (41)
 d-ena kaka 'He is not sleeping'
 d-ena kakarai 'He is not yet sleeping'
 3s-sleep
- (42)
 y-isan dian kaka 'I didn't spear fish'
 y-isan dian kakarai 'I haven't yet speared fish'
 ls-stab fish
- (43)
 y-okon dian we Yani kaka 'I didn't give any fish
 to Yan'
 y-okon dian we Yani kakarai 'I have not yet given
 ls-give fish to any fish to Yan'
- (44)
 Yani guru dinen kaka 'Yan is not a teacher'
 Yani guru dinen kakarai 'Yan is not yet a
 teacher BE teacher'

Kakarai can also mean 'probably will not' where the likelihood marker rai is taken as limiting the negation as in (45).

- (45)
 y-okon-i kaka rai
 ls-give-3sO NEG LIKELIHOOD
 'I probably will not give it'

In a similar manner the Necessity marker ki can modify the negator kaka to form kakaiki meaning 'certainly will not' as in (46).

- (46)
 y-okon-i kakai ki 'I certainly will not give
 1s-give-3sO NEG NEC it'

Bireri negates existence states meaning 'There are no X'
 where X is an NP.

- (47)
 dian bireri 'There are no fish'
 fish NEG

- (48)
 wa bireri we yau
 canoe NEG to 1s
 'I have no canoe (lit. There is no canoe to me)'

Bireri is the negator used in answers to yes/no questions to
 negate the entire proposition meaning 'It is not the case that Y'
 where Y is a predication.

- (49)
 wori dian e 'Did you buy fish?'
 /bu-wori/
 2s-buy fish Q
 bireri, i-wori dian kaka 'No, I did not buy fish'
 NEG 1s-buy fish NEG
- (50)
 wo Urui e 'Did you paddle to Serui?'
 /bu-wo/
 2s-paddle Serui Q
 bireri, i-wo Manawi 'No, I paddled to Manawi'
 NEG 1s-paddle

Bireri can also be used with an NP or a pronoun as a negative answer to a yes/no question as illustrated in (51).

- (51)
- | | | | |
|-----------|---------|-----------|----------------------------|
| wo | Urui | e | 'Did you paddle to Serui?' |
| /bu-wo/ | | | |
| 2s-paddle | Serui | Q | |
| yau | bireri. | i-minoki. | 'Not I. I sat (here).' |
| ls | NEG | ls-sit | |

Such negated nominals can be seen as standing in for a negated predication.

The final negator is pari which indicates frustrated intent with transitive verbs and also negates possessive states. In both cases pari immediately precedes the Object.

- (52)
- | | | |
|---------|------|------|
| y-isan | pari | dian |
| ls-stab | NEG | fish |
- 'I failed to stab any fish'

- (53)
- | | | |
|--------|------|-------|
| ne-ku | pari | doi |
| POS-ls | NEG | money |
- 'I have no money'

7.2.2 Tense

Tense is the next peripheral operator after Status. Comrie (1976:2) characterizes tense as relating 'the time of the situation referred to to some other time, usually to the moment of speaking'. Tense is thus a deictic element on a temporal scale. F/VV note, however, that Tense is very closely related to

Status in that the 'temporal orientation of an event with regard to the time of the speech act is crucially important to the reality status of the event' (V:32). Tense is likewise not always separable from aspect. In Ambai we see that tense is not obligatorily expressed and that when tense is expressed it is not clearly separated from either aspect or status. Time reference may be unsignalled or may be signalled by Time arguments. Predicates not marked for any tense by either a tense marker or a time argument are interpreted as non-future; i.e. past, customary, or present as seen in (54).

- (54)
- | | | | |
|------|----------|------|-----------------------|
| Yani | miun | dian | 'Yan killed fish' |
| | /di-mun/ | | |
| | 3s-kill | fish | 'Yan kills fish' |
| | | | 'Yan is killing fish' |

Predicates may occur without tense markers, but with time arguments with either past, customary, or present meaning as seen in (55 a-c).

- (55a)
 Ramindenafa Yani wio Urui
 /di-wo/
 yesterday 3s-paddle
 'Yesterday Yan paddled to Serui'
- (55b)
 Rakida neune Yani wio Urui
 day each
 'Each day Yan paddles to Serui'
- (55c)
 Rakida nin-i Yani wio Urui
 day NIN-sg
 'Today Yan is paddling to Serui'

Two tenses may be marked in Ambai: future (7.2.2.1) and perfect (7.2.2.2).

7.2.2.1 Future tense

Future tense in Ambai is marked by the clause postclitic ki which is also the Necessity Status marker (7.2.1.1). The two functions of ki are considered to be separate because some instances of ki emphasize only the futurity of the predication rather than the necessity of it. Thus, in Time content questions ki must occur in any future reference and in fact forms the root of the future time question word ki-doni 'when (in the future)?'

- (56)
 ki-doni wori wo Urui ki
 /bu-wo/
 when then 2s-paddle Serui NEC
 'When will you paddle to Serui?'

Questions concerning future situations cannot be formed without ki. Thus, (57b) is ungrammatical.

(57a)

ki-doni	Yani	d-ontai	ma	ki
when		3s-travel	INT	FUT

'When will Yan come here?'

(57b)

*ki-doni Yani d-ontai ma ø

Statements concerning future events likewise must be marked by ki or one of the other Status clitics; the verb cannot be unmarked. We suggest that the Status and future tense are not presently distinguished in each clause.

(58)

katu	mani	i-ra	mandei	ki	NECESSITY
				rai	LIKELIHOOD
				te	POSSIBILITY

'Soon I will walk landwards'

'Soon I will probably walk landwards'

'Soon I might walk landwards'

7.2.2.2 Perfect tense

Perfect tense in Ambai is marked by the clause postclitic rampa and indicates that the predicate occurred prior to the speech event, but still has relevance to the time of the speech event. The term Tense is preferred over the term Aspect for two reasons: the perfect marker is clearly a deictic element on the temporal scale and it cooccurs with Aspectual markers following them as predicted by the layered clause model (see however Comrie 1976:52 for perfect as aspect). The Ambai perfect tense indicates

what Comrie calls 'perfect of result' (1976:56) in which the predicate marked for perfect tense 'is referred to as being the result of some past action' (ibid). Note the following examples.

(59)

y-ampi ampa
ls-eat PERFECT

'I have already eaten'

(60)

Yani wio ampa
/di-wo/
3s-paddle PERF

'Yan has already left (and is still gone)'

(61)

Yani fiabai ampa
big (adj) PERF

'Yan is already grown up'

Perfect tense is distinguished from the aspectual markers by its distribution within the clause; perfect tense follows aspect. The layered clause model posits that aspect is a nuclear operator and that it will occur closer to the nucleus of the clause than Tense, which is a peripheral operator. In Ambai the completive aspectuals kai and kiai precede the tense marker rampa whenever they co-occur (62) and (63).

(62)

i-mun dian kiai ampa
ls-kill fish COMP PERF

'I already finished killing fish'

(63)

timuri fo masara kai ampa
cassava FO dry COMP PERF

'The cassava is already completely ripe'

Perfect tense cannot occur with future reference, while the aspectuals can. The aspectuals in future references must occur in complex sentences as seen in (64).

(64)

akama nin-i tu-wo Urui kiai wori
tomorrow NIN-sg lin.dl-paddle COMP then

tu-wo mambaru
/man-waru/
lin.dl-paddle INT-across

'Tomorrow after we all paddle to Serui, we will return'

*akama nin-i tu-wo Urui ampa...

A variant form for marking perfect tense is to or ton (which we will also see in the positive imperative marker in 7.2.3.2). Wandamen uses to as a past tense marker according to Saggars 1979. There appears to be some semantic distinction in Ambai between the more common rampa and the less common to, but the difference is still unclear. Note the examples in (65a-b).

(65a)

y-ampi ampa
y-ampi to

'I already ate'

(65b)

mitai ampa
/di-matai/
mitai to

'He is already afraid'

'He has already begun to be afraid'

The to which marks perfect tense can occur in yes/no questions.

(66)

mutai ton e
 /bu-matai/
 2s-fear PERF Q

'Are you already afraid?'

7.2.3 Illocutionary Force

Illocutionary Force (IF) is the outermost peripheral operator and thus its domain is the entire clause including the other peripheral operators. IF may be equated with the narrow definition of mood as employed in traditional grammar. In Ambai IF may be divided into three major categories: declarative (which is unmarked), interrogative, and imperative. Interrogative (7.2.3.1) is divided into yes/no questions and content questions. Imperative (7.2.3.2) is divided into positive and negative imperatives. As predicted by the layered clause model, IF markers are clause final, as they are the outermost of the peripheral operators.

7.2.3.1 Interrogative

Interrogative in Ambai may be divided into two types: yes/no questions and content questions. Yes/no questions are further divided into simple versus polar yes/no questions. Content questions are subdivided on the basis of which element in the clause is questioned.

Simple yes/no questions are marked by the clause postclitic re (see 2.3 for morphophonemic rules). Question intonation is

the same as that for statements: i.e. falling clause final. Examples of simple yes/no questions are given in (67) - (69). Note also that simple yes/no questions can be either positive or negative (70) - (72).

- (67) wo Urui e 'Did you paddle to Serui?'
 2s-paddle Serui Q
- (68) wo Urui tuti Yani e
 2s-paddle Serui with Yan Q

 'Did you paddle to Serui with Yan?'
- (69) nari munu nin-i e 'Did you make this house?'
 /bu-nari/
 2s-make house NIN-sg Q
- (70) b-ampi e 'Are you eating?'
 2s-eat Q
- (71) b-ampi kaka e 'Aren't you going to eat?'
 2s-eat NEG Q 'Aren't you eating?'
- (72) b-ampi kakarai e 'Haven't you eaten yet?'
 2s-eat NEG Q

Polar questions in Ambai may ask either whether a predicate is true or not, or which of two arguments is true. Polar questions concerning the predication are marked by the clause final phrase ete bireri-e 'or not-Q' as in (73) and (74). The negator bireri is a proform substituting for a clause.

- (73)
 wo Urui ete bireri e 'Did you paddle to
 2s-paddle or NEG Q Serui or not?'
- (74)
 kesou wau ete bireri e 'Is he angry with you
 /di-kasou/ or not?
 3s-angry 2s or NEG- Q

Polar questions concerning clause arguments are of the form
 X ete Y-e as shown in (75) and (76).

- (75)
 sera rando ete kasamberei e
 /di-sera/
 3s-see banana or maize Q
 'Is he looking for bananas or maize?'
- (76)
 feran afui na umbe ete noi e
 /bu-feram/
 2s-cut grass with bushknife or knife Q
 'Did you cut the grass with a bushknife or a knife?'

Content questions in Ambai are marked by an interrogative word replacing the clause element questioned. The question postclitic does not cooccur with interrogative words. Intonation is the same as for statements and yes/no questions; i.e falling clause final.

Interrogatives are either formed on a root -doni or are irregularly constructed. The forms based on -doni are presented in (77).

- (77)
- | | | |
|----------|------------------|---------------------------------|
| man-doni | 'who, whom' | < <u>man</u> 'animate' |
| na-doni | 'at/ from where' | < <u>na</u> 'at, from, with' |
| to-doni | 'to where' | < <u>to</u> 'to' |
| ki-doni | 'when (future)' | < <u>ki</u> 'Necessity, future' |
| NP-doni | 'which NP' | |
| fi-doni | 'what' | < <u>fi</u> 'thing' |

Other interrogatives are:

- (78)
- | | | |
|----------|------------------------|----------------------------|
| man-tei | 'who, whom' | < <u>man</u> 'animate' |
| fi-ani | 'what' | < <u>fi</u> 'thing' |
| to-fino | 'for what reason; how' | |
| bei-ru | 'how many (inanimate)' | < <u>bei</u> 'one (in.)' |
| manei-ru | 'how many (animate)' | < <u>manei</u> 'one (an.)' |

Still other question phrases can be constructed by adding elements to the basic question words. Some further examples are:

- (79)
- | | |
|-----------------|----------------------|
| we fiani | 'for what reason?' |
| we mandoni | 'to whom?' |
| na katai-doni | 'at which place?' |
| wono-mu-fi-doni | 'what is your name?' |

Content question words and phrases are inserted in the clause in the position of the clause element questioned; they do not occur clause final as does the question clitic. Examples of different clause elements which can be questioned are given in (80) - (84).

- (80) Subject
 mandoni niari munu ne-i 'Who made this house?'
 /di-nari/
 who 3s-make house NE-sg
 Yani niari mununei 'Yan made this house'
- (81) Object
 Yani niari fiani 'What did Yan make?'
 3s-make what
 Yani niari wa nin-i 'Yan made this canoe'
 3s-make canoe NIN-sg
- (82) Location
 Yani minoki na-doni 'Where did Yan sit/where
 /di-minoki/
 3s-sit where is Yan sitting?'
 Yani minoki na reirei 'Yan is sitting on the land'
 3s-sit on land
- (83) Time
 Kidoni wori wo Urui ki 'When are you pad-
 when then 2s-paddle Serui FUT dling to Serui?'
 Akama nini i-wo Urui ki
 tomorrow 1s-paddle Serui FUT
 'Tomorrow I will paddle to Serui'
- (84) Quantity
 wori dian maneiru 'How many fish did you
 2s-buy fish how many buy?'
 i-wori dian mandu 'I bought two fish'
 1s-buy fish two

7.2.3.2 Imperative

Imperatives in Ambai deal with positive and negative commands directed at either second person or first person inclusive (1+2) arguments. Negative commands will be called prohibitives. Only activity and accomplishment verbs can occur in positive imperatives. Certain statives can appear in prohibitives in addition to the activity and accomplishment verbs. The imperative marker, when it occurs, is clause final as the layered clause model would suggest.

Positive imperatives express various degrees of command, ranging from permissives to orders. The imperative marker is the clause postclitic to. The marker may be optionally omitted. Note the following examples (85) - (87).

- (85)
- | | | | | |
|---------|-----|-----|--|-------------|
| ro | ma | | | 'Come here' |
| 2s.walk | INT | | | |
| | | | | |
| ro | ma | to | | 'Come here' |
| 2s.walk | INT | IMP | | |
- (86)
- | | | | | |
|--------|--------|-------|--|----------|
| b-ampi | mutu | (to) | | |
| 2s-eat | strong | (IMP) | | 'Eat up' |
- (87)
- | | | | | |
|--------|--------|-------|-----|------------------|
| b-an | rando | wa-i | to | |
| 2s-eat | banana | WA-sg | IMP | 'Eat the banana' |

In 7.2.1.1 we saw that ki the necessity status marker is also used as a permissive marker, with the meaning 'Keep Xing' as in (88).

- (88)
 munoki ki 'Keep on sitting/stay seated'
 2s.sit NEC

Hortative clauses (i.e. first person imperatives) are also marked by to. The hortative clause may be optionally preceded by the appropriate form of the verb rama 'come' as in (89) - (91).

- (89)
 (ro ma) tu-ra to
 2s-walk INT lin.dl-walk IMP
 '(Come) let's walk'
- (90)
 (mu-ra ma) to-nari to
 2dl-walk INT lin.tr-work IMP
 '(Come) let's work'
- (91)
 ta-nari munu to
 lin.pl-work house IMP
 'Let's make a house'

It is interesting to note that the positive imperative marker to occurs as a variant of the perfect tense marker with certain stative verbs; i.e. either to or rampa can indicate perfect tense.

- (92)
- | | | |
|------------|------|--------------------------|
| mutai | to | |
| mutai | ampa | |
| /bu-matai/ | | |
| 2s-afraid | | 'You are already afraid' |

- (93)
- | | | |
|--------------|------|-------------------------|
| murisin | to | |
| murisin | ampa | |
| /bu-marisin/ | | |
| 2s-happy | | 'You are already happy' |

This pattern of using a perfect marker as an imperative marker is similar to the Irian Jaya Malay 'makan sudah' meaning 'eat!' as opposed to 'sudah makan' which means 'to have already eaten'.

Prohibitives are marked by the clause postclitic -fanai. First and third persons as well as second persons may appear in prohibitives. Active and stative verbs occur in prohibitives, although such predicates as physical states can not occur.

- (94)
- | | | |
|------------|---------|-------------------|
| mutai | fanai | |
| /bu-matai/ | | |
| 2s-fear | PROHIB. | 'Don't be afraid' |

- (95)
- | | | | |
|------------------------------|---------|-------|-------------|
| mutai | fiawera | wa-i | fanai |
| 2s-afraid | dog | WA-sg | PROHIBITIVE |
| 'Don't be afraid of the dog' | | | |

- (96)
- | | | |
|-------------|-------------|-------------------|
| ta-roki | fanai | |
| lin.pl-sing | PROHIBITIVE | 'Let us not sing' |

- (97)
- | | | |
|----------|-------------|---------------------|
| e-roki | fanai | |
| 3pl-sing | PROHIBITIVE | 'Let them not sing' |

NOTES

1 Patz lists Numfoor-Biak be as marking 'inanimate goal' indicating a 'locational goal or result' (1978:148).

2 The final /t/ of riat is dropped by P-rule except when followed by the third person singular suffix -i; i.e. ria++, riati.

3 F/VV state that English 'with' 'marks potential actors, agents or effectors, which do not occur as Actor' (3:13). Swan notes that Wandamen riat means 'action is done to or in favour of the object' (1955:56).

APPENDIX A: Diachronic aspects of verbal morphology

In chapter 5 we saw the present-day Ambai system of subject prefixes. In this appendix we will now look at some diachronic aspects of the problem. We begin by comparing the Ambai prefixes with data from other Sarera Bay languages in A.1 and then we discuss Givon's proposal concerning prefixes as derived from free pronouns in A.2.

A.1 Sarera Bay Subject prefixes

In this section we will look at the Subject prefixes in other languages in the Sarera Bay and compare them to the Ambai forms. We are especially interested in finding any validation for the synchronic underlying forms posited in 5.1.3.1.1 above. The significance of diachronic information for synchronic analysis is well known:

Since the alternations found in any contemporary language are the vestiges of historical change, it should not be surprising that the underlying representations often coincide with earlier attested forms and that the synchronic rules may (but not necessarily always) recapitulate the actual sound changes.
(Schane 1973:83)

First we consider the general Sarera Bay picture and then we concentrate on Wandamen since data from the latter is better in quality and quantity.¹

Comparative material from the other Sarera Bay languages substantiates the underlying Subject prefixes posited for Ambai and also demonstrates that other languages also undergo some of the same phonological rules as Ambai.

We will consider only the singular Subject prefixes as they present a more complex picture than the non-singular prefixes. Recall that the underlying prefixes postulated for Ambai are /i-/ (1s), /bu-/ (2s), and /di-/ (3s). In the following chart (Figure A.1) it is seen that the surface forms in the other languages match the underlying forms posited for Ambai.

In Figure A.1 we note that Woi, Wandamen, and Ansus exhibit a /bu-/ prefix on the verb 'to eat' in the second person singular. Forms similar to the Ambai underlying form /di-/ for third singular are seen in Wandamen (di-), Pom (dy-), Woi (ty-), and Munggui (ty-). We shall see the first person singular /i-/ in Figure A.2. Here in Figure A.1 we see the phonetic variant [y] which precedes vowel-initial verbs in all Western Yapen languages, in Biak and in Waropen.

Figure A.1: Vowel-initial verbs in Sarera Bay languages²

AMBAl	'to eat'			'to drink'		
	1s /i-/	2s /bu-/	3s /di-/	1s /i-/	2s /bu-/	3s /di-/
Woi	y-ampi	bu-ampi	ty-ampi	y-unung	b-unung	ty-unung
Mun.	y-ampi	w-ampi	ty-ampi	y-unung	w-unung	ty-unung
Pom	y-ampi	w-ampi	dy-ampi	y-unung	w-unung	dy-unung
Pap.	y-ampi	w-ampi	t-ampi	y-unung	w-unung	t-unung
Bus.	y-ampi	w-ampi	s-ampi	ya-unung	w-unung	s-unung
Ans.	y-ampi	bu-ampi	d-ampi	y-unung	b-unung	d-unung
Wan.	y-api	bu-api	di-api	y-unu	b-unu	d-unu
Ser.				y-unu	b-unu	d-unu
Amb.	y-ampi	b-ampi	d-ampi	y-unung	b-unung	d-unung
Wab.	ai-ampi	b-ampi	d-ampi	ai-unang	b-unang	d-unang
Kur.	ai-ampi	b-ampi	d-ampi	ai-rurum	b-urum	d-urum
War.	y-ano	au-ano	i(y)ano			
Biak	y-anan	w-anan	d-anan	y-inem	w-inem	d-inem

Secondly, we consider the morphophonemic processes posited for Ambai: the infixation of the second and third person singular prefixes, the consonant shifts of /r/ to [y] and /t/ to [s] preceding third singular /-i-/ , the consonant shift /s/ to [w] preceding second singular /-u-/ , and the existence of verbs with different underlying stress patterns classes which help explain morphophonemic variants. We will discuss each of these rules in turn using the examples in Figure A.2 and others as necessary.

Figure A.2: Consonant-initial verbs in Sarera Bay languages

	'to plant' stressed			'to fear' unstressed		
	1s	2s	3s	1s	2s	3s
Woi	i-tanang	y-u-anang	t-y-anang	i-matai		
Mun.	e-tanang	t-u-anang	t-y-anang	e-matai		
Pom	i-tanang	t-u-anang	t-ianang	i-matai		
Pap.	e-tanang	t-u-anang	s-anang	e-matai	m-o-tai	m-e-tai
Bus.				ya-mata		m-i-ata
Ans.	e-tanang	t-u-anang	s-anang	e-matai	m-o-tai	m-e-tai
Wan.	i-tana	t-u-ana	t-i-ana	i-matai	m-u-etai	m-i-etai
Ser.			s-anang			m-e-tai
Amb.	i-tang	t- \emptyset -anang	s-ana.g	i-matai	m-u-tai	m-i-tai
Wab.	a-tanan	o-tanan	t-i-anan	a-meta	o-mata	m-e-ta
Kur.	ai-tarim	t-u-arim	t-i-arim	a-mintat	m-u-ntat	m-i-ntat

In Figure A.2 we note the infixation of the second and third person subject markers /-u-/ and /-i-/ as was posited for Ambai. Wabo provides the only exception in the second person singular where the Subject marker is still a prefix.

Biak and Waropen, unlike the other Sarera Bay languages illustrated in Figure A.2 do not infix the third singular Subject marker. In (1) we compare Wandamen, Biak, and Waropen singular forms of the verb 'to walk'. (Note that r-w-a in Biak orthography represents /r-u-a/.)

(1)		1s	2s	3s
	Wandamen	i-ra	r-u-a	r-i-a
	Biak	ya-ra	r-w-a	i-ra
	Waropen	ya-ra	a-ra	i-ra

Like Ambai, some languages also undergo the consonant shift /r/ to [y] in the third singular. Example (2) illustrates that

Papuma, Busami, and Serui share this rule with Ambai in contrast with Wandamen.

(2)

	'to sing'			'to hold'		
Wan.	i-roi	r-u-oi	r-i-oi	i-rut	rut	r-Ø-ut
Pap.	e-roi	roi	yoi	e-ru	ru	r-i-u
Bus.	ya-ro	ro	yo	ya-ruti	ruti	yuti
Ser.	i-roi	r-u-oi	r-i-oi	i-ruti	ruti	yuti
Amb.	i-roki	roki	yoki	i-ru	ru	yu

We note in passing that while Ambai and Busami undergo the /r/ to [y] shift before both /o/ and /u/, Papuma undergoes the change only before /o/ and Serui only before /u/.

Papuma, Ansus, and Serui also undergo the /t/ to [s] shift in the third singular as seen in Figure A.2 above in the verb 'to plant'.

The shift from /s/ to [w] is shared by Ambai, Papuma, Ansus, and Serui as illustrated in (3) in contrast to Wandamen.

(3)

	'to cough'		
	1s	2s	3s
Wandamen	i-sesa	s-u-esa	s-i-esa
Papuma	e-sea	wea	sea
Ansus	e-yea	wea	yea
Serui	i-sea	wea	sea
Ambai	i-sea	wea	sea

Two verb types were distinguished for Ambai on the basis of underlying stress which account for the morphophonemic variations which occur with the infixes /-u-/ and /-i-/ in 5.1.3.1.2. A comparison of verbs in Ambai with cognate forms in the other Yapen languages indicates that the two stress patterns are also present in the other languages. All Yapen languages, except

Busami, exhibit different patterns of interaction between the infixes /-u-/ and /-i-/ with verbs with the initial syllable of the stem stressed and those with the initial syllable of the verb unstressed. Thus, in the consonant-initial verbs presented in Figure A.2 above we see that the stressed /a/ of the verb stem is retained the verb 'to plant', while the unstressed /a/ is lost or undergoes assimilation in the verb 'to fear'. In Papuma, for example, the second singular infix /-u-/ does not effect any changes to the stressed /a/ of the stem in /t-u-anang/ 'to plant', but in the verb /matai/ the /-u-/ and the unstressed /a/ of the stem assimilate to /o/ (i.e. /*m-u-atai/ becomes /motai/).

In this first section, then, we have seen that the singular prefixes posited for Ambai and the morphophonemic rules correspond in many aspects to the forms and rules in other Sarera Bay languages. In the next section we consider the Wandamen data in more detail.

Within the Western Yapen language group, Wandamen and Ambai form the westernmost and eastern most members. Wandamen appears to be more conservative than Ambai as regards PAN reflexes, e.g. retention of word-final consonants. Based on their linguistic relationship, then, we will devote the remainder of this section to a detailed comparison in regard to the forms and rules of the subject prefixes.

Example (4) presents the Wandamen subject prefixes with Ambai forms in parentheses. The Wandamen forms have been posited from the various surface manifestations observed.

(4) Wandamen and Ambai Subject prefixes contrasted

1 ex	i- (i-)	amur- (aur-)	- (antor-)	amat- (amet-)
1 in		tur- (tur-)	- (tor-)	tat- (tat-)
2	bu- (bu-)	mur- (mur-)	- (muntor-)	met- (met-)
3	di- (di-)	sur- (ur-)	- (itor-)	set- (animate) sit- (inanimate) (et-)

The initial similarities are quite obvious between the Wandamen and Ambai forms. We note that Wandamen does not evidence a trial and that Ambai has dropped the third person initial /s/. The other changes seem more idiosyncratic: amur:(aur) lex.dl), amat:(amet) lex.pl).

We now compare the morphophonemic rules of Ambai to those found in Wandamen. We begin with the non-singular forms, all of which end in either /r/ or /t/. In Ambai all such prefix-final consonants are dropped; in Wandamen the prefix-final consonant is dropped except before /r/, /b/, or /k/. The resulting consonant sequence undergoes further change resulting in the forms listed in (.5) below.

(5) Wandamen prefix C + r,b,k

$$\begin{array}{l} -r- \\ -t- \end{array} + \begin{array}{c} \{ r \\ b \\ k \} \end{array} \longrightarrow \begin{array}{c} \{ nd \\ mb \\ Ng \} \end{array}$$

Examples of the Wandamen prefix consonant retention rule as compared to the Ambai prefix consonant deletion rule are given in (6).

(6.) Wandamen

/tur- + ra/	---->	tunda	'lin.pl. walk'
/tat- + ra/	---->	tanda	'lin.pl. walk'
/tat- + bata/	---->	tambata	'lin.pl. recline'
/tur- + kari/	---->	tuNgari	'lin.dl. bite'
/tur- + tana/	---->	tutana	'lin.dl. plant'

Ambai

/tur- + ra/	---->	tura	'lin.dl. walk'
/tat- + ra/	---->	tara	'lin.pl. walk'
/tat- + watai/	---->	tawatai	'lin.pl. recline'
/tur- + kiri/	---->	tukiri	'lin.dl. bite'
/tur- + tanang/	---->	tutanang	'lin.dl. plant'

In the singular prefixes we will see some similarities and some differences between the Wandamen and the Ambai rules. We begin with the infixation of the second and third person markers /-u-/ and /-i-/ in which Wandamen exhibits the same pattern as Ambai. Examples of this rule can be seen in (7).

(7) Wandamen

/bu- + tana/	---->	t-u-ana	'2s plant'
/di- + tana/	---->	t-i-ana	'3s plant'

The consonant shift rules involving /r/, /t/, and /s/ in Ambai do not apply in Wandamen. Thus, the examples in ('8').

(' 8)

Ambai	/t-i-anang/	---->	sanang	'3s plant'
Wandamen	/t-i-ana/	---->	t-i-ana	
Ambai	/r-i-oki/	---->	yoki	'3s sing'
Wandamen	/r-i-oi/	---->	r-i-oi	
Ambai	/s-u-ea/	---->	wea	'2s cough'
Wandamen	/s-u-esa/	---->	s-u-esa	

The existence of two verb types distinguished by stress which explain the morphophonemic variations in the prefix plus root combinations in Ambai also aids in the analysis of the Wandamen data. The two verb types help explain the differences in the minimal pair 'tana 'to plant' and ta'na 'to be short' in Wandamen as seen in (9).

(9)	'tana 'to plant'	ta'na 'to be short'
	stressed initial syllable	unstressed initial syllable
1s	i-tana	i-tana
2s	t-u-ana	t-u- <u>ena</u>
3s	t-i-ana	t-i- <u>ena</u>

We note that the unstressed /a/ of the verb root is changed to /e/ but the stressed /a/ is unaffected. Rule (10) summarizes the vowel change in Wandamen verbs with the initial syllable unstressed.

(10) Wandamen verb vowel change rule

$$a \longrightarrow e / \left\{ \begin{array}{l} -u- \\ -i- \end{array} \right\} \text{---} C'V$$

A comparison of cognate forms between Ambai and Wandamen shows that those with the stress on the initial syllable in Wandamen also have stress on the initial syllable in Ambai and those with an unstressed first syllable in Wandamen also have an unstressed first syllable in Ambai. In (11)-(13) we give examples of cognate verbs and show how each language distinguishes the two verb types. After these examples we will discuss the differences between the rules in each language.

(11) Wandamen and Ambai verb classes compared

		Wandamen	Ambai
		/a/	/a/
Stressed	-u-	ua	a
	-i-	ia	ia
Unstressed	-u-	ue	o
	-i-	ie	e

(12) Stressed initial syllable

		-u-	-i-	
Wandamen	-pati	p-u-ati	p-i-ati	'to pull out'
Ambai	-pating	pating	p-i-ating	
Wandamen	bata	b-u-ata	b-i-ata	'to recline'
Ambai	watai	watai	w-i-atai	
Wandamen	tana	t-u-ana	t-i-ana	'to plant'
Ambai	tanang	tanang	sanang	

(13) Unstressed initial syllable

		-u-	-i-	
Wandamen	ator	b-ue-tor	d-ie-tor	'to count'
Ambai	ato	b-o-to	d-e-to	
Wandamen	babisi	b-ue-bisi	b-ie-bisi	'hungry'
Ambai	wawisi	w-o-wisi	w-e-wisi	
Wandamen	-matai	m-ue-tai	m-ie-tai	'afraid'
Ambai	matai	m-u-tai	m-i-tai	
Wandamen	mamaya	m-ue-maya	m-ie-maya	'ashamed'
Ambai	mamaya	m-u-maya	m-i-maya	

Comparing the specific rules for verbs with stressed initial syllables we see that Wandamen drops the prefix vowel /u/ only before high vowels, while Ambai always drops /u/ in that environment as seen in (14).

(14) Wandamen and Ambai prefix /u/ deletion				
/i/	Wandamen	/bu- + iri/	biri	'2s choose'
	Ambai		biri	
/u/	Wandamen	/bu- + rut/	rut	'2s hold'
	Ambai		ru	
/e/	Wandamen	/bu- + ena/	b-ue-na	'2s sleep'
	Ambai		bena	
/o/	Wandamen	/bu- + ona/ /bu- + okong/	b-uo-na	'2s give'
	Ambai		bokong	

To conclude this section we present a summary of the morphophonemic rules in Wandamen and Ambai. (X means the rule occurs, - means the rule does not occur).

Figure A.3 : Wandamen and Ambai prefixation rules compared

	Wandamen	Ambai
a. prefix C deletion	X (except before r,b,k)	X
b. infixation of -u- and -i-	X	X
c. two verb types based on stress	X	X
d. consonant shift	-	X
e. deletion of prefix V in stressed syllable	X (only before high Vs)	X (before high Vs and else- where)
f. verb root V changes in unstressed syllable	X (/a/ -> /e/)	X (/a/ -> \emptyset) (/ua/ -> /o/) (ia/ -> /e/)

A.2. The derivation of Subject prefixes from pronouns

A comparison of the free pronouns in Ambai with the subject prefixes suggests that the prefixes may be derived from preposed free pronouns. In this section we will present data from Ambai, from other Sarera Bay languages, and from other AN languages, which support this hypothesis.

The process of free pronouns becoming Subject markers has been discussed from a theoretical viewpoint by Givón (1976) in his discussion of the importance of the concept of Topic agreement as opposed to Subject agreement. Givón proposed that 'agreement arises via topic-shifting constructions in which the

topicalized NP is coreferential to one argument of the verb' (1976:151). The coreferential NP within the sentence is then replaced by a pronoun which is later reanalyzed as Subject agreement. Givón states:

The morphological binding of the pronoun to the verb is an inevitable natural phenomenon, cliticization, having to do with the unstressed status of pronouns, their decreased information load and the subsequent loss of resistance to phonological attrition. (1976:155)

In his discussion on the 'rise of subject agreement', Givón presents the following example (1976:157):

(15.)	<u>Topic shift ('Marked')</u>	<u>Neutral (Re-analyzed)</u>
	The man, he came	The man he-came
	TOPIC PRO	SUBJECT agreement

In the example (61) the anaphoric pronoun 'he' which referred to the TOPIC in the left hand sentence, becomes an agreement marker after the TOPIC has been reanalyzed as SUBJECT.

Givón posits five steps in the development of Subject agreement markers which I present in Figure A.4 . (Note that i and j are used to differentiate NPs).

Figure A.4 : Givón's free pronoun ----> S marker proposal

i)	NP _i TOPIC	, NP _i SUBJECT	VP	NP _j	
ii)	NP _i TOPIC	, PRONOUN TOPIC agreement	VP	NP _j	via pronominal- ization of coref- erential NP
iii)	NP _i SUBJECT	PRONOUN SUBJECT agreement	VP	NP _j	via cliticization TOPIC as SUBJECT
iv)	NP _i SUBJECT		AG-VP agreement marker	NP _j	via cliticization the PRONOUN becomes agreement marker
v)	Ø		AG-VP	NP _j	possible NP deletion without PRONOUN insertion

Givón states that 'it is well known that languages with a viable paradigm of Subject-verb agreement may anaphorically delete the subject NP without replacing it with an independent pronoun' (1976:151) as seen in point (v) in Figure A.4 .

Givón's proposal concerning the origins of agreement markers leads us next to consider the data from Ambai. In Figure A.5 we present the Ambai free pronouns with the prefix forms in parentheses. The similarities between the two sets is readily apparent.

Figure A.5 : Ambai free pronouns and subject prefixes

	singular	dual	trial	plural
1 ex.	yau (i-)	auru (aur-)	antoru (antor-)	amea (amet-)
1 in.		turu (tur-)	totoru (tor-)	tata (tat-)
2	wau (bu-)	muru (mur-)	muntoru (muntor-)	mea (met-)
3	i (di-)	uru (ur-)	itoru (itor-)	ea (et-)

If we apply Givón's proposals to the Ambai data, we would have a stage at which the free pronouns were anaphorically marking Topic agreement (point ii in Figure A.5 above).³ Later the pronouns become cliticized to the verb, while also undergoing certain phonological changes such as final vowel loss. Thus, turu 'lin.dl' would become the subject prefix tur-. Details of the phonological shifts from free pronouns to Subject prefixes have not yet been worked out, but we can see that the non-singular forms again present fewer problems than the singular forms. Before we discuss the Ambai prefixes in more detail we look first at other Sarera Bay languages and then at the larger AN scene regarding the derivation of subject prefixes from free pronouns.

Comparative data from other Sarera Bay languages lends support to the hypothesis that Ambai subject prefixes are derived from proposed pronouns. Pronoun and prefix forms from Sarera Bay languages are presented in Figure A.6. We will compare only the singular forms.

Figure A.6 :
Sarera Bay free pronouns and surface forms of prefixes

	1 sg.		2 sg.		3 sg.	
	PRO.	S.mkr.	PRO.	S.mkr.	PRO	S.mkr.
Woi	yau	y-/i-	au	bu-/u-	i	ty-/i-
Munggui	yau	y-/i-	au	w-/u-	i	ty-/i-
Pom	yau	y-/i-	au	w-/u-	i	d-/i-
Papuma	yau	y-/e-	au	w-/u-	i	t-/i-
Busami	yau	ya-	au	w-/u-	i	s-/i-
Wanda. n.	yau	y-/i-	au	bu-/u-	i	di-/i-
Ansus	yau	y-/e-	au	bu-/u-	i	d-/i-
Serui	yau	y-/i-	wau	bu-/u-	i	d-/i-
Ambai	yau	y-/i-	wau	b-/u-	i	d-/i-
Wabo	aya	ai-/a-	awa	b-/o-	i	d-/i-
Kurudu	aya	ai-/a-	awa	b-/u-	i	d-/i-
Waropen	ya	y-/ya-	auo	au-/a-	i	i(y)-/i-
Biak	aya	y-/ya-	au	w-/u-	i	d-/i-

The subject prefixes are presented in phonetic form in the order V-initial stem/C-initial stem

The first person singular pronoun in Ambai and in many of other Sarera Bay languages is yau and the prevalent prefix for first singular is i-, which becomes [y-] by phonetic rule before vowel-initial verbs. Biak and Waropen retain ya- as the subject prefix before consonant-initial verbs and Wabo and Kurudu retain ai-.

The second person singular pronouns in Sarera Bay exhibit variants au, wau, awa, and auo as seen in Figure 5.15. The prefixes, however, do not always correspond to a shortened form of the pronoun. Waropen au- from auo and perhaps Wabo o- from awa appear to be plausible phonological changes. The Pom, Munggui, Papuma, Busami, and Biak w- might also be a simple shortening of au (noting that the languages with w- prefix do not have wau as pronoun). The forms with bu-, however, might best be explained as being derived from the PAN plural pronoun *kamuh (PANLO) which

took the form *mbu at some point within the Yapen language development. The use of a reflex of *kamuh as a singular pronoun is found in Bahasa Indonesia where engkau (from *kaw) is reserved for more formal interlocations.

The third person singular prefixes almost all include an alveolar stop plus /i/: di-, ti-, ty-. Again it seems likely that the prefix should be derived from the PAN plural form *siDah rather than the singular *hiyah. And again Bahasa Indonesia provides the current-day example using dia for the singular pronoun.

Thus far we have seen that the Sarera Bay languages show many similarities to Ambai regarding the form of the subject prefixes. We have also seen that prefixes are derived from free pronouns. In the remainder of this section we note data from outside the Sarera Bay area.

Subject markers have been noted as a characteristic feature of the Oceanic languages (cf. Pawley 1974, Foley 1976, Capell 1976b). Foley notes that there are obligatory concord markers in Oceanic languages (1976:149f). Capell states that 'the optional personal pronoun is used only for emphasis but the person marker is obligatory whether the separate subject marker is used or not' (1976b:245). In both of the papers we see similarities with the Ambai data in that the free pronoun does not co-occur with the obligatory subject prefix, except as topic outside the clause.

Anceaux (1982) notes that subject markers are not limited to the Oceanic languages, citing many Western Austronesian languages as examples. Anceaux states:

A full-fledged system in which all persons and numbers are separately marked is found in Simulur, Nias, Mentawi, Busang, Mori, Napu, Sumba, Lamanolot, Roti, Kei, Buli, Weda, Biak, and the Yapien-languages. (1982:48)

Streseman, in his 1927 study of the Seram languages, posited three grammatical developments in "Ur-Ambon" which supposedly distinguished it from Proto-Austronesian. His third proposed innovation concerns subject prefixes. Collins (1980), while not agreeing that Streseman's proposals are innovations specific to Seram, mentions that the Subject marking can be derived from the insertion of an auxiliary pronoun between the subject and the verb. The auxiliary pronoun could then be shortened and prefixed to the verb stem in a manner similar to that posited by Givón (1976). In the Seram data, the subject markers affect the shape of the verb stem, resulting in changes in the initial consonant of the stem.

Comparing the Ambai data to that of Oceanic languages and that of other Western Austronesian languages then demonstrates that the subject prefixes are derivable from the preposed free pronouns. The details of the derivation processes have not yet been formalized.

A.3 Diachronic aspects of object inflection

We turn now to the diachronic aspect of the Ambai object suffix. Here we will see that comparative data from other Sarera Bay languages, especially Wandamen, and from PAN help explain the Ambai situation. Parts of this section can also be found in Silzer (1982).⁴

As we have seen in chapter 2 Ambai allows only /n/ to occur in pre-pause position, although certain transitive verbs also have a root-final consonant. It should not be surprising then to find other languages in the Sarera Bay which still permit pre-pause consonants. Wandamen provides a good example of word-final consonants as seen in the comparative examples in (16).

(16)	Wandamen	Ambai	
	awar	awa	'to sew'
	bayar	baya	'to pay'
	rut	ru	'to hold'
	pot	po	'to pull'
	rep	rere	'to lick'

We see in (16.) that the pre-pause consonant in Wandamen is missing in Ambai. The earlier form to Western Yapen is determined as having the pre-pause consonant. The Ambai data shows what Capell calls 'thematic revival' which he defines as follows: 'Thematic consonants are such as originally belonged to a stem, but are now lost except when a suffix is added' (1976b:241).

The comparative data from Wandamen explains almost all of the object suffix morphology. The only exceptions are the -m+i and -k+i variants. The -m+i variation of the object suffix can be explained by comparing the Ambai (and Wandamen) data with PAN forms. Wandamen data is insufficient because it loses PAN /m/ in pre-pause position. We see examples of PAN, Ambai, and Wandamen forms in (17.).

(17.)	'to drink'	'to weave'
PAN	*hinum	*hanyam
Wandamen	unu++ unum+i	anu++ anum+i
Ambai	unun++ unum+i	anun++ anum+i

The final variant of the Ambai third singular object suffix is -k+i. This variant may also be a thematic consonant derived from earlier PAN forms, but comparative data from other Sarera Bay languages is not available.

(18)		
bera	berak+i	'to turn something around'
tara	tarak+i	'to dig something'
tuta	tutak+i	'to pound something'

NOTES

1 Wandamen data used are taken from Ongkodharma, Flaming, and Sagers. See REFERENCES for further details.

2 Material from Yapen Island languages are from survey notes taken by Dr. D.C. Ajamiseba and the author in February 1981. Waropen and Biak data are from Anceaux 1961.

3 This is the stage at which Patz's materials show Biak to be (1978:150). Her example (38) is given here:

(38)	knain	i	kwarken	
	tree	he-ST	fall	'The tree falls'

In this example Patz proposes that i indicates Subject as Topic and that it is not a verbal prefix.

4 Silzer (1982) presents several synchronic problems in Ambai which have been clarified by diachronic study. The paper is in Bahasa Indonesia and was read in absentia at the Seminar Linguistik 1982 of the Masyarakat Linguistik Indonesia in Surakarta (Solo), Java. The published form of the paper unfortunately contains many typographical errors.

APPENDIX B : ENGLISH - AMBAI WORDLIST

The following wordlist is presented in phonemic form with two exceptions: f represents /p/ and v represents /b/. Word final consonants except /n/ are written in parentheses to indicate that they do not occur before pause. Nouns which receive inalienable possession suffixes are indicated by a hyphen following the root. PAN forms are given where applicable. The PAN forms are Lopez's from Wurm and Wilson (1975) unless otherwise indicated (e.g. Capell, Blust, Dyen). Cognate forms in other Sarera Bay languages are presented, usually from Wandamen, for comparative purposes. Occasional references are made to Mora, the non-Austronesian language of Yapen Island, where it appears to be the source of a word in Ambai.

The first section of the wordlist includes only words from the Swadesh list which were used for lexicostatistical comparisons. The second group of words includes many cultural and food items, many of which should be understood as borrowings.

English - Ambai Wordlist (Swadesh)

English	Ambai	
abdomen	ene-	PAN */t/iyan, PWY *Sane, Biak sne
arm	wara-	PAN *palaj 'palm', PWY *vara, Biak vra
ashes	kankanan	
back	kuru-	PAN *likuD, PWY *karu, Biak kru
backbone	kuru-ina	
big	fiabai, baba, pinan	PAN *laba/h/, PWY *baba, Biak ba
bird	romu, man- (in compounds)	PAN *manuk, Biak man
bite	kiri	PAN *kaRat, PWY *kari, Biak arek
black	numetan	PAN *ma+hi(n)tem, PWY *metan
blood	rika	PAN */dD/aRaQ, PWY *rika, Biak rik
blow (flute)	bui	PAN *puput, PWY *vuv, Biak wuf
body hair	nu-wavuru	PAN *buluh, PWY *baburu, Biak bur
bone	ina	PWY *Sina
breast	ui	PAN *susuh, PWY SuSu, Biak sus
breathe	sansen	PWY *sasen
burn (tr.)	nunun	PAN *tunuh, PWY *nunun
child	arikan, antun	Wan. atuma, Mora arikaing, Bul. n-tu
cloud	kafafe, rarika	
come	ra-ma	PAN *ma(R)i (Capell), PWY *rama, Biak rama
count	ator	PAN *hituN, PWY *ator, Biak kor
cut (grass)	feran	PWY *peran
die	mireka	Biak mar
dig	arai, sirai	PWY *sarai
dirty	rarika	PWY *rari(k)a
dog	fiawera, wona	PWY *ona, Biak naf
drink	unun, unumi	PAN *hinum, PWY *unum, Biak inem
dry (cloth)	arahiai, sirahiai	PWY *sanaya

dull	rekabu	PWY *kabur, Biak kober
ear	tara-	PAN *taliNah, PWY *tara, Biak kna
earth/soil	kakofa	PWY *kakopa
eat (intr)	ampi	PAN *kaen (Dyen), PWY *api
eye	ure-	PWY *ure
fall	tawa	PWY *tawa
far	waroi	PWY *woroi
fat (n.)	ne-main	PAN *menyak, PWY *main, Biak mafen
father	tama-, dai ('my father')	PAN *tama, PAN *hayaq, PWY *tama
fear	matai	PAN *ma+takut, PWY *matai(t), Biak mkak
fingernail	wara-diu	PAN */s/ilu/h/, PWY *dir
fire	adia	PWY *atia
fish (n.)	dian	PWY *dian, Biak in
five rim	rin	PAN *lima, PWY *rin, Biak
float	awoki	Wan. voi
flow	deda	Wan. dirar 'current'
flower	ne-bu	PAN *buNah, PWY *pur
fly (v.)	sifo	*tivu (PAMS), PWY *sapop, Biak rob
fog	kafafe, kawari	
fruit bon	bon	PAN *buhaq, PWY *buon, Biak
full	sefa	
good	makikai, anten	
green	keke	PWY *(ma)kake
hair (head)	nu-randaun	PWY *ru-nandau
he	i	PAN *hiyah, PWY *i, Biak i
head	nu-	PAN *huluh, PWY *ru, Biak rwu, bru
heavy	maraba	PAN *ma+beRat, PWY *marabat, Biak marbak
here ninei,	nin-	PAN *di(nN)i (Blust), Wan

hold	ru(t)	Biak dine PWY *rut
hot (water)	maninkapoi	Serui mankakopi
how	tofino	PWY *topino
husband	ne-man	
inside do,	roron	PAN *Dalem, PWY *raron, Biak
kill mun,	mun	Buli lolo PAN *bunuq, PWY *mun, Biak
knee	awe-buka	Buli pun PAN *bukuh 'joint', PWY *buka, Biak pur
know	waitawan(ai)	
laugh Biak	miri	PAN *ma+gelih, PWY *mari,
leaf ram	reraun	mbrif PAN *Dahun, PWY *raun, Biak
left side	do-wei	
lie down	watai	PWY *vata, Biak barek
live	daran	
man/male	man	PAN *manay (Capell), PWY *muan, Biak man
many	fau	Wan. pau
meat	tarai	PWY *tarai, Biak kraf
moon	embai	PWY *Sembai, Biak paik
mother	ina-, ai ('my mother')	PAN *hinah, PAN *bayih, PWY *Sina
mountain	uai	Wan wi
mouth	boro-	Wan. sore, Biak bon
name	wono-	PWY *Sano, Biak snonsnon
narrow	dira, kota	Wan. tindia
near	kefan	
new	waworu	PAN *baRuh, PWY *baboru, Biak babo
night	diru	Wan. diru, Biak rob
no	bireri	
old (thing)	tawa	PAN *tuwah, PWY *tawa,

one	bo-yari, man-siari	Biak kwar PWY *-siri
person	inon-tarai	Wan. sinio-tu, Biak snon-kaku
play	mei	Wan. mei
pull	rabi(t), fo(t)	PAN *cabut, PWY *pot
push	tuba(r)	
right side	do-moya	
road/path	ran	PAN *zalan, PWY *rayan, Biak nyan
root	ne-wa(sa)	PAN *waka/r/, PWY *war, Biak rares
rope	wai	PWY *wai
rub	kika(r)	PAN *kaDus, PWY *kiar
salt	ai	PAN *hasin, PWY *SaSi, Biak masen
sand	nafa, numbuain	PWY *napa, *rubuan
say	ai, madu	
sea	ai-rau, rawanan	PAN *lahud, PWY *rawanan
sew	awa	PWY *awar
sharp	rei-sa	Wan. ma-sai, Biak sar
short (horizontal)	tinan	PWY *tanan, Biak knampu
sing	roki	PWY *ro(k)i
sit	minoki	Wan. masoi
skin	rerawa	PWY *rerawa
sky	rora-(faisi)	PWY *rora, Waropen dora
sleep	ena	PAN *hinep, PWY *ena, Biak enef
small	katui	Wan. katu, Biak kasun
smoke	riraun	
snake	tawai	PAN *sawa, PWY *tawai
spit	kaniu	PWY *kaniSu, POC *kanu(n)si
split	bau(r)	PWY *baSur
squeeze	rami, kuwa(r)	PWY *rami, *kaSur
stab	isan	PWY *isan, Biak wan

stand	oa	PWY *oSar, Biak ores
star	awaka	
stone	kamiai	
suck	su(f)	Wan. sum, Waropen suma
sun	wo	PAN *waRih, PWY *wor, Biak or, Buli wol
swim	eriai	
tail	ama-daun	
they (pl.)	ea	PAN *siDah, PWY *Si-at
thick	kakuban	
think	ene-tituai(tai)	
three	bo-toru, man-toru	PAN *teluh, PWY *toru, Biak kior
throw	so	PWY *so, Biak so
tie	awi(t), kase	PWY *abit, Biak yabek
tongue	tapere-	PWY *tapare, Biak kaprer
tooth	dore-, dere-	Wan. dere
tree	ai	PAN *keyuh, PWY *ai, Biak ai, Buli ai
turn	ara-bera	Wan. vaver, Biak awer
two	bo-ru, man-du	PAN *Duwah, PWY *ru, Biak du, Buli lu
vomit	mamuta	PAN *ma+(h)u(n)taq, PWY *mamuta.
walk	ra	PAN *lakaw, PWY *ra, Biak ra
wash	fafi	PWY *pap, Biak pap
water	mereka	PWY *mare(k)a
we (in.pl)	tata	PAN *kitah, PWY *tata
wet (cloth)	wawasa	PAN *basaq, PWY *vavasa
what	fi-ani	
where	na-doni	
who	man-tei, man-doni	Wan. tei, Biak man-sei
wide	tarera	
wing	wara-peman	PWY *-pema

wipe	u(f)	PAN *qapus, PWY *upis
with (Accomp.)	tuti(r), kontai	PWY *tutir, Biak kuker
woman	vivin	PAN *binay, PWY *vavin, Biak bin
worm	kauboi	Wan. kasivoi
ye	mea	PWY *mi-at
year	fuina	PWY *pura
yellow	bominin	

English - Ambai Wordlist (non-Swadesh words)

English	Ambai	
above	aiyai	
again	e(a)ka	Wan. ea
alone	mesiri, meiri	PWY *mesari
also	kontai	Wan. kota, Biak kako
always	pampan, paria	PWY *pampan
anchor	kamutu	PWY *kamutu, Waropen kamitu
angry	kasou	PWY *kasiou
answer	roa, afu	PWY *roar
ant	anana	PAN *hanay 'termite', PWY *anana, Biak mananak
areca nut	aunai	
arrow	ato	Wan. atovi, Biak ikoi
as	toyari	
ask	utan	PAN *pintah, PWY *utan, Biak fuken
attic	fadai	Ansus padai-pe
aunt (FS)	sumoi	PWY *sumoi

axe	taman	PAN *ka(m)pak, PWY *taman
bachelor	wariboai (male), kada-win (female)	
bag	rotan	PWY *rotan, (cf Biak <u>noken</u>)
bailer	rarun	PWY *rarun
bait	keri	Woi ara, Ansus keri
baking dish	woro	PWY *Sirio
bald	panda	
bamboo (small)	faemai, aumpe	PWY *paSemai
banana	rando	PWY *nando
bark (n.)	ai-rerawa ('tree-skin')	
basket	nawan, baya	PWY *rawan
bat	aya-diru ('bird-night')	PWY *aya-diru
bay	rain	PWY *ravin
beads	raori	Wan. ramor
beam	ai-rape	PWY *ai-rape
bed	fata, koi	PAN *para 'shelf', POC [P,a]ata 'shelf'
bed bug	koin	PWY *koir, Biak or
bee	aniwa	PWY *a(n)dibar, Biak mniber
below	-weu, dombau	Wan. avav
betel pepper	rema	PWY *remar
between	rakanai, rabuan	Ansus rabuan
bird of paradise	botenan	Woi aya-tenani
bitter	pirandima	
blind	ure-fafa, kibe	PWY *kaber, Biak praf
boil (intr)	vivu	
boil (tr.)	ran	PWY *rana
bow (n.)	afai	PWY *apai (cf. Mora apar)
bowstring	afai-sin	
branch	arawan	PAN */dD/aqan, PWY *Sarawan, Biak snau
breadfruit	anita, andau	PWY *andita, Biak andisa

bridge	dodoku, kikairi	
bunch (coconuts)	tuai, amu	PWY *Samur
burn (intr)	dan(-kararu)	
bushknife	umbe	PWY *Sumbe, (cf Biak <u>sumber</u>)
but	wape, manamo	Wan. vape, Ansus mana
butterfly	kamambo	
buy	wori(r)	PWY *vori
calf	awe-rowawa	
calm (ocean)	marin, marirori	PWY *mari-dori
canoe wai	wa	PAN *waNkaN, PWY *wa, Biak
cape (land)	urefan	
carry on back	baki	Wan. bai
carry on head	suan	PAN *suqun, PWY *suan
carry on shoulder	ke(t), sodua(t)	
cassowary	man-soari	Biak man-swar
casuarina	ai-yaru	PAN *haRuh, PWY *-yaru, Biak yar
cat	neki	Serui meki
catch	tafu(r)	PWY *tapur, Biak for
caulk (n.)	tufa, kobu	
change	riwan	PAN *liyan, PWY *riwan
cheek	tara-reai	PWY *tara-re
chest	aro-	PAN *DaDah (?), PWY *Saro
chew	mama	PAN *mamaq, PWY *mama
chicken	man-kukei	PAN *manuk+kukuk
chin	dore-wawa	PWY *dere-vava
choose	iri	PAN *piliq, PWY *iri, Biak kinfir
citrus	diodi, simitoi	Wan. simuti, Waropen simuto, Buli djodji
clean	marebanai	

climb	auta	PWY *auta
close (door)	kafe	
cockroach	kantantini	Ansus kantantin
coconut	ankadi	PWY *ankadi
coconut juice	ankadi kuru	PAN *ZuRuq 'juice', PWY *karu, Biak dur
comb (n.)	u	PAN *sulud (Capell), PWY *sur, Biak asur
comb (v.)	su	PWY *sur
command	ami	PWY *amiaS
conch	tabura	PAN *ta(m)burih, PWY *tabura, Biak kbur be
cough	sea	PWY *seSa, Biak ses
cover (v.)	tabun	PAN *ta(N)kup, PWY *tabun
cowrie korombovi	karavurai	Pom korovui, Papuma
crab	ariri, aifai	Woi kapiri
crawl	sawaya	PWY *savaya, Biak syabes
crocodile	wankori	PWY *wankori < Mora wankori (?)
crooked	kipau, tikapa	PWY *kapau, Biak kaparawer
crossbeam	ai-taba	PWY *ai-tabat
crowned pigeon	mambiriu	PWY *mambaru, Biak mambruk
cucumber kasinano	kasina, kaina	PWY *kasinan, Waropen
curse	arikan	Ansus randian
custom	koan	
cut through	kutu	
dance	makai	
daughter	kamutun	
dead	mireka	
deaf	tara-pararo	PWY *tara-paro, Biak pro
deceive	tofa	PAN */t/ipuh (?)
decorate	marandin	PWY *marandin, Biak fari

dismantle	tota(k)	Wan totap
door	rakutu	Wan. rature
draw/carve	bui, raban	PWY *bui
dream	amiai	PWY *anami
drum	fi-rotu (thing-sounds)	PWY *pi-rotu
dry (grass)	mamasa	PWY *mamasa
dry (tr.)	anika	PWY *ariSa , Biak rires
dugong	diauroi	
earthquake	mundiai	PWY *mundi
east	muran	PWY *muran, Biak murem
easy	mawa	PWY *muawaS
eat (tr)	an	PWY *an
edge	dereun, ruramai	
eight	indea-toru	
embers	karisen	
enemy	rai	PWY *rai(t)
enter	suai	PAN *masuk, PWY *sua, Biak sun
<u>Eugenia</u>	andori	PWY *andori
evil	mamuna	
extinguish	fafe(r)	
eyelash	ure-babukiri	Wan. re-ru-vavuru
fast/quick	akera	PWY *Saira
fat (adj.)	biriaiyai	
fence	wore	PWY *warun
fight	kiwa(t)	
finger	wara-keka	PWY *-ke(k)a
firefly	kananata, awaka ('star')	
first	reantenan	PWY *retatenan
fish (v.)	tukai	PWY *tu(k)a

fishhook	marain-deni	Wan. mamen-de
fishtrap	ye	PWY *Se
fishnet	eran	PWY *Seran
fly (n.)	amumari	PWY *amumar
fold	kafa(r)	PWY *kapar, Biak aper
follow	tuwa	PAN *suaq (Blust), Wan. usar
food	fi-an ('thing-eat')	Wan. pisia
for	we	PWY *ve
forehead	rewo-	PWY *re-babo
forget	faranden, aro-pora(k)	PWY *-paro
friend	kamuki, manivovi	PWY *kamuk, *manivovi (cf. Biak <u>manibob</u>)
frog	vivintankin	
front	fon	PWY *pon, Biak pon
gall	ne-opi	PWY *opi
garden	romi	PAN *Rumaq, PWY *romi
gather	ruki, fanduki	PWY *ru(k)ir
gills	ne-wasa	PWY *-wasa
ginger	kaun	PWY *kaun (borrowed)
glass	kasinai	PWY *kasina (borrowed)
<u>Gnetum</u>	kikan	PWY *marapa
<u>gnemon</u>		
go backwards	su	PWY *su, Biak susu
go down	bia(r)	PWY *biar
gourd	airai	PWY *airiai
grandparent	tafui	PWY *tapu, Biak kpu, apus
grate (v.)	kika(r)	PWY *kikar
grave(yard)	fafo	PWY *papo
grow	tifu	PWY *tipu
hand (of bananas)	isin	PWY *wessin, Biak esen
handle (n.)	kun	Wan. kainu, Mora kum

happy	mirisin, firaise	PWY *marisin, Biak marisen 'to like'
hear	tara-o	PWY *tara-So
heart	ai-bon	PWY *aibon, Biak aibon
heel	awe-didiu	PWY *ae-to-pui
hide (intr)	adiwa(r)	PWY *aniwar
hit	boi	
hornbill	wama	PWY *wama, Biak wamber
house	munu	PAN *banu/w/ah, PWY *manu
how many (animate)	maneiru	
hundred	ia-rin ('twenty-five')	PWY *pia-rin
hungry	wawisi	PAN *bitil (Blust), PWY *(va)visi, Biak biser
hut	yawa, warumai	PWY *yawa
imitate	kariri	PAN *ti/r/uh, PWY *parari, Biak farari
insane	we-fiaiwo	
intercourse	koi	PWY *koi, Biak ok
ironwood	ai-ron	PWY *ai-ron, Biak nor
island	nu	PAN *nusah, PWY *nu, Biak nu-
itch	maitata	PAN *ma+gatel, PWY *matatar
jaw	dere-wawa	PWY *dere-vava
jellyfish	karata	PWY *karata(r)
jump	soi(r)	PWY *kopar, Biak oper
jungle	ai-roron ('wood-inside'), reirei ('land')	PWY *ai-raron
kangaroo, tree	amo	PWY *amor, *musi
kick	kafa(r)	PWY *kapar
kinky (hair)	karaifaki	Woi kararapa
knife	noi	PWY *inoi < Biak inoi
lamp	padamara	Ternate padamara (borrowed)
land	rei	PWY *rei, Biak re

leader	mananu	PWY *mananir < Biak manawir
leak	deda, mi'l	PWY *matir, Biak mgir
leech	kikairi	
light a fire	ruru adia	PAN */t/u/t/uh, Wan. ruria
light (weight)	aiyaiyai	PWY *tapisa
lightning	kaiwewa	Wan. kabebbar (Anceaux)
like (v.)	maya(r)	PWY *mayar
lime	roa	PWY *kiru, Waropen rosa
lip	boro-rawa	
lizard	kapetaini	Wan. kapatiei, Marau kapadiwa
loincloth	kavui	PAN *sabuk, PWY *kavui
long	dewaroi	Wan. aroi
lory	vioai	PWY *vioi
lost	nai	
maize	kasamberei	Wan. pas-amber ('rice-foreign')
make	nari(r)	PWY *ona 'give'
mango	andari	PWY *andani
marry	rirau(t)	PWY *ninaut
mast	randawai	PWY *nandoai
mat	andaun	PAN *panDan, PWY *andaun
meet	sobu	Wan. samu-ai
middle	rabuan	PWY *rabuan
miss	tuwarai, pari	PWY *parir
mortar	ai-sori	PWY *ai-sori, Biak asri
mosquito	fi-karari	
move (intr)	tawera	PWY *tabera
mucus	mamu	PWY *mamu (Malay loan)
mud	fatata	
naked	naiyarora, kakabiri	PWY *kakaburi

navel	ene-kafu	
needle	reti ('wire'), aniai Wan. ret	
nest	ai-sankin	PWY *karain
nine	indeatan	
numb	patite	PWY *patite
oar	bo	PAN *besay, PWY *bo, Biak kabores
obstruct	wedua(r)	PWY *vediora, Biak dwarek
octopus	raukai	PWY *raukai
oil	manin	PAN *minyak, PWY *manin, Biak mani
old man	inon-kutun	
open (door)	fai(r)	
orphan	arikan awata	PWY *awata, Biak awak
outrigger	woman	PAN *saRaman (Capell), PWY *Soman, Waropen somano
outside	woriai	PWY *borira, Biak bon-di
paddle (v.)	wo	PWY *vo, Biak bores
painful	damirai, pirakai	
palm wine	ye	PWY *suan
palm/sole	-fan	PWY *ban, Biak bam/wam
papaya	a(nsa)wai-bon	PWY *asawa, Biak asawa
parents-in-law	nio	PWY *nio, Waropen no-win (mother-in-law?)
pay	bai(t)	PAN *bayaR, PWY *bait, Biak bak
peel (v.)	tita(k)	PWY *titar
peg	ai-subun	PAN *qubung 'join'
penis	i-	PAN */h/u/t/i/h/, PWY *si, Biak si-don
pepper	marisani	PWY *marisan, Biak marisan
pestle	a-dafi	
pigeon	afuran, muntun	PAN *punay
pinch	kefan	PWY *kepan, Biak epen
place (n.)	katai	

plank	wonkan	PAN *waNkaN, PWY *wonkan
plant (v.)	tana(m)	PAN *tanem, PWY *tanam
plate	rewankuai, resaresa	Ternate lesalesa
point to	anawi	PWY *anau
poison	fi-memu	PWY *pi-mamur
<u>Pometia</u> p.	tawan	Wan. tawa
portside	do-tayan	PWY *do-tayan
post	diri	PWY *diri, Biak adir
pound (sago)	tara, tuta(k)	PWY *tara, *tuta, Biak kuk
pour	sara	Wan. sara
power	tapapa, payai	PWY *puaya
praise	somi, aparandin	Wan. som, PWY *aparandin
prawn	kaweini	PWY *kawein, Biak kawen
press	tawan	PWY *tawan
pull out	fatin	PWY *patin, Biak pas
pus	nana	PWY *nana (Malay loan)
rack	ruai	PWY *ruai
rainbow	evi	PWY *Sebi, Biak saseb(i)
rat	karu	
reef	yawa, kamiran	Wan. yawar
release	tawin	Wan. tavina, PWY *pikara
remember	aro-o	
return home	ara-bera(k)	
rice	pa	PAN *pajay, PWY *paS, Biak fas
ripe	mirai	Wan. marai
river	waya	PAN *wayeR 'water'
roll	roya(r)	Wan. royar
roof	antaraun	Wan. randan
round	we-robong	

sago frond rib	ampeki	PAN *rumbi/y/ah, PWY *amper, Biak amper
sago pounder	mawai	PWY *amau, Biak amau
sago powder	taun	Wan. tau
sago pudding	anan	Wan. ana, Mora anan
sago stirrer	daru	PWY *duaru, Biak aduar
sail (n.)	arawin	PWY *Sarawin, Biak sarwir
sail (v.)	afai	PWY *apai(r)
same	mai	PWY *maSi, Waropen maisa
sash	areai	PWY *Sareai
satiated	mamosi	PWY *(ma)mosir
scabies	an	Wan.an
scales	ne-una	PAN *qunap, PWY *ne-una, Biak unef
sea bird	manken	PWY *manken, Mor mangeng 'cormorant'
sea spirit	wori	PWY *wori
see	wati	PWY *ure-So
seed	kamiai ('stone')	Mora kami (?)
seek	sera	PWY *(sa)sera
sell	awayan	
servant/captive	womin	PWY *womin, Waropen Gomino (Held)
seven	itu	PAN *pituh, PWY *itu, Biak fik
shadow	nuaninu	
shark	mandokai	Woi mandokai
shine	sambewarai	Wan. visambiar
short (vertical)	tewawa, tanan	PWY *tanan, Woi tevava
shoulder	wara-boiyawa	
sibling (older s.sex)	tafuai	PWY *neta-baba
sibling (ynger. d.sex)	roro-(man/win)-katui	PWY *raruo-katu
sibling (ynger. d.sex)	takatui	PWY *neta-katu
sink	asui	PWY *marutu

six	wonan	PAN *henem, PWY *wonan, Biak wonem, POC onom
skinny	kewariroi(ni)	
sleepy	ure-mamon	Wan. mo
slow	fatamai	Ansus pantana
smell (tr.)	nuna(k)	
son	kaisun	
soon	katu	PWY *okatu, Biak knik
sound (v.)	dotu	PWY *rotu, Biak rok
sour	sisasa	PAN *hasem, PWY *sasa
spear (n.)	wombua	Mora umbuware (Turu)
sperm	ka	PWY *si-kako
spider	man-sai-eran ('animal-?-net')(?)	
spin rope	baya(r)	PWY *bayar
squid	antinui	Serui antanu
stalk (bananas)	wairi	
starboard	do-woman ('side-outrigger')	PWY *(i)do-Soman
starfish	kawankamu	
steer	siru	PWY *siru
steps	tekende, keti	Wan.te
stick (digging)	ai-so	
storm	we-dobarai	PWY *diobara
straits	wora	PWY *Sora, Biak soren pak
strong (wood)	mitu	PWY *matu
sugarcane	tovu	PAN *tebuh, PWY *tovu, Biak kob
swallow (v.)	ton	PAN */t/elen, PWY *ton, Biak oren
swamp	towai	
sweep	iri	PWY *irara
sweet	miaain	

tall	adai	Wan. tariai
taro	barimu	loan
teach	ainau	PWY *aniau
tear (tr.)	fo-abui	PWY *-Sabu, Biak sawek
ten	sura	PWY *Saura, Biak samfur, Mor taura
testicles	woro-kamiai	PWY *Soro- 'scrotum'
they 2	u-ru	PWY *Sa-ru, Biak sko
they 3	i-toru/ coru	PWY *se-toru
thigh	awe-dun	PWY *awa-dun
thirsty	rao-tataka	
throw away	kabi	
thwart	ande	PWY *Sande
tide, high	su	
to	to	PWY *to
to where	to-doni	
toe	awe-keka	PWY *ae-ke(k)a
tomorrow	aka	
tree trunk	ai-robon	
twenty	pia-rei	PWY *pia-
twins	arikan tatarui	
urinate	kakeri marareka	PWY *kaeri
vagina	di- kamirei	PWY *di-
vein	ae	
village	munue	Biak mnu
wait	anonai	PWY *anota
wall	taba, kau	Woi kawari
water jar	babeu, katiti	PWY *babeSu, Biak babeu
wave (n.)	andeisa	
we (ex.tr.)	an-toru	

we (in.dl.)	tu-ru	
weak (wood)	finakan	
weave/plait	anu(m)	PAN *anyam (Blust), PWY *anum, Biak yanem
weep	sai	PAN *taNis, PWY *saiS, Biak kanes
west	fui 'back'	Wan. ba
whale	saroi	PWY *saroi, Biak saroi
why	we-fiani	
widower	mansani	PWY *masian, Biak masyan, Mor maisana
wound (n.)	kakai	Mora kakai, PWY *kapor, Biak par
wrap	taban	PWY *taban
wrist	wara-raon	
wrong	sarawai	Wan. sasarai, Biak sasar
yam	uvi	PAN *hubih, PWY *uvi
yawn	amafa	PWY *(ma)mavav, Biak mabab

The following text is the story of the day Isak died as told by his friend. The story was recorded in Rondefi, the sister village of Ambai by Herman Maniani, a primary school teacher.

The format for the text is as follows: the first line is orthographic. The second is the phonemic form. The third line is a morpheme-by-morpheme translation, and the fourth line is a free translation into English. Single slash (/) marks short phonetic pause. Double slash (//) indicates longer pause. Numbers indicate rough sentence divisions.

1. yau / isaki / feredeki // awahoi bereri we antorufefe /
 iau isaki feredeki auakoi bereri ue an-toru-fefe
 Is Isak Feredek tobacco NEG BEN lex-tr-CAUSE

'Because Isak, Feredek, and I had no tobacco ..

antowo nano munune // 2. antowo antorawohi
 an-tor-uo nano munu-ne an-tor-uo antor-awoki
 lex-tr-paddle from house-NE lex-tr-paddle lex-tr-float

'..we paddled from the village. We paddled, we floated, ..

antotukai nano Mareafuifi // 3. antorawohiya
 an-tor-tukai nano Mareafuifi an-tor-awoki-ra
 lex-tr-fish at Mareafuifi lex-tr-float-PERF

'..we fished at Mareafuifi. When we had floated..

diru mani / metanei / dobaranei / minso
 diru mani metan-ne-i dobara-ne-i minso
 night TOPIC rain-NE-sg storm-NE-sg rain.on

'..until night, the rain, the storm rained ..

antorufefe / antowawu arei / antorau nano
 an-toru-fefe an-tor-uabu a-rei an-tor-au nano
 lex-tr-CAUSE lex-tr-flee EXT-land lex-tr-go.up at

'..on us, therefore we fled to the land. We climbed up at..

raontawa rau // 4. awa ahafo
 raontaua rau aua aka-fo-Ø
 Raontawa sea then morning-FO-unspec

'..Raontawa . The next morning, ..

buara / antowo arau antotukai nano Wondeniafi
 bua-ra an-tor-uo a-rau an-tor-tukai nano Wondeniafi
 white-PERF lex-tr-paddle EXT-sea lex-tr-fish at Wondeniafi

'..when it was light, we paddled out to sea and as we fished..

mani / feredeki fio mandohai manei tuti
 mani feredeki di-fo mandokai man-ei tutir
 TOPIC Feredek 3s-pull shark anim-one with

'..at W., Feredek caught a shark and..

dian urofaN manei / mandufe // 5. ainanaiya
 dian urofan man-ei man-ru-fe ai-nanai-a
 fish Waropen anim-one anim-two- ? then

'..a(nother) fish, two (fish). Then..

antosea arau antoruai arawinei / defai bau
 an-tor-sea a-rau an-tor-ruai arawin-ne-i di-afai bau
 lex-tr-glide EXT-sea lex-tr-lift sail-NE-sg 3s-sail split

'..we glided out to sea and raised the sail. The canoe..

mawampi awaru // antowo nano mawampi aiyai /
 mauampi a-uaru an-tor-uo nano mauampi a-iai
 Mawampi EXT-across lex-tr-paddle from Mawampi EXT-up

'..sailed across to Mawampi. We paddled from the top of M.

antorawohi nano pasari refompo // Isaki dino
 an-tor-auoki nano pasari re-fon-fo isaki di-no
 lex-tr-float at market side-front-FO Isak BE- ?

'We floated in front of the market. Isak..

bia / da to Waromi Miko arei // mae /
 di-bia di-ra to uaromi miko a-rei mae
 3s-descend 3s-walk to Waromi Miko EXT-land while

'..got down and walked to Miko Waromi's house . Meanwhile, ..

feredeki di kia dianeuru / da arei /
 feredeki di di-ka dian-ne-u-ru di-ra a-rei
 Feredek BE 3s-take fish-NE-3-dl 3s-walk EXT-land

'..Feredek took the two fish and went ashore..

dewayaN suru / wiori awahoi bei //
 di-auaian su-ru di-unri auakoi bei
 3s-sell 3-dl 3s-buy tobacco one

'..and sold the two fish and bought tobacco.

da nari-eha mandau / Isaki da eha mandau /
 di-ra nari-eka man-rau isaki di-ra eka man-rau
 3s-walk make-again INT-sea Isak 3s-walk again INT-sea

'He walked back to the sea. Isak walked back to the sea.

antorau wanei / antowowariaima
 an-tor-au ua-ne-i an-tor-uo-uari-ai-ma
 lex-tr-ascend canoe-NE-sg lex-tr-paddle-around-?-to here

'We got into the canoe , we paddled around towards home.

maino Manwarafi mani / niurainso ne
 maino manwarafi mani di-nurainso ne-Ø
 until Manwarafi TOPIC 3s-feel POS-3s

'As we reached Manwarafi, (Isak) felt ..

tarainei kirarutu / ampefe sau aweu /
 tarai-ne-i di-kararutu an-fefe di-tawa a-ueu
 body-NE-sg 3s-shiver ?-CAUSE 3s-fall EXT-down

'..his body shiver, therefore he dropped down..

tebuni wiatai / mae auru dino / auwo
 di-tabun-i di-uatai mae au-ru di-no aur-uo
 3s-wrap-3s 3s-lie while lex-dl BE-? lex.dl-paddle

'..wrapped himself up and lie down. Meanwhile, we two..

antoru // auwo antoruma maino Kainuiya /
 an-toru aur-uo an-toru-ma maino Kainui-ra
 lex-tr lex.dl-paddle lex-tr-to here until Kainui-PERF

'..paddled the three of us. When we reached Kainui..

antorarafui arei // yau ibia / ira
 an-tor-ra-a-fui a-rei iau i-bia i-ra
 lex-tr-walk-EXT-back EXT-land ls ls-descend ls-walk

'..we walked back ashore. I got out. I walked..

to romifoia // Isaki bia da awaru
 to romi-fo-i-a isaki di-bia di-ra a-waru
 to garden-F0-sg-EXT Isak 3s-descend 3s-walk EXT-side

'..to the garden. Isak got out. He walked across..

ne romi kutuN dohonai nano waya warui //
 ne-Ø romi kutun di-okon-ai nano uaia uarui
 POS-3s garden small 3s-give-unspec at river Warui

'..to his small garden he had made at the Warui river.

da eha mambaru mani / Yani dohoN
 di-ra eka man-uaru mani iani di-okon
 3s-walk again INT-side TOPIC Yan 3s-give

'When Isak came back, Yan gave..

tobu boru wei // yu eai ma / dana /
 tobu bo-ru we-i di-ru ea-i ma(ni) di an-ra
 sugarcane inan-two WE-3s 3s-hold 3pl-? TOPIC 3s-eat-PERF

'..him two pieces of sugarcane. Holding them, when he had...

dantukinai ma / ne tarai kirarutu fubara //
 di-an-tukinai ma(ni) ne-Ø tarai di-kararutu fuba-ra
 3s-eat-? TOPIC POS-3s body 3s-shiver large-PERF

'..eaten, as it hurt him to eat, his body really shivered.

dawawaru / dau biuai andauN na
 di-ra-a-uaru di-au di-buai andaur na
 3s-walk-EXT-side 3s-ascend 3s-unroll mat on

'He went over, climbed up, and unrolled a mat on..

woNgampoi // sau aweu wiataiya rirora
 wonkan-fo-i di-tau a-ueu di-watai-ra rirora
 board-FO-sg 3s-fall EXT-down 3s-lie-PERF shake

'..a board. He dropped down. Lying there, he shook..

finanaiya // ira meu feredeki deyo /
 fi-nan-ai-ra i-ra meu feredeki di-aio
 thing-that-unspec-PERF 1s-walk down Feredek 3s-say

'..like that. I went down to Feredek and Isak said,...

mukerate / amai denteN kaha fefe /
 mu-(sa)kera-te amai di-aten kaka fefe
 2dl-quick-POSSIB. in-law 3s-well NEG CAUSE

"You two might be quick because your in-law isn't well."

yohoN timuri kutu bei arau kasoaiya /
 i-okon timuri kutu bei a-rau
 1s-give manioc small one EXT-sea

'After I put some manioc on the fire..

antorau wafoa / antowc pari pari
 an-tor-au wa-FO-ra an-tor-uo pari pari
 lex-tr-ascend canoe-FO-PERF lex-tr-paddle CONT CONT

'..and after we got into the canoe, we paddled and paddled..

ma maino Feafi mani / dei beyari deyo /
 ma maino feafi mani di-ai beiari di-aio
 to here until Feafi TOPIC 3s-say one 3s-say

'..and when we reached Feafi Isak said,...

muruiue / ye imireha fefe / muwo totoru //
 mu-ru-i-ne i-ai i-mareka fefe mur-uo to-toru
 2-dl-?-NE 1s-say 1s-die CAUSE 2dl-paddle 1m-tr

"You two, since I'm going to die, we two paddle us."

antowo pari ma mai wararenea mani /
 an-tor-uo pari ma mai uarare-ne-ra mani
 lex-tr-paddle CONT to here until side-NE-PERF TOPIC

'We paddled until we reached home and..

yutaN ayai yoyo / marikaiasi / mufobera
 i-utan a-ai i-aio marikaiasi mu-fo-bera
 ls-ask EXT-up ls-say Marikaias 2dl-pull-turn

'I called up I said, "Marikaias, pull..."

wa ambori ketiwai kesau mani / uruai
 ua an-wori keti-wa-i kesau mani u-ruai
 canoe ?-then steps-WA-sg wide TOPIC 3dl-lift

"...a canoe around so when the steps are wide they can lift..

Isaki meai te denteN kaha fefe //
 Isaki me-ai te di-anten kaka fefe
 Isak ?-up POSSIB. 3s-well NEG CAUSE

"...Isak up since he's not well."

wafo wiruaiya / Marikaiasi bia meu kionto
 wa-fo wiru-ai-ra Marikaiasi di-bia meu di-konto
 canoe-FO away-?-PERF Marikaias 3s-descend down 3s-add

'After the canoe was moved away, Marikaias went down and..

Feredeki uwarami fafiati aiyai / wiataiya
 Feredeki u-uara-mi fafiat-i a-iai di-watai-ra
 Feredek 3dl-hand-pl place-3s EXT-up 3s-lie-PERF

'..Feredek and M. lifted Isak and placed him on top.

mampui kiaha. roronea bibe paria sobu
 man-fui di-kaka roron-ne-ra bibe paria di-sobu
 INT-front 3s-pass inside-NE-PERF scream CONT 3s-meet

'He lie out front he kept screaming until..

tarahi jami surateaiya / kiuku urempoa
 taraki jami sura-teai-ra di-kuku ure-n-fo-ra
 about hour ten-little-PERF 3s-close eye-3s-FO-PERF

'.. about ten o'clock when he closed his eyes..

kai finanaia // mirehara //
 kai fi-nan-ai-ra di-mareka-ra
 COMP thing-that-unspec-PERF 3s-die-PERF

'..just like that, he died.'

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