

AROMA MORPHOLOGY

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0. Introduction¹

Aroma is an Austronesian language spoken by approximately 4,000 people who live in eleven coastal villages in the eastern part of the Central Province of Papua New Guinea.² The most complex area of Aroma morphology is the verb, and the discussion of verbal affixes forms the largest section of this paper. Affixes to the noun, modifiers, demonstratives, numerals and conjunctions are also discussed.

1.0 Verbal Affixes

1.1 The Basic Verb Form

Aroma basic verb forms are fairly complex in structure, containing a number of affixes to the verb root which mark, inter alia, tense, aspect, person and number of subject and object, causative, negative, etc.

Verb phrases are of this structure:

(ma-) tnp (neg) (va-) (ve-) V (-wai) (os) (asp)

1.2 The Tense, Number, Person suffix

Tense, number and person of the subject in Aroma are marked by portmanteau morphemes, i.e. the tnp element above. This phenomenon is not unusual in Austronesian languages, and occurs in Hula, Sinagoro and Motu, which are related to Aroma. An analysis of Aroma portmanteau morphemes is presented in Section 1.4 (See Table 1).

1.3.0 The Functions of the Tenses

The two main Aroma tenses are the Non-Future and the Future. There is no past tense as such.

1.3.1 Immediacy and Remoteness

Within the general categories non-future and future there are two subdivisions, immediate and remote. The difference in meaning between immediacy and remoteness cannot be defined in X number of days. The immediate is used for those actions which occur relatively

Table 1: Portmanteau Morphemes in Aroma

POSITIVE						
Non-Future			Future		Rejected Condit- ional	Antici- patory*
Immediate		Remote	Immediate	Remote		
1.	a	pa	ana	pana	ara	
2.	o	po	ono	pono	oro	
3.	e	pe	ene	pene	ere	
1. incl	ga	pa	e	pe	ere	
1. excl	ga	paga	iga	piga	gara	
2.	go	pogo	igo	pigo	goro	
3.	ge	pege	ige	pige	gere	

NEGATIVE						
Non-Future**			Future***		Rejected Condit- ional	Antici- patory
1.	na			paana		
2.	no			poono	ooro	ro
3.	ne			peene	eere	re
1. incl	noai ga			piana	eere	roai ga
1. excl	noai ga			pigana	gaara	roai ga
2.	noai go			pigono	gooro	roai go
3.	noai ge			pigene	geere	roai ge

* These forms appear to be morphologically negative and do not have both positive and negative forms (see 1.3.5)

** I.e. Immediate (see 1.4)

*** I.e. Remote (see 1.4)

close to the present, and the remote is used for those actions which occur relatively remote from the present.

1.3.2 The Non-Future Tenses

Both the immediate and the remote non-future tenses are used to denote actions wholly or partly in the past. In addition, the immediate non-future tense is used for habitual actions, and those which have very recently occurred, i.e. in the relatively recent past. However, if a specific time is mentioned, even if it is remote from the present, the immediate non-future tense is used. One possible explanation is that the time phrase 'sets the scene' for the action, and that the action is thus interpreted as having occurred in the immediate past of the specific time mentioned. If more precision is required, the perfective aspect suffix, -o, is used with the immediate non-future tense. (See Section 1.8.)

The remote non-future tense is used elsewhere, i.e. for those actions which are non-recent; or where time is non-specific. Remoteness is marked by a prefix only when not marked any other way.

- (a) The functions of the immediate non-future tense are:
1 habitual

(2) (thau) a - riku³
1s inf:s:1 - swim
'I swim.'

(3) ila -na magani ge - ganigani - ria⁴
3 pl -tsm fish inf:pl:3 - eat - os
'They eat fish.'

- 2 recent past

(4) (ia) e - thoa
3 s inf:s:3 - walk
'He walked.'

(5) (mui) go - veamai
2 pl inf:pl:2 - come
'You (pl) came.'

(The immediate non-future tense is the only tense which may take the aspect suffixes discussed in Section 1.8.)

The perfective aspect suffix, -o is used with the Rejected Conditional tense but this is accounted for in Section 1.4.)

- (b) The function of the remote non-future tense is to mark remote past:

(6) (goi) po - thao
2 s nf:s:2 - go
'You (s) went.'

- (7) (thai) paga - pala
 1 pl excl nf:pl:lexcl - dance
 'We danced.'

The two examples below indicate the special use of the immediate non-future tense, when remote time is specific, as discussed above. Note the change from remote (in (8)) to immediate (in (9)) when the time is specified.

- (8) (ia) Kupiano - ai pe - thao
 3 s Kupiano - to nrf:s:3 go
 'He went to Kupiano.' remote
- (9) (ia) Kupiano - ai 1966 thaonai e - thao
 3ps Kupiano - to 1966 in inf:s:3 - go
 'He went to Kupiano in 1966.'

(c) There is only one negative form for both the immediate and the remote non-future tenses. The singular forms are na, no, and ne. The plural uses noai 'no', and the immediate non-future form. The following sentences could be either immediate or remote.

- (10) (thai) noai ga - thoa
 1 pl excl neg nf:pl:lexcl - walk
 'We did not walk.' {immediate
 {remote}
- (11) (thau) na - mari
 1 s neg:nf:s:1 - sing
 'I did not sing.' {immediate
 {remote
 'I do not sing.' habitual

1.3.3 The Future Tense

Both the immediate and the remote future tenses are used to denote actions which are not yet completed. This distinction between immediacy and remoteness is discussed in Section 1.3.1.

- (a) The functions of the immediate future tense are:
 1 inceptive

- (12) (thai) iga - alualu
 1 pl excl if:pl:lexcl - sit
 'We are about to sit.'
- (13) (goi) ono - rori
 2 s if:s:2 - talk
 'You are about to talk.'

- 2 present continuous

- (14) (ia) ene - pala
 3 s if:s:3 - dance
 'She is dancing.'

(15) (ila) ige - mari
 3 pl if:pl:3 - sing
 'They are singing.'

3 obligatory

(16) (ia) e - thapana
 1 pl incl if:pl:1incl - hunt
 'We must/have to hunt.'

(17) (ia) ene - thao
 3 s if:s:3 - go
 'He must/has to go.'

4 positive commands

(18) (mui) igo - ganigani
 2 pl if:pl:2 - eat
 'Eat (pl).'

(19) (goi) ono - rualai
 2 s if:s:2 - stand up
 'Stand up (s).'

5 future of intention

(20) (thau - na) waga ana - vagi - a
 1 s - tsm dog if:s:1 - kill - os
 'I am going to kill the dog.'

(21) (thai) iga - pala
 1 pl excl if:pl:1excl - dance
 'We are going to dance.'

(b) The functions of the remote future tense are:

1 future (more remote than inceptive or future of intention)

(22) (ila) pige - agi
 3 pl rf:pl:3 - cry
 'They will cry.'

(23) (ia) pene - veamai
 3 s rf:s:3 - come
 'He will come.'

2 Conditionals. These are sentences where the action in the conditional clause may occur at some time in the future. (Rejected conditionals are a special type discussed in Section 1.3.4) The remote future tense occurs in both clauses, unlike English.

(24) pene (ia) pene - thao Aroma - ai
 if 3 s rf:s:3 - go Aroma - to
 (ia - na) goi ina - mu pene - ia - tha
 3 s - tsm 2 s mother - your rf:s:3 - see - os
 'If he goes to Aroma, he will see your mother.'
 'If he went to Aroma, he would see your mother.'

- (25) pene (thau - na) vuatha pana - ia-tha
 if I s - tsm crocodile rf:s:l - see-os
 (thau) pana - gogo
 I's rf:s:l - call:out
 'If I see a crocodile, I will call out.'
 'If I saw a crocodile, I would call out.'

(Note that pene, 'if', in these conditions is phonologically identical to rf:s:3.)

(c) As in the non-future tenses, there is only one negative form for both the immediate and remote future tenses. The singular negative is formed by the lengthening of the first vowel of the remote form. The plural is formed by adding -n plus a harmonic vowel,⁵ after the tense, number, person marker of the remote form. The functions of the negative future tense are:

1 negation of the future

- (26) (mui) pigono - agi
 2 pl neg:f:pl:2 - cry
 'You (s) will not cry.'
 (27) (ia) piana - thoa
 1 pl incl neg: f:p:l:incl - walk
 'We do not have to walk.'

2 negative commands

- (28) (goi) poono - mamai
 2 s neg: f:s:2 - laugh
 'Don't laugh (s).'
 (29) (mui) pigono - mari
 2 pl neg: f:pl:2 - sing
 'Don't sing (pl.).'

1.3.4 The Rejected Conditional Tense

Rejected conditions are those where the action of the principal clause did not happen at all, as in English: 'If he had gone to University, he would have become a scientist.' The rejected conditional is always used with the perfective aspect. (This is discussed in detail in Section 1.4.) Note that the rejected conditional form occurs in both verbs, unlike English.

- (30) ere (thau) ara thao - o Hula - ai
 if I s rc:s:l -go perf Hula - to
 (thau) ara - ve - vagi - o
 1 s rc:s:l rec - fight - perf
 'If I had gone to Hula, I would have fought.'

(Note: ve- will be discussed in Section 1.6.)

- (31) ere (goi) oro - mari - o (thau)
 if 2 s rc:s:2 - sing - perf I s
ara - mamai - o
 rc:s:1 - laugh - perf
 'If you had sung, I would have laughed.'

(Note that 'if' in rejected conditionals is phonologically identical to rc:s:3.)

The negative of the rejected conditional tense is formed by the lengthening of the first vowel.

- (32) ere (thai) gaara - thao - o
 if 1 pl excl neg:rc:pl:lexcl - go - perf
 (thai -na) ia gaara - ia tha - o
 1 pl excl -tsm 3s neg:rc:pl:lexcl - see os - perf
 'If we had not gone, we would not have seen him.'
- (33) ere (goi) ooro - gogo - o
 if 2 s neg:rc:s:2 - call out - perf
 (ila) geere - veamai - o
 3 pl neg:rc:pl:3 - come - perf
 'If you hadn't called out, they would not have come.'

1.3.5 The Anticipatory Tense

This cannot be described as a complete tense as it does not have both positive and negative forms. The forms do appear morphologically to be negative. The functions of the anticipatory tense are:

(a) imperfect

This is used for actions which have not been completed at the time of speaking, but which are expected to be done.

- (34) (thau)ra - thao
 1 s ant:s:1 - go
 'I haven't gone yet.'
- (35) (mui) roai go - ganigani
 2 pl ant:pl:2 - eat
 'You (pl) haven't eaten yet.'

(b) sequential

This is used for the second in a sequence of two actions.

- (36) (ia) re - veamai thao - na - ai
 3ps ant:s:3 - come go - 3:s - at
 (thau) pa - thao
 1ps rnf:s:1 - go
 'Before he came, I left.'
- (37) (thai) roai ga - thao thao-na-ai
 1 pl excl ant:pl:lexcl - go go -3s-at

(thau) Aroma - ai pana - thawai
 1 s Aroma - to rf:s:1 - come
 'Before we leave, I will come to Aroma.'

1.4 The Portmanteau Morphemes

In this section, a possible breakdown of the portmanteau morphemes shown in Table 1 is presented. I suggest that the components of the portmanteau morphemes are aspect, tense, number, and person, in that order.

- a. Aspect: remote - p
 immediate - unmarked
- b. Tense: the tense markers are
 non-future - \emptyset
 future sing - VnV (where V is a harmonic vowel,
 explained in Section 1.4.2)
- c. Number: plural - i
 singular - \emptyset
 plural - g
- d. Person: first person - a
 second person - o
 third person - e

The non-future tenses are simply explained. Thus, a - for first person singular, immediate non-future tense is:

ASPECT	TENSE	NUMBER	PERSON
Unmarked	\emptyset	\emptyset	a = <u>a</u>

The future tenses are slightly more complicated. In the singular, the tense is marked by VnV. Both these vowels are harmonic with the person marker. It seems likely therefore, that the original forms were anaa, i.e. VnV+a which becomes ana+a, onoo, and enee. The final long vowel was then shortened, giving ana, ono, and ene. The breakdown of the morpheme pono, then is:

ASPECT	TENSE	NUMBER	PERSON
marked	VnV	singular	second
p	ono	\emptyset	o = <u>pono</u>

This system accounts for the positive forms of the non-future and future tenses, with the exception of the first person plural inclusive, 'we'. This form is completely irregular. Sometimes it takes first person marker - a, sometimes third person marker - e. In only one instance, the immediate non-future tense, does it take the plural marker - g. The non-appearance of the plural marker may be explained by the fact that the first person inclusive must always be plural. However this fails to account for the single instance of g mentioned above. The rejected conditional is also complicated. It seems to be formed from the immediate non-future tense and the anticipatory tense.

This is supported by the fact that the rejected conditional tense is the only one other than the immediate non-future which may take the perfective suffix -o. Thus the breakdown of gara, '1 pl excl', is:

ASPECT	TENSE	NUMBER	PERSON	ANT
unmarked	∅	g	a	ra = <u>gara</u>

The negatives are also complicated. The remote option is lost in the non-future tense, while the immediate option is lost in the future. The non-future negative singular forms na-, no-, and ne- may be analyzed as contractions of noai a-, noai o-, and noai e-. The plural uses noai, 'no', and the immediate form. The future tense negative reduplicates the first harmonic vowel in the singular, but adds -n- plus a harmonic vowel in the plural. The rejected conditional tense reduplicates the first harmonic vowel throughout.

1.5 The Causative Prefix

The causative prefix, va-, is added to certain verbs and modifiers, as shown in the list:

<u>pue</u>	'down'	<u>va - pue</u>	'to switch off'
<u>vonu</u>	'full'	<u>va - vonu</u>	'to fill'
<u>rava</u>	'bad'	<u>va - rava</u>	'to destroy'
<u>nama</u>	'good'	<u>va - nama</u>	'to improve'
<u>malaga</u>	'light'	<u>va - malaga</u>	'to lighten'
<u>ripa</u>	'know'	<u>va - ripa</u>	'to teach'
<u>make</u>	'spin'	<u>va - make</u>	'to make something spin'

Compare (38) with (39) where the verb is prefixed by va-:

(38) (ia - na) e - ripa - tha
 3 s - tsm inf:s:3 - know - os
 'He knows it.'

(39) (thau-na) ia a - va - ripa - tha
 1 s - tsm 3ps inf:s:l - caus - know - os
 'I taught him.'

1.6 The Reciprocal Prefix

The function of the reciprocal prefix ve- is to show that the action was reciprocated.

(40) (ila) pege - ve - vagi
 3 pl rnf:pl:3 - rec - fight
 'They fought.' i.e. each other.

(Note: if ve- is used, the object suffix is not used.)

The prefix ve- is also used with (ipo) mau+poss, in reflexives.

- (41) ia ipo mau - ria e ve - voro
 1 pl incl reflex - poss inf:pl:lincl rec - cut
 'We will cut ourselves.'
- (42) vuatha mau - na pe ve - vuligi
 crocodile reflex - poss nf:s:3 rec - wash
 'The crocodile washed itself.'

1.7 The Object Suffix

The object suffixes are:

	Singular	Plural
1 excl	-ku	-mai
1 incl	-	-ria, -ra
2	-mu	-mui
3	-a, -tha	-ria, -ra

The object suffixes are similar to the possession suffixes with the exception of the third person singular.

- (43) (ia - na) goi ene - vagi - mu
 3 s -tsm 2 s if:s:3 - kill - os
 'He is going to kill you.'
- (44) thau ama - ku - na e vagi - ku - o
 1 s father hit - my -tsm inf:s:3 hit - os - perf
 'My father hit me.'

With the third person singular, -tha is used after verbs which end in -a. -a is used elsewhere.

- (45) waga-na pae e - vagi - a
 dog -tsm pig inf:s:3 - kill - os
 'The dog killed the pig.'
- (46) wa au-na vuatha e - ia - tha
 the man-tsm crocodile inf:s:3 - see - os
 'The man saw the crocodile.'

The suffix -ria is used when it is verb final. When the object suffix is followed by an aspect marker, -ra is used.

- (47) (thai -na) magani ga - gani-ria
 1 pl excl -tsm fish inf:pl:lexcl - eat - os
 'We eat fish.'
- (48) (thai -na) magani ga - gani -
 1 pl excl -tsm fish inf:pl:lexcl - eat -
ra - wai
 os - far past
 'We used to eat fish.'

1.8 The Aspect Suffixes

The three aspect markers, o-ole, nia-ni and wai are used only with the immediate non-future tense.⁶ The functions of the aspect markers are:

o ole

the perfective

- (49) (ia - na) magani e - narunaru - a - o
3 s -tsm fish inf:s:3 - cook - os - perf
'She has cooked the fish.'
- (50) (ila) ge - veamai - o
3 pl inf:pl:3 - come - perf
'They have come.'

nia ni

the habitual

- (51) (goi) o - alu - nia
2 s inf:s:2 - sit - hab
'You (s) sit.'
- (52) (thau) a - uliuli - nia
1 s inf:s:1 - sew - hab
'I sew.'

wai

a. imperfective

- (53) (ia) e - warega - wai
3 s inf:s:3 - die - imperf
'(As) he was dying...'

b. past continuous

- (54) (goi) o - mau - wai
2 s inf:s:2 - sleep - pastcon
'(While) you were sleeping...'

c. terminated habitual (describes actions which in the past were repeated regularly but which are not carried on in the present.)

- (55) (ia) e - alu - wai Hula - ai
3 s inf:s:3 - stay - terhab Hula - at
'We used to stay at Hula.'
- (56) (ila) ge - uliuli - wai
3 pl inf:pl:3 - sew - terhab
'They used to sew.'

1.9 Iteration and Repetition

I do not fully understand the use of ma- and -wai as yet. The prefix ma- is the first morpheme in the verb phrase, and is used to indicate iteration and repetition. There are some actions like

cutting grass, which cannot be considered to be complete until more than one repetition of the single action has taken place. The prefix ma- is used to express this idea of iteration.

- (57) (ia) iula - ai ma - e - ulavunu - nia
 3 s garden - in rep - inf:s:3 - work - hab
 'He works in the garden.'
- (58) (ia -na) mu ma - pene - rele - ria
 3 s -tsm grass rep - rf:s:3 - cut - os
 'He will cut the grass.'

Repetitive ma-...-wai is also used in simple repetition.

- (59) (ila) ma - pege - mari - wai
 3 pl rep - rnf:pl:3 - sing - again
 'They sang again.'
- (60) (thai) ma - piga - pala - wai
 1 pl excl rep - rf:pl:1excl - dance - again
 'We will dance again.'

Note: this -wai is not the same as the aspect suffix -wai. The repetitive -wai comes before the object suffix.

Compare (61), which contains the repetitive -wai, with (62) which contains the aspect suffix -wai.

- (61) (ila - na) waga ma - pege - wari - wai - a
 3:pl - tsm dog rep - rnf:pl:3 - hit - again - os
 'They hit the dog again.'
- (62) thau ama - ku - na pae ma - e -
 1:s father - my - tsm pig rep - inf:s:3 -
vagi - wai - ria - wai
 kill - again - os - far past
 'My father used to kill pigs.' Notice how both
 'wai's' appear in this example.

In example (62), ma-...-wai is used to express the idea that it used to take more than one blow to kill each pig.

2.0 The Noun

2.1 Possession

2.1.1 Possessive Constructions

Arama, like most Oceanic languages, exhibits two types of possessive constructions, which differ in surface-syntactic structure. These are generally referred to as inalienable and alienable. In both cases, the possessor is obligatory if a noun, optional if a free pronoun. In addition, suffixed pronominals are always used in the

ways described below.

Table 2: Suffixed Possessive Pronominal Forms in Aroma

Person	Personal Pronoun	Possessive Pronominals
1	thau	-ku
2	goi	-mu
3	ia	-na
1incl	ia	-ria
1excl	thai	-mai
2	mui	-mui
3	ila	-ria

2.1.2 Inalienable Constructions

Nouns which are possessed inalienably are kinship terms, body parts, and certain others. (See 2.1.4.)

The structure of the inalienable construction is a noun (or an optional pronoun), followed by the noun possessed, with the appropriate possessive pronominal form suffixed to the possessed noun.

- (63) (thau) ina - ku
 1 s mother - my
 'my mother'
- (64) (ia) ama - na
 2 s father - his
 'his father'
- (65) Puka ari - na
 Puka younger brother - his
 'Puka's younger brother'
- (66) (goi) ima - mu
 2 s hand - your
 'your (s) hand'

2.1.3 Alienable Constructions

(a) Possessive Morpheme ge-

Alienable constructions differ from inalienable constructions in containing special possessive morphemes. The possessive pronominal forms are suffixed to these possessive morphemes, and this constituent precedes the possessed noun.

The possessive morpheme ge- is used in virtually all alienable constructions, except those outlined below in (b).

(67) (thau) ge - ku pae
 1 s poss - my pig
 'my pig'

(68) (goi) ge - mu gai
 2 s poss - your(s) canoe
 'your(s) canoe'

When the possessor is a noun, the same format is used, with the noun possessor occurring first in the construction.

(69) wa au ge - na waga
 the man poss - his dog
 'the man's dog'

(70) vavine ge - ria iula
 woman poss - their garden
 'the women's garden'

(b) Possessive Morpheme ga-

The examples so far have been examples of what is usually called general or neutral alienable possession. In addition to this, Aroma has a further sub-type, edible, which indicates that the possession is to be eaten, drunk, or otherwise taken into the mouth. The possessive morpheme for this sub-type is ga- as opposed to the neutral ge-.

(71) (thau) ge - ku keukeu
 1 s poss - my taro
 'my taro'

but (72) (thau) ga - ku keukeu
 2 s poss - my taro
 'my taro (to eat)'

(73) (ia) ge - na pae
 3 s poss - his pig
 'his pig'

but (74) (ia) ga - na pae
 3 s poss - his pig
 'his pork'

(c) Alternative Construction

There is an alternative construction for neutral alienable possession. Here, the transitive-subject marker -na occurs between possessor and possessed.⁷ No possessive morphemes or pronominal suffixes occur.

(75) goi - na numa
 2 s - tsm house
 'your (s) house'

- (76) $\frac{\text{mui}}{2 \text{ pl}} - \frac{\text{na}}{\text{tsm}} \frac{\text{au}}{\text{man}} \frac{\text{kamu}}{\text{big}} - \frac{\text{na}}{\text{his}}$
 'your (pl) chief'

This form occurs in free variation with the neutral alienable construction with ge- form discussed. It is used very commonly by the young people, and possibly the more complex form will eventually die out.

2.1.4 Both Alienably and Inalienably Possessed Nouns

Although many nouns are possessed only alienably or inalienably, certain nouns may be possessed both alienably and inalienably. The choice is conditioned by the nature of the relationship between possessor and possessed. In the following examples, the inalienable construction indicates a lesser amount of control by the possessor.

- (77) (ia) $\frac{\text{avuavu}}{3 \text{ s}} - \frac{\text{na}}{\text{picture}} - \frac{\text{his}}$
 'his picture (a picture of him)'

- (78) (ia) $\frac{\text{ge}}{3 \text{ s}} - \frac{\text{na}}{\text{poss}} - \frac{\text{avuavu}}{\text{his picture}}$
 'his picture (a picture in his possession)'

In the following examples, the inalienable construction, (79), refers to principles and opinions in general, which are held permanently.

- (79) (thau) $\frac{\text{vamagi}}{1 \text{ s}} - \frac{\text{ku}}{\text{idea}} - \frac{\text{ku}}{\text{my}}$
 'my opinions'

The alienable construction, (80), refers to passing thoughts or daydreams.

- (80) (thau) $\frac{\text{ge}}{1 \text{ s}} - \frac{\text{ku}}{\text{poss}} - \frac{\text{vamagi}}{\text{my idea}}$
 'my thoughts'

2.2 Locatives

There are two locative suffixes in Aroma. They are:

-ai,⁸ 'to, in, at'; and -na, 'from'.

- (81) $\frac{\text{Lae}}{\text{Lae}} - \frac{\text{ai}}{\text{to}}$
 'to Lae'

- (82) Kupiano - ai
Kupiano - at
 'at Kupiano'
- (83) vanua - na
village - from
 'from the village'
- (84) Maopa - na
Maopa - from
 'from Maopa'

Like Motu, Aroma has a number of "complex" locatives, all of which are composed of a location noun + possessive suffix (-na or -ra)⁹ + -ai.

- (85) numa vila - na - ai
house front - its - at
 'in front of the house'
- (86) vanua keru - na - ai
village behind - its - at
 'behind the village'
- (87) gai epi - ra - ai
canoe side - their - at
 'beside the canoes'

The complex locatives are:

<u>thaonai</u>	'inside'
<u>unai</u>	'above'
<u>kapulenai</u>	'underneath'
<u>epinai</u>	'beside'
<u>vilanai</u>	'in front of'
<u>kerunai</u>	'behind'
<u>eīenai</u>	'near'

2.3 Plurality

There are no plural affixes to nouns in Aroma, number being indicated in the verb, or by numeral quantifiers. However, when a numeral is used in a Noun Phrase, it is preceded by a numeral classifier (glossed as num in the following examples). The classifiers are: auri if the noun is animate, gauri if the noun is inanimate. auri is apparently from au 'man' + ri, gauri from gau 'thing' + ri.

- (88) vavine au-ri oioi
 woman num three
 'three women'
- (89) pae au-ri imaima
 pig num five
 'five pigs'

(90)	<u>numa</u>	<u>gau-ri</u>	<u>vaivai</u>
	house	num	four
	'four houses'		

2.4 Reduplication

There is a relationship between certain verbs and nouns which is indicated by reduplication. Some verbs are reduplicated to produce nouns, for example:

<u>vawao</u>	'to decorate'	<u>vawaovawao</u>	'decoration'
<u>ula</u>	'to play'	<u>ulaula</u>	'game'
<u>kini</u>	'to spear'	<u>kinikini</u>	'blackpalm'

However, this also works in reverse:

<u>gani</u>	'yam'	<u>ganigani</u>	'to eat'
<u>mega</u>	'magic'	<u>megamega</u>	'to make magic'
<u>alo</u>	'tattoo'	<u>aloalo</u>	'to write'

Another interesting example is:

<u>matha</u>	'tongue'	<u>mathamatha</u>	'shy'
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3.0 Modifiers

Modifiers in Aroma modify both nouns and verbs, and generally follow the words they modify. The same form is generally used for both nominal and verbal modifiers.

3.1 Nouns and Modifiers

There are three methods of modifying nouns. No functional or semantic distinction has been observed so far.

3.1.1 reduplication of the modifier:

(91)	<u>wa</u>	<u>au</u>	<u>kamu-kamu</u>
	the	man	big-big
	'the big man'		

3.1.2 modifier + possession, agreeing in number with the noun:

(92)	<u>wa</u>	<u>au</u>	<u>kamu</u>	-na ¹⁰
	the	man	big	-his
	'the big man'			

3.1.3 combination of the above two methods:

(93)	<u>wa</u>	<u>au</u>	<u>kamu-kamu</u>	-	<u>ria</u>
	the	man	big-big	-	their
	'the big men'				

*wa au kamu is not acceptable in Aroma.

3.2 Verbs and Modifiers

There are two methods of modifying verbs.

3.2.1 following the verb:

- (94) ia - na ia pe - ala nama
3s - tsm it rf:s:3 - do well
'He did it well.'

3.2.2 incorporation within the verb:

- (95) (ia) e - uliuli - rava - nia
3s inf:s:3 - sew - bad - hab
'She sews badly.'

4.0 Minor Classes

4.1 Demonstratives

There are three demonstratives in Aroma. These are:

- e 'this'
na 'that' (near the listener)
wa 'that' (not near the listener, or the one previously mentioned, glossed here as 'the'.)

- (96) e rivu
this table
'this table'

- (97) na waga
that dog
'that dog'

- (98) wa vavine
the woman
'the woman'

The same demonstratives are used with plural nouns, number being indicated in the verb:

- (99) wā au - na e pae e - vagi - ria
the man - tsm this pig inf:s:3 - kill - os
'The man killed these pigs.'

4.2 Transitive Subject

A transitive subject is marked by the postclitic -na. It is obligatory when both the subject and object are third person and the same number, otherwise it is optional.

- (100) (thau - na) pae a - vagi - a
1 s - tsm pig inf:s:1 - kill - os
'I killed the pig.'

- (101) vuatha - na pae e - vagi - a
 crocodile -tsm pig inf:s:3 - kill - os
 'The crocodile killed the pig.'
- (102) vuatha - na pae e - vagi - ria
 crocodile -tsm pig inf:s:3 - kill - os
 'The crocodile killed the pigs.'
- (103) wa au kamu - na e - warega
 the man big - poss inf:s:3 - die
 'The big man died.'
- (104) wa au kamu - na - na pae e - vagi - a
 the man big - poss -tsm pig inf:s:3 - kill - os
 'The big man killed the pig.'

Examples of -na used as a transitive subject marker may be found throughout the text, e.g. (3), (49), (94), etc.

4.3 Numerals

Aroma has a quinary system with a word for ten.

4.3.1 Cardinal Numbers

1	apuna	11	kapanana apuna
2	lualua	12	kapanana lualua
3	oioi	13	kapanana oioi
4	vaivai	14	kapanana vaivai
5	imaima	15	kapanana imaima
6	aula oioi	16	kapanana aula oioi
7	aula oi apuna	17	kapanana aula oi apuna
8	aula vaivai	18	kapanana aula vaivai
9	aula vai apuna	19	kapanana aula vai apuna
10	kapanana	20	kapana lualua
	21	kapana lualua apuna	
	22	kapana lualua lualua	
	30	kapana oioi	
	50	kapana imaima	
	100	inavuna	
	102	inavuna lualua	
	200	inavu lualua	
	1000	ragana	

From 2 to 5 are reduplicated; 6 and 8 appear to be formed by multiplication; 7 and 9 by multiplication and addition; and 11 to 19 by addition to ten.

It appears that multiplication in 6 to 9 is expressed by aula which may be an example of metathesis from lua. 10, 100, and 1000 all take the suffix -na, when they are used alone and when they are added to, but not when they are multiplied. (Compare 12 and 20, and 102 and 200.)

4.3.2 Ordinal Numbers

Ordinals are produced by adding -na to the cardinals with the exception of 'first'. There are only five ordinals:

mama-na	first
lualua-na	second
oioi-na	third
vaivai-na	fourth
imaima-na	fifth

4.3.3 Indefinite Quantifiers

The following indefinite quantifiers have been observed:

geleatha	some
vogo	many
nori vogovogo	few
mapara-ria	all

4.4 Conjunctions

Aroma has the following four conjunctions:

conjunctive 'and'	<u>e</u>
adversative 'but'	<u>na</u>
alternative 'or'	<u>pa</u> ll
conditional 'if'	<u>pene</u> , <u>ere</u> (See Sections 1.3.3(b) and 1.3.4.)

(105) Wakai e Wari ge - riku - e - ula¹²
Wakai and Wari inf:pl:3 - swim - and - play
'Wakai and Wari swam and played.'

(106) (thai) ga - ulavuna - na (ila)
lp|lexcl inf:pl:lexcl - work - but 3pl
ge - mau
inf:pl:3 - sleep
'We worked but they slept.'

(107) (goi) ono - thau pa ono - alu - pa
2 s if:s:2 - go or if:s:2 - stay - or
'Are you going or staying?'

N O T E S

1. *Aroma* is a member of the Keapara sub-group of the Central Papuan language family, according to Pawley (1975). No detailed study has yet been done on the language, although Lynch (1973) has written about *Aroma* possession, and Dutton (1969) has collected a word list.

This paper represents an analysis of material I collected between June 1976 and June 1977. The material consists of free and elicited sentences, and free and elicited texts, recorded by three informants from *Aroma* villages. The work presented here is a revised version of a B.A. Honours sub-thesis of the same title, presented to the Department of Language, University of Papua New Guinea, in 1977. The assistance of the following persons is acknowledged, with accompanying details of their contributions to the study, in the original thesis: F. Liefbrink, T. Dutton, J. Lynch, all of U.P.N.G. and informants P. Henry, W. Geno and W. Peiwa.

The basic word order in *Aroma* sentences is SOV; for example:

- (1) wa au - na pae kamukamu e - vagi- a-o
 the man - tsm pig big inf:s:3 - kill-os-perf
 'The man has killed the big pig.'

2. In transcribing *Aroma* material, the following symbols are used to represent the phonemes of *Aroma*:

/p t k kw v th g m n l r w i e a o u /

Each of these symbols has its normal phonetic value except: th represents d, g represents a lenis g, t is dental, r is a semi-vowel and kw represents a single labialised velar stop kw.

3. Personal pronoun subjects and objects are in most cases optional, as information concerning person and number is contained in the verb. Brackets are used in the examples to show optionality.
4. The transitive subject marker -na is only one of several morphemes na in *Aroma*. Each of these is discussed as it arises.
5. i.e. piga-na
pigo-no
pige-ne
6. o~ole, nia~ni are in free variation. The first in each pair is the one more frequently used.
7. Because (75) goi-na numa can also be translated as 'You possess/own a house', -na thus appears to be tsm and not 3 s possessive. Further confirmation is found in the following: ila-na numa 'their house(s)'

8. In most cases, when a morpheme ends in a, and is followed by a morpheme which begins with a, the two a's are collapsed. e.g. wa au Hula ai is pronounced wau Hulai (however, see os - tha.)
9. This is similar to the object suffix change, discussed in Section 1.7.
10. (93) appears to come from the relative clause construction, wa au ia kamu - na au - na, 'the man who is big'. (See Craig (1976) for further details.)
11. The morpheme pa is used sentence finally in yes/no questions. e.g. (ia) e - ulavunu pa, 'Is he working?'
12. In (105), the tnp prefix to the second verb is gapped by a regular rule.

The following abbreviations and other conventions have been used:

ant	anticipatory	poss	possessive marker
asp	aspect suffix	rc	rejected conditional
caus	causative	rec	reciprocal
excl	exclusive	reflex	reflexive
hab	habitual	rep	repetition
if	immediate future	rf	remote future
imperf	imperfective	s	singular
incl	inclusive	terhab	terminated habitual
inf	immediate non-future	tnp	tense-number-person
neg	negative		portmanteau morpheme
num	numeral classifier	tsm	transitive subject
os	object suffix		marker
pastcon	past continuous	1	first person
perf	perfective	2	second person
pl	plural	3	third person
	-		morpheme boundary
	()		optional
	:		separates the individual component glosses of an Aroma portmanteau morpheme

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THE PARTICLES i AND na IN TOK PISIN

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1. Introduction

The particles i and na have a variety of syntactic functions in Tok Pisin (TP), as spoken in Papua New Guinea. Sadler (1973) for example, lists i as in introducer of action or subject (or its condition), as emphasizing the size or quantity of a subject, as occurring between the pronoun and verb to separate clausal actions, and so on. He also gives a number of rules which account for the absence of i. Dutton (1973), on the other hand, treats i as a marker connected to the verb, but associated with direction, ability, auxiliary, and modals. More recently Woolford (1979) has statistically accounted for the most common syntactic environments of i.

In this article we examine TP pronominal identity, in particular how i and na are syntactically and semantically associated with adjoined constituents. We also draw comparisons with some parallel structures in Kewa, a Highlands language of Papua New Guinea.¹

In Mihalic's dictionary of TP (1971:99) he suggests for the etymology of i that it is derived from the English pronoun 'he'. Mihalic states that i is always present between the subject and predicate in sentences when the subject is either a noun or a third person singular or plural pronoun. His etymology follows Hall (1966:83) who maintains that i is a result of substandard English, where the subject is recapitulated by means of a pronoun, for example, 'the man-he'.

We note, on the other hand (Franklin 1978), that TP i may have a multiple etymological history: in addition to the apparent relation to 'he', i corresponds to the final i (sometimes spelled -ee) of Chinese Pidgin English verbs, as well as to the verbal i in Austronesian languages such as Tolai or Tongoan.²

Wurm (1971) outlines a number of rules which account for the functions of i but feels that its use has become unstable in recent years (1977:516).

2. Inter-clausal identity with i

When a Kewa speaks TP and identifies identical actors in conjoined clauses the particle i is used following na:

- (1) mitupela lukim na i go 'we(two) saw it and went'³
we-two see-it and we-two go