

KUNIMAIPA NOMINALS

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0. INTRODUCTION

This paper presents a tagmemic analysis of some Kunimaipa nominals.¹ Noun roots and the suffixes which occur with them form the most extensive part of the paper. In addition four types of noun phrases are described. A unique feature of the system is a series of 30 suffixes which often indicate the general semantic quality of a noun root and are either singular, plural, collective, or numberless.²

itingade (iti-ngade *fire-qual*³) '*fire*'

gelevo (gele-vo *stone-qual*) '*stone*'

gelengade (gele-ngade *stone-qual*) '*ground oven*'

Not only may examples like this be multiplied, but these same qualitative suffixes occur with word bases and longer constructions of many types, nominalising them.

saha (sa-ha *go-he/acas*) '*he went*'

sahavo (sa-ha-vo *go-he/acas-qual*) '*his going*'

In this case the qualitative suffix nominalises the verb to which it is attached and refers back to an unspecified noun in the context. The usefulness of constructions of this type for expressiveness is immediately apparent.

1. NOUNS

There are no prefixes occurring on nouns, but six orders of suffixes occur, including about forty-six morphemes. Table 1 is a list of all suffixes and their order of occurrence.

By far the most frequent in occurrence and most central to the noun system are the first order suffixes referred to above. A word, root, phrase or clause so affixed is a nominal, that is, it acts in syntactic constructions as a noun.

In preliminary investigation it appeared that these first order suffixes and the sets of noun roots that each occurs with might be usefully correlated with semantic categories of the real world.

For instance the suffix *-pu* occurs almost exclusively on noun roots with animate referents. Similarly the suffix *-mede* is related exclusively to tree items.

abanapu (abana-pu *man-qual*) '*man*'
 idepu (ide-pu *bird-qual*) '*bird*'
 zimedede (zi-mede *tree-qual*) '*tree*'
 murimedede (muri-mede *citrus-qual*) '*citrus tree*'

Certain contradictions, however, make this awkward. Many roots occur with two or three of the suffixes, some with change of meaning (see (a) below), and others with a totally different meaning (see (b) below).

(a) data (da-ta *dance-qual*) '*dance*'
 dasi (da-si *song-qual*) '*song*'
 zata (za-ta *intestine-qual*) '*intestine*'
 zasi (za-si *intestine-qual*) '*excrement*'
 apira (api-ra *sugar-qual*) '*sugar cane*'
 apivo (api-vo *sugar-qual*) '*sugar or sugar cane juice*'

(b) garosi (garo-si *first-qual*) '*first*'
 garovo (garo-vo *point-qual*) '*point*'
 hadata (hada-ta *tooth-qual*) '*molar*'
 hadavo (hada-vo *wind-qual*) '*heavy wind*'
 hatapu (hata-pu *friend-qual*) '*friend*'
 hatasi (hata-si *thatch-qual*) '*thatch*'
 hatavo (hata-vo *testicle-qual*) '*testicle*'

It is quite possible to identify subclasses of noun roots based on the occurrence of these affixes either by (1) setting up partially or completely overlapping classes; or by (2) analysing the roots which take several affixes as homophonous forms. However such a classification has not been utilised in this paper.

A fully expanded noun may be represented by the following formula. It is rare to find in spontaneous text a stem with more than three

TABLE 1

STEM	QUALITATIVE TAGMEME	QUANTITATIVE TAGMEME	SYNTACTIC TAGMEME	SUBORDI-NATE - A TAGMEME	SUBORDI-NATE - B TAGMEME	SUBORDI-NATE - C TAGMEME
	Qualitatives 100	Quantitatives 200	Relators 300	Singulative 400	Emphatic 500	Diminutive 600
root	<i>Group 1</i>					
	101 -si	110 -ro	201 {-zaro}	301 {-ha}	401 {-hara}	501 -ga
	102 -ta	111 {-mara}	202 {-tara}	302 -ti		601 -ama
	103 -vo	112 -rume				
	104 -e	113 {-maki}	203 {-toro}	303 -nanga		
	105 -mede	114 {-ra}	204 -ro	304 {-hananga}		
	106 -ropo	115 -ri		305 -tihananga		
	107 -ngade	116 -i		306 -ra		
	108 -repe	117 -ngi		307 -za		
	109 -tome	118 -pu		308 -ho		
root/root	<i>Group 2</i>			309 -na		
	121 -ngi	123 -holo				
	122 -tu	124 -ri				
	<i>Group 3</i>					
root-ra-root	131 -kapi					
	132 -have					
	133 -ngabo					
	<i>Group 4</i>					
	141 {-ripa}	144 -rera				
	142 -irara	145 -ri				
	143 -rapa					

affixes.

$$\left\{ \begin{array}{l} +\text{STEM: } \left\{ \begin{array}{l} \text{root} \\ \text{root-root} \end{array} \right\} +\text{QUAL:qual } \pm\text{QUAN:quan} \\ +\text{STEM: root-ra-root} \end{array} \right\} \pm\text{SY:re}$$

$$\pm\text{SU}_A : \text{sg } \pm\text{SU}_B : \text{e } \pm\text{SU}_C : \text{d}$$

A noun consists of a stem with up to six orders of suffixes. There are three types of noun stems: simple, compound, and coordinate. Coordinate stems are never suffixed by first and second order suffixes. The six orders of suffixes are all optional except that the first order is obligatory with simple and compound stems (but not with coordinate stems). The six suffixial tagmemes are: a Qualitative slot filled by qualitative suffixes, a Quantitative slot filled by quantitative suffixes, a Syntactic slot filled by relators, and three Subordinate slots filled by a singulative suffix, and emphatic suffix and a diminutive suffix respectively.

1.1. NOUN STEMS

Simple noun stems consist of a single noun root and are obligatorily followed by a qualitative suffix.

papapu (papa-pu *father-qual*) '*father*'
 virepe (vi-repe- *vine-qual*) '*vine*'
 hadepe (hade-pu *dog-qual*) '*dog*'
 hapisi (hapi-si *pot-qual*) '*pot*'

Compound noun stems consist of two juxtaposed noun roots and these stems also are obligatorily followed by a qualitative suffix. Several hundred compound nouns have been recorded and while some of them have idiomatic meanings, many do not. The potential for creating new compound stems is great.

ide-nekevo (ide-neke-vo *bird-abdomen-qual*) '*egg*'
 volo-nonopu (volo-nono-pu *pig-mother-qual*) '*pig caretaker*'
 volo-zeita (volo-zei-ta *pig-place-qual*) '*pig house*'

Coordinate noun stems consist of two noun roots linked by the coordinating morpheme -ra. These stems are a close knit construction which contrasts with the coordinate noun phrase described in 2.1. below. These coordinate stems are never followed by qualitative or quantitative suffixes. Some 50 coordinate stems have been observed. A few of them have idiomatic meanings (especially generic or mass concepts) but most do not. In fact there seem to be limitless possibilities of coining new combinations.

nono-ra-papa (nono-ra-papa *mother-and-father*) '*parents, ancestors*'
 da-ra-ngai (da-ra-ngai *dance-and-anger*) '*dance*'
 zi-ra-vi (zi-ra-vi *tree-and-vine*) '*jungle*'
 ide-ra-pate (ide-ra-pate *bird-and-?*) '*head decoration*'
 volo-ra-gipizo (volo-ra-gipizo *pig-and-vegetable food*) '*food*'
 nane-ra-vosi (nane-ra-vosi *older brother-and-younger brother*)
 '*age mates*'

1.2. QUALITATIVE TAGMEME

The qualitative affixes may be described in four groups: (1) singular qualitative, (2) plural qualitative, (3) collective qualitative, and (4) numberless qualitative. These four groups are mutually exclusive. Members of the first group are much more frequent in occurrence, and could perhaps be used as the basis of setting up root classes (mentioned in 1.). The usage of the collective and numberless qualitative suffixes cuts across the subclasses that could be set up in reference to singular and plural qualitative morphemes.

1.2.1. Group One

In this group are eighteen mutually exclusive suffixes with singular qualitative meanings. The percentage figures given represent a count of about 400 nouns in which the roots were grouped according to the qualitative suffix or suffixes with which they occur. Names of tree, vegetable, and animal types were not included in the count.

Suffix 101 -si which seems to have a semantic quality of length or location occurs on 19.9% of noun roots.

adasi (ada-si *sweet potato-qual*) '*sweet potato*'
 hapi-si (hapi-si *pot-qual*) '*pot*'
 kosi-si (kosi-si *skin-qual*) '*skin*'
 kokosi (koko-si *head decoration-qual*) '*head decoration*'

Suffix 102 -ta which seems to have a semantic quality of shortness or location occurs on 15% of noun roots including the following:

gopota (gopo-ta *top-qual*) '*top*'
 hamata (hama-ta *ground-qual*) '*place*'
 ulita (uli-ta *knot-qual*) '*knot*'
 kuturuta (kuturu-ta *dark-qual*) '*night*'

Suffix 103 -vo which seems to have a semantic quality of shapelessness or nebulosity occurs with 25.1% of noun roots including the following:

abatavo (abata-vo *name-qual*) '*name*'
 helevo (hele-vo *stone-qual*) '*stone*'

havevo (have-vo *pool-qual*) '*pool, sea*'
 lamavo (lama-vo *sickness-qual*) '*sickness*'

Suffix 104 -e which seems to have a semantic quality of flatness and thinness, occurs with 2% of noun roots including the following:

dimie (dimi-e *cloth-qual*) '*cloth*'
 huhuae (huhua-e *blanket-qual*) '*blanket*'
 tepae (tepa-e *paper-qual*) '*paper*'

Suffix 105 -mede which is used in referring to trees and plants, occurs with 0.5% of noun roots including the following:

zimedede (zi-mede *tree-qual*) '*tree*'
 itimedede (iti-mede *fire-qual*) '*dry tree*'
 parauamede (paraua-mede *specific tree-qual*) '*type of tree*'

Suffix 106 -ropo which has a semantic quality referring to things which have a number of extensions or points branching from a single source, occurs with 1.2% of noun roots including the following:

ziropo (zi-ropo *tree-qual*) '*bush*'
 kutiropo (kuti-ropo *arrow-qual*) '*bird arrow*'
 angiropo (angi-ropo *eating stick-qual*) '*fork*'

Suffix 107 -ngade which is used in referring to fire occurs with 0.5% of noun roots including the following:

itingade (iti-ngade *fire-qual*) '*fire*'
 ramungade (ramu-ngade *lamp-qual*) '*lamp*'
 helengade (hele-ngade *stone-qual*) '*ground oven*'

Suffix 108 -repe which is used in referring to rope-like things occurs with 0.5% of noun roots including the following:

virepe (vi-repe *vine-qual*) '*vine*'
 zageigeirepe (zageigei-repe *intestine-qual*) '*small intestine*'

Suffix 109 -tome which is used in referring to large rope-like things occurs with 0.5% of noun roots including the following:

vitome (vi-tome *vine-qual*) '*vine (large)*'
 hovotome (hovo-tome *specific vine-qual*) '*type of vine*'

Suffix 110 -ro, the semantic quality of which is uncertain, occurs with 1% of noun roots including the following:

nonoro (nono-ro *path-qual*) '*path, road*'
 vapro (vapo-ro *hole-qual*) '*hole*'
 anigoro (anigo-ro *fence-qual*) '*stake fence*'

Suffix 111 (-mara ~ -mare) the semantic quality of which is uncertain occurs with 1.5% of noun stems. The allomorph -mare occurs before morpheme 201; -mara occurs elsewhere.

hemara (he-mara *taro-qual*) '*taro*'

kosimara (kosi-mara *back-qual*) '*back*'
 raimara (rai-mara *bow-qual*) '*bow*'
 raimarezaro (rai-mare-zaro *bow-qual-two*) '*two bows*'

Suffix 112 -rume which is used in referring to large flat areas occurs with 0.5% of noun roots including the following:

vatarume (vata-rume *floor-qual*) '*floor*'
 taurume (tau-rume *floor-qual*) '*floor*'

Suffix 113 (-maki ~ -make) which is used in referring to buildings and structures of various sorts occurs with 0.5% of noun roots. The allomorph -make occurs alternating freely with -maki before morpheme 201; -maki occurs elsewhere.

zeimaki (zei-maki *house-qual*) '*house*'
 tupumaki (tupu-maki *house (men's)-qual*) '*men's house*'
 karimaki (kari-maki *vehicle-qual*) '*vehicle*'

Suffix 114 (-ra ~ -re) which seems to be used in referring to stubby round things occurs with 9.6% of noun roots. The form -re occurs preceding morpheme 201; the form -ra occurs elsewhere.

alira (ali-ra *thigh-qual*) '*thigh*'
 zozora (zozo-ra *bud-qual*) '*bud end of fruit*'
 vahara (vaha-ra *post-qual*) '*house post*'
 vaharezaro (vaha-re-zaro *post-qual-two*) '*two house posts*'

Suffix 115 -ri which is used in referring to pointed or sharp things occurs with 2.2% of noun roots including the following:

enari (ena-ri *axe-qual*) '*axe*'
 tokari (toka-ri *tail-qual*) '*tail*'
 getari (geta-ri *thorn-qual*) '*thorn, spike*'

Suffix 116 -i which is used in referring to meat and other things occurs with 0.5% of noun roots including the following:

voloi (volo-i *pig-qual*) '*pork*'
 hadei (hade-i *dog-qual*) '*dog meat*'

Suffix 117 -ngi which is used in referring to bag items occurs with 0.5% of noun roots including the following:

kingi (ki-ngi *bag-qual*) '*string bag*'
 kizuvengi (kizuve-ngi *bag-qual*) '*man's string bag, pocket*'
 vekingi (veki-ngi *bag-qual*) '*bag, sack*'

Suffix 118 -pu which is used to refer to animate things occurs with 18.5% of noun roots. The zero allomorph -Ø occurs before allomorph -ngarivi of morpheme 201; -pu occurs elsewhere.

abanapu (abana-pu *man-qual*) '*man*'
 vepu (ve-pu *frog-qual*) '*frog*'

napapu (napa-pu kinship-qual) 'kinship term'
 hadengarivi (hade-Ø-ngarivi dog-qual-two) 'two dogs'

1.2.2. Group Two

This group is made up of four mutually exclusive plural qualitative morphemes.

Suffix 121 -ngi is the most widely used plural morpheme. It occurs with 81% of noun roots, including the roots which characteristically occur with suffixes 101 through 116.

adangi (ada-ngi sweet potato-qual) 'sweet potatoes'
 arezangi (areza-ngi star-qual) 'stars'
 zingi (zi-ngi tree-qual) 'trees'
 itingi (iti-ngi fire-qual) 'fires'
 vingi (vi-ngi vine-qual) 'vines'
 elengi (ele-ngi arrow-qual) 'arrows'

Suffix 122 -tu is most often used in connection with stems which characteristically take suffix 116 and 117. However it has also been observed occurring with a few other stems.

kitu (ki-tu bag-qual) 'string bags'
 kizuvetu (kizuve-tu men's string bags-qual) 'men's string bags,
 pockets'

Suffix 123 -holo is a general animate plural occurring with about 18.5% of noun roots, including only those which characteristically occur with suffix 118 -pu (singular animate).

roholo (ro-holo boy-qual) 'boys'
 emaholo (ema-holo marsupial-qual) 'marsupials'
 amiholo (ami-holo leader-qual) 'leaders'

Suffix 124 -ri which is a specific animate plural occurs with all roots which characteristically take suffix 118 -pu. One of these roots, abana 'man', takes only -ri as a plural and does not take -holo. Roots with adjectival referents tend to take -ri as a plural, rather than -holo.

abanari (abana-ri man-qual) 'men'

1.2.3. Group Three

In this group are three mutually exclusive suffixes. All suffixes of this group are collective in meaning in that they refer to a quantity of the item or group of items viewed as one entity.

Suffix 131 -kapi is used in referring to prepared food and occurs with any root which has a food referent:

adakapi (ada-kapi sweet potato-qual) 'prepared sweet potato'

ginevikapi (ginevi-kapi *greens-qual*) '*prepared green vegetable*'
 hekapi (he-kapi *taro-qual*) '*prepared taro*'

Suffix 132 -have is used in referring to prepared or usable wood items, and occurs with any root which has a wood referent:

zihave (zi-have *tree-qual*) '*pole, board*'
 ngalahave (ngala-have *thatch-qual*) '*thatch holding baton*'
 tokohave (toko-have *ridge-qual*) '*ridge pole*'

Suffix 133 -ngabo refers to a flock, family, bunch or a group consisting of different varieties. It is not common in occurrence but may occur with a number of roots. It indicates either animate or inanimate groups.

apingabo (api-ngabo *sugar cane-qual*) '*several varieties of sugar cane*'
 idengabo (ide-ngabo *bird-qual*) '*a flock of birds*'

1.2.4. Group Four

Five mutually exclusive suffixes make up this group. These have size and other quality meanings, and are used with roots which have a wide variety of referents, although they are not frequent in occurrence. Their actual meanings vary according to the particular root with which they occur.

Suffix 141 -ripa ~ -ripi means '*very big*' and has, in some contexts, an overtone of endearment. The allomorph -ripi occurs in free variation with -ripa preceding Subordinate-A tagmeme. No restrictions on the types of roots with which it may occur have been observed.

roripa (ro-ripa *boy-qual*) '*big, dear boy*'
 utaripa (uta-ripa *rain-qual*) '*big, nice rain*'
 heveripahara, heveripihara (heve-ripa-hara, heve-ripi-hara *stick-qual-sg*) '*just a big planting stick*'

Suffix 142 -irara means '*very small*' and is used, like suffix 141 with a wide variety of roots:

enairara (ena-irara *knife-qual*) '*a very small knife*'
 tengoirara (tengo-irara *thorn-qual*) '*a very small thorn*'

Suffix 143 -rapa appears to mean '*young*' or '*new*', and is also used with a wide variety of roots:

virapa (vi-rapa *vine-qual*) '*new, young vine*'
 rorapa (ro-rapa *boy-qual*) '*young boy*'
 mararapa (mara-rapa *arm-qual*) '*young branch*'

Suffix 144 -rera means '*small*' and is also used with a wide variety of roots:

ngarirera (ngari-rera *girl-qual*) '*small girl*'

abanarera (abana-rera *man-qual*) '*small man*'

This suffix appears to take the shape -rera when following roots which ordinarily take suffix 115.

enarira (ena-rira *axe-qual*) '*small hatchet*'

Suffix 145 -ri which means '*very tiny*' also occurs with a large number of roots, although it is infrequent in occurrence:

marari (mara-ri *arm-qual*) '*tiny branch*'

tangari (tanga-ri *tongue-qual*) '*tiny tongue*'

1.3. QUANTITATIVE TAGMEME

The quantitative tagmeme may be filled by any one of four morphemes (class 200), and occurs in order two from the root. These morphemes seem to be basically quantitative in meaning although size is also part of the meaning of two of them.

Suffix 201 -zaro ~ -karo ~ -ngarivi ~ -garo occurs following most first order suffixes, and means '*dual*' following those of groups 1, 3, and 4, and '*all*' following suffixes 121 and 124 of group 2. The allomorphs of this suffix are morphologically conditioned as follows: -zaro occurs following morphemes 110 through 115, 131, 132, 124 and 145; -karo occurs following morphemes 101 through 109, 116, 117, 121 and 133; -ngarivi occurs following morpheme 118; and -garo occurs following morphemes 141 through 144. This morpheme has not been observed following suffixes 112 and 123.

zeingikaro (zei-ngi-karo *place-qual-all*) '*all the villages*'

hapisikaro (hapi-si-karo *pot-qual-two*) '*two pots*'

tenaverezaro (tenave-re-zaro *drum-qual-two*) '*two drums*'

avengarivi (ave-Ø-ngarivi *stranger-qual-two*) '*two strangers*'

adairaragaro (ada-irara-garo *sweet potato-qual-two*) '*two very small sweet potatoes*'

Suffix 202 -tara ~ -para means '*a very small amount, little*' or at times, '*less*'. The allomorphs of this suffix are morphologically conditioned as follows: -tara occurs following morphemes 103, 106, 108, 109, 112, 113, 117, and 118; -para occurs following morphemes 101, 104, 105, and 107. This morpheme does not occur following other first order morphemes.

havevotara (have-vo-tara *pool-qual-less*) '*a very small pool*'

kingitara (ki-ngi-tara *bag-qual-less*) '*a very small bag*'

itingadepara (iti-ngade-para *fire-qual-less*) '*a very small fire*'

Suffix 203 -toro ~ -poro means '*long*'. Its two allomorphs are morphologically conditioned in a manner similar to the conditioning of

morpheme 202, however, this morpheme occurs following even fewer first order morphemes. The allomorph -toro has been observed following morphemes 103, 109, 112, 117, 121; the allomorph -poro has been observed following morphemes 101, 104, 105, and 107.

ngetivotoro (ngeti-vo-toro *story-qual-long*) 'a long story'
 vitometoro (vi-tome-toro *vine-qual-long*) 'a long vine'
 tepaeporo (tepa-e-poro *paper-qual-long*) 'a long piece of paper'

Suffix 204 -ro means 'large', and its full distribution has not been charted. Following are two examples of typical usage:

virepero (vi-repe-ro *vine-qual-large*) 'a large vine'
 zeimakiro (zei-maki-ro *house-qual-large*) 'a large house'

1.4. SYNTACTIC TAGMEME

The syntactic tagmeme occurs with any of the tagmemes previously described. Nine different suffixes which mark phrase or clause relationships occur in the syntactic slot.

Suffix 301 -ha ~ -ka is a general locative translated in various contexts as 'on, in, at'. The occurrence of the allomorphs is morphologically determined as follows: the allomorph -ka occurs following morphemes 101 through 109, 116, 117, 121, and 132; allomorph -ha occurs following morphemes 110 through 115, 118, 122 through 124, 131, 141 through 145, and 201 through 204. This morpheme does not occur with suffix 133. The rare form -si-si, which co-occurs with no first, second, or third order suffix except -hananga (304), appears to be a free variant of the sequence -si-ka (101 + 301).

itihaveka (iti-have-ka *fire-qual-at*) 'in the firewood'
 marasika (mara-si-ka *hand-qual-at*) 'in the hand'
 sahaeka (sa-ha-e-ka *go-he/acas-qual-at*) 'at his going/where he went'
 abanangariviha (abana-Ø-ngarivi-ha *man-qual-two-at*) 'beside the two men'
 marairaraha (mara-irara-ha *hand-qual-at*) 'in the very tiny hand'
 aliraha (ali-ra-ha *thigh-qual-at*) 'on the thigh'
 zeisika, zeisisi (zei-si-ka, zei-si-si *place-qual-at*) 'at the place'

Suffix 302 -ti is a locative indicating direction 'to' or 'toward'. It is often difficult to distinguish between the two locatives, 301 and 302.

roputi (ro-pu-ti *boy-qual-to*) 'towards the boy'
 hapisiti (hapi-si-ti *pot-qual-to*) 'to the pot'
 enariti (ena-ri-ti *axe-qual-to*) 'towards the axe'

Suffix 303 -nanga is usually translated 'with' and carries meanings of both instrument and accompaniment.

ropunanga (ro-pu-nanga *boy-qual-with*) 'with the boy'

enarinanga (ena-ri-nanga *axe-qual-with*) 'with the axe'

abanangarivinanga (abana-Ø-ngarivi-nanga *man-qual-two-with*) 'with the two men'

Suffix 304 -hananga ~ -kananga may have developed historically from a combination of suffix 301 with 303. It means 'from, out of'. The alternation of this morpheme is the same as that of suffix 301.

hapisikananga (hapi-si-kananga *pot-qual-from*) 'from the pot'

posikarohananga (po-si-karo-hananga *this-qual-two-from*) 'from these two'

Suffix 305 -tihananga appears to be a combination of suffix 302 -ti and 304 -hananga. It means 'to and from', and is quite rare in occurrence.

zeisitihananga (zei-si-tihananga *place-qual-to and from*) 'to and fro in the place'

Suffix 306 -ra is a coordinator roughly translated 'and' and occurs only in coordinate phrases and coordinate stems. Any first or second order suffix may occur in such a phrase and consequently may occur with morpheme 306. This morpheme may not be directly followed by morphemes in any Subordinate slot (401, 501, 601). Examples may be seen in section 1.1. and 2.1.

Suffix 307 -za is a possessive, benefactive and purpose marker. It has very wide use with all types of noun construction. It occurs following any of the first and second order suffixes previously described. The syntactic function of 307 is as a slot governing morpheme in the possessive phrase and as a benefactive and purpose slot marker in clause level strings.

ropuza (ro-pu-za *boy-qual-poss*) 'the boy's'

abanangariviza (abana-Ø-ngarivi-za *man-qual-two-poss*) 'the men's'

enariza (ena-ri-za *axe-qual-for*) 'to (get) the axe'

Suffix 308 -ho is a subject marker in clause level strings. It may follow any first or second order suffix. It occurs only on the subject of transitive clauses, especially when no object is stated.

abanapuhohara (abana-pu-ho-hara *man-qual-sub-sg*) 'only the man'

ropuho (ro-pu-ho *boy-qual-sub*) 'the boy'

Suffix 309 -na is an indirect object marker in clause level strings. It is very limited in occurrence. This marker occurs obligatorily with the verbs -nga 'tell' and eter 'see', and optionally with the verbs -ngaira 'show', ta 'do', haza 'speak', and hatete 'hear'. So far it

has not been observed to occur with any other verbs. This morpheme has also been observed several times on nouns in the topic slot of a stative equational clause.

abanapuna (abana-pu-na man-qual-io) *'the man'*

ropunaama (ro-pu-na-ama boy-qual-io-d) *'the boy only'*

angapuna rei ununu (onga-pu-na rei ununu leader-qual-io we ignorant) *'we are ignorant of the leader'*

1.5. SUBORDINATE-A TAGMEME

The singulative morpheme is the only fourth order suffix. It occurs following any of the qualitative, quantitative or syntactic morphemes.

Suffix 401 -hara ~ -hoe may be translated *'single'* or *'only'* and points up the singularity or uniqueness of the item suffixed. This semantic quality does not make it an improbable combination with a plural morpheme such as 121. The two allomorphs vary freely, although one restriction in the use of -hoe has been noted. It may not be followed by morpheme 501 -ga.

ropuhara (ro-pu-hara boy-qual-sg) *'just that boy'*

hapingihara (hapi-ngi-hara pot-qual-sg) *'only those pots'*

adasitihara (ada-si-ti-hara sweet potato-qual-to-sg) *'only in the sweet potato garden'*

tupumakihahoe (tupu-maki-ha-hoe men's house-qual-at-sg) *'only at the men's house'*

raiehoeama (rai-e-hoe-ama bow-qual-sg-d) *'just that bow only'*

1.6. SUBORDINATE-B TAGMEME

The emphatic morpheme is the only fifth order suffix. It occurs following any of the qualitative, quantitative, syntactic or singulative morphemes.

Suffix 501 -ga adds an element of emphasis to the construction on which it occurs. Its occurrence is very infrequent.

ropuga (ro-pu-ga boy-qual-e) *'certainly a boy'*

abanangarivinangaga (abana-Ø-ngarivi-nanga-ga man-qual-two-with-e) *'certainly with the two men'*

1.7. SUBORDINATE-C TAGMEME

The diminutive morpheme is the only sixth order suffix. It occurs following any of the suffixes previously described.

Suffix 601 -ama has a meaning which at times is difficult to distinguish from that of suffix 401, singulative. It is often translated

'only' or 'just', but seems to also have diminutive aspect whereas 401 is more of a distinctive pointer.

ropuama (ro-pu-ama *boy-qual-d*) 'only a boy'

enarinangaama (ena-ri-nanga-ama *axe-qual-with-d*) 'just with an axe'

virepeharaama (vi-repe-hara-ama *vine-qual-sg-d*) 'just that single vine'

2. NOUN PHRASES

Although the suffixes described in 1.2.-1.7. are there referred to as noun suffixes, in fact they also occur on names, adjectives, demonstratives, locative words, pronouns and verbs. That is, these suffixes may be regarded as clitics attached to nominals whether nouns, noun phrases or nominalised clauses. For instance, these suffixes attach to the final word of a descriptive phrase which may be either an adjective, demonstrative or verb. However, the suffix of class 100 on this final word still related essentially to a noun since it is always that suffix which would be attached to the particular noun which fills the head slot (or which is implied by the context) if all other parts of speech were absent from the phrase.

zisi (zi-si *tree-qual*) 'plank'

zi tinasi (zi tina-si *tree good-qual*) 'good plank'

Nouns, names, adjectives, pronouns and demonstratives may be distinguished by the occurrence of noun suffixes. Demonstratives are obligatorily suffixed. Nouns and adjectives are obligatorily suffixed when they are the final word in a noun phrase. Nouns are not suffixed when they are in a descriptive phrase. Adjectives are not suffixed when they are non-final in a noun phrase and when they fill the manner slot in a clause. Adjectives and demonstratives can take any of the class 100 suffixes, whereas each noun can only take a particular suffix (or a small set of suffixes). Names and pronouns do not take noun suffixes of classes 100 and 200, but they take classes 300-600. Pronouns take additional suffixes which do not occur with any of the above classes.⁴

There are four distinctive types of noun phrase: coordinate phrase, possessive phrase, descriptive phrase, and appositional phrase. Their contrastive features are summarised in Table 2. Each of these phrases can embed within noun phrases as well as fill clause level slots.

2.1. COORDINATE PHRASE

The coordinate phrase is a device for listing people or things. It

allows for almost unlimited expansion but the maximum number of co-ordinated items observed in text is eight.

$$\begin{aligned} \text{Co P} = & (+ H_1 : n/\text{np}/\text{pro}/\text{name} \pm \text{Co} : -\text{ra}/\text{ma})^n \\ & + H_2 : n/\text{np}/\text{pro}/\text{name} \pm \text{Co} : -\text{ra} \end{aligned}$$

Thus there are two head slots, both of which are manifested by a noun, noun phrase, pronoun, or name, and both of which may be followed by a coordinator. The combination of head₁ and optional coordinator may be repeated any number of times. Possessive, descriptive and appositional phrases may manifest both head slots.

rei-ma nono-holo-ra tete-holo ma rei-ma iza-holo
(we-poss mother-qual-and sister-qual and we-poss grandparent-qual)
'our mothers, older sisters and grandparents'

ne-ma papa-pu savar ne-ma nono-pu etai nono moda-pu
saval ne-ma nono na-pu zaurai
(I-poss father-qual Savar I-poss mother-qual Etai mother
another-qual Saval I-poss mother one-qual Zaurai)
'my father Savar, my mother Etai, my aunt Saval, and my other aunt
Zaurai'

If a coordinator follows the head₂ slot it signifies that there are additional items in the list which are not being enumerated explicitly, and gives the impression of 'et cetera'. This is rarely found in text. The only coordinator which occurs finally is -ra.

hade-pu-ra ema-pu-ra volo-pu-ra
(dog-qual-and marsupial-qual-and pig-qual-and)
'the dog, marsupial and pig, et cetera'

No suffix follows -ra in either head slot but if the filler is a noun or noun phrase an obligatory class 100 suffix and an optional class 200 suffix precede the -ra. Class 400-600 suffixes can be added to the head₂ slot (in the absence of -ra) and, if present, they add meaning to the whole phrase. These suffixes do not occur on the filler of a head₁ slot even in the absence of -ra/ma.

The coordinator -ra may not co-occur with any other relator. Thus it may occur following head₂ slot only when the coordinate phrase is filling a clause level slot that does not require a relator, namely subject, topic or object. When a coordinate phrase fills a clause level slot that takes a relator, either optional or obligatory, the relator occurs on the filler of the head₂ slot.

ab-kame-pu-ra tete-pu-kananga
(brother-in-law-qual-and sister-qual-from)
'from the brother-in-law and older sister'

A coordinate phrase may embed in a possessive, descriptive or appositional phrase, but when it does the optional final coordinator is always absent. Any relator necessary to the particular slot filled by a coordinate phrase occurs on the filler of head₂.

2.2. POSSESSIVE PHRASE

Possessive phrases may be either full or elliptical.

2.2.1. Full Possessive Phrase

There are three obligatory and no optional slots in the possessive phrase.

Poss P = +Posr:n/np/pro/cl +Poss:-za/{-ma} + Posd-H :n/np/loc

Thus there is a possessor slot realised by a noun, noun phrase, pronoun or clause, and a possessed-head slot realised by a noun, noun phrase or locative word, linked by a possessive relator. The order of these slots is fixed.

The noun phrase filler of the possessor slot is either descriptive, coordinate or appositional, and that of the possessed-head slot coordinate, possessive or descriptive. A clause in the possessor slot has a predicate marked for potential aspect and it is not nominalised by a class 100 suffix.

A noun, noun phrase or clause filler of the possessor slot occurs obligatorily suffixed with the relator -za (possessive) whereas a pronoun filler of this slot occurs suffixed with the pronoun possessive {-ma}.

The phrase as a whole, since it has no optional tagmemes, is expandable only to the extent that the filler of the two obligatory slots may occur in minimal or extended form.

A possessive phrase is different from a coordinate phrase in that it may embed within itself (coordinate phrases do not), in that expansion is limited, and in the occurrence of coordinators -ra and ma versus possessives -za and {-ma}.

The attributive relationship between the two tagmemes in a possessive phrase includes the concepts of possession, kinship, whole-to-part, and relative position.

abana-pu-za	volu-pu
(man-qual-poss	pig-qual)
'the man's pig'	

abana-pu-ra ro-pu-za zei-maki
 (man-qual-and boy-qual-poss house-qual)
 'the man and the boy's house'

ne-ma papa-pu
 (I-poss father-qual)
 'my father'

zei-maki-za arapo-si
 (house-qual-poss roof-qual)
 'the roof of the house'

kutur ma-na-pane-za ngeti-vo
 (dark it-give-it/poas-poss story-qual)
 'the story of it becoming dark'

A possessive phrase is commonly used to express location relative to some person or thing.

zi-mede-za nakae
 (tree-qual-poss near)
 'near the tree'

nono-ra-papa-za revah
 (mother-and-father-poss above)
 'above the parents'

An appositional phrase, with the item slot filled by a personal name and the apposition slot filled by a pronoun, embedded in the possessor slot of a possessive phrase is the usual way of handling personal name possession.

baroa pi-ma hade-pu
 (Baroa he-poss dog-qual)
 'Baroa's dog'

The embedding of a possessive phrase in the possessed-head slot of another possessive phrase results in a series of possessor slots, each subordinate to the following one. With this kind of embedding a pronoun may only occur as filler of the initial possessor slot.

na-pu-za anga-pu-za ki-ngi
 (some-qual-poss woman-qual-poss bag-qual)
 'someone's wife's bag'

2.2.2. Elliptical Possessive Phrase

An interesting feature of possessive phrases is the ellipsis which frequently occurs. Any noun root occurring in the possessed-head slot may be deleted and all its suffixation is added to the filler (noun, noun phrase, pronoun or clause) of the possessor slot, following -za

(possessive) or {-ma} (pronoun possessive). Any class 400-600 suffix following -za or {-ma} in the possessor slot is also deleted when this extra suffixation is added. Since each class 100 suffix can occur with a number of noun roots, the particular qualitative suffix which follows -za/{-ma} in this construction provides only a partial clue as to what noun has been deleted, and the exact item referred to must be deduced from the context.

ro-pu-za hade-pu-ama
(boy-qual-poss dog-qual-d)
'only the boy's dog'

ro-pu-za-pu-ama
(boy-qual-poss-qual-d)
'only the one belonging to the boy'

Possessive phrases fill clause level slots, taking optional or obligatory relators, appropriate to that slot. These relators (class 300) occur on the final word of the filler of the possessed-head slot.

ro-pu-za hade-pu-nanga
(boy-qual-poss dog-qual-with)
'with the boy's dog'

Possessive phrases have no suffixation on the final word of the filler of the possessed-head slot when they embed in descriptive phrase head slots. They may also embed within themselves or within coordinate phrases with the optional coordinator following the final word in the possessed-head slot.

2.3. DESCRIPTIVE PHRASE

Descriptive phrases may be either full or elliptical.

2.3.1. Full Descriptive Phrase

The descriptive phrase also has tagmemes in an attributive relationship to a head. It is widely used and frequent in occurrence.

Des P = ±H:n stem/np ±(M:int/adj)³ +M-H:int/adj/dem/ncl/nm p

Thus a descriptive phrase is manifested by an optional head whose filler is always unsuffixed followed by up to four modifiers, the last of which is obligatorily suffixed. The filler of the modifier-head slot carries the suffixation for the whole construction. The head slot may be filled by a noun stem, a possessive phrase, or a descriptive phrase.

Several order restrictions have been noted in the occurrence of adjectives, demonstratives and interrogatives. Only one demonstrative

can occur and it must occur in the modifier-head slot and take the suffixation for the whole phrase. Adjectives occur in any order following the head. Interrogatives tend to occur in the modifier-head slot except in the presence of a demonstrative when it occurs in the preceding modifier slot.

The modifier tagmemes amplify the meaning of the head tagmeme which precedes them, and all three tagmemes assume the qualities signified by the suffixation occurring on the modifier-head slot filler. Thus this construction is a closely bound unit.

Descriptive phrases may embed in coordinate, possessive and appositional phrases as well as filling clause level slots. In each of these positions, relators appropriate to the slot filled by the descriptive phrase occur on the filler of its modifier-head.

This phrase type is distinguished from the previous two by the lack of suffixation in non-final slots, by the absence of a possessive suffix or coordinator and by expansion possibilities which are more limited than coordinate phrases and greater than possessive phrases.

hama epe-si
(ground this-qual)
'this area'

voe-ra-givogi aho-vo
(violence-and-stealing big-qual)
'much violence and stealing'

ne-ma pei tina-ta
(I-poss thing good-qual)
'my good thing'

volo vede na-pu
(pig wild certain-qual)
'a certain wild pig'

pei moda tina taira-ta
(thing another good what-qual)
'what other good thing?'

zei gori-si-kananga
(place bad-qual-from)
'from the bad place'

Clauses filling the modifier-head slot are not uncommon. In such cases the clause is always nominalised by the occurrence of a noun class 100 suffix (see section 3).

anga ada-ngi ma-na-ha-pu
(woman sweet potato-qual her-gave-he-qual)
'the woman to whom he gave the sweet potato'

2.3.2. Elliptical Descriptive Phrase

A form of ellipsis occurs with this phrase type also. A noun root filling the head slot can be omitted and the only clue given about the person or thing referred to (by the adjective, demonstrative, or nominalised clause filling the modifier and modifier-head slots) is the class 100 suffix occurring on the filler of the modifier-head slot. It is usually obvious from the context to what item reference is being made. The elliptical form of this phrase may embed within other phrases and commonly does.

abana goe-pu
(*man small-qual*)
'the small man'

goe-pu
(*small-qual*)
'the small one'

2.3.3. Numeral Phrase

The numeral phrase is the means by which numerals are formed. It is a construction which has very limited fillers, and which shows some similarities to a descriptive phrase and some to a coordinate phrase. In the numerals illustrated below, all except five and ten are shown with a qualitative -vo which represents any qualitative suffix of class 100, and which is selected according to the noun being counted.

na-vo / gone-vo
(*one-qual*) 'one'

na-vo-karo / gulo-vo-karo
(*one-qual-two*) 'two'

na-vo-karo na-vo / gulo-vo-karo gulo-vo
(*one-qual-two one-qual*) 'three'

na-vo-karo na-vo-karo / gulo-vo-karo gulo-vo-karo
(*one-qual-two one-qual-two*) 'four'

mara na-si
(*hand one-101*) 'five'

mara na-si-kananga na-vo / mara gulo-si-kananga gulo-vo
(*hand one-101-from one-qual*) 'six'

mara na-si-kananga na-vo-karo / mara gulo-si-kananga gulo-vo-karo
(*hand one-101-from one-qual-two*) 'seven'

mara na-si-kananga na-vo-karo na-vo /
maru gulo-si-kananga gulo-vo-karo gulo-vo
(*hand one-101-from one-qual-two one-qual*) 'eight'

mara na-si-kananga na-vo-karo na-vo-karo /
mara goulo-si-kananga goulo-vo-karo goulo-vo-karo
(hand one-101-from one-qual-two one-qual-two) 'nine'

mara na-si-karo
(hand one-101-two) 'ten'

mara na-si-karo-kananga na-vo/mara goulo-si-karo-kananga goulo-vo
(hand one-101-two-from one-qual) 'eleven'

mara na-si-karo-kananga na-vo-karo /
mara goulo-si-karo-kananga goulo-vo-karo
(hand one-101-two-from one-qual-two) 'twelve'

In other contexts *na* is a demonstrative meaning 'a', 'a certain', 'some'; *gone* is an adjective meaning 'one'; and *goulo* occurs in derived adverbs meaning 'a long time', and as an adjective with plural suffixes meaning 'all'.

The tendency now is for English numerals to be used for numbers over five. For five and under both English and Kunimaipa numerals are used, with the younger generation tending to use English numbers more.

2.4. APPOSITIONAL PHRASE

This phrase type is a device by which two multi-term statements about the same person or thing may be made within a single phrase.

App P = +I:n/np/name +App:n/np/pro/name ±Sum:pro

Thus an appositional phrase is realised by two obligatory slots, namely item and apposition, and one optional slot, the summary. Although the potential for expansion is limited to the possibility of expansion within the two obligatory slots, appositional phrases tend to be longer than other noun phrases. Any noun phrase can occur as manifestation of either item or apposition slots.

This phrase differs from the three preceding phrases in the occurrence of noun class 100 suffixes on fillers of both item and apposition slots, in the possibility of a name being the filler of either of these slots, in the lack of any formal link between the three slots, and in the occurrence of an optional summary slot.

Apposition phrases fill clause level slots, taking optional or obligatory relators, appropriate to that slot, and they embed in coordinate and possessive phrases with coordinating or possessive relators. These relators (class 300) occur on the final word of the phrase whether it be a filler of the apposition slot or a filler of the summary slot.

hirisipai-ra ngari iza-holo paru-paro
 (Hirisapai-and girl grandchildren-qual they-all)
 'Hirisipai and her granddaughters, all'

mas na-pu master rovis pi
 (master certain-qual Master Rovis he)
 'a certain man, Mr Roberts'

rei-ma nono-ra-papa rei-ma iza-ra-horove
 (we-poss mother-and-father we-poss grandparent-and-great grandparent)
 'our ancestors'

Some discontinuous examples of appositional phrases have been observed in which the predicate of the clause in which they occur separates the item and apposition slots.

ngari anga na-pu (ema-ha) pi-ma abata-vo doris
 (girl woman certain-qual came-she/acas she-poss name-qual-Doris)
 'a certain young woman by the name of Doris (came)'

3. NOMINALISED CLAUSES

Independent (transitive, ditransitive, intransitive or stative) clauses can be nominalised by the addition of any class 100 noun suffix. Most Kunimaipa clauses contain and terminate with a verbal predicate to which these nominalising suffixes are attached. The particular class 100 suffix which occurs on the predicate depends on the noun in the head (or the contextually understood noun head) of the phrase in which this clause is embedded (see section 2.3.). Nominalised clauses usually embed in descriptive phrases, optionally taking any of the suffixes listed in Table 1. These phrases in turn either fill clause level slots or embed in other noun phrases.

Nominalised clauses can also embed directly in the clause level location slot and rarely in the purpose slot. The class 100 suffixes which occur on such nominalised clauses are limited to 104 -e in the location slot and 103 -vo in the purpose slot.

3.1. SUFFIX LIMITATIONS

(a) A clause with a predicate in the potential aspect must take -za before the addition of a class 100 suffix. In this usage -za seems to have no particular meaning, and certainly nothing as specific as possessive or purpose. It could be regarded as a nominaliser.

abana sa-pane-za-pu
 (man go-he/poas-nom-qual)
 'the man who will go'

sa-pane-za-pu
 (go-he/poas-nom-qual)
 'the one who will go'

(b) A clause with a predicate in the actual aspect is nominalised by suffixation with a class 100 noun suffix. Further suffixation (classes 200-600) is optional.

anga gogo-vo ta-ma-ha-pu
 (woman work-qual do-con-she/acas-qual)
 'the woman who works'

gogo-vo ta-ma-ha-pu
 (work-qual do-con-she/acas-qual)
 'the one who works'

(c) Stative verbs have a unique suffix -za, which does not occur with any other class of verb. The stative verb stem may not occur without suffixation and when there is no other suffixation -za occurs. That is, in the present tense positive and in the actual aspect negative -za occurs as the only suffix, and in no other forms of the stative verb does it occur.

Stative clauses with regular person/number/aspect suffixes are nominalised as described in section 3.1., (a) and (b). Stative clauses with -za suffix are nominalised by the addition of a class 100 noun suffix. The homophonous nominalising morpheme -za does not occur here.

ro kohati he-za-pu
 (boy inside is-pr-qual)
 'the boy who is inside'

kohati he-za-pu
 (inside is-pr-qual)
 'the one who is inside'

3.2. ELLIPSIS IN NOMINALISED STATIVE CLAUSES

A unique type of stative clause nominalisation is that in which the stative predicate is deleted and the nominalising suffix (or suffixes) which would have occurred on that predicate occur on the instrument/accompaniment, benefactive or locative slot immediately preceding the predicate. This second set of suffixes follows any suffixes which are already present in these slots.

Stative clauses are of two types, those in which the predicate is obligatory and those in which it is optional. Either of these types can occur with elliptical nominalisation.

The resultant form consists of a noun, noun phrase, locative word,

or pronoun, with its typical suffixation obligatorily including a syntactic relator appropriate to the particular slot it fills within the stative clause, followed by one or more suffixes appropriate to the slot which this nominalised clause itself fills. Thus there are two layers of suffixes. The first set of suffixes may be either locative, pronoun or noun suffixes, but the second set are only noun suffixes.

zei-ta-ka he-za-pu
(place-qual-at is-pr-qual)
'the one who is a village one'

zei-ta-ka-pu
(place-qual-at-qual)
'the one who is a village one'

Elliptical nominalised clauses embed in descriptive phrases in the same way as full nominalised clauses do.

volo zei-ta-ka-pu
(pig place-qual-at-qual)
'the pig who is a village one (not wild)'

Occurrences of three sets of suffixes are possible but rare. Only the combination of ellipsis of both a nominalised stative clause and a possessive phrase has been observed in such a form.

epe-maki-ha he-za-pu-za volo-pu
(this-qual-at is-pr-qual-poss pig-qual)
'the pig who belongs to the one at this (house)'

epe-maki-ha-pu-za-pu
(this-qual-at-qual-poss-qual)
'the one who belongs to the one at this house'

3.3. SYNTACTIC RELATORS IN ELLIPTICAL NOMINALISED CLAUSES

The first set of suffixes never goes beyond suffix 401 {-hara}. Suffixes 501 -ga and 601 -ama only occur in the final set of suffixes. The first set of suffixes always contains a relator (class 300). Hence a suffix of class 100 in the second set never directly follows a class 100 or 200 suffix in the first set.

(a) If the slot preceding the deleted stative predicate is instrument/accompaniment the syntactic relator -nanga 'with' occurs in the first set optionally followed by suffix 401 {-hara}. These are followed by the second set of suffixes.

abana-pu-nanga orae-za-ri
(man-qual-with is-pr-qual)
'the thing that is with the man'

abana-pu-nanga-ri
 (man-qual-with-qual)
'the thing that is with the man'

(b) If the slot preceding the deleted stative predicate is benefactive the syntactic relator *-za* 'for' occurs in the first set optionally followed by *-hara*. These are followed by the second set of suffixes. If the filler of the benefactive slot is a noun this layered construction is indistinguishable from an elliptical possessive phrase described in 2.2.2. But if the benefactive slot is filled by a pronoun then it is distinguished from an elliptical possessive phrase by the presence of the pronoun possessive {-ma} preceding *-za*.

ne-ma-za he-za-si
 (I-poss-ben is-pr-qual)
'the thing that is for me'

ne-ma-za-si-hara
 (I-poss-ben-qual-sg)
'only the thing that is for me'

(c) If the slot preceding the deleted stative predicate is a locative filled by a locative word, then this word obligatorily takes *-za* before the addition of the noun suffix (or suffixes) which would have occurred on the predicate, had it been present. Here *-za* seems to function as a nominaliser.

deti orae-za-repe
 (above is-pr-qual)
'the vine that is above'

deti-za-repe
 (above-nom-qual)
'the vine that is above'

(d) If the locative slot is filled by a pronoun, noun or noun phrase with locative relators {-ha} 'at' or {-ti} 'to', these may be optionally followed by nominaliser *-za* and then by {-hara} before the addition of the second set of suffixes. If the locative relator {-hananga} occurs on the pronoun, noun or noun phrase, then this may only be followed by {-hara} before the second set of suffixes is added.

zei-maki-ha-pu
 (house-qual-at-qual)
'the one who is in the house'

po-ta-ka-za-ri
 (this-qual-at-nom-qual)
'the ones who are at this place'

(e) The syntactic relators -ra (coordinate), -ho (subject), and -na (indirect object) do not occur in the first set of suffixes in any layered construction.

4. CONCLUSION

Several languages have been described as having a system of noun classifiers rather similar to the qualitative (class 100) suffixes described in 1.2. However, Kunimaipa is unusual in that the partial ellipsis of possessive phrases and nominalised stative clauses made possible by the presence of qualitative suffixes results in two or more layers of similar suffixes on the one word, as described in 2.2.2. and 3.2.-3.3.

Noun suffixes occur on many parts of speech but they are basically noun suffixes. They have the effect of nominalising the construction on which they occur, allowing them to occur in clause and phrase constructions where one would expect a noun. The usefulness of nominals, particularly nominalised clauses, as a mode of expression for new items and ideas as well as a means of describing familiar people and things is apparent. An understanding of the wide usage of noun suffixes in structuring nominals of all kinds is basic to the understanding of Kunimaipa.

NOTES

1. This tagmemic analysis is based on the Kunimaipa dialect spoken in the lower Bubu River Valley near Garaina, Morobe District, Territory of Papua and New Guinea. It is drawn mainly from examples recorded in spontaneous text, with supplementary data provided by informants. The authors wish to acknowledge the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and University of Oklahoma Research Institute, sponsored by grant GS-270 of the National Science Foundation, for preparing a concordance from these texts with an IBM 1410 Computer. The first author spent approximately 12 months in the language area from 1959 to 1963 and is primarily responsible for section 1. The second and third authors spent approximately 13 months in the language area from 1966 to 1969 and are primarily responsible for sections 2 and 3. This research has been supported in part by the New Guinea Branch of the Summer Institute of Linguistics Research Fund.

The alphabet used in this paper may be pronounced basically as it appears; however 'h' is initially a voiced backed velar stop and medially a voiced backed velar fricative; 'v' is initially a voiced bilabial stop and medially a voiced bilabial fricative. Throughout the paper all words are written in a form which includes their final vowel, but these are usually elided in normal speech.

2. The authors are indebted to Alan Healey and Elizabeth Murane of the Summer Institute of Linguistics for their help in the preparation of this paper.

3. Abbreviations and symbols used throughout the paper are:

- + obligatory
- ± optional
- = is made up of
- { } morpheme which has several allomorphs;
(in a formula) alternate choices
- / or

acas	actual aspect	ncl	nominalised clause
adj	adjective	nm	numeral
App	appositional	nom	nominaliser
ben	benefactive	np	noun phrase
cl	clause	P	phrase
Co	coordinate	poas	potential aspect
con	continuative	Posd-H	possessed-head
d	diminutive	Posr	possessor
dem	demonstrative	Poss	possessive
Des	descriptive	pr	present
e	emphatic	pro	pronoun
H	head	qual	qualitative
I	item	quan	quantitative
int	interrogative	re	relator
io	indirect object	sg	singulative
loc	locative word	SU	subordinate
M	modifier	sub	subject
M-H	modifier-head	Sum	summary
n	noun	Sy	syntactic

4. The pronouns are listed in: Alan R. Pence, *An Analysis of Kunimaipa Pronouns*, *Kivung* 1(2): 109-115 (1968). The three extra suffixes which pronouns take are -ma (pronoun possessive), -pi 'two' and -paro 'all'.

nominalised clause	nci	actual aspect	ncas
numeral	nm	adjective	adj
nominaliser	nom	appositional	app
noun phrase	np	predicative	ben
phrase	p	class	cl
potential aspect	pcas	coordinative	co
possessed+head	posh	conjunction	con
possessor	pos	diminutive	d
possessive	posv	demonstrative	dem
present	pr	descriptive	des
pronoun	pro	emphatic	e
qualitative	qual	head	h
quantitative	quan	item	i
relator	re	interrogative	int
relative	rel	indirect object	io
subordinate	su	locative word	loc
subject	sub	modifier	m
summary	sum	modifier-head	m-h
syntactic	sy	nom	n

4. The phonemes are listed in: Alan R. Tence, *An Analysis of Kikuyu* (Baltimore, 1952), 109-112 (1953). The three extra syllables which phonemes take are: *ma* (phonon possessive), *-a* (acc) and *-pa* (ill).