SERIES A - No. 25

PAPERS IN NEW GUINEA LINGUISTICS No. 10

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PACIFIC LINGUISTICS

The Australian National University

Voorhoeve, C., McElhanon, K., Blowers, B. and Blowers, R. editors. *Papers in New Guinea Linguistics No. 12.*
A-25, v + 66 pages. Pacific Linguistics, The Australian National University, 1970. DOI:*10.15144/PL-A25.cover*

PACIFIC LINGUISTICS is published by the *Linguistic Circle of Canberra* and consists of four series:

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SUBSCRIPTIONS AND SALES:
ABOVE ADDRESS

First published 1970.

The editors are indebted to the Australian National University for help in the production of this series.

This publication was made possible by an initial grant from the Hunter Douglas Fund.

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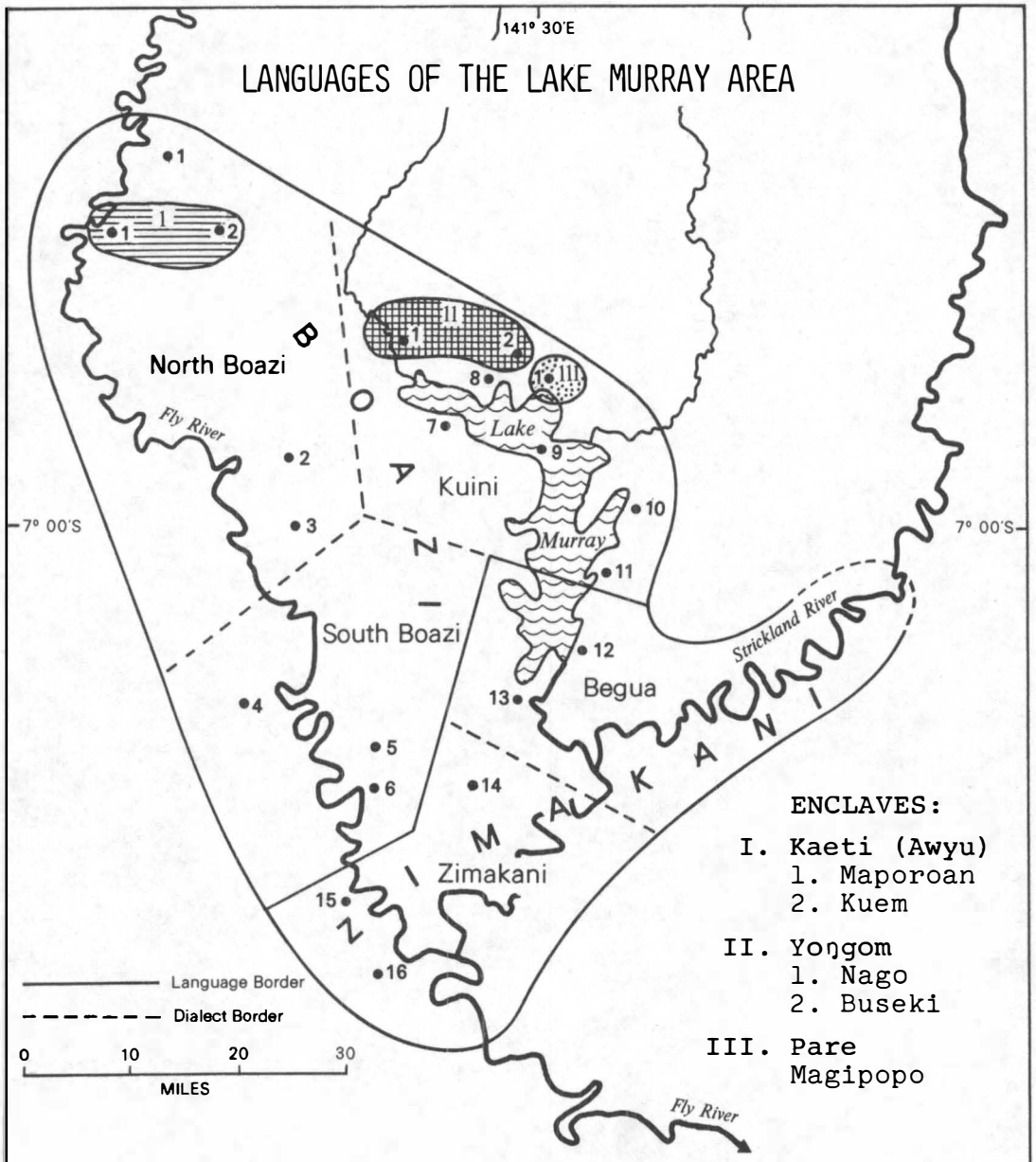

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THE LANGUAGES OF THE LAKE MURRAY AREA

C.L. VOORHOEVE

1. INTRODUCTION

1.1. The Lake Murray Area is the vast triangular stretch of swampy land bordered in the west by the Fly River, in the east by the Strickland River, and in the north by the higher and dryer grounds of the Yoŋgom and Pare areas. In the centre of the triangle lies Lake Murray measuring about 35 miles from top to bottom, and from 3 to 5 miles from side to side. Its feeder rivers, the June, the Boi and the Kaim, all enter it from the north. In the south the Herbert River connects it with the Strickland River.

About 4000 people live in this area. Their villages are built on the low sand ridges that crop up between the innumerable swamps and lagoons. Of these people, 600 are newcomers: small groups of Kaeti, Yoŋgom and Pare who have settled in the region in the recent past. The others have lived there from time immemorial.[1] They are organised into a number of tribes which all seem to have a dual organisation. Each tribe consists of exogamous moieties which are divided into a small number of totem groups.[2]

The two main languages in the area are Boazi and Zimakani. They constitute the easternmost subgroup of the Marind Stock, which stretches far to the south-west and west into West Irian. Boazi is spoken in three dialects: North Boazi, South Boazi, and Kuini. Zimakani is spoken in two dialects, Zimakani and Bɛgua. The other languages, spoken by sundry groups are Kaeti, Yoŋgom and Pare. A list of the tribes, the villages and the population figures is presented in the following chart:

Voorhoeve, C.L. "The Languages of the Lake Murray Area". In Voorhoeve, C., McElhanon, K., Blowers, B. and Blowers, R. editors, *Papers in New Guinea Linguistics No. 12.* **A-25:1-18**. Pacific Linguistics, The Australian National University, 1970. DOI:*10.15144/PL-A25.1*

Chart I

PEOPLE AND LANGUAGES OF THE LAKE MURRAY AREA

(The population figures have been taken from the Census 1968.)

TRIBE	VILLAGE	POPULATION FIGURES	LANGUAGE AND DIALECT
			Boazi
Biɛki	Gamo	?	Northern dialect
Iŋgiɛs	Mipan	217	" "
Saŋgizi	Manda	125	" "
Wamek	Boset	411	Southern dialect
Kameki	Tinuŋga	116	" "
	Aiambak	99	" "
Kuini	Boemburavu	112	Kuini
	Uisokov	272	"
	Demu	171	"
	Taugum	255	"
	Aewa	84	"
	Total number of Boazi speakers: approximately 1900.		
			Zimakani
Bɛgua	Miwa	308	Bɛgua
	Kusikina	153	"
Zimakani	Boikumava	202	Zimakani
	Kavianaŋga	321	"
	Komaovai	78	"
	Total number of Zimakani-Bɛgua speakers: 1462.		
Kaeti	Kuem / Maporoan	200 appr.	Kaeti
Yoŋgom	Nago	143	Yoŋgom
	Buseki	184	"
Pare	Magipopo	67	Pare
	Note: Nago has since moved to a new location and is now locally known as Kakutamaŋgei.		

The trade language in the Lake Murray area is Police Motu, but near the West Irian border the Indonesian language is generally understood and spoken. Amongst the younger generation, English is becoming more widespread as a second language since it is taught at the Government and Mission schools.

1.2. The first European to enter this part of New Guinea was Luigi d'Albertiz who ascended the Fly River for the first time in 1876, firing his rockets at the bewildered natives. From that time onwards the area had sporadic contacts with the outside world. In 1913 Massey Baker and Burrows discovered the lake, which they named after the Lieutenant-Governor, Hubert Murray, who himself visited it the year after.

The state of sporadic contacts lasted till about the beginning of the second world war, when the Unevangelized Fields Mission established a Mission Station at Kavianaŋga near Everill Junction. In 1947 they moved from there to their present headquarters at Pangoa in Lake Murray. About the same time the administration moved in and established a patrol post on the northern shore of the lake. Nevertheless Lake Murray remained a neglected part of the Western District till 1960 when a permanent government station was built on a new site and a start was made with the economic development of the area. Crocodile hunting was promoted, a start made with the planting of rubber, and the Lake Murray Co-operative Society was formed. There are at present three primary schools in the area: in the government station, on Pangoa, and in Boset.

In the border area west of the Fly River regular contacts with the outside world were established earlier than east of the Fly. The Dutch Roman Catholic Mission started operating in the region in the thirties working from their headquarters in Merauke. They established a Mission Station at Boset, and thereafter many children from the Boazi speaking area went to school in Merauke. After Dutch New Guinea became Irian Barat in 1962, the Dutch Roman Catholic Mission stayed on for a while but at last abandoned the Boset Mission Station. The station was later reopened by the Canadian Montfortan Mission, operating from Daru.

1.3. The earliest information on the languages around Lake Murray consists of short word lists in the *Papua Annual Reports* of 1916/17 (in Zimakani) and 1921/22 (in Zimakani and Boazi). More detailed information on the Boazi language became available through Boelaars' thesis (1950) which contains an abstract of notes on Boazi by the Dutch Missionary, P. Drabbe. Four years later (1954), Drabbe published these notes in the *Microbibliotheca Anthropos*.

The Unevangelized Fields Mission, working in Zimakani (Zimakani dialect), prepared translations of part of the New Testament (*Jesu'ba Woituwoituda*, 1956; *John'ba Lagitada Magata*, 1966). Capell (1962) gives a few notes on the Lake Murray languages, mentioning Zimakani, Kuni and Dea. His Kuni is the Kuini dialect of Boazi; a language named Dea does not exist in the area. Capell's examples show that Dea is to be equated with Boazi. The location of the languages as shown on his map (Map X, facing page 128) is incorrect.

The present author collected the materials for this report during a stay of three weeks in the Lake Murray area in March 1969.

2. PHONOLOGY

2.1. Boazi and Zimakani have very similar sound systems and it is therefore not necessary to present a complete survey of each of them. The sound system of the Boset dialect of Boazi will here be given in some detail. The sound systems of North Boazi, Kuini, Zimakani and Bɛgua will then be discussed insofar as they differ from the Boset dialect.

2.2. Boset-Boazi (Southern Dialect)

This dialect has 18 consonant phonemes and 5, or perhaps 6, vowel phonemes.

The consonant phonemes are:

		Bilabial	Labio-dental	Alveo-dental	Velar	Back velar
Stops	vl.	p		t	k	q
	pren.	mb		nd	ng	nq
	vd.	b		d	g	-
Nasals		m		n		
Fricatives	vl.		f	s		
	vd.		v	z		y
Laterals				l		

Chart II, on page 5, shows the main allophones of the consonant phonemes as they occur in word-initial, word-medial and word-final position. A question mark indicates that in the collected data the phoneme has not been found in that position.

The vowel phonemes are:

i [i,ɪ]; e [ĕ]; ɛ [ɛ,æ]; u [u,ŭ]; o [o,ɔ,ë]; a [ɑ,a,æ].

NOTES:

The allophone [ë] of /o/ was found in the environment /d-v/ only: [dëvɑiæk, dovɑiɑk] *'moon'*.

The phonemic status of ɛ is uncertain. Only a few examples of possibly phonemic ɛ were found. Further, /a/ tends to be raised to æ in certain environments and then seems to overlap the phonetic range of the suspected ɛ phoneme.

Chart II

BOAZI CONSONANTS AND THEIR MAIN ALLOPHONES

	p	t	k	q	b	d	g	mb	nd	ŋg	ŋq	m	n	f	s	v	z	ɣ	l
I	p	t	k	q	b	d	g	mb	nd	ŋg	ŋq	m	n	f,pf	s,ts	v	z,dz	ɣ̇,ġ	l
M	p	t	k	q	b	d	g	mb	nd	ŋg	ŋq	m	n	f	s	v	z	ɣ̇,ġ	l
F	p,p	t	k	q	ʔ	ʔ	g,k̥	ʔ	nd	ŋg,ŋk̥		m	n	f	s	f̥v	s̥,z	ɣ̇,x̥	-

Unvoiced lax stops are indicated by a subscript ̥: k̥, f̥, s̥, x̥.

NOTES:

Final /p/ is sometimes unreleased.

The fricative phonemes /f/, /s/, and /z/ have in initial position two allophones: a fricative and an affricated allophone which alternate freely.

The opposition voiced-voiceless of stops and fricatives is in word-final position sometimes replaced by the opposition tense-lax, the voiceless phonemes becoming unvoiced/tense, the voiced phonemes becoming unvoiced/lax.

Backed velar consonants occur only preceding /a/ or /o/ (in initial and medial position) or following /a/ or /o/ (in final position). Within these restricted environments however, they contrast with non-backed velar consonants.

The velar fricative /ɣ/ seems always to be backed, irrespective of the environment.

2.3. The North-Boazi Dialect

A few data were collected from an informant from Manda. The sound system seems to be identical to that of South-Boazi. In this dialect /l/ also occurs word-finally and then has strong lateral friction.

2.4. The Kuini Dialect

The data, collected from an informant from Boemburavu show only subphonemic differences from the system outlined above. Inter-vocalically, /g/ has two allophones: [g] and [ŋ]. There is more evidence for setting up ɛ as a separate phoneme than in Boset-Boazi.

2.5. Zimakani, Zimakani Dialect

The main difference is the absence of phonemic backed-velar stops. On the allophonic level backed-velar stops [q], [ŋq] do occur when followed by /a/ or /o/. Preceding /o/ the stop is always backed, preceding /a/ backed and non-backed allophones seem to alternate freely. /ɪ/ has flapped and lateral allophones in word-medial position.

There are 6 vowel phonemes:

i [i,ɪ]	u [u,ʉ]
e [e,ĕ]	o [o,ɔ]
ɛ [ɛ]	a [ɑ,ə,æ]

Bɛgua seems to have an identical sound system.

2.6. Consonant clusters do not occur, neither in Boazi nor in Zimakani; Boazi permits word-final consonants, but Zimakani does not permit them. In both languages sequences of up to three vowels have been noted.

3. GRAMMAR

Very little is known of the morphological and syntactical structure of these languages. Drabbe's *Notes* (1954) are the only source available and the fieldwork by the present writer did not go into enough detail to improve much on what has been published before. The writer therefore refrains from presenting any data till a more thorough study in these languages has been made. Only a few general remarks may be made here: both Boazi and Zimakani seem to have a system of three noun classes, involving concord with pronouns, demonstratives, and adjectives. In Boazi there is a category of nouns which has plural forms marked by a pluralising suffix; in Zimakani and in the Kuini dialect of Boazi there is a category of nouns in which the singular nouns are marked by a singularising suffix. Verb forms may contain one or more prefixes and/or suffixes. Thus, a verb may contain prefixes marking completive aspect - subject - object (in this order) and suffixes marking plural number of subject - durative aspect - tense (in this order). Some verbs have suppletive roots, depending on the plurality of the subject or object, or depending on the tense of the verb.

4. COMPARATIVE WORD-LIST OF BOAZI (Boset and Kuini Dialects) AND ZIMAKANI (Zimakani and Bɛgua Dialects), IN PHONETIC NOTATION

	South Boazi	Kuini	Zimakani	Bɛgua
afraid	maị̂	-	mɔị̂	-
all	tandeŋge	-	-	utumatu baŋ̲gu
angry[1]	nafě	ɣaɣa	pɔŋgɔa	pɔŋgɔa
arm	piŋgi	pɪngɪ	ŋgu	ŋgu
armpit	fiag	baɣa	-	-
arrow[2]	saŋgava	saŋgava	tsaŋgava	saŋgava
arrow[3]	ŋgɛsu	ŋgasu	ŋgasu	ŋgasu
ashes	pɔḳaḳ	paḳaḳ	pu	fu
axe, stone	eto bovaị̂	-	-	bɔvasi
back (body)	zita	tsita	ḳɔbɛ	zita
back of knee	-	-	lava	lavava
bad	sɣaɣa	sɔɣaị̂ma	babaka	babaka babakŭ babake [4]
bag, plaited	ava	ava	ava	ava
bamboo	pfaị̂f	faị̂f	-	-
banana	napět	nĕpět	napětĕ	napětĕ
bark	gəị̂na ŋgusu	-	tae ŋgusumi	ŋgusumɪ
beard	maị̂tu	maị̂ta	-	-
belly	ɣandam	-	gusu	gusʉ
betelnut	siŋgi	siŋgi	siŋgi	sɪŋgɪ
big	kandamba	kanbɔɣɔbe	ndɛwi	kapaka
bird	pipisi	pipisiɛm / pipisi [5]	ị̂ɔvɔị̂ɔvɔ	kɔŋ̲agiɛmu [6]
black	kekes	kĕkĕs	pɔị̂nu	pɔị̂nu
blood	koŋ̲k	koŋ̲k	ḳɔŋ̲ku	ḳoŋ̲ku
bone	bazæg	bazaḳ	bɛ:ki	bɛ:ki
bow	pfaị̂	faị̂f	pfaị̂fa	pfaị̂fa
bowstring	-	zava	-	zave
boy	mapenaka / mapenaḳaị̂s [5]	ɔpanaḳa / ɔpanaḳaị̂s [5]	ŋgɔiɛme / ŋgɔi [5]	ŋgɔị̂ɛme / ŋgɔî [5]
branch	tatæŋg	taŋga	tɛtɛ:ŋgi	ŋ̲aɣe
breadfruit	ɣazŋ̲a	baị̂æk	ɣazua	-
breast	tŏtŏ	tĕtĕ	tĕtĕ	tĕtĕ

[1] Boa: P. genafě: *P. is angry*; P. note gendonafě: *P. is angry with me.* Zim/Bɛg: pɔŋgɔanda: *he is angry.*

[2] *arrow with wooden point.* [3] *arrow with bamboo blade.*

[4] *bad, of things, female beings, male beings respectively.*

[5] singular, plural respectively. [6] singular.

	South Boazi	Kuini	Zimakani	Bɛgua
brother[1]	ata	ata	ezɑi̯ / ezɑi̯pikɨa[2]	ezae / ezaeza[2]
brother[3]	ati	ati	ɔmbeɛki	ɔmbiɛki
bush	deg	deg	lɔsɔkɔ	lɔsɔkɔ
buttocks	ɣaɣɔma	ɔɣɔm	fɔgi	kumɪ
calf of leg	botovaka	bam	labukɨɛme	labuki[4]
cassowary	kɔus	kɔus	kau	kau
charcoal	tetek	tɛkovɔt	ma	ma
chest	aua	savɪm	savɪ	savi
cloud	ean papaya	ozɔs	kai̯a saka	kai̯a saka
coconut	piwi	ŋaŋgat	ŋaŋgata	-
cold (water)	vatap	ŋatap	pumbu tanda	bumbu tanda
come	av	av	-	-
crocodile	aɣiam	aɣai̯a	lawazu	-
crooked	-	kafigiap	kafitanda	kafita
cut tree	-	-	řava	lava
day	tæveat	paveat	-	-
deep	igiam	-	lounu	-
descend	vis	vis	-	-
different	vinivinimba	vini	-	-
dog	gaɣ	ŋgevas	ŋgaɣɔ	gaɣɔ
dry	-	kap	pazi	pazɐ
ear	gi̯æ	kea	gia	zia
earth,ground	maŋgai̯	maŋgai̯	maŋgěi̯	maŋgei̯
eat	log	log	zia	-
egg	gava	ŋgava	bamɔkɔ	bamɔkɔ
elbow	kafikafi	nasis	kafɔi̯kafɔi̯	kafɔikafɔi
evening	kagus	-	kagi	kagi
excrements	nagi	nagi,gapa	-	nagi
eye	bɔi̯	bɔi	bɔi̯ mokɔ	bɔe
face	bugug	bugug	-	-
far away	-	ɣamaɣapě	avunava	-
fat,grease	ěnaɣ	ěnak	ěnaya	ěnaya
father	tat,ve[5]	tat,eve[5]	ŋgai̯řa[6]	ŋgai̯la[6]
feather	kavai̯	kavui̯	-	-

[1] *elder brother*; Boa, Kui: *my elder brother.*
[2] singular, plural respectively.
[3] *younger brother*; Boa, Kui: *my younger brother.*
[4] plural.
[5] *my/our father, and his/their father respectively.* [6] *my father.*

	South Boazi	Kuini	Zimakani	Bɛgua
fence	uta	uta	uta	uta
few	ḳɑpelæv	-	kɔakɔape	kɔakɔape
finger	-	kɔkɔsɔv	-	-
fire, tree	geiɲɑm	geiɲa	tae	tae
fish	seva	zɔŋgɑiɑm[1] zɔŋga	dzɔŋgaɛme[1] dzɔŋga	zɔŋgaɛme[1] zɔŋga
fly (insect)	ɣ̣avaɣ̣av	ɣ̣avaɣ̣aiam[1] ɣ̣avaɣ̣a	ŋgamboɛme[1] ŋgambo	ŋgamboɛme[1] ŋgambo
flying fox	-	ŋgɔbɔ	-	-
fog	ḳaifa ḳaifa	ḳaifa ḳaifa	kˣěifa kˣěifa	giɛfi
forehead	negezapa	kawa pɑp	lɑŋga	lɑŋga
fruit	geiɲa nɑŋga	tae nɑŋga	tɑi mɔḳɔ	tae mɔḳɔ
garden	ḳɑe	ḳae	ɣ̣avɛḳa	ɣ̣aveaḳa
girl	bɑsinaka[2] bɑsinaḳɑis	mbɑsnɑkɑm[2] mbɑsnɑḳɑis	atɔɛmo kase[3] atɔ kaise	atəiɛmɔ kase[3] atɔ kaise
give	etawam	etɔɑm	tawa	tawa
good	mboma	boma	mbɔma	mbɑmbaime
hair of head	izimu	izum	gigifi	kigifi
body hair	ḳɑsu	ḳɑsu	anu	anu
hand, foot	zɛnda	zɛnda	zɛnda	zɛnda
he	ndene	ndene	ɛgiæ	ɛziɛ
head	kawa	kawa	gi	gi
heart	mbani	mbɔni	bunɛ	bunɛ
heavy	-	viniv	zinimu	zinimu
here	ŋgane	ŋganek	-	-
hill	-	ewaeve	mɑŋgěi mɔḳɔta	mɑŋgěi mɔkɔta
his	tege, tego,[4] teɣa	tege, tegu,[4] teɣa	ɛɣiɛmba	ɛɣiɛmba
hornbill	-	tětěfɔ	-	-
hot	tɑtɑs	tɑtɑs	ʈɔʈɔsi[5] tɛtɛpe[6]	tɛtɛpe[7]
house	ven	ve, koev	fa	fa
be hungry	-	ifi vi-	loų ḳami	loų ḳami
I	no	no	nɔḳɔ	nɔḳɔ
inside, under	mɑsi	mɔḳa	mɔḳɔtɛ	mɔḳɔtɛ
jaw	ete	-	tɑmiki	tɑmiki
knee	kɑtuk	manazɑp	kakusi	gɑmigi

[1] singular and plural respectively. [2] singular, plural respectively.
[3] *young woman/young women.*
[4] with nouns of masculine, feminine and neuter gender respectively.
[5] *of water.* [6] *of the day.* [7] *of water, day, sun.*

	South Boazi	Kuini	Zimakani	Bɛgua
kunai grass	wɑsɑŋgɑi	puti	sɛsɛka	-
lagoon, lake	keuan	meam	kibana	kibana
language	mɑŋga	mɑŋgɑt	mɑŋgata	-
leaf	ěsɑkɔ	ěsɔkɔ	ěsɔkɔ	ěsɔkɔ
leech	-	kɑɣɑiam[1] / kɑɣa	nɑŋgɔiɛme[1] / nɑŋgɔi	-
leg	wɑɣɑiap	zɛnda	-	-
light (weight)	-	tɑk	kaenu	ka:nu
lime	gufæ	gufa	gɔfɛ	-
lip	tɔu	tou	ta:gu	ta:gu
long	-	sɑkěɣɑpě	ovɑinu[2] / ovɑine	sakinu kapaka
louse	-	uŋg	-	numuŋgi
lungs	fɑf	fɑf	tatafi	tatafe
man, husband	ɑŋganea	ɑŋganeam[1] / ɑŋgana	ɑŋganɛme[1] / ɑŋgana	ɑŋganɛ:me[1] / ɑŋgana
man	matɔkɔsae[1] / matɔkɔs	-	lauɛme[1] / lau	lauɛme[1] / lau
old man	dɑua ɣapě[1] / dɑu mbakik	lɑua ɣapě	lauɛme kapaka,[1] / lau mbɑiki	lauɛme kɑpɑkɑ[1] / lau mbɑiki
many	mɑimba	mɑimba	sɑŋgazu	-
meat	savaka	sɛvaka	-	savaka
men's part of house	-	-	gia fa	-
moon	dovɑiak, ɣavæk	lëveɑk	kɑia pave	kɑia pavɛ
morning	ɣanaɣanus	ɔgɔnɑŋɑnis	ɣasuɣasunu[3] / pɔitapɔitanu	ɣɑsuɣasunu
mosquito	nɑŋgɑt	nɑŋɑtam[1] / nɑŋɑt	nɑŋgɑitiɛme[1] / nɑŋgɑiti	nɑŋgɑitiɛme[1] / nɑŋgɑiti
mouth	mɑŋgɑŋga	mɑŋgɑŋga	tagu mɔkɔte[4]	-
mother	ne[5] / vo	evŭ[6]	nea[5] / evupuka	mɔ
mud	suɑpɑkɑ	ɣɔ	ɣɔɣɔ	ɣɔɣɔ
my	noge, nogo,[7] / noɣa	noge, nogu,[7] / noɣa	nɔmba	nɔmba

[1] singular, plural respectively.

[2] with nouns of feminine, masculine gender respectively.

[3] offered as synonyms by informant. [4] *inside of mouth.*

[5] *my mother, your/his mother respectively.* [6] *my mother.*

[7] with nouns of masculine, feminine, and neuter gender respectively.

	South Boazi	Kuini	Zimakani	Bɛgua
nail	dɑkumuk	ḳɑndĕs	sɪŋgɪ	siŋgi
name	iz	iz	iza	-
nasal mucus	-	kɔpɔḳa	-	-
navel	duku	dukum	lukumi	vɔsa
navel of coconut[1]	mɑŋgɑt			
near	-	-	avuka	-
neck, nape	ḳɔnæ	ḳɔna	ḳɔnɛki	mɔŋgɔ[2]
netbag	-	ɑtɑɣĕ	ataɣa	ŋguaɛ
new (of house)	ḳandi	ndakinɑḳ	ŋgɑi̯meɛki	-
night	dëvĕ	loɣa	pɔi̯ta	pɔi̯ta
nose	kĕso	kĕsɔ	kisi	kɪsɪ
nostril	kĕŋga	kĕsɔŋga ndoziŋga	-	ḳɔpɑḳɑu̯vɑĕ[4]
not, nothing	-	-	nɑi̯ta	nava
old (of house)	ŋgɑu̯ɑnagi	gɑu̯nəgĕ	abeɛki	-
on top (of house)	(ve) mu:m	(vė) mumɑt	(fa) mumɛta	(fa) mumɛta
one	kɔɑpɔ	kɔpɔ	kɔ̯ɑpɔma	kɔ̯ɑpɔma
our[5]	nige, nigo, niɣa	nige, nigu, niɣa	u̯ɑɣɑmba	u̯ɑɣɑmba
palm of hand	-	zɛnda mɔḳɔ	dzɛnda mɔḳɔ	-
path, track	nɑku̯a	nɑḳɔu̯a	ɔvɑi̯a	ɔvɑi̯a
penis	mbĕa	mbea	-	-
people	-	ɛɑɔɣɑm	-	ŋgaĕ
pig	bɑsik	bɑsik	domɔ	dɔmɔ
pig (boar)	bɑsi bia	-	-	-
pig (sow)	bɑsi evoɣapuk	-	-	-
put down	-	-	-	kiava
quick	-	nɑḳɑmɑs	-	-
rain	ɣaĕ	ɣɑi̯a	afuafu	afuafu
rainbow	-	-	vikiɛne	-
rat	-	mɑmbut	-	-

[1] *small depression in the top of the coconut where the stem joins the fruit.*

[2] Boa: mɔŋgɔ = *part of the shaft of paddle just above the blade.*

[3] offered as synonyms by the informant.

[4] perhaps *'mucus-passage'* (see *nasal mucus*).

[5] with nouns of masculine, feminine, and neuter gender respectively.

	South Boazi	Kuini	Zimakani	Bɛgua
rattan	tup	baniŋg	baniŋga	k^handiki[1]
raw	ḳandi	-	lipɔki	lipɔki
red	baŋgas	ḳakuk	kakɛ̌inu	kakʌ̂inu
rib	-	saŋga	-	-
ripe	ḳatæ	ḳata	katɛnɔ	k^hatɛna
river	ea:mba	kea	ɣae	ɣae
root	ŋgomɔ	taî lu	limi tunda, kikimi[2]	sinɛpi
rotten (wood)	pos	paḳˣə paḳˣə	gaguvu	gaguvu
run (verb)	-	-	laîu	-
sago	doɣ	doɣ, baĵta	loɣ	lɔɣ
sago grub	-	ama	-	-
sago swamp	doɣ ɣaɣai	-	-	-
sand	ndivind	ndivind	apundɛiɣi	apundɛizi
scar	vaîətɛ̌	ŋgamave	e:	e:
shallow	e̊ae:v	-	-	-
she	ndunu	ndunu	u̇aɣa	u̇aɣa
shell of coconut	voe	-	-	-
to see	-	-	tɛva	-
shin-bone	bazae:g	bazag	kambagi	k^hambagi
short	duvisigîa	-	tɔkɔnu, tukunu[3]	tɔkɔnu kasɪ
shoulder	ŋgaŋga	ŋgaŋga	ḳambafu	kambafo
shrimp	daka	-	-	-
be sick	e̊aŋgɔ̃nɛ̌	îaŋɔni	ŋgɔsa	ŋgɔsa
sister, elder	-	ana[4]	ezaî	ezae
sister, younger	-	kɔtam, kapulav[5]	ɔmbeɛku	ɔmbiɛku
to sit	-	bɔm	bɛvi	bɛvi
skin	ŋgusum, tæg[6]	ŋgusəm	ŋgusumi	ŋgusumi
sky, day	ea:n	ḳaĵa	-	-
sleep	-	tɛ̌na	-	-
slow	-	aîav	-	-
small (of house)	ḳapelava	kapenavagasi	kakabiɛme	kase
smoke	ḳaĵfa	ḳaĵfa, ɛ̌ku[7]	ḳɛ̌ĵfa	ḳaĵfa

[1] *liana.* [2] *big, small roots respectively.*

[3] with nouns of masculine, feminine gender respectively.

[4] *my sister (man speaking).* [5] offered as synonyms by the informant.

[6] *skin of fruit.* [7] offered as synonyms by the informant.

	South Boazi	Kuini	Zimakani	Bɛgua
snake	o͡aza	o͡azɛɣ̣am	-	sazia
a sore	-	-	ŋgava	ŋgava
speak	-	-	ḳai͡ gi-	-
spittle	kasě	kʌsě	kefɛŋge	kefɛŋge
stand	-	tænd	tɛni	tɛne
star	duku	ndïku	dikï	duku
stem of tree	-	tai͡ zapa	-	-
stomach	-	ěmŭ	-	-
stone	mběŋga	-	gabaso	keɪ, kee
straight	-	ndefeamba	tiovɔ	tiovɔ
string, rope	oḳ	gumbaŋg	ŋgavama[1]	ŋgavami[1]
sugar cane	[p]fimæḳ	fimaḳ	fimɛḳa	fimaḳa
sun	ḳawɛ	ḳawa	kai͡a	kai͡a
sweat	-	tata	-	-
tail (of dog)	oḳo	ɔḳɔ	zivusi	sivuse
tall, high	sakeaɣ̣ape	-	-	-
take	-	-	i͡uba	-
taro	ḳɔkia	ḳɔkea	ḳɔkia	ḳɔkia
tears	-	evev	-	-
that (close by)	-	ndëu͡	ndagu	ndagu
that (further away)	-	-	matagu	-
that (far away)	-	-	maitagu	-
their	tige, togo, tiɣ̣a [2]	-	i͡aɣazamba	-
there	ŋgene	ndou͡ko	matagu, maitagu	matagu
they	ndini	ndinɪ	i͡aɣ̣a	i͡aɣ̣a
thigh	u͡aɣai͡a zapa[3]	-	bɔfɔ	bɔfɔ
this	ŋgane, ngene, ngunu [4]	-	magu, mɛgu, mɔa:gu [4]	-
these	ŋgini	-	miɛgu, magu[5]	-
thorn	fakia	fakea	-	-
three	misika	miška	-	-
throat	uanɛf̣	naɣ	-	li:
throw away	-	gi	waɣi	-

[1] *bark string.* [2] with nouns of masculine, feminine, and neuter gender respectively. [3] see *'stem'* and *'leg'*. [4] neuter, masculine, feminine gender. [5] masculine/feminine, neuter gender.

	South Boazi	Kuini	Zimakani	Bɛgua
thumb	-	-	-	gevea
thunder	-	-	nda:nd	-
tinea	-	kivim	-	-
today	ŋgɑi̯gu	-	-	-
tomorrow	ɣasu	-	ḳɑusa	-
tongue	nasæ:me	sɑs	nasɛme	nɛsɛme
tooth	pɑkɑs	ḳɑi̯a	kama	k^hama
tree	gěi̯nɑm	tae, tɑi	tae	tae
two	menɛs	měnɑs	nimapa	nimapa
urine	ḳɔnɔ	ŋgɑi̯a	-	ŋgɑi̯a
vein	-	kiniḳ	sinɛpi	-
water	ɑɔḳ	ɩuɔḳa	nei̯a	nei̯a
we	ni	-	niki	niki
wet	-	sʉsʉ	lɑŋgɔsi	lɑŋgɔsi
what	-	i̯ɑḳa	eta	-
white	papaɣa	papaɣa	paɣanu	paɣanu
who	giakanem, giakanum, giakanim [1]	i̯axa zɔqɑm	etaŋgai̯na	etaŋgai̯na
wife (my-)	nɑiɑs	neɑs	-	-
wind	ḳɑmɑi	ḳɑmui	buɑmba	buɑmba
wing	tɑf	tɑf	ḳavu	kavu
woman	matɔḳɔsɛva, matɔḳɔsaḳɑi̯s [2]	sɛvam, saḳɑi̯s [2]	atɔɛmɔ, ato [2]	atɔi̯ɛmɔ, ato [2]
old woman	gɑi̯ puka, gɑi̯ paka [2]	ŋgei̯ puka	ŋgama puka, ŋgɑi̯ mbai̯ki [2]	ŋgai̯ puka, ŋgai̯ pakai̯ [2]
wound	ŋgɑmɑv	ŋgɑmɑv	-	-
yellow,green	ḳaḳavu	ḳagius	mbɔḳɔ	mbɔḳɔ
you (sg.)	ɣo	ɣo	ɣɔḳɔ	ɣɔḳɔ
you (pl.)	zo	zo	zɔḳɔ	zɔḳɔ
your (pl.)	zoge,zogo, zoɣa [3]	zoge,zogu, zoɣa [3]	zɔmba	zɔmba
your (sg.)	ɣoge,ɣogo, ɣoɣa [3]	ɣoge,ɣoɣu, ɣoɣa [3]	ɔmba	ɣɔmba

[1] singular male, female; plural. [2] singular, plural respectively.
[3] masculine, feminine and neuter gender.

NOTES

1. The term is not quite appropriate, because the natives of Lake Murray are quite aware of their ancient history. One Zimakani informant showed this by telling the following story which also shows how contact with the Mission has fruitfully widened their historical perspective. The story, told in Police Motu, runs as follows:

'Inai luma bada herea dia haginia. Wad'idia herewa: "hari! ladan' ita hatoa, ita be tau badadia bona itana ruma ataia momokani dore ita haginia!" Idia haginia luma 'nai negana, guba karikari dia kamokamo. Wadan'inai God ia badu sisina idia dekena. Wadan idiena luma idia haginia bona God ia nek' idia: "inai gabu ibonai idia mai!" Wadan idia herew "ai be Asáki, ai be Kwíma, ai be Laviúmbu, ai be Kómaovài, ai be Rekmáre, o..ai be Bégua o ai be Kuíni. Bona ai be Dzimakani o Kaméki o Wamuéki, Ŋgiési, Saŋgízi", inai bamona idia hatoa, wad'idia mai. Sene hanaia gabuna ia noho iniseni. Idia hereva inai tano ladana idia hatoa 'Gusəndémo'. Iniseni ia noho. Iniseni dia mai negana be..gunaguna be taunima dia mase las. Waden iniseni mase dia dawaria. Guna be dia no. Gado tamona. Bɛgua, Kuni, Dzimakani, inai be gado tamona sibona. Waden dia noho inai bamona, idia laloa be "ah! daka badina inai gado tamona ita noho bona gado tamona ita herew bona gabu tamona ita haboa be! Egeregere las! Namona be aida taudia, sedira gado ita giroa. Ita giroagiroa be, bona gado ta ita herew. Bona ladana ta ita abia". Wadan inai negana, idia noho, inai gwarume bodaga gauna ia noho, wadaen idia ereva "piképiké" - wadan ina be Tinuŋga be Kuni; Kuni gado idia abia, Wada, idia hereva be "pikiébo", ine be Dzimakani bona Bɛgua...

In free English translation:

'They built this huge house. They said: "Now! Let us give names (to our tribes); we are big people and are going to build a really high house". And then they built the house, it nearly touched the clouds. But then God became a little angry with them. And when they had built the house He drove them out: "They all must come to this spot (i.e. Lake Murray)" (He said). And they said: "We are Asaki, and we Kwima, and we Laviumbu, we Komaovai, we the Lake Murray (people)"... or, "We are the

Bɛgua, we are the Kuini. And we are the Zimakani, the Kamɛki, the Wamuɛki, the Iŋgiɛsi, the Saŋgizi". Thus they mentioned their names and then they came (here). The location where our ancestors went is here. People say, that they called this place 'Gusəndɛmo'. There they lived. At the time they came here they could die. Before, they just lived. They had one language. But when they were living thus (at Lake Murray), they thought: "Hey, why do we have but one language, and live together on the same spot? It's not as it should be! It would be better if some of us changed their language. Let's change it and let us speak different languages. Let us give different names (to the things)". Well, when they were doing this, there was a piece of rotten fish, and they called it pikɛpikɛ *- those were the Tinuŋga people, the Kuini. They adopted the Kuini language. Then the others called it* pikiɛbo *- they were the Zimakani and the Bɛgua...*

(Then it is told how these groups started to make war amongst themselves and how they separated.)

2. Details of the dual organisation the author obtained from his Zimakani, Saŋgizi and Wamɛk informants. They gave the following information:

TRIBE	MOIETY	TOTEMIC GROUP	
Zimakani	**Mogava**	**Domonda**	*pig*
		Iasekui	*crocodile*
		Kisakui	*dark crocodile*
		ɣikui	*dark coloured pig*
	Kaguakui	**Baipaɣa**	*baramundi*
		Neapaɣa	*bad water*
		Suɛvi	*fish species*
		ɣamikui	*turtle species*

The totem groups are called kagua tiata *'canoe'*; the expression kagua tiata koapoma *'of one canoe'* means *'belonging to the same totemic group'*.

A cultural parallel is found in the Gogodala area where the totemic subgroups are called gaua *'canoe'*. In the Asmat something similar is found: ci cowak apom *canoe one we-sit* means *'we belong to the same group'*.

TRIBE	MOIETY	TOTEMIC GROUP	
Saŋgizi	**Mugav**	**Gasukuin**	*kind of fish*
		Baskuin	*pig*
		ɣikuin	*crocodile*

(continued)

TRIBE	MOIETY	TOTEMIC GROUP	
Saŋgizi	Kaukuin	Baipaɣ	*baramundi*
		Ngeɣakuin	*marsupial*
	. . . . .		
Wamɛk	Mogav	Koula	*cassowary*
		Basikuin	*pig*
		ɣikuin	*crocodile*
	Koukuin	Mbaipaɣ	*baramundi*
		ɣamikuin	*turtle species*
		ɣoskuin	*fish species*

There is a reciprocal marriage relationship between Mogav and Koukuin. However, also marriages between ɣikuin and Koula or Basikuin are possible. Koula and Basikuin are "brother and sister": cassowary and pig are both land animals eating the same kind of food. Therefore they cannot marry. ɣikuin, although classified as Mogav, is a water animal and belongs to the same category as turtles and fish.

3. Drabbe (1954) gives the following list of groups and villages:

Biàk	- no fixed location
Inggias	- Gambamit
Sanggizi	- Bovkaka
Wamek	- Vaoset (=Boset)
Kowmek	- Tununggg (=Tinuŋga)
Kuni	- Baiawis, Ndimu, Maelavuan
Mbägu (Bɛgua)	- Mbavu, Malava, Miwa, Fem
Zimakani	- Terarom, Kavenangga, Komove (=Komaovai)
Gizam	- no fixed location

The group Gizam has disappeared. Maelavuam is present-day Taugum. The people of Mbavu and Malava have joined Miwa. Terarom was situated on the Fly River opposite Suki Creek. The people of this village have since returned and live at Kavianaŋga.

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SELEPET VERB MORPHOLOGY

K.A. McELHANON

0. INTRODUCTION

In a recent article, Kenneth L. Pike has demonstrated the value of using matrix theory as "a tool for gaining insight into morphemic patterns of great complexity" (1963:1). Morphemes, which in the initial analysis were simply listed and memorised as complex units, were later shown to have significant internal patterning. This patterning was graphically displayed in matrices which indicated the formatives, the vectors and the categories. The formatives are phonological particles filling the cells of the matrix. The vectors are contrastive rows or columns in the matrix (e.g., columns indicating singular, dual and plural number). The categories are the meanings of emic vectors. The formative is relevant to phonology, the vector to grammar, and the category to semantics; the total being a form-meaning composite.

In an early treatment of Selepet verb morphology the writer concluded that the morphemes were of such complexity that they should be simply listed as portmanteau morphemes indicating person, number and tense and memorised as composites (McElhanon 1967a:21).[1] A list of data relevant to this paper is presented below with the verb root **ari** *'to go'*.[2] The symbol **å** represents [ɔ].

§1 remote past tense (rpt) *'I went a long time ago'* etc.

	S	D	P
1st person	ari-wan	ari-wit	ari-win
2nd person	ari-on	ari-owot	ari-wi
3rd person	ari-op	ari-owot	ari-wi

McElhanon, K.A. "Selepet Verb Morphology". In Voorhoeve, C., McElhanon, K., Blowers, B. and Blowers, R. editors, *Papers in New Guinea Linguistics No. 12.* **A-25:19-36**. Pacific Linguistics, The Australian National University, 1970. DOI:*10.15144/PL-A25.19*

The **rpt** is made habituative by the occurrence of **-mini** preceding the above suffixes: **ari-mini-wan** *'I used to go'* etc.

§2 immediate past tense (ipt) *'I recently went'* etc.

	S	D	P
1st person	ari-an	ari-ait -it	ari-ain -in
2nd person	ari-at	ari-awot	ari-ai
3rd person	ari-ap	ari-awot	ari-ai

The **ipt** is made habituative or prohibative by the occurrence of **-m** preceding the above suffixes: **ari-m-ap** *'He always goes'* or *'He should not go'*.

§3 inceptive future tense (icft) *'I am about to go'* etc.

	S	D	P
1st person	ari-woman	ari-româit	ari-nomâin
2nd person	ari-womat	ari-româiwot -romawot	ari-nomâi -nomai
3rd person	ari-womap	ari-româiwot -romawot	ari-nomâi -nomai

§4 delayed future tense (dft) *'I will soon go'* etc.

	S	D	P
1st person	ari-womosan	ari-romosait -romosit	ari-nomosain -nomosin
2nd person	ari-womosat	ari-romosawot	ari-nomosai
3rd person	ari-womosap	ari-romosawot	ari-nomosai

§5 immediate future tense (ift) *'I will go, you will go, you must go'* etc.

	S	D	P
1st person	ari-wom	ari-rom	ari-nom
2nd person	ari-wuat	ari-romawot	ari-nomai
3rd person	ari-wuap	ari-romawot	ari-nomai

§6 remote future tense (rft) *'I will go in the distant future'* etc.

	S	D	P
1st person	ari-wiom	ari-wioit -wieit	ari-wioin -wiein
2nd person	ari-wion	ari-wiowot	ari-wioi -wiei
3rd person	ari-wiop	ari-wiowot	ari-wioi -wiei

§7 future tense, habituative (hbt) *'I will always go'* etc.

	S	D	P
1st person	ari-bisâm	ari-bisâit	ari-bisâin
2nd person	ari-bisân	ari-bisâwot	ari-bisâi
3rd person	ari-bisâp	ari-bisâwot	ari-bisâi

§8 desiderative (desid) *'I want to go'* etc.

	S	D	P
1st person	ari-wesâman	ari-resâmait	ari-nesâmain
2nd person	ari-wesâmat	ari-resâmawot	ari-nesâmai
3rd person	ari-wesâmap	ari-resâmawot	ari-nesâmai

In addition to the above forms the desiderative may evidence labialisation after the m: [ɑǎribesɔmʷɑn] etc.

§9 contrary-to-fact (ctf) *'I should have gone'* or *'I might go'* etc.

	S	D	P
1st person	ari-bâm	ari-bâit	ari-bâin
2nd person	ari-bât	ari-bâwot	ari-bâi
3rd person	ari-bâp	ari-bâwot	ari-bâi

§10 inchoative future (if) *'I must go! You go! Let him go!'* etc.

	S	D	P
1st person	ari-we	ari-re	ari-ne
2nd person	ari-Ø	ari-yet	ari-ŋet
3rd person	ari-âk -ek	ari-yet	ari-ŋet

Allomorph **-ek** follows vowels **a** and **â** and allomorph **-âk** follows vowels **i**, **e**, **o**, **u** and consonants.

§11 permissive (perm) *'You may go'* etc.

	S	D	P
2nd person	ari-wot	ari-weloŋ	ari-wioŋ

§12 dependent heteropersonal (hetero) *'I went and...(someone else)...'* etc.

	S	D	P
1st person	ari-mune	ari-mutŋe	ari-munŋe
2nd person	ari-râ	ari-mutâ	ari-ŋetâ
3rd person	ari-mu	ari-mutâ	ari-ŋetâ

§13 **The dependent homopersonal** (homo) forms are: {-mâ} **punctiliar** and **-ma habituative.** The morpheme {-mâ} has two allomorphs: **-mâ** following consonants and **-m** following vowels. Examples are: **ek-mâ kinsap** *'He stood and looked'*; **sâ-m kinsap** *'He stood and spoke'*; **sâ-ma kinsap** *'He stood and spoke continually'*.

A simple comparison of the forms did not yield any clearly segmentable morphology with separate forms indicating tense, person or number. E.g., comparing **(ipt)** and **(rpt) 1.s** suggested **-w** as **rpt** and **-Ø** as **ipt**; comparing **(ipt)** and **(rpt) 2.s** presented no basis for segmentation; comparing **(ipt)** and **(rpt) 3.s** yielded **-a** as **ipt** and **-o** as **rpt.** A comparison of **(ipt)** and **(ift) 1.s** yields no basis for segmentation whereas **(ipt)** and **(ift) 2.s** and **3.s** presents **-wu ift** and **-Ø ipt** as possibilities. Adding **(icft)** and **(dft)** singular forms to the comparison suggests **-wom** as **icft** and **-womos** as **dft.** The comparison of dual and plural forms, however, only adds to the complexity of the analysis. Although recurrent partials were recognizable, no consistent linear ordering of slots marking tense, person and number was discernible. It was not until the writer applied matrix theory and considered each paradigm as a matrix with row vectors and column vectors possibly manifesting allo-formatives, that the morphology became clear. This paper, it is hoped, will attest to the usefulness of matrix theory in morphemic analysis.

1. INDEPENDENT VERB PERIPHERY

1.1. Benefactive tagmeme

The first order suffix is filled by the bound benefactive pronouns:

	S	D	P
1st person	-nihi	-nitki	-ningi
2nd person	-gihi	-yitki	-yingi
3rd person	-wagi	-yitki	-yingi

ot-nihi-ap *'He did it for me.'*
do-for me-he

puluhu-wagi-wi *'They bought it for him.'*
buy-for him-they

ari-yitki-op *'He went for them(du).'*
go-for them-he

tuhu-yingi-wi *'They did it for them(pl).'*
do-for them-they

1.2. The second order suffix is filled by morphemes indicat **-mini habituative** (see §1), **-m prohibitive** or **habituative** (see §2). Other morphemes indicating mode appear to be fused forms and are analysed in the course of this paper.

1.3. The remainder of the periphery, those forms listed in paradigms 1-13, consists of fused forms indicating tense, person and number.

1.3.1. The paradigm which appears to be the simplest is **ipt** (§2). The formative **-a** occurs throughout the matrix as a third order morpheme and may be tentatively assigned the meaning **immediate past tense.**[3] One may posit a zero allomorph occuring in **1.d** and **1.p.** This leaves the following forms indicating person and number:

	S	D	P
1st person	-n	-it	-in
2nd person	-t	-wot	-i
3rd person	-p	-wot	-i

1.3.2. The paradigm indicating **rpt** (§1) may now be compared. Comparison of other paradigms is not as fruitful. It is immediately evident that most forms already tentatively identified as indicating person and number may be separated. Only **-n 2.s** is apparently different. This leaves the formatives indicating **rpt** in a clearly discernible **L** pattern opening to the lower left:

-wa	-w	-w
-o	-o	-w
-o	-o	-w

The irregularity of the formative **-wa** causes us to re-evaluate our analysis of the formatives indicating person and number. If we posit the morpheme division of **-wan** (§1) as **-w** and **-an** we resolve this irregularity. The new formative indicating **1.s** is **-an**. This does not conflict with the realised form indicating **1.s** in **ipt** (§2) because of a phonological rule which states that "when two like vowels come into conjunction they reduce" (McElhanon 1967b:18). Thus **ari-a-an** (*go*-ipt-*I*) is realised as **arian** *'I went'*.

1.3.3. The person-number composites are easily separable in the **rft** (§6) and **hbt** (§7). The morph **-m 1.s** may be added to the inventory of person-number morphemes. The forms not yet analysed are: **-wio future tense, punctiliar mode** and **-bisâ future tense, habituative mode.** Continued investigation of these forms does not yield any further morphemic divisions. One may assume, however, that mode precedes tense

on the basis of the forms -mini, -m **habituative mode** occurring as second-order suffixes (§1, §2).

1.3.4. In comparing the forms of **ctf** (§9), one may again separate the person-number morphemes and identify **-bâ contrary-to-fact mode.** There is no occurrence of a tense morpheme with this mode. Time is indicated by the occurrence of a filler in the time slot of the clause.

mukan ari-bâ-p *'He should have gone yesterday.'*
yesterday go-should have-he

hâdâhen ari-bâ-p *'He might go tomorrow.'*
tomorrow go-might-he

In anticipation of further analysis, a summary of the description thus far is given in Chart A. The term **non-immediate future verb** is used to describe the suffixal structure.[4]

CHART A

Non-immediate Future Verb

+ nucleus ± bene. prn.	+ mode	+ tense	+ person-number						
			1.s	2.s	3.s	1.d	2-3.d	1.p	2-3.p
	-mini habit. -Ø punct.	-w,-o rpt	-an	-n	-p	-it	-wot	-in	-i
	-m habit. prohib. -Ø punct.	-a,-Ø ipt		-t					
	-bâ ctf		-m						
	-bisâ fut.habit. -wio,-wie fut.punct.			-n					

The chart above is intended to illustrate the co-occurrence restrictions amongst the suffixes. The allomorph **-an 1.s** occurs with past tenses; allomorph **-m** occurs elsewhere. The allomorph **-t 2.s** occurs with **ipt** and **ctf** only; allomorph **-n** occurs elsewhere. Allomorphs **-w ∿ -o rpt** are phonologically conditioned; **-w** precedes vowels, **-o** precedes consonants.[5] Allomorph **-a ipt** occurs with all person-number forms; **∅** occurs only with 1st person, dual and plural forms. The remaining person-number suffixes have no co-occurrence restrictions.

1.3.5. A comparison of **ift** (§5) yields striking dissimilarities between its structure and the structure of the **Non-immediate future verb.** Person-number suffixes indicating 2nd and 3rd person (see 1.3.1.) may be easily isolated. Note, however, that in the first person the forms distinguishing singular, dual and plural are respectively **-w**, **-r** and **-n**. These forms carry on through the 2nd and 3rd persons. First person is indicated by **-∅** but there is no ambiguity regarding number because of the separate forms indicating number. Chart B presents the structure of the **Immediate future verb.**

CHART B

Immediate Future Verb

+ nucleus ± bene. prn.	+ number	+ tense-mode (ift)	+ person-number	
	-w sg.	-om	-∅	1st person
	-r du.	-ua	-t	2.s
	-n pl.		-p	3.s
		-oma	-wot	2-3.d
			-i	2-3.p

Co-occurrence restrictions are: **-∅** 1st person occurs with **-om**; **-t 2.s** and **-p 3.s** occur with **-ua**; and **-wot 2-3.d** and **-i 2-3.p** occurs with **-oma.** Concord exists between the number indicated in the number slot and the number indicated in the person-number composites.

1.3.6. A comparison of **if** (§10) and **perm** (§11) reveals some similarities but also some unresolvable dissimilarities. The 1st person **if** forms resemble the 1st person **ift** forms since only the tense-mode marker **-e** is different. A comparison of the formatives indicating 2nd and 3rd

person in **if** with the formatives of the personal pronoun paradigm is illuminating. The personal pronoun paradigm is:

	S	D	P
1st person	nâ	net	nen
2nd person	gâ	yet	yen
3rd person	yâk	yâkyet	yâkyen

In the pronoun paradigm the formatives indicating person are: **-n** 1st person, **-g** 2nd person (occurring with singular number) and **-y** 2nd, 3rd person. The formatives indicating number are: **-âk/-Ø** singular (a tentative assignment of the assumption that the vowel is simply a part of syllable structure), **-t** dual and **-n** plural.[6]

It may be posited that in **if** (§10) the formative **-y** has taken on number marking significance, so that **-y** indicates dual, **-ŋ** indicates plural and **-ek/âk/Ø** indicate singular. The final **-t** may have taken on non-singular significance rather than specifically dual. The postulation of **-y** being an allo-formative of **-r** is not incongruous in light of the possibility of **y** and **r** being submembers of one phoneme in the proto-language (McElhanon 1968:9).

The **if** forms exhibit the structure of the **Immediate future verb** and the following morphemes may be added to the inventory: **-Ø/âk/ek** singular, **-y** dual, **-ŋ** plural and **-e if.**[7]

1.3.7. The formatives of the **perm** (§11) are not clearly discernible. Number is evident in the **l** of **-weloŋ** dual. Perhaps a zero may be posited for plural as in **-wi-Ø-oŋ** since zero may indicate plural in the person-number composites (see 1.3.11.).

1.3.8. The **desiderative verb** (§8) is analysed as a clause manifesting two embedded clauses and having the phonological characteristics of a word. The structure is:[8]

Desiderative Verb = + **inchoative future verb in first person** + **sâm + ot-** (in ipt)

Concord exists between the number indicated in the **inchoative verb** and the number indicated in **ot-** *'to do'*. The **inchoative future verb** is an independent clause functioning as the object of the dependent verb **sâm** *'saying'*. This dependent clause in turn functions as the object of the independent verb **ot-** *'to do'*. The examples given below are written indicating grammatical structure rather than phonological unity as in paradigm (§8).

ari-we sâ-m o-a-an *(go-must I, say-ing, do-*ipt*-I)*
'I want to go.'

ari-re sâ-m o-a-it *(go-must we(du.), say-ing, do-*ipt*-we(du.))*
'We(du.) want to go.'

ari-re sâ-m o-a-wot *(go-must we(du.), say-ing, do-*ipt*-you/they (du.))*
'You/they(du.) want to go.'

ari-ne sâ-m o-a-in *(go-must we(pl.), say-ing, do-*ipt*-we(pl.))*
'We(pl.) want to go.'

ari-ne sâ-m o-a-i *(go-must we(pl.), say-ing, do-*ipt*-you/they(pl.))*
'You/they(pl.) want to go.'

1.3.9. The **inceptive future tense** (§3) which indicates immediate intended action, is analysed as a clause manifesting an embedded clause as the object. It too has the phonological characteristics of a word.

Inceptive Future Tense Verb = + **immediate future verb in first person** + **ot- (in ipt)**

The verb ot- occurs in its contracted form o-. In singular forms of paradigm §3 the o- is lost. In dual and plural forms the o- and the following tense marker -a contract to form â. Some speakers, particularly younger people, replace 2nd and 3rd person, dual and plural forms with the corresponding **ift** (§5) forms. Concord exists between the number indicated in the immediate future verb and the number indicated in -ot.

ari-wom o-a-an *(go-I will, do-*ipt*-I)*
'I am about to go.'

ari-wom o-a-t *(go-I will, do-*ipt*-you)*
'You are about to go.'

ari-rom o-a-it *(go-we(du.) will, do-*ipt*-we(du.))*
'We(du.) are about to go.'

ari-rom o-a-wot *(go-we(du.) will, do-*ipt*-you/they(du.))*
'You/they(du.) are about to go.'

ari-nom o-a-in *(go-we(pl.) will, do-*ipt*-we(pl.))*
'We(pl.) are about to go.'

ari-nom o-a-i *(go-we(pl.) will, do-*ipt*-you/they(pl.))*
'You/they(pl.) are about to go.'

1.3.10. The delayed future tense verb (§4) has the same structure as the inceptive future tense verb (§3) except that **ot-** occurs in a non-contracted form. Note the morphophonemic rule **t + s → s** which yields the forms **o-san, o-sat, o-sap** etc.[9] This construction is used to indicate intended action which will commence after a short delay. Concord exists between the number indicated in the immediate future verb and the number indicated in **ot-**.

ari-wom o-sa-an	*(go-I will, do-***ipt***-I)*
	'I will soon go.'
ari-wom o-sa-t	*(go-I will, do-***ipt***-you)*
	'You will soon go.'
ari-rom o-sa-it	*(go-we(du.) will, do-***ipt***-we(du.))*
	'We(du.) will soon go.'
ari-rom o-sa-wot	*(go-we(du.) will, do-***ipt***-you/they(du.))*
	'You/they(du.) will soon go.'
ari-nom o-s-in	*(go-we(pl.) will, do-***ipt***-we(pl.))*
	'We(pl.) will soon go.'
ari-nom o-sa-i	*(go-we(pl.) will, do-***ipt***-you/they(pl.))*
	'You/they(pl.) will soon go.'

1.3.11. The person-number composites may be analysed to indicate that the person-marking formative precedes the number-marking formative. This is immediately apparent in comparing **-it** 1.d with **-in** 1.p. The **t** marks dual and the **n** marks plural. We may posit that **Ø** marks singular.[10] The structure is **+ person + number** and the formatives are:

	S	D	P
1st person	**-an-Ø**	**-i-t**	**-i-n**
2nd person	**-t-Ø**	**-wo-t**	**-i-Ø**
3rd person	**-p-Ø**	**-wo-t**	**-i-Ø**

2. DEPENDENT VERB PERIPHERY

The dependent verb, as the independent verb, has first-order benefactive pronoun suffixes. The remainder of the periphery consists of fused forms indicating mode, person and number. In paradigm §12, one may tentatively isolate **-mu** punctiliar mode as a second-order suffix. This leaves the remaining forms indicating person-number:

	S	D	P
1st person	-ne	-tŋe	-nŋe
2nd person	-râ	-tâ	-ŋetâ
3rd person	-Ø	-tâ	-ŋetâ

In accordance with the morphophonemic rules, **vowel + d → vowel + r and t + d → t**, these forms may be rewritten and a zero morpheme indicating singular added to form:

	S	D	P
1st person	-Ø-ne	-t-ŋe	-n-ŋe
2nd person	-Ø-dâ	-t-dâ	-ŋet-dâ
3rd person	-Ø-Ø	-t-dâ	-ŋet-dâ

One may then posit the structure: **+ nucleus ± bene. prn. + mode + number + person.** The morphemes indicating person and number are: **-Ø** singular, **-t** dual, **-n** or **-ŋet** plural (compare the **if** forms §10 and 1.3.6.), **-ne** or **-ŋe** first person, **-dâ** second person and **-Ø 3.s** (the distinction between second and third person in the dual and plural forms being neutralised).

3. CONCLUSION

One may question the value of such a solution. Would it not have been sufficient just to list the suffixes in the paradigmatic style and not attempt further analysis? For pedagogical purposes, of course, it may be preferable to simply list paradigms. But for thorough grammatical analysis and especially comparative grammatical analyses, it is necessary to go beyond such simple listings. Had the analysis been terminated with lists of paradigms, the grammatical analysis of the verb morphology would never have been completed.

In a tentative analysis of Mape verb morphology, the writer found similar apparently contrasting types of peripheral verb structure.[11]

(1) Immediate Future and Inchoative Future: + nucleus ± bene. prn. + person + number + tense.

kpa-yare-ki-c-miŋ *(kill it-for them(pl.)-***1st per.-pl.-ift***)*
'We(pl.) will kill it for them(pl.).'

kpa-yare-ki-c-Ø *(kill it-for them(pl.)-***1st per.-pl.-if***)*
'Let us(pl.) kill it for them(pl.).'

(2) Present, Immediate Past, Remote Future, Remote Inchoative: + nucleus ± bene. prn. + mode + tense + person + number + number.

kpa-yare-e-go-be-ne-ŋ *(kill it-for them(pl.)*-habit.-?-1st per.-pl.-pl.*)*
'We(pl.) always kill it for them(pl.).'

kpa-yare-Ø-go-be-ne-ŋ *(kill it-for them(pl.)*-punct.-?-1st per.-pl.-pl.*)*
'We(pl.) are killing it for them(pl.).'

kpa-yare-Ø-Ø-be-ne-ŋ *(kill it-for them(pl.)*-punct.-ipt-1st per.-pl.-pl.*)*
'We(pl.) killed it for them(pl.).'

kpa-yare-ie-go-be-ne-ŋ *(kill it-for them(pl.)*-rft-?-1st per.-pl.-pl.*)*
'We(pl.) will later kill it for them(pl.).

kpa-yare-ine-Ø-be-ne-ŋ *(kill it-for them(pl.)*-rif-?-1st per.-pl.-pl.*)*
'We(pl.) must later kill it for them(pl.).'

(3) Remote Past, Contrary-to-fact Past, Contrary-to-fact Future: + nucleus ± bene. prn. + mode + person + number.

kpa-yare-Ø-be-ŋ *(kill it-for them(pl.)*-factual past-1st per.-pl.*)*
'We(pl.) killed it for them(pl.) a long time ago.'

kpa-yare-no-be-ŋ *(kill it-for them(pl.)*-ctf.past-1st per.-pl.*)*
'We(pl.) should have killed it for them(pl.).'

kpa-yare-igo-be-ŋ *(kill it-for them(pl.)*-ctf.future-1st per.-pl.*)*
'We(pl.) might kill it for them(pl.).'

(4) Dependent Heteropersonal: + nucleus ± bene. prn. + mode + relative time + person + number.

kpa-yare-gu-ka-be-ne *(kill it-for them(pl.)*-habit.-simultaneous-1st per.-pl.*)*
'While we(pl.) used to kill it for them(pl.)...'

kpa-yare-Ø-ka-be-ne *(kill it-for them(pl.)*-punct.-simultaneous-1st per.-pl.*)*
'While we(pl.) killed it for them(pl.)...'

kpa-yare-Ø-Ø-be-ne *(kill it-for them(pl.)*-punct.-antecedent-1st per.-pl.*)*
'After we killed it for them(pl.)...'

kpa-yare-gu-Ø-be-ne *(kill it-for them(pl.)*-habit.-antecedent-1st per.-pl.*)*
'After we used to kill/hit it for them(pl.)...'

(5) Dependent Homopersonal: + nucleus ± bene. prn. + mode + relative time.

kpa-yare-ku-c *(kill it-for them(pl.)*-punct.-simultaneous*)*
'While killing it for them(pl.)...'

kpa-yare-ru-Ø *(kill it-for them(pl.)*-punct.-antecedent*)*
'After killing it for them(pl.)...'

kpa-yare-gu-Ø *(kill it-for them(pl.)*-habit.-antecedent*)*
'After continually killing/hitting it for them(pl.)...'

One may note that whereas Selepet manifests four contrasting structures of verb periphery, Mape manifests five. In the dependent forms Selepet manifests the order **number + person** and Mape manifests the reverse, i.e., **person + number**. The implications for typological and comparative work are obvious. As data in the other languages of the Huon Micro-phylum become available, one may expect a firm basis to be established for the application of structure statistics.[12]

NOTES

1. Data for this paper were gathered during the years 1964-68 while the writer was under the auspices of the Summer Institute of Linguistics and the Australian National University. The 5,500 Selepet-speaking people are located in the Kabwum Sub-district, Morobe District, Territory of New Guinea. The language belongs to the Western family of the Huon Peninsula Stock (see McElhanon 1969).

Analysis of the data was facilitated by use of a concordance of 25,000 words of text in the southern dialect of Selepet. This concordance was made on the IBM 1410 computer at the University of Oklahoma by the Linguistic Information Retrieval Project of the Summer Institute of Linguistics and the University of Oklahoma Research Institute, and sponsored by Grant GS-934 of the National Science Foundation.

Abbreviations used in this paper are: **rpt** - remote past tense; **ipt** - immediate past tense; **icft** - inceptive future tense; **rft** - remote future tense; **hbt** - future tense, habituative; **desid** - desiderative; **ctf** - contrary-to-fact; **if** - inchoative future; **rif** - remote inchoative future; **perm** - permissive; **hetero** - dependent heteropersonal; **homo** - dependent homopersonal; **1.s** - first person singular; **2.s** - second person singular; **3.s** - third person singular; **1.d** - first person dual; **2.d** - second person dual; **3.d** - third person dual; **1.p** - first person plural; **2.p** - second person plural; **3.p** - third person plural; **2-3.d** - second and/or third person dual; **2-3.p** - second and/or third person plural; **+** - obligatory occurrence; **±** - optional occurrence.

2. The suffixal forms given here occur only following vowels. The following morphophonemic rules provide alternate morphemic shapes: **cons. + w → cons. + b, cons. + r → cons. + d.**

3. This morpheme has an alternate form **-sa** following consonant-final fillers of the nucleus.

4. The nucleus is filled by either an intransitive verb root, e.g., **ari** *'to go'*, or a transitive verb stem. Transitive verb stems are divided into three classes on the basis of their occurrence with bound

object-pronoun allomorphs: e.g., gâi-nek-sap *(cut-me-he) 'He cut me'*; pene-nihi-ap *(join-me-he) 'He joined me'*; and tân-noho-ap *(help-me-he) 'He helped me'*. For further discussion see McElhanon 1967a:23-4.

5. This raises the interesting question posited by Pike and Erickson, 1964:212; "Emic matrices may prove to be subject to historical reconstruction and to occur in diachronic oscillation from approximations of simple toward ideal matrix, and from ideal toward simple matrix structures." As more data from languages related to Selepet become available, historical reconstruction of the phonological development of matrix patterns may indeed be possible.

6. The fact that Ø marks singular, t dual and n plural is readily apparent in an examination of the bound object-pronoun forms. Note the following first person forms taken from the bound object-pronoun paradigms:

	S	D	P
Class I	ne-Ø-ek	ne-l-ek	ne-n-ek
Class II	ni-Ø-gi	ni-t-gi	ni-n-gi
Class III	no-Ø-go	no-t-go	no-n-go

7. The designation **inchoative future** is preferred over the designation **imperative** because the idea of time is foremost. The English translation, however, is best represented by the English imperative.

8. Clues to the grammatical structure of the forms in paradigm §8 were gained from the analysis of dependent transforms of those forms and the analysis of forms of similar structure involving ot- in rpt or other verbs commutable with ot-. These transforms and the other forms have phonological characteristics of units larger than words.

ari-we sâ-m ot-mâ *(go-must I, say-ing, do-ing)*
'Wanting to go...' (actor in singular number)

ne-be sâ-m ga-a-an *(eat-must I, say-ing, come-*ipt*-I)*
'I came wanting to/in order to eat.'

9. See note 3.

10. See note 6. The occurrence of -Ø and -n marking plural is also found in the nominal possessive-marking suffixes:

-ne-n-ŋe *'ours(pl.)'*, -ye-Ø-ŋe *'yours/theirs(pl.)'*.

11. The Mape language is 19 percent lexically related to Selepet (McElhanon 1969). The meaning of the morpheme -go occurring as a third-order suffix is not clear. A possible meaning is non-past tense.

12. For the technique of structure statistics, see Capell, 1962.

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KAUGEL VERB MORPHOLOGY

BRUCE L. AND RUTH BLOWERS

Verbs are presented as follows: (1) verb roots; (2) verbs; (3) verb specifiers; (4) verbals.

SIGNS

≠	obligatory; plus
≠-	optional
*	unpredictable dialectical fluctation
/	predictable phonemic variation; alternating with
—	no such form in the language
-	minus; bound morpheme
ø	meaningful absence
V	vowel
C	consonant
.	morpheme break
'	following phoneme has been substituted or dropped
#	number; rule number
( )	order

ABBREVIATIONS

Ben	Benefactive
T	Tense
M	Mood
A	Aspect
Ind	Indicator (for tense, mood and aspect combined)
Imp	Imperative
Hort	Hortative
sg	singular
pl	plural
dl	dual

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Incl	Inclusive
Asrt	Assertive
Qual	Qualifying
Pol	Polite
Quo	Quotative
Emph	Emphatic
Ant	Anticipative
Int	Interrogative
Asm	Assumptive
Exc	Exception

VERB ROOTS

Verb roots are bound forms which take "tense" and as many as six other suffixes. (A bound form is a word form which is incomplete in itself and needs a suffix to make its meaning complete.)

A. Simple verb roots may consist of from one to three syllables.

to- *'hit'* **pʃli-** *'understand'* **kubulú-** *'extinguish'*

Subclass #1 consists of a single vowel or one syllable nasal roots.

o- *'come'* **ni-** *'speak'* **no-** *'eat'* **me-** *'carry'*

Subclass #2 consists of verb roots of irregular stress patterns.

túdu- *'drive into the ground'* **tudú-** *'inability to do correctly'*
áku- *'waste'* **akú-** *'dig'*

B. Compound verb roots are two or more verb roots joined. The second root is usually a form of **pu-** *'go'*.

TE.PÚ.yo *'you GO DO'*
NO.P,Á.bo *'let me GO EAT'*
IRREGULARITY:
LI.P,É.bo *'let me GO EAT'*
NI.P,É.bo *'let me GO SPEAK'*

Phonemic explanation of the compound verb root irregularity:
The high front vowel of the initial verb root draws the point of articulation of the following root vowel to a mid-front position.

C. Multiple verb roots are a combination of four verb roots with only the initial root substitutable - the multiple form is followed by the final verb, **te-** *'do'*. This denotes action of commutation.

walti.PU.Ó.PU TE- *'asking GOING AND COMING AND GOING'*
te.PU.Ó.PU TE- *'doing GOING COMING AND GOING'*

D. Free verb roots are unbound verb roots followed by the identical

root which is inflected. This denotes irrelevant action.
KÁNO KÁNO.du *'See! - I saw it (but it was irrelevant).'*
KUBULÚ naa KUBULÚ.pili *'Die - don't let it die (the fire).'*

VERBS

In the Kaugel verb, tense, mood and aspect do not always form a separate system. The division between mood and aspect is a fine line and in some verbs they combine to form a single system. Since they are structurally parallel with the tense system they will be considered as one category.

All examples using forms of the verbs are given in first person singular, except when there is no such form in the language, in which case the example will be given in second person singular - when contrast is necessary.

VERB CLASSES

1. Non-action

There are two kinds of verbs, non-action verbs, which are the equivalent of state-of-being-verbs in English. These are listed herewith. The subject of these verbs is used without the actor marker.

mólo-	*'be'*	pe-	*'lay'*
ágili-	*'stand'*	le-	*'place'*

2. Action

Action verbs may or may not be used with the actor marker on the subject. Action verbs are all verbs which are not included in the class of non-action verbs. A few are listed.

to-	*'hit'*	no-	*'eat'*
ti-	*'give'*	te-	*'do'*

Morpho-phonemic rules

#1 (-V ≠ -a) root final vowel is dropped when -a is added.
p(-u≠a)≠ -bo is p,á.bo *'let me go'*
t(-o≠a)≠ -bo is t,á.bo *'let me hit'*
IRREGULARITY: for root o- *'come'*; o ≠ a is wa *'you come'*.

#2 -ji * -dV vowel agrees with vowel of preceding syllable (in some dialects).
ni.jí.yo / ni.dí.yo *'speak for...'*
te.jí.yo / te.dé.yo *'do for...'*

#3 When an alternate form is given, first form follows -i and -u; second form follows -e and -o.

Verb Chart 1

IMPERATIVE VERBS

	(1)	(2)		(3)			(4)	(5)	(6)
ROOT	BEN.	INDICATOR		PERSON-NUMBER ENDINGS			ASSR.	INCL.	QUAL.MOODS
ɾ1	ɾ-	ɾ		1 ɾ			ɾ-	ɾ-	ɾ-
				Singular	*Dual*	*Plural*			
-i -u #1	-ji	Polite		1 ---- 2 -yo #4 3 ——	—— -lío ——	—— -yo ——	-mu	-la	Asm. -je
-o #1	* -dV #2	Empha-tic	-é / -á :3	1 —— 2 ø 3 ——	-bolo -le -le	-molo -me -me #1			Int. -i / -e Ant. (-Vɾa)
-e		Quota-tive		1 —— 2 -i #4 3 ——	—— -le ——	—— -i ——			Def. -ko

(On the chart, -u is ruled by rule #1.)

nɾ.e.bo *'I may speak'*

té.á.bo *'I will do'*

#4 No indicator used.

pú.yo *'you go'*

pú.pili *'let him go'*

pú.i

pú

Stress rules

When not designated on the chart, stress occurs on the final syllable of the root.

mol,á.bo *'I will stay'*

mud,á.bo *'I will send'*

IMPERATIVE VERBS

NOTE: Each set of examples use verb roots of each of the four vowels. Imperative verbs express commands, exhortations and suggestions.

Polite verbs express commands only in second person; these may also be used as greetings and farewells.

nǐ.yo *'Speak.'*
pú.yo *'Go.'*
moló.yo *'Stay.'*
té.yo *'Do.'*

Emphatic verbs express emphasis in commands but may or may not be demanding. (Translations of Emphatic will carry the exclamation point.)

nǐ.e *'Speak!'*
p,a *'Go!'*
mol,á *'Stay!'*
té.a *'Do!'*

Quotative verbs express a direct quoted command, and are followed by a quotative verb form. Translations of Quotations are enclosed in commas. Since it is a Medial verb form, a final verb must be included in the examples for clearer translation.

,ni.i, nímu *'"Speak," he said.'*
,pú.i, nímu *'"Go," he said.'*
,moló.i, nímu *'"Stay," he said.'*
,te.i, nímu *'"Do (it)," he said.'*

Hortative verbs express an exhortation, suggestion, desire or invitation. They also express the Near Future meaning. See Final Verbs, Chart 2.

nǐie.bo *'Let me speak.'*
p,á.bo *'I wish to go.'*
mol,á.bo *'I desire to stay.'*
te.á.bo *'I will soon do (it).'*

OPTIONAL SUFFIXES

Benefactive denotes action done for the benefit of another.

ni.JÍ.e.bo *'Let me speak FOR...'*

Inclusive denotes action included, meaning *'too'* or *'also'*.

nǐ.e.bo.LA *'Let me speak TOO.'*

Assertive denotes action asserted, meaning *'do'* or *'must'*.

nǐ.e.bo.MO *'I MUST speak.'*
nǐ.e.ni.MU *'DO speak.'*

Anticipative denotes action anticipated or longed for, most commonly occurs on Near Future verbs.

nǐ.e.BA *'I LONG TO speak.'*

Assumptive is action assumed or supposed.
nǐ.e.bo.JE *'PERHAPS I will speak.'*

Interrogative is action interrogated or asked.
nǐ.e.bo.E *'Shall I speak?'*
nǐ.e.ni.I *'Will you speak?'*

Suffix combinations may include from two to four optional suffixes.
ni.JǏ.e.bo.LA.JE *'PERHAPS I will speak FOR...TOO.'*

IMPERATIVE VERB COMBINATIONS

are combinations of various verbs on Chart 1. Only the shortest expansions are given.

Hortative-Emphatic:
'Tell him to come!'
ǒ.pili nǐ.e
let.him.come you.speak!

'Come, let's go hit (him)!'
t,á.mili p,á.mili w,á.molo
let.us.hit let.us.go we.come!

Hortative-Polite:
'Tell him to come.'
ǒ.pili nǐ.yo
let.him.come you.speak

'Come, let's go hit (him).'
t,á.mili p,á.mili w,á.yo
let.us.hit let.us.go you (pl.) come

Quotative occurs with Medial or Final verb forms, so do not appear with examples in this section.

Morpho-phonemic rules for Verb Chart 2 (for rules 1-4 see Chart 1)

#5 In some dialects, the first form occurs with 'i' and 'e' roots, the second with 'u' and 'o' roots.
tirǐ.du *'I gave'* te.rǐ.du *'I did'*
pu.rú.du *'I went'* no.rú.du *'I ate'*

#6 Class 1 roots have prenasalised bilabial stop in indicator. (Nasalisation of indicator occurs with subclass :1 roots.)
ni.bé.ro *'I am speaking.'*
no.bá.ro *'I am eating.'*
te.pá.ro *'I am doing.'*
to.pá.ro *'I am hitting.'*

Verb Chart 2

FINAL VERBS

	(1)	(2)		(3)			(4)	(5)	(6)
ROOT	BEN.	INDICATOR		PERSON-NUMBER ENDINGS			ASSR.	INCL.	QUAL.MOODS
≠	≠-	≠		1 ≠			≠-	≠-	≠-
				Singular	*Dual*	*Plural*			
-i		Past	*#5 -rí -rú	1 -du 2 -nu	-bulu -gili	-mulu -gi			Asm. -je
		Near Past	ø	3 -mu	-gili	-gi			
-u	-ji	Pres-ent	-kV́ #7	1 -ru/-ro 2 -nu/-no	-bulu/ -bolo -bili/ -bele	-mulu/ -molo -mili/ -mele	-mu /	-la	Int. -i/-e
	*	Pres. Inst.	#5 -pé -pá	3 -mu/-mo	-bili/ -bele	-mili/ -mele	-mo		
-o	-dV	Near Fut./ Hort-ative	-é -á	1 -bo 2 -ni 3 -pili :4	-bili -gili -gili	-mili -gi -gi			Ant. (-V≠a)
-e		Fu-ture	ø	1 -bú/-bó 2 -ní 3 -bé/ -bá	-bulú/ -boló -gilí/ -gelé -gilí/ -gelé	-mulú/ -moló -gí/ -gé -gí/ -gé			Def. -ko
		Cus-to-mary	-li #7	1 -ó 2 -nó 3 -mó	-bólo -béle -béle	-mólo -méle -méle			
		Sub-junc-tive	-le #7, 8	1 -ké/-ká 2 -ná 3 -ké/-ká	-bolká -belká -belká	-molká -melká -melká			

#7 When multiple roots ending in -lV are followed by -k the final vowel of the root is dropped.

pili- ≠ -li ≠ -ke becomes pi.l,ké

molo- ≠ -le ≠ -ka becomes mol,ká

#8 When -lV is followed by -k, the vowel is dropped before the suffix is added.

pu- / -li / -ke becomes pu.l,ke
te- / -le / -ka becomes te.l,ká

#9 When multiple roots end in -lV and are followed by an indicator of -lV, the lV of the root is dropped before the final suffix is added.

molo- / -le becomes mole- then mó,le.na *'you would be'*
agili- / -li becomes agili- then ági.li.o *'I stand'*

NOTE: If the final suffix begins with 'k' then both #8 and #9 apply.

molo- / -le / -ka becomes molká *'he would be'*
pili- / -li / -ke becomes pilké *'he would understand'*

Fluctuation often occurs on -li roots:

pilikiru / pilkíru *'I know'*
agilikiru / agilkíru *'I stand'*

Stress rules

Stress is predictable on verbs, as it is always on the indicator except in case of the zero morpheme when it is on the final syllable of the root. (This is for verbs on Chart 2.)

FINAL VERBS

Final verbs occur clause and sentence finally. On Chart 2, the final verbs are listed according to their position of time - the farthest distant past first, and then on to the most distant future. Examples include roots which are nasal, non-nasal, and two syllable velar roots. Chart 2 verbs state acts which indicate tense, or the time of the action, except Customary and Subjunctive which are structurally the same therefore occur on the same chart.

Past tense indicates action taken place long ago or some time beyond yesterday.

1. ni.rí.du *I spoke*
2. pu.rú.du *I went*
3. molo.ró.du *I was*
4. te.rí.du *I did*

Near Past tense indicates action taken place yesterday or between that time and now.

5. ní.du *I spoke*
6. pú.du *I went*

7. moló.du *I was*
8. té.du *I did*

Present tense indicates action taking place now.

9. ni.kí.ru *I speak/am speaking*
10. pu.kú.ru *I go/am going*
11. mo|,kó.ro *I am/I am being*
12. te.ké.ro *I do/am doing*

Present Instantaneous tense indicates action initially experienced this instant, of which one was not aware before.

13. nibé.ro *I am speaking*
14. li.pé.ro *I am taking*
15. to.pá.ro *I am hitting*
16. no.bá.ro *I am eating*

Near Future tense (also called Hortative Aspect - see Chart 2) indicates action which will take place soon, or tomorrow.

17. ní.e.bo *I will (soon) speak*
18. p,á.bo *I will (soon) go*
19. mo,l,á.bo *I will (soon) be*
20. te.á.bo *I will (soon) do*

Future tense indicates action which will take place later than tomorrow.

21. ni.bú *I will speak (later)*
22. pu.bú *I will go (later)*
23. molo.bó *I will be (later)*
24. be.bó *I will do (later)*

Customary aspect denotes action which is the usual or customary habit.

25. ni.lí.o *I (usually) speak*
26. pu.lí.o *I (usually) go*
27. mo.lí.o *I (usually) am*
28. te.lí.o *I (usually) do*

Subjunctive mood denotes doubtful or possible or desirable action.

29. ni.l,ké *I would speak*
30. pu.l,ké *I would go*
31. mo,l,ká *I would be*
32. te.l,ká *I would do*

OPTIONAL SUFFIXES

All optional suffixes found on the Final Verb Chart have previously been defined in the Imperative, Chart 1 section. The verbs will be used in the same manner except that the time of the action will change. One new one on the Verb Chart 2 for Final Verbs will be explained.

Definitive is action which is definite, regarded as final, irrevocable.

33. ni.kí.ru.KO *I speak (as final)*
34. te.ké.ro.KO *I do (as final)*

FINAL VERB COMBINATIONS:

Two Final verbs combined in the proper sequence create aspects which are not indicated by the single verb form and cannot be literally translated.

Preparatory

Two Final Verbs from Chart 2 may be combined without the use of a connector. A Future tense verb followed by any tense of the Final Verbs becomes action prepared to or about to happen. The latter verb is usually te- *'do'*.

35. *'I am about to go.'*
    pu.bú te.ké.ro
    I.will.go I.am.doing

36. *'I was about to hit (him).'*
    to.bó te.rí.du
    I.will.hit I.did

Cause-Resultive

Two Subjunctive verbs may be combined, with one or both of them using the Assumptive suffix denoting a result which is the cause of a former action. Used singly is a suggested command.

37. *'If you would speak, he would go.'*
    ni.li.ná.je pu.l,ká
    you.would.speak.perhaps he.would.go

38. *'If you would speak, he might go.'*
    ni.li.ná.je pu.l,ká.je
    you.would.speak.perhaps he.would.go.perhaps

39. *'You speak, and perhaps he will go.'*
    ni.li.ná pu.l,ka.je
    (I suggest).you.speak he.would.go.perhaps

Experiential

A Chart 2 verb followed by a Customary verb utilising le- *'place'* denotes an action which is a combination of tense, aspect and mood. The final verb of the combination always occurs in the third person singular, since the final action complements the first one.

The Experiential verb combination denotes tense - now, this instant; aspect - initial knowledge of the action personally experienced (not previously aware of); and mood - as an attitude toward an action.

Established fact (past tense)

40. *'It's a fact that he came.'*
ó.mu lé.mo
he.came he.was.placed

41. *'It's a fact that he died.'*
ko.ló.mu lé.mo
he.died he.was.placed

Obvious fact (present tense)

42. *'It's obvious that I am here.'*
ó.du le.ké.mo
I.came it.is.placed

43. *'It's obvious that it is done.'*
té.mo le.ké.mo
he.did it.is.placed

Accepted fact (present instantaneous)

44. *'It's accepted that he is here.'*
ó.mu le.pá.mo
he.came he.is.placed.personally

45. *'It's accepted that he is alive (though it does not seem).'*
mó.le.mó le.pá.mo
he.is.living he.is.placed.personally

MEDIAL VERBS

Medial verbs occur sentence medially, agreeing in person and partially in number with the Final verb. See Chart 3. The subjects of the Medial and Final verbs are the same.

Sometimes, though rarely, a Medial verb occurs utterance finally. It indicates a thought cut in half or an utterance stopped, leaving the

main verb understood by the context.

Verb Chart 3

MEDIAL VERBS

	(1)	(2)		(3)			(4)
ROOT	BEN.	INDICATOR		PERSON-NUMBER ENDINGS			QUAL.MOODS
/	/-	/		1 /			/-
				Singular	*Dual*	*Plural*	
-i		Completive	Ø	1 -pu/-po	-pulu/-polo	-pu/-po	Incl.
				2 -ku/-ko	-kulu/-kolo	-ku/-ko	-la
-u	-ji	Simultaneous	-li	3 -pe/-pa	-kulu/-kolo	-ku/-ko	Conn. -lie
-u	* -dV	Nasalisation of person-number endings occurs with subclass #1 roots, making the person-number endings contain prenasalised bilabial stops. See section below.					
-o				1 -bu/-bo	-bulu/-bolo	-bu/-bo	
				2 -gu/-go	-gulu/-golo	-gu/-go	
-e				3 -be/-ba	-gulu/-golo	-gu/-go	

Morpho-phonemic rules

See Charts 1 and 2. Rule #5 does not govern when the Simultaneous indicator is used:

lilipu *'I, while having taken'*
nilipu *'I, while having spoken'*

lipu *'I having taken'*
nibu *'I having spoken'*
topo *'I having hit'*
nobo *'I having eaten'*

Stress

Stress on Medial verbs seems to occur more on the final vowel of the root, except in multiple roots when it may be on the person-number ending.

All Medial verb examples will be used with a Final verb for the sake of meaningful translations.

Completive medial verbs denote action completed before the action of the Final verb takes place.

1. *'I killed and am eating.'*

tó.po	no.kó.ro
I.having-hit	*I.am.eating*

2. *'I have a speech.'*

ní.bu	ti.rí.du
I.having.spoken	*I.gave*

Simultaneous medial verbs denote action occurring at the same time or simultaneously with the action of the Final verb.

3. *'He speaks while (as) he goes.'*

ní.li.pe	pu.ku.mu
he.while.speaking	*he.goes*

'While eating, he is going.'

nó.li.pe	pu.kú.mu
he.while.eating	*he.is.going*

MEDIAL VERB OPTIONAL SUFFIXES

Connective medial verbs denote one kind and time of action connected to that of another type by the suffix -lie *'and'*.

If the speaker of the sentence considers the second action a different kind of action or psychologically separates it from the first action, he uses the suffix -lie. If he wishes to follow an action with another action constituting a full clause by the same actor as the first clause, -lie is suffixed to the Medial verb. This is especially so if the second action occurs at a different time from the first action. The Connective Medial verb may have two like subjects.

5. *'Having brought it, I am taking it.'*

mé.bo	pu.pu.LIE	li.kí.ru
I.having.carried	*I.having.gone,AND-then*	*I.am.taking*

6. *'I spoke and then came.'*

ní.bu	ti.pú.LIE	o.kó.ro
I.having.spoken	*I.having.given.AND-then*	*I.come*

MEDIAL VERB COMBINATIONS

String medial verbs consist of a string of two or more medial verbs, which often are used with the Specifier. (For examples of Specifier: see *Specifier*.) The subject remains the same.

7. *'Having brought it I see it.'*

mé.bo	ó.bo	kano.kó.ro
I.having.carried	*I.having.come*	*I.see*

8. *'Having gotten it and brought it, I see it.'*

lí.pu	mé.bo	ó.bo	kano.kó.ro
I.having.taken	*I.having.carried*	*I.having.come*	*I.see*

9. *'Having taken, killed, and brought it; I see it.'*

lí.pu	kojí.pu	mé.bo
I.having.taken	*I.having.killed*	*I.having.carried*

ó.bo	kano.kó.ro
I.having.come	*I see*

Durative medial verbs consist of two or more identical Medial verbs with the same inflection as well, denoting duration of action.

10. *'I went for a long time.'*

pú.pu	pú.pu	pu.rú.du
I.having.gone	*I.having.gone*	*I.went*

11. *'I talked for a long time.'*

ní.bu	ní.bu	ni.kí.ru
I.having.spoken	*I.having.spoken*	*I.speak*

Repetitive medial verbs consist of a Simultaneous medial verb joined by a hyphen to a second form which is like the first, except for the initial syllable substitution of **ma-**. This denotes repetition of action.

12. *'While speaking repeatedly, I am coming.'*

ní.li.pu-má.li.pu	o.kó.ro
I.while.eating.repeatedly	*I.am.coming*

IMPERATIVE, FINAL AND MEDIAL COMBINATIONS

(These combinations do not necessarily form new aspects.)

Medial-Emphatic

13. *'Go get it!'*

pú.ku	lí.e
you.having.gone	*you.take*

14. *'Come on past!'*

ó.go	p,a
you.having come	*you.go*

Medial-Polite

15. *'Go get it.'*

pú.ku lí.yo
you.having.gone you.take

16. *'Go on past.'*

ó.go pu.yo
you.having.come you.go

Medial-Hortative

17. *'Go get it.'*

pú.ku lí.e.ni
you.having.gone you.may.take

18. *'Come on past.'*

ó.go p,á.ni
you.having.come you.may.go

All the above combinations may occur with the final Quotative verb ni-, i.e. pú.ku lí.e ni.rímu
you.having.gone you.take he said
'"Go get it," he said.'

Quotative-Medial-Final

19. *'"Go," he said, and then he went.'*

pú.i, ní.be.lie pu.rú.mu
you.go he.having.said.and-then he.went

Quotative-Final-Imperative

20. *'"Go," he said, "Go!".'*

pu ni.kí.mu p,a
you.go he.is.saying you.go

Medial-Final (most commonly used verb structure in the language)

Simple:

21. *'I am bringing.'*

mé.bo o.kó.ro
I.having.carried I.am.coming

22. *'I am making a speech.'*

ní.bu ti.kí.ru
I.having.spoken I.am.giving

Continuous:

23. *'I am waiting.'*

no.kó.po mo.lkó.ro
I.having.waited I.am.being

24. *'I am doing (it).'*

té.pa mo.l,kó.ro
I.while.doing I.am.being

Reckoning:

25. *'I think it is there.'*

lé.pa te.ké.mo
it.having.placed it.is.doing

26. *'I think he is there.'*

móló.pa te.ké.mo
he.having.been he.is.doing

Medial Verb Irregularities (these apply to the verbs in Chart 3, Medial Verbs)

1. With verb root me- *'carry'* -le is used in some dialects non-inflected, instead of the inflected person-number endings.

Compare: mé.bo pu.kú.ru with mé.le pu.kú.ru *'I am taking'*
mé.go w,a with mé.le w,a *'you bring'*

2. Two verb roots occur as only Medial forms:

alto- *'again'*
nodo- *'close'*

27. *'Do it again!'*

altó.ko te.á
you.having.again you.do

28. *'He will soon come.'*

nódo.pa o.bá
he.having.close he.will.come

3. Two verb roots which can never occur finally except a Medial form is used with it:

kéji- *'badly'*
kóji- *'goodly, well'*

29. *'I am doing it badly.'*

té.po keji.kí.ru
I.having.done I.am.doing.badly

30. *'I am killing.'*

tó.po kóji.kíru

I.having.hit I.am.doing.good

DEPENDENT VERBS

Dependent verbs are Final verb forms followed by an obligatory Connector or Slot Marker, which occur sentence medially, never alone or sentence finally. They contain fully inflected Final verb forms except for the sixth order suffixes.

A. *Connector* dependent verbs:

1) join to another clause by a Connector;
2) may or may not have the same subject as the following verb;
3) functions as a clause on a sentence level.

Connector dependent verb examples given use the simplest grammatical structure and vocabulary in order to focus on the use of the Connector.

1. Contradictive #1: nákolo/nálo/kúlu *'but'*

'The rain is coming BUT I will go.'

lo o.kó.mo **NÁKOLO** na pú.bu

rain it.is.coming I I.will.go

(The last two forms are dialectical contractions of **nákolo** and may be used the same.)

2. Contradictive #2: magáli *'but'*

'It will rain BUT I will go.'

lo o.ba **MAGÁLI** pú.bu

rain it.will.come but I.will.go

3. Concessive: képe *'even though, even if'*

'EVEN IF it rains, I will go.'

lo ó.bá **KÉPE** na pú.bu

rain it.will.come nevertheless I I.will.go

4. Resultive: kéne *'therefore, so'*

'The rain is coming SO I will soon go.'

lo o.bá **KÉNE** na p,á.bo

rain it.will.come so I I.will.go

5. Causative: -na *'because'*

'I will go BECAUSE it is going to rain.'

lo o.bá.NA na pu.bú

rain it.will.come.because I I.will.go

Structurally, this connector is a free form, but in order to prevent ambiguity it is used as a suffix.

6. Indecisive: -ne...-ne *'whether or not'*

'WHETHER it rains OR NOT, I will go.'

lo	o.bá.NE	molo	naa	o.bá.NE	na
rain	*it.will.come.whether*	*not*	*no*	*it.will.come.or.not*	*I*
pu.bú					
I.will.go					

7. Conditional: liemo *'if'*

'IF it rains, I will not go.'

lo	o.mu (also o.bá)	LIEMO	na	naa	pu.bú
rain	*it.will.come*	*if*	*I*	*not*	*I.will.go*

8. Purposive: -du/-do *'for the purpose of'*

'I have come TO talk.'

úgu	ni.bu.	DU	o.kó.ro
speech	*I.will.speak*	*for-the-purpose-of*	*I.am.coming*

B. *Slot Marker* dependent verbs:

1) are joined to the main clause by a Slot Marker;
2) may or may not have the same subject as the following verb;
3) function like a single word, on the clause level.

Slot Marker Dependent verb examples are found on the page following this list of Slot Markers with English meanings.

Subject or Object (Singular): -mu/-mo *(Definite article 'the one')*

1. -mu *'the one who'*
2. ákumu *'that one who'*
3. ádumu *'that one spoken of before'*
4. kádumu *'that one seen before and now being seen or spoken of, who...'*
5. kánumu *'that one seen before and now not being seen, who...'*
6. -mo *'the one who...'*
7. káliemo *?*

Subject or Object (Plural): -ma/-me *'those ones'*

8. -ma *'the ones who...'*
9. ákuma *'those ones who...'*
10. -me *'the ones who...'*

Subject or Object (Singular): -ri/-re *(Indefinite article)*

11. -ri *'a one who...'*
12. -re *'a one who...'*

Subject or Object (Plural):

13. -mare *'some ones who...'*

Actor -ni/-ne (may occur only in the Subject slot, which denotes emphasis on the subject as actor of the verb):

14. -muni *'the one who..., it'*
15. akumuni *'that one who..., he'*
16. -rini *'a one who..., he'*
17. -mone *'the one who..., he'*
18. -rene *'a one who..., he'*
19. -mane *'the ones who..., they'*
20. ákumane *'those who..., they'*

Possessive -ga/-ge (may occur in the Possessive or Object Slot, which whill show possession):

21. -ga *'of the one'*
22. -ge *'of the one'*
23. -muga *'of the one who...'*
24. -moga *'of the one who...'*
25. -maga *'of the ones who...'*

Locative -na (occurs in the Location slot) -na / -ne (denotes specific location):

26. -na *'at'*
27. -ne *'at'*

Direction -du/-do (denotes general direction):

28. -du *'toward'*
29. -kudu *'toward the direction'*
30. -kidu *'toward the direction'*
31. -ridu *'toward a...'*
32. -dó *'toward'*
33. -kodo *'toward the direction'*
34. -kedo *'toward the direction'*
35. -redo *'toward a...'*

Adverb kinie (occurs in the Time slot):

36. kinie *'when'*

Instrument kinſe (occurs in the Manner slot) ?

37. kinſe *'with'*

Slot Marker Dependent Verb Examples

The following examples show how the clause of the Dependent verb functions like a wingle word. There is person agreement between the verb of the two clauses.

Slot Markers #1-13 (on preceding pages) may occur in the Subject or Object Slots.

Subject (singular subject with singular verb):

(1) *'THE ONE who spoke worked.'*

úgu ni.rí.mu.MU kogóno te.rí.mu
word he.spoke.the-one work he.did

(6) *'THE ONE who usually speaks is there.'*

úgu nili.mó.MO we mol,kó.mo
word he.usually-speaks.the-one just he.is.being

NOTE: Examples not listed - singular subject with plural verb or plural subject with singular verb.

Object (plural) -ma/-me:

(8) *'I saw THE ONES who usually spoke.'*

na úgu ni.rí.gi.MA káno.du
I word they.spoke.the-ones I.saw

'I saw THE ONES who usually speak.'

na úgu ni.li.méle.ME káno.du
I word they.usually.speak.the-ones I.saw

NOTE: Examples not listed for singular object with plural verb.

Slot Markers #14-27 may occur in the Subject slot *only.*

(14) *'THE ONE who spoke, he worked.'*

úgu ni.rí.mu.MU.NI kogóno te.rí.mu
word he.spoke.the-one.he work he.did

(17) *'THE ONE who usually speaks, worked.'*

úgu ni.li.mó.MO.NE kogóno te.rí.mu
word he.usually.speaks.the-one.he work he.did

Slot Markers #21-24 may occur in the Possession Slot on the Phrase level.

Possession -ga/-ge:

(21) *'The wife OF the one who spoke, worked.'*

úgu ni.rí.mu.GA ábo kogóno te.rí.mu
word he.spoke.of woman work he.did

Slot Markers #25-34 may occur in the Location Slot.

Location -na:

(26) *'A man went to the place WHERE Jesus was.'*

ye te Jísas molo.rú.mu.NA pu.rú.mu
man one Jesus he.was.being.at he.went

Directional may occur in the Location Slot:

(27) *'A man went TOWARD where Jesus was.'*

ye te Jísas molo.rú.mu.DU pu.rú.mu
man one Jesus he.was.being.toward he.went

Slot Marker #35 may occur in the Time Slot.

Adverb kínie:

(35) *'WHEN he spoke, he worked.'*

úgu ni.rí.mu KÍNIE kogóno te.rí.mu
word he.spoke when work he.did

VERB SPECIFIERS

A verb *Specifier* is a word which immediately precedes the verb and specifies the action of the verb. There is no equivalent in English grammar. There is no rule for predicting which verb root is used with each Specifier so these must be learned empirically.

1. *'I am making (something).'*
   mími te.ké.ro
   make I.am.doing

2. *'I am teaching.'*
   máne ti.kí.ru
   instruction I.am.giving

All verbs have a basic meaning which is clear when they stand alone or with object nouns.

3. *'I am hitting.'*
   to.kó.ro
   I.hit

4. *'I am hitting a pig.'*
   kógi to.kó.ro
   pig I.hit

Simple specifiers used with the verb create a new meaning which often obscures the basic meaning of the verb form.

5. *'I am CARRYING on the shoulders.'*
   ÁPU to.kó.ro
   ride I.hit

6. *'I am PEELING.'*
   PÉKE to.kó.ro
   peel I.hit

Repetitive specifiers are repeated specifier forms, except for the substitution of the syllable ma- on the repeated form which is joined by a hyphen. The initial form may stand alone, the second never. The repetitive specifier denotes a repeated manner of action.

7. *'I am TURNING around.'*
   TÓPELE to.kó.ro
   turn I.hit

8. *'I am TURNING (it) AROUND AND AROUND.'*
   TÓPELE-MÁPELE to.kó.ro
   turning-around-and-around I.hit

9. *'I am CUTTING (it).'*
   KÁRO li.kí.ru
   cut I.am.taking

10. *'I am CUTTING it in slices.'*
    KÁRO-MARO li.kí.ru
    cutting-and-cutting I.take

Irregular Repetitives

There are some Repetitive specifiers which do not take the usual ma- syllable denoting repetition.

11. *'I am ANTICIPATING.'*
    NÓLLEA-WÁLLEA mo.l,kó.ro
    anticipation I.am

12. *'It is LIGHTNING.'*
    KÁRIYAPO-DÍGIYAPO te.ké.mo
    lightning it.is.going

Duplicative specifiers appear to be duplicate forms which actually are not, therefore are considered a single word.

13. *'I am SHAKING.'*
    PÚRUPURU ni.kí.ru
    shake I.am.speaking

14. *'I am jumping with FRIGHT.'*
    PÚGUPUGU ni.kí.ru
    fright I.am.speaking

Adverb specifiers consist of an adverb of manner specifying it as an action of manner.

15. *'I am HURRYING.'*
    TABURABÚ pu.kú.ru
    hurry I.go

16. *'It is STRONG.'*
    TÓDOLO le.ké.mo
    strong it.is.placed

Complement specifiers are adjectives or nouns found in constructions comparable to the English predicate adjective statements such as *'it is hot'* or *'I am hungry'*. These are formed by a Complement specifier followed by a verb always in the third person singular, since the specifier complements the subject.

17. *'I am COLD.'*

ÁLI te.ké.mo
cold it.is.doing

18. *'I am HUNGRY.'*

ÉGELE te.ké.mo
hunger it.is.doing

IRREGULARITY

There are a few Specifiers which *must* be preceded by a Medial verb and followed by a Final verb.

19. *'I am SHOWING.'*

lí.pu ORÁ ti.kí.ru
I.having.taken show I.am.giving

20. *'They are GATHERING together.'*

lí.ku MÁKU to.rí.gi
they.having.taken assembly they.hit

VERBALS

Verbals are a class of words which -

1) are verbs in form but function as nouns;
2) are inflected forms;
3) have no person-number endings;
4) may be suffixed with any clitic which may occur on a noun;
5) on the word level are used as adjectives, that is, follow the noun which they modify;
6) in a verbal phrase are used as nouns;
7) are of two classes, Factual and Potential;
8) are analysed on Chart next page.

Factual verbals have the -li indicator.

lili *'receiving'*
abo lili *'woman receiving'*
abo lili ye *'a man-receiving man' (man who is getting married)*
mane tili *'instruction-giving' (teacher)*
ugu pilili *'word-understanding' (one who understands)*

Potential verbals have the -i or -u indicator.

to- *'hit'*
tou- *'a hitting one'*
opa tou *'an arrow hitting one' (enemy)*
kewa nou *'a foreigner eater' (cannibal)*
lagi mimi tei *'a food maker' (cook n.)*

Verb Chart 4

VERBALS

	(1)	(2)		(3)	(4)
ROOT	BEN.	INDICATOR		PERSON-NUMBER ENDINGS	QUAL. MOODS
-	*-*	*-*			*-*
-i -u -o -u	-ji	Fac-tual	-li	ø	-mo -ma -mele
		Po-ten-tial	-i / -u	ø	

NOTE

Gawigl is the Medlpa pronunciation of the name of the Kaugel river, language, or people. Gawigl is the term used by Gordon Bunn and Graham Scott, in their *Languages of the Mt. Hagen Sub-District* (DIES, Port Moresby, 1962). Kakoli is the form used in the language itself (phonemic spelling of Kaugel, which is the form used on Administration maps).

Blowers, B.L. and Blowers, R. "Kaugel Verb Morphology". In Voorhoeve, C., McElhanon, K., Blowers, B. and Blowers, R. editors, *Papers in New Guinea Linguistics No. 12*. **A-25:37-66**. Pacific Linguistics, The Australian National University, 1970. DOI:*10.15144/PL-A25.37*