

A TENTATIVE STATEMENT OF THE PHONEMES OF YAGARIA

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1. INTRODUCTION

According to the 1966 census figures, the Yagaria language is spoken by 17,382 people in the area east and north of Mt Michael in the Eastern Highlands of New Guinea. They comprise all the population in the "Yagaria Census Division", and some of the population in the "Labogai Census Division", Lufa Subdistrict, E.H.D.¹

The name "Yagaria" is generally unknown amongst the people themselves; it originates from the people living in the areas adjoining to the north, who call that area the "Yagaria" area, and consequently speak of the "Yagaria people", and "Yagaria language".

Since Yagaria consists of a number of different dialects, the speakers of Yagaria seldom refer to their language as a unit and, in fact, they have no name for the language as a whole. They usually refer to individual dialects, speaking of "the language of the people of X." (X. would then be the name of a village, a tribe, or a smaller area comprising several villages).

The name "Yagaria" for scientific classification was introduced by Dr S.A. Wurm, after his 1958-9 field survey of the Australian New Guinea Highlands languages. Yagaria, according to Wurm's classification², belongs with its related languages Kamano, Keigana, Kanite, and Yate, to the Kamano-Yagaria-Keigana Subfamily of the Gende-Siane-Gahuku-Kamano-Fore Family, or East-Central Family³, of the East New Guinea Highlands Stock.

This paper is the result of study carried out over a period of about four years, during the course of the author's missionary duties at the Lutheran Mission station Rongo.

The author has stuck exclusively to the dialect spoken by the people of Movei (Kiseveloka), which is known as the

"Kiseveloka language" ([^h·kiseveŋloka ^h·kɛ]), or "Filigano language" ([fi^h·ŋligano ^h·kɛ]), since the area which comprises the eastern third of the Yagarua Census Division is known as the "Filigano" area amongst the people.

Over the four years, quite a number of informants from Kiseveloka were used. The most valuable information was obtained from Ulo, a young man between 25-30 years of age, who is working as an evangelist at the Lutheran Mission station Rongo.

2. INTERPRETATION

2.1. Syllable Patterns

The

CV [^h·bakisave] 'snake'

V (only word initially)

[^h·afɛpa] 'grass'

There is also a CVC syllable, in which the second consonant is the glottal stop:

[bogo^h·koʔ] 'only one'

VC syllables in which the closing consonant is a glottal stop, occur:

[^h·aʔyuva] 'women'

CC clusters occur where CVC or VC precede CV or CVC:

[^h·dotsʔna] 'food'

[^h·aʔyuva] 'women'

Since the closing consonant in CVC and VC is always the glottal stop, the first C of a CC cluster is always the glottal stop.

2.2. Interpretation of Consonants

2.21. Suspect Consonants

[y], which sometimes fluctuates to [dz] or [dʒ] (depending on the speaker), is interpreted as a consonant, and

[v], which sometimes fluctuates to [b] and even [w], is also interpreted as a consonant since both variations occur as consonants in the CV pattern:

[y] = c = [y]

[v] = c = [v]

[^h·yona] 'house'

[^h·ve] 'man, male'

[ˈhoya] 'garden, work'
 [ˈavo] 'father'
 [yaˈvana] 'stone'

2.22. Consonant Sequences

The consonant sequence [gl] is interpreted as a complex sound, since the only non-suspect consonant sequence is [ʔC], and since [gl] occurs always as belonging to one syllable only, and since [l] never occurs in isolation.

[gl] = C = [ɣl]
 [ˈɣluna] 'axe'
 [fuˈɣluna] 'peace'

NOTE: As [dz] and [dʒ] are only fluctuations of [y], depending on the individual speakers, they are complex sounds.

[dz] = C = [z] [dʒ] = C = [j]

2.23. Pre-glottalised Consonants

Pre-glottalisation may occur word medially with all consonants except the voiceless stops⁴, [g], [k], [m], [s], and [f].

Are the preglottalised consonants CC sequences or complex consonants?

In all cases, they could be interpreted as [ʔ] closing the preceding syllable, and [C] opening the following syllable.

On the other hand, two of those consonants, [b] and [d], may occur word medially only when preglottalised, whereas the rest may also occur word medially without pre-glottalisation.

[ˈdɛʔdaɛ] 'they ate'
 [ˈaʔbaʔ] 'woman (subj.)'

But: [ˈdɔʔna] 'food'
 [haˈnina] 'night, darkness'
 [ˈyuʔyuna] 'species of wild fruit tree'
 [ˈhoya] 'garden, work'
 [noʔɣlaˈmiɛ] 'he is giving to us'
 [ˈhaʔlɔʔna] 'light'
 [nɛʔˈvaɛ] 'they are going'
 [ˈɛvɛ] 'sugar cane'
 [noʔhaˈvuɛ] 'I am hearing'
 [dahapsiʔˈdiɛ] 'he told me'

Therefore, since the occurrence of [ʔb] and [ʔd] is in complementary distribution with the occurrence of their non-preglottalised counterparts, whereas that is not the case with the other preglottalised consonants, the best solution would be to interpret those two as complex phonetic units, and the others as CC sequences, belonging to different syllables.

[ʔb] = c = [ʔb]
 [ʔd] = c = [ʔd]
 [ʔv] = CC = [ʔv]
 [ʔn] = CC = [ʔn]
 [ʔgɪ] = CC = [ʔgɪ]
 [ʔy] = CC = [ʔy]
 [ʔh] = CC = [ʔh]

2.24. Work Chart: Consonants

p	p·	ʔp	t	t·	ʔt	k	k·	ʔ
b		ʔb	d		ʔd	g		
ɸ		f						h
ɸ		v				ʒ		
			s					
m			n					

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ʒ j

y

2.3. Interpretation of Vowels

2.31. Suspect Vowels

[i] and [u] both are interpreted as vowels, since they occur as vowels in the CV pattern (in the nucleus of syllables).

[i] = v = [i]

[u] = v = [u]

[ʔanita] 'his hand'

[ʔkipana] 'door (opening)'

[buʔkiʔa] 'all'

[ʔfikul] 'mixed up, out of order'

2.32. Vowel Sequences

The following VV sequences occur:

	[ɛi]	[ai]			
[iɛ]		[aɛ]		[oɛ]	[uɛ]
[ia]	[ɛa]			[oa]	[ua]
[io]	[ɛo]	[ao]			[uo]
[iu]		[au]		[ou]	

Some of those sequences, [ɛi], [aɛ], [ai], [ao], [au], and [ou], behave differently from the rest:

(a) Stress always occurs on them as on a unit. (With the others, only one of the vowels of the sequence takes the stress.)

Compare: [ˈhɛi.na] 'after he went up...'
[ˈdou.ɟlɛ.ɡa] 'my eye'

with: [a.ˈɡɛ.o] 'look! (pl.)'
[ˈyu.a.pa] 'wooden plate, bowl'

(b) A third vowel may follow, which is never the case with the other sequences.

[ˈbɛi.o] 'sit!'
[pa.ˈɡae.a] 'they'
[no.ˈ?bou.ɛ] 'I am sitting'

That is, [ɛi], [aɛ], [ai], [ao], [au], and [ou] belong to one and the same syllable, whereas the other VV sequences belong to two different syllables.

Supporting this hypothesis is the fact that those other sequences always have some kind of a consonant (transition consonant) between them, which is sometimes more, sometimes less audible, sometimes almost inaudible, depending on the speaker.

Those transition consonants are:

[v] (or rather [b]), if the preceding vowel is a rounded vowel;

[y], if the preceding vowel is a non-rounded vowel.

That means, by phonetic definition, those vowel sequences would be:

			[ui] = [ubi]
[is] = [iye]		[oe] = [obe]	[ue] = [ube]
[ia] = [iya]	[sa] = [sya]	[oa] = [oba]	[ua] = [uba]
[io] = [iyo]	[so] = [syo]		[uo] = [ubo]
[iu] = [iyu]			

Since those transition consonants are predictable, and, according to the syllable pattern which the language apparently demands, have to be there, even if at times they are completely inaudible, they are phonemically irrelevant, and will be left out of this paper.

One more observation proves valuable for the interpretation:

In the sequences with transition consonants, the preceding vowel is in point of articulation always higher than the following one, or of the same height as the following one.

In the sequences without transition consonants, which sequences also constitute a stress unit, the preceding vowel is in point of articulation always lower than the following one.

This gives us the following interpretation:

Vowel sequences high-high, high-mid, high-low, mid-mid, mid-low are VV sequences.

			[ui]=VV=[ui]
[is]=VV=[is]		[oe]=VV=[oe]	[ue]=VV=[ue]
[ia]=VV=[ia]	[sa]=VV=[sa]	[oa]=VV=[oa]	[ua]=VV=[ua]
[io]=VV=[io]	[so]=VV=[so]		[uo]=VV=[uo]
[iu]=VV=[iu]			

[no'sis] 'he is speaking'
 ['sia?] 'hut'
 [a'mio] 'give him!'
 ['kiuva] 'species of tree'
 ['ksa a^o?dis] 'he called'
 [ts'ɟlso] 'throw away! (pl.)'
 [no?'oe] 'I am coming'
 [ho'a'sis] 'it is bad'
 ['kuimana] 'species of snake (small, black)'
 [u'gus] 'I shall go'
 ['yuapa] 'wooden plate, bowl'
 [hu'o] 'speak!'

It will be noted from the above (p.25) matrix that glides always rise from a lower to a higher point of articulation, whereas vowel sequences either alternate on the horizontal plane, or else fall from a higher to a lower point of articulation.

2.33. Problems of Vowel Interpretation

2.33.1. Lengthened Vowels

One problem is posed by the occurrence of lengthened vowels [i.] and [ɛⁱ.] in certain instances (plural number, imperative).

There are two possible interpretations of those occurrences:

$$(a) [i.] = v = [i.] \qquad [ɛⁱ.] = v = [ɛⁱ.]$$

Then the lengthened vowel could be explained as being caused by stress and tone (see 3.3. Suprasegmental Items).

$$(b) [i.] = vv = [ii] \qquad [ɛⁱ.] = vv = [ɛⁱii]$$

Then it would be a vowel sequence with transition consonant [y] in between.

In view of the practical orthography, the second interpretation is preferable.

[ha'vio] 'listen (sg.)!'

[ha'viio] 'listen (pl.)!'

[·bɛⁱo] 'sit (sg.)!'

[·bɛⁱio] 'sit (pl.)!'

2.33.2. Short Vowels

The occurrence of short vowels poses another problem. One could assume a neutral š·wa sound [ə] which by vowel harmony always takes on the articulation of the nearest full-length vowel. But while vowel harmony does occur, it is not always predictable. Therefore, the best solution to the problem is to interpret the short vowels as normal vowels which are influenced by stress and tone (see below, 3.3. Supersegmental Items).

2.34. Work Chart: Vowels

i				u
	ɛ ⁱ		o ^u	
ɛ		a ⁱ	a ^u	o
	a ^ɛ		a ^o	
æ				ɔ
		a		

3. DESCRIPTION OF PHONEMES

3.1. Consonants

/p/ Voiceless bilabial unaspirated stop with submembers [p], [p·], and [ʔp].

[p] Voiceless bilabial unaspirated stop occurring word initially, and word medially intervocally.

[p·] Voiceless bilabial unaspirated lengthened stop fluctuating with [p] in word medial position.

[ʔp] Voiceless bilabial unaspirated preglottalised stop fluctuating with [p] in word medial position.

(Regarding the occurrence of [p·] and [ʔp], cf. Note 4.)

Since [p], [p·], and [ʔp] occur in fluctuation with no contrast, they are submembers of one phoneme.

[ʔpsna] /ʔpsna/ 'special kind of arrow'

[ʔigopa] /ʔigopa/ 'ground'

[ʔps no'sis] /ʔps no'sis/ 'he is bowing down'

[ʔnipiʔ] /ʔnipiʔ/ 'in the water'

[ʔkspi/ʔksʔpi/ʔksʔɛpi/ʔks·i] /ʔgspi/ 'their language'

[nopa'mus/noʔpa'mus/noʔa·pa'mus/nop·a'mus] /nopa'mus/ 'I am giving them'

/b/ Voiced bilabial stop with submembers [b] and [ʔb].

[b] Voiced bilabial stop occurring word initially.

[ʔb] Voiced bilabial preglottalised stop occurring word medially between vowels.

Since [b] occurs only word initially and [ʔb] never occurs word initially, their distribution is mutually exclusive and they are therefore submembers of one phoneme.

- [·ba] /·ba/ 'sweet potato'
- [·bakisavɛ] /·bakisavɛ/ 'snake'
- [·baɣlomɛ] /·baɣlomɛ/ 'a kind of love charm'
- [noʔbo·ɣloɛ] /nobo·ɣloɛ/ 'I am putting'
- [·aʔbaʔdɛ] /·abads/ 'girl'
- [·kaʔbɛʔ] /·gabsʔ/ 'deserted, uninhabited'

Since [p] and [b] contrast in identical and analogous environments, they are separate phonemes.

- [·psna] /·psna/ 'special kind of arrow'
- [·bɛna] /·bɛna/ 'debt'
- [·page] /·page/ 'word, news, talk from or about them'
- [·bagsʔ] /·bagsʔ/ 'sweet potato vines for planting'

/t/ Voiceless alveolar unaspirated stop with submembers [t], [t·], and [ʔt].

- [t] Voiceless alveolar unaspirated stop occurring word initially, and word medially between vowels.
- [t·] Voiceless alveolar unaspirated lengthened stop fluctuating with [t] in word medial position.
- [ʔt] Voiceless alveolar unaspirated preglottalised stop fluctuating with [t] in word medial position.

(Regarding the occurrence of [t·] and [ʔt], cf. Note 4.) Since [t], [t·], and [ʔt] occur in fluctuation with no contrast, they are submembers of one phoneme.

- [ta·ga^ɛa] /ta·ga^ɛa/ 'they (dl.)'
- [to·ɣlo] /to·ɣlo/ 'throw away'
- [·taʔu] /·taʔu/ 'uterus' (animals only)
- [tɛ·tɛ no·sisɛ] /tɛ·tɛ no·sisɛ/ 'he is shivering, afraid'
- [noto·ɣloɛ/noʔto·ɣloɛ/noʔo·to·ɣloɛ/not·o·ɣloɛ]
/noto·ɣloɛ/ 'I am throwing away'
- [·igati/·igaʔti/·igaʔa·ti/·igat·i] /·igati/ 'he went, and they (dl.)...'

/d/ Voiced alveolar stop with submembers [d] and [ʔd].

- [d] Voiced alveolar stop occurring word initially.
 [ʔd] Voiced alveolar preglottalised stop occurring word medially between vowels.

Since [d] occurs only word initially and [ʔd] never occurs word initially, their distribution is mutually exclusive and they are therefore submembers of one phoneme.

- [ˈdskana] /ˈdskana/ 'needle'
 [ˈdo] /ˈdo/ 'eat!'
 [ˈbaʔdɛ] /ˈbads/ 'boy'
 [huˈʔdiɛ] /huˈdis/ 'he said'

Since [t] and [d] contrast in identical environments, they are separate phonemes.

- [taˈgɑːa] /taˈgɑːa/ 'they' (dl.)
 [daˈgɑːa] /daˈgɑːa/ 'I'
 [ɛˈɟlina toˈʔdiɛ] /ɛˈɟlina toˈdis/ 'she bore (child)'
 [ɛˈɟlina doˈʔdiɛ] /ɛˈɟlina doˈdis/ 'she (he) took and ate'

Some preliminary remarks should be made about /k/ and /g/.

[k] occurs word initially and word medially, whereas [g] and [ɟ] only occur word medially in mutually exclusive distribution.

- [ˈkɛ] /ˈgɛ/ 'word, language, speech'
 [kaˈnaʔa] /gaˈnaʔa/ 'time'
 [ˈsokona] /ˈsokona/ 'good'
 [ˈsɟɛ] /ˈsɟɛ/ 'banana'
 [boˈɟo] /boˈgo/ 'one'

In fast speech, however, word initial [k] utterance medially between vowels changes to [g] or [ɟ] (depending on the vowel environment, see below).

- [ˈhoya kaˈnaʔa] > [ˈhoya ɟaˈnaʔa] /ˈhoya gaˈna a/ 'time of work'
 [ˈhoya ˈkɛ] > [ˈhoya ˈgɛ] /ˈhoya ˈgɛ/ 'talk about work, working instructions'
 [kamiˈʔdiɛ] /gamiˈdis/ 'he gave you'
 [ˈɛvɛ kamiˈʔdiɛ] > [ˈɛvɛ gamiˈʔdiɛ] /ˈɛvɛ gamiˈdis/ 'he gave you sugar cane'
 [ɛˈɟlina kamiˈʔdiɛ] [ɛˈɟlina ɟamiˈʔdiɛ] /ɛˈɟlina gamiˈdis/ 'he took, and gave you'

There is no contrast between [k] and [g] or [g̊] word initially, but there is medially.

[a'gsta] /a'gsta/ 'his ear'
[a'ksta] /a'ksta/ 'his back'

Furthermore⁵, [g] in word medial position sometimes changes to [k], which indicates that those sounds are more closely related to each other than their bilabial and alveolar counterparts are to each other.

[ʼigopa] /ʼigopa/ 'ground'
[ha'nina/ha'niʔ] /ha'nina/ha'niʔ/ 'night, darkness'
[-gɛva] /-gɛva/ 'big, large, great' (suff.)
[igo'pagsva] /igo'pagsva/ 'large ground'
[ha'nikɛva] /ha'nikɛva/ 'great darkness'

In view of all that, there are two possible analyses:

- (a) /k/ [k] initial and medial
 /g/ [g] medial
 [g̊] medial
- (b) /k/ [k] medial
 /g/ [k] initial
 [g] medial
 [g̊] medial

For this paper, the second analysis has been chosen, since the change of word initial [k] to [g] or [g̊] in utterance medial position speaks for combining word initial [k] with the /g/ phoneme.

/k/ Voiceless velar unaspirated stop with submembers [k] and [k̚].

[k] Voiceless velar unaspirated stop occurring word medially between vowels.

[k̚] Voiceless velar unaspirated lengthened stop occurring in fluctuation with [k].

(Regarding the occurrence of [k̚], cf. Note 4.)

Since [k] and [k̚] occur in fluctuation with no contrast, they are submembers of one phoneme.

[ʼsokona/ʼsoko] /ʼsokona/ʼsoko/ 'good, well'

[ka'naʒluka] /ga'naʒluka/ 'your wife'

[noka'mus/nok̚.a'mus] /noka'mus/ 'I am giving to you'

/g/ Velar consonant with submembers [k], [g], and [g].

[k] Voiceless velar unaspirated stop occurring word initially.

[g] Voiced velar fricative occurring word medially with either [a] or [o] preceding, and at the same time either of those two vowels following, and occurring in fluctuation with word initial [k] utterance medially in the same vowel environment.

[g] Voiced velar stop occurring word medially intervocally in other vowel environments, and occurring in fluctuation with word initial [k] utterance medially in such vowel environments.

[k], [g], and [g] in isolation occur in the following mutually exclusive distribution: [k] only word initially, [g] only word medially preceded and followed by either [a] or [o], and [g] never occurs in any of those environments, and utterance medially [g] and [g] occur in fluctuation with word initial [k] with no contrast. Thus [k], [g] and [g] are submembers of one phoneme.

[·kɛ] /·gɛ/ 'word, language, speech'

[·kaʔbɛʔ] /·gabɛʔ/ 'deserted, uninhabited'

[kaʔɣla] /gaʔɣla/ 'dog'

[kaʔyaɣle] /gaʔyaɣle/ 'pig'

[·kaʔlips] /·gaʔlips/ 'peanut' (introduced word)

[kaʔveʔda] /gaʔveda/ 'rope'

[yaʔga] /yaʔga/ 'animal'

[boʔgo] /boʔgo/ 'one'

[agoʔdiɛ] /agoʔdiɛ/ 'he saw'

[·hoga] /·hoga/ 'left hand, left side'

[·age] /·age/ 'news, report'

[·ɛga] /·ɛga/ 'yesterday, tomorrow'

[kaʔgmi] /gaʔgmi/ 'goods, cargo'

[bɛʔɣɛʔ] /bɛʔɣɛʔ/ 'quick, fast'

[·ɛge] /·ɛge/ 'banana'

[kaʔliʔdiɛ] /gaʔliʔdiɛ/ 'he planted'

[·ba kaʔliʔdiɛ] > [·ba gaʔliʔdiɛ] /·ba gaʔliʔdiɛ/ 'he planted sweet potatoes'

[·ɛve kaʔliʔdiɛ] > [·ɛve gaʔliʔdiɛ] /·ɛve gaʔliʔdiɛ/ 'he planted sugar cane'

Since word medial [k] contrasts in identical and similar environments with [g] and in similar environments

with [g], they belong to different phonemes.

[a'gsta] /a'gsta/ 'his ear'

[a'ksta] /a'ksta/ 'his back'

[hu'gis] /hu'gis/ 'he will speak'

[bu'ki'a] /bu'ki'a/ 'all'

[bo'go] /bo'go/ 'one'

[bogo'ko?] /bogo'ko?/ 'only one, just one'

NOTE: [g] tends to become [g] when [ɣ] precedes:

[ɣla'ga^ɛa] instead of [ɣla'ga^ɛa] /ɣla'ga^ɛa/ 'we' (pl.)

[no[?]ɣlaga'veⁱɛ] instead of [no[?]ɣlaga'veⁱɛ]

/no[?]ɣlaga'veⁱɛ/ 'he is leading us'

/ʔ/ [ʔ] Voiceless glottal stop occurring word medially (intervocally, and as first consonant of a CC sequence), and word finally.

Since [ʔ] contrasts in identical environments with its own absence, it is a phoneme.

[ʔyopi] /ʔyopi/ 'their house'

[ʔyopiʔ] /ʔyopiʔ/ 'in the house'

[da'mio] /da'mio/ 'give (sg.) me!'

[da'miʔo] /da'miʔo/ 'give (dl.) me!'

[no[?]ʔoɛ] /no[?]ʔoɛ/ 'I am coming'

[no[?]ʔo[?]ɛ] /no[?]ʔo[?]ɛ/ 'we (dl.) are coming'

[ʔyo] /ʔyo/ 'valuables' (boar's tusks etc.)

[ʔyona/yoʔ] /ʔyona/yoʔ/ 'house'

[ha'nina] /ha'nina/ 'night, darkness'

[ha'ni[?]na] /ha'ni[?]na/ 'things belonging to the darkness, things of the darkness'

[ho^u hu[?]dis] /ho^u hu[?]dis/ 'it became dry'

[ho^{u?} hu[?]dis] /ho^{u?} hu[?]dis/ 'he was sad'

/f/ Voiceless fricative consonant with submembers [f] and [ɸ].

[f] Voiceless labiodental fricative occurring word initially and medially between vowels.

[ɸ] Voiceless bilabial fricative occurring in free fluctuation with [f].

Since [f] and [ɸ] occur in free fluctuation with no contrast, they are submembers of one phoneme.

[fɸva/ɸɸva/ɸɸva] /fɸva/ 'pitpit'

[fɸ/ɸɸ] /fɸ/ 'not working, lazy'

[·afɛpa/·aɛpa] /·afɛpa/ 'grass'
 [·sɛfo/·sɛpɔ] /·sɛfo/ 'betelnut'
 [nofi·ɟliɛ/nopi·ɟliɛ] /nofi·ɟliɛ/ 'he is dying'

Since [p] and [f] contrast in identical environments, they are separate phonemes.

[·pɛⁱpa] /·pɛⁱpa/ 'their bowels'
 [·fɛⁱpa] /·fɛⁱpa/ 'bad'

/v/ Voiced fricative consonant with submembers [v] and [b].

[v] Voiced labiodental fricative occurring word initially and medially.

[b] Voiced bilabial fricative occurring in free fluctuation with [v].

Since [v] and [b] occur in free fluctuation with no contrast, they are submembers of one phoneme.

[·vato[?]/·bato[?]] /·vato[?]/ 'separated, by itself'
 [va·yavɛna/·ba·yabɛna] /va·yavɛna/ 'special kind of arrow'

[·vɛ/·bɛ] /·vɛ/ 'man, male'
 [vɛ·sɛ/bɛ·sɛ] /vɛ·sɛ/ 'careful'
 [·yava/·yaba] /·yava/ 'tree'

[ha·vana[?]a/ha·bana[?]a] /ha·vana[?]a/ 'small'
 [ka·hɛⁱ? a[?]vɛⁱo/ka·hɛⁱ? a[?]bɛⁱo] /ga·hɛⁱ? a[?]vɛⁱo/
 'don't be angry!'

Since [b] and [v] contrast in identical environments, they are separate phonemes.

[bɛⁱ·?diɛ] /bɛⁱ·diɛ/ 'he lives, lived'
 [vɛⁱ·?diɛ] /vɛⁱ·diɛ/ 'it (tree) died off'

Since [f] and [v] contrast in identical environments, they are separate phonemes.

[·fɛ] /·fɛ/ 'not working, lazy'
 [·vɛ] /·vɛ/ 'man, male'
 [fɛⁱ·?diɛ] /fɛⁱ·diɛ/ 'he planted (seeds)'
 [vɛⁱ·?diɛ] /vɛⁱ·diɛ/ 'it (tree) died off'

/h/ [h] Voiceless glottal fricative occurring word initially and medially.

[·ha] /·ha/ 'mushroom'
 [ha·gana] /ha·gana/ 'tasty, pleasant'
 [ha·gɛ] /ha·gɛ/ 'ash-salt'

[aʔha'ns] /aʔha'ns/ 'it is not at hand'
 [ta'hapsⁱo] /ta'hapsⁱo/ 'tell them (dl.)!'
 [noʔha'vus] /noʔha'vus/ 'I am hearing'
 [hⁱmeti] /hⁱmeti/ 'now, today'

Since [ʔ] and [h] contrast in similar environments, they are separate phonemes.

[aʔ'ans] /aʔ'ans/ 'you are not coming'
 [aʔha'ns] /aʔha'ns/ 'it is not at hand'

/s/ [s] Voiceless alveolar grooved fricative occurring word initially and medially between vowels.

[sa'mo] /sa'mo/ 'cooking pot'
 [sⁱfo] /sⁱfo/ 'betelnut'
 [dⁱsava] /dⁱsava/ 'species of shrub' (Pidgin: tanget)
 [sⁱda] /sⁱda/ 'bracelet'
 [no'sus] /no'sus/ 'I am saying'
 [dⁱsus] /dⁱsus/ 'I want to eat, shall eat'

Since [h] and [s] contrast in identical environments, they are separate phonemes.

[hⁱo] /hⁱo/ 'ascend!'
 [sⁱo] /sⁱo/ 'hang it up!'

/m/ [m] Voiced bilabial nasal occurring word initially, and medially between vowels.

[ma] /ma/ 'this'
 [maŋloʔ] /maŋloʔ/ 'here'
 [mⁱa] /mⁱa/ 'meat'
 [muʔa] /muʔa/ 'egg'
 [mu'paʔa] /mu'paʔa/ 'roof'
 [na'ma] /na'ma/ 'bird, sacred flute'
 [da'mota noʔ'ɛⁱɛ] /da'mota noʔ'ɛⁱɛ/ 'I am afraid'
 [pami'ʔdi] /pami'ʔdi/ 'he gave them'

Since [b] and [m] contrast in identical environments, they are different phonemes.

[ba] /ba/ 'sweet potato'
 [ma] /ma/ 'this'

/n/ [n] Voiced alveolar nasal occurring word initially and medially.

[ˈnaŋlisana] /ˈnaŋlisana/ 'sorcery'
 [ˈnina] /ˈnina/ 'water'
 [ˈno^uʔa] /ˈno^uʔa/ 'her husband'
 [noˈsis] /noˈsis/ 'he is speaking'
 [ˈdoteʔna] /ˈdoteʔna/ 'food'

/ŋl/ [ŋl] Voiced heterorganic affricate, consisting of velar stop followed by alveolar lateral, occurring word initially and medially.

NOTE: Vowels following [ŋl], are pronounced with tongue still in position for alveolar lateral [l].

[ˈŋluna] /ˈŋluna/ 'axe'
 [ˈŋlusa] /ˈŋlusa/ 'blessing'
 [ˈŋlunika] /ˈŋlunika/ 'curse'
 [ˈŋluŋloga] /ˈŋluŋloga/ 'anywhere, somewhere else'
 [ŋloˈŋle] /ŋloˈŋle/ 'two'
 [ˈhaŋlotsʔna] /ˈhaŋlotsʔna/ 'light'
 [noʔŋlaˈmis] /noʔŋlaˈmis/ 'he is giving us'
 [haˈŋli] /haˈŋli/ 'fire'

Since [ŋ] and [g] contrast with [ŋl] in identical environments, they belong to separate phonemes.

[boˈŋo] /boˈŋo/ 'one'
 [boˈŋlo] /boˈŋlo/ 'put it (down)!'
 [haˈŋe] /haˈŋe/ 'ash-salt'
 [haˈŋle] /haˈŋle/ 'he (bird) is flying up'

/y/ Voiced alveolar-alveopalatal consonant with submembers [y], [z], and [j].

[y] Voiced alveopalatal continuant occurring word initially and medially.

[z] Voiced alveolar homorganic affricate, occurring in free fluctuation with [y].

[j] Voiced heterorganic affricate, consisting of alveolar stop followed by alveopalatal grooved fricative, occurring in free fluctuation with [y].

Since [y], [z], and [j] occur in free fluctuation with no contrast, they are submembers of one phoneme.

[yaˈvana/zəˈvana/ʃaˈvana] /yaˈvana/ 'stone'
 [yeˈge/zɛˈge/ʃɛˈge] /yeˈge/ 'sun, day'

- [·hoya/·hoʒa/·hoʒa] /·hoya/ 'garden, work'
 [·yuʔyuna/·zuʔzuna/·juʔʒuna] /·yuʔyuna/ 'species of
 wild fruit tree'
 [·haʔye huʔdis/·haʔze huʔdis/·haʔʒe huʔdis] /·haʔye
 huʔdis/ 'he was greedy for s. th.'

3.2. Vowels

/i/ [i] Voiced high close unrounded front vocoid occurring
 word initially, medially, and finally.

- [·itɛnɛ] /·itɛnɛ/ 'old woman'
 [·kina] /·gina/ 'path, road'
 [haʔɣli] /haʔɣli/ 'fire'
 [·kumati] /·gumati/ 'our village'

/ɛ/ [ɛ] Voiced mid open unrounded front vocoid occurring
 word initially, medially, and finally.

- [·ɛga] /·ɛga/ 'yesterday, tomorrow'
 [·hɛnaga] /·hɛnaga/ 'later'
 [·ɛvɛ] /·ɛvɛ/ 'sugar cane'
 [·fɛni] /·fɛni/ 'eel'

Since [i] and [ɛ] contrast in identical environ-
 ments, they are separate phonemes.

- [·iʔdaɛ] /·idaɛ/ 'they went'
 [·ɛʔdaɛ] /·ɛdaɛ/ 'they came'
 [fiʔɣliʔdaɛ] /fiʔɣlidaɛ/ 'they died'
 [fɛʔɣlɛʔdaɛ] /fɛʔɣlɛdaɛ/ 'they washed'

/ɛⁱ/ [ɛⁱ] Voiced mid open unrounded front vocoid gliding to
 high close unrounded front vocoid, occurring word
 initially, medially, and finally.

- [·ɛⁱgava] /·ɛⁱgava/ 'new'
 [·fɛⁱpana/·fɛⁱpa] /·fɛⁱpana/·fɛⁱpa/ 'bad'
 [·kɛⁱ] /·gɛⁱ/ 'moon'

Since [ɛ] and [ɛⁱ] contrast in identical environments,
 they are separate phonemes.

- [·ɛʔdaɛ] /·ɛdaɛ/ 'they came'
 [·ɛⁱʔdaɛ] /·ɛⁱdaɛ/ 'they made, shaped'
 [·kɛ] /·gɛ/ 'word, language'
 [·kɛⁱ] /·gɛⁱ/ 'moon'

Since [i] and [ɛⁱ] contrast in identical environments, they are separate phonemes.

[iʔda^ɛ] /'ida^ɛ/ 'they went'
 [ɛⁱʔda^ɛ] /'ɛⁱda^ɛ/ 'they made, shaped'
 ['bina] /'bina/ 'price'
 ['bɛⁱna] /'bɛⁱna/ 'he lived, and...'

NOTE: There are, however, incidences of fluctuation between [i] and [ɛⁱ]:

[na'hiʔda/na'hsⁱʔda] /na'hida/ 'when they said so'

/u/ [u] Voiced high close rounded back vocoid occurring word initially, medially, and finally.

['utsna] /'utsna/ 'evening, afternoon'
 [fu'ɟluna] /fu'ɟluna/ 'peace'
 ['havu] /'havu/ 'bow'
 ['kuna] /'guna/ 'netbag'

• /o/ [o] Voiced mid close rounded back vocoid occurring word initially, medially, and finally.

['oɟliva] /'oɟliva/ 'flying fox'
 ['kona] /'gona/ 'bamboo'
 [ɛ'no] /ɛ'no/ 'come (sg.)!'

Since [u] and [o] contrast in identical environments, they are separate phonemes.

['kuna] /'guna/ 'netbag'
 ['kona] /'gona/ 'bamboo'
 [no'sus] /no'sus/ 'I am saying, speaking'
 [no'sos] /no'sos/ 'I am hitting'

/o^u/ [o^u] Voiced mid close rounded back vocoid gliding to high close rounded back, occurring word initially, medially, and finally.

['o^upa] /'o^upa/ 'short'
 ['no^uʔa] /'no^uʔa/ 'her husband'
 ['ho^u] /'ho^u/ 'dry'

Since [o] and [o^u] contrast in identical and analogous environments, they are separate phonemes.

['oɟlega] /'oɟlega/ 'the day before yesterday, or:
 the day after tomorrow'
 ['o^uɟlega] /'o^uɟlega/ 'his eye'

[ˈkɔnə] /ˈgɔnə/ 'bamboo'
 [ˈkoʊnɛ ˈkoʊnɛ] /ˈgoʊnɛ ˈgoʊnɛ/ 'fugitive'

Since [u] and [oʊ] contrast in identical and analogous environments, they are separate phonemes.

[ˈuka] /ˈuka/ 'you went, and...'
 [ˈoʊka] /ˈoʊka/ 'petition'
 [noʔˈunɛ] /noʔˈunɛ/ 'we are going'
 [noʔˈoʊnɛ] /noʔˈoʊnɛ/ 'we are making, shaping'
 [ˈkuna] /ˈguna/ 'netbag'
 [ˈkoʊnɛ ˈkoʊnɛ] /ˈgoʊnɛ ˈgoʊnɛ/ 'fugitive'

NOTE: There are, however, incidences of fluctuation between [u] and [oʊ].

[naˈhuna/naˈhoʊna] /naˈhuna/ 'when he said so...'
 [ˈsumɛta/ˈsoʊmɛta] /ˈsumɛta/ 'kunai grass'

/a/ [a] Voiced low open unrounded central vocoid occurring word initially, medially, and finally.

[ˈana] /ˈana/ 'woman'
 [ˈavɛtɔga] /ˈavɛtɔga/ 'below'
 [kaˈnaʔa] /gaˈnaʔa/ 'time'

/a^ɛ/ Voiced unrounded central-front vowel with submembers [a^ɛ], [aⁱ], and [æ].

[a^ɛ] Voiced low open unrounded central vocoid gliding to mid open unrounded front, occurring word initially, medially, and finally.

[aⁱ] Voiced low open unrounded central vocoid gliding to high close unrounded front, occurring in free fluctuation with [a^ɛ].

[æ] Voiced low close unrounded front vocoid occurring word finally in fluctuation with [a^ɛ] and [aⁱ].

Since [a^ɛ], [aⁱ], and [æ] occur in fluctuation with no contrast, they are submembers of one phoneme.

[ˈa^ɛpa/ˈaⁱpa] /ˈa^ɛpa/ 'beginning, essence, cause, owner of s.th.'
 [da^ɛɣliˈʔdiɛ/daⁱɣliˈʔdiɛ] /da^ɛɣliˈdiɛ/ 'he showed me'
 [haˈviʔda^ɛ/haˈviʔdæ] /haˈvida^ɛ/ 'they heard'
 [ˈa^ɛ/ˈaⁱ/æ] /ˈa^ɛ/ 'mountain'

Since [a] and [a^ɛ] contrast in identical environments,

they are separate phonemes.

[ˈapa] /ˈapa/ 'older brother'

[ˈa^ɛpa/ˈaⁱpa] /ˈa^ɛpa/ 'beginning, cause, essence, owner'

Since [ɛ] and [a^ɛ] contrast in identical environments, they are separate phonemes.

[ˈkɛ] /ˈgɛ/ 'word, language, speech'

[ˈka^ɛ/ˈkaⁱ/ˈkæ] /ˈga^ɛ/ 'apron'

[ˈhɛ[?]da^ɛ/ˈhɛ[?]dæ] /ˈhɛda^ɛ/ 'they hit'

[ˈha^{ɛ?}da^ɛ/ˈha^{i?}dæ] /ˈha^ɛda^ɛ/ 'they slept'

NOTE: There are instances of fluctuation between [ɛⁱ] and [aⁱ], especially word initially.

[ˈɛⁱgava/ˈaⁱgava] /ˈɛⁱgava/ 'new'

[ˈbɛⁱo/ˈbaⁱo] /ˈbɛⁱo/ 'sit (sg.)!'

/a^o/ Voiced central-back vowel with submembers [a^o], [a^u], [ɔ].

[a^o] Voiced low open unrounded central vocoid gliding to mid close rounded back, occurring word initially, medially, and finally.

[a^u] Voiced low open unrounded central vocoid gliding to high close rounded back vocoid, occurring in free fluctuation with [a^o].

[ɔ] Voiced low close rounded back vocoid occurring word finally in fluctuation with [a^o] and [a^u].

Since [a^o], [a^u], and [ɔ] occur in fluctuation with no contrast, they are submembers of one phoneme.

[a^oˈ?diɛ/a^uˈ?diɛ] /a^oˈdiɛ/ 'he trod, stepped'

[ha^oˈ?diɛ/ha^uˈ?diɛ] /ha^oˈdiɛ/ 'he slept'

[daˈha[?]ba^o/daˈha[?]bɔ] /daˈhaba^o/ 'help me!'

Since [a] and [a^o] contrast in identical environments, they are separate phonemes.

[ˈaka] /ˈaka/ 'your wife'

[ˈa^oka] /ˈa^oka/ 'you stepped, and...'

Since [o] and [a^o] contrast in identical environments, they are separate phonemes.

[hoˈ?diɛ] /hoˈdiɛ/ 'he hit'

[ha^oˈ?diɛ] /ha^oˈdiɛ/ 'he slept'

[ˈkɔnə] /ˈgɔnə/ 'bamboo'
 [ˈkɑːnə] /ˈgɑːnə/ 'he cooked, and...'

NOTE: There are incidences of fluctuation between [o^u] and [a^u], especially word initially.

[ˈo^ugɛgɛsə / ˈa^ugɛgɛsə] / ˈo^ugɛgɛsə/ 'big, great'
 [ˈso^uvɛ / ˈsa^uvɛ] / ˈso^uvɛ/ 'chief'

3.3. Suprasegmental Items

3.31. Tone

Although there are intonation patterns in Yagaria, not all tonal phenomena can be explained by intonation. There are three tones:

low [ˋ], mid [ˊ], and high [ˈ].

But tone is not emic, since it is mainly, if not altogether, influenced by stress, and no contrast is found except where there is also contrast in stress and the vowel length.

For the sake of simplicity, tones have not been indicated in the phonetic transcription in the rest of this paper.

3.32. Stress

There are four degrees of stress, which for the sake of simplicity have not been indicated in the phonetic transcription in the rest of this paper. (Only the main word stress has been indicated by [ˈ] / ˈ/.) The degrees of stress intensity will be indicated by [ˈ], [ˈˈ], [ˈˈˈ], and [ˈˈˈˈ], in this paragraph. Stress is emic, since contrasts in analogous environments occur. There are three emic stress units.

/°/ [ˈ] Completely reduced stress. on reduced syllables.
 Vowel: Very short, sometimes almost inaudible.
 Tone: Low [ˋ]. Occurring word initially and medially.

NOTE: Word medial occurrence is mainly caused by morphophonemic factors: occurrence of [ˈˈ] prefixes preceding stem-initial [ˈ] syllables.

[ˈhɑːˈˈnɔːˈˈnɔːˈˈdɪˈˈɛ] / ˈhɑnɔːˈdis/ 'it is (was) available, at hand'

[ˈɔlɑːˈˈfɑːˈˈpɛˈˈdɪˈˈɛ] / ˈɔlafɑpɛˈˈdis/ 'he told you (pl.)'

[ˈbɛˈˈɔlɛˈˈgɛ] / ˈbɛ ˈɔlɛˈgɛ/ 'quick'

[^Inō[?]hà^{III}vū^Iè] /no[?]ha'vus/ 'I am listening,
hearing'
[^Ihà^{III}gī] /°ha'gī/ 'fire'

/#/ [^I] Non-stress, on normal non-stress syllables. Vowel of normal length. Tone: low [[`]], sometimes mid [⁻]. Occurring word initially, medially, and finally.

[^{III}hā^Igīō^Itē[?]nā] /'ha'gīōtē'na/ 'light'

[^{III}hà^Igī] /'ha'gī/ 'arrow'

[^Inō[?]bō^{III}gīō^Iè] /no[?]bo'gīō/ 'I am putting'

Since [^I] and [^I] contrast in analogous environments, they are different emic stress units.

[^Ihā^Igō^{III}dī^Iè] /hago'dis/ 'he was merciful'

[^Ihà^Igō^{III}dī^Iè] /°hago'dis/ 'he hollowed
(chiselled) out'

NOTE: There is the possibility of a different analysis of the stress intensities [^I] and [^I], based on a different analysis of the vowels. If the short vowels were explained as separate phonemes, complementary distribution of [^I] and [^I] would be the result, and [^I] and [^I] would be submembers of one emic stress unit. But that would affect the practical orthography, necessitating the introduction of special characters or diacritics for the short vowels. (See 6. Practical Orthography.)

/·/ Stress, with submembers [^{III}] and [^I].

[^{III}] Normal stress, on normal stress-syllables. Vowels of normal length. Tone: mid [⁻], sometimes low [[`]]. Occurring word initially, medially, and finally.

[^{III}vā^Itō[?]] /'vato[?]/ 'separated, by itself'

[^Ihà^{III}gī] /°ha'gī/ 'fire'

[^Ihà^{III}vī^Iò] /ha'vio/ 'listen (sg.)!'

[^Itē^Igīè^{III}sū^Iè] /°tē'gīè'sū/ 'I will throw away'

Since [^I] and [^{III}], and [^I] and [^{III}] contrast in analogous environments, they belong to different emic stress units.

[^Ihà^{III}g^Ilī] /°haːg^Ili/ 'fire'
 [^{III}hà^Ig^Ilī] /ˈhaːg^Ili/ 'arrow'
 [^Ihà^{III}nī[?]] /°haːniː/ 'night'
 [^{III}hā^Inī] /ˈhani/ 'forehead, front'
 [^{III}tō^Ig^Ilō^Inà] /ˈtoːg^Ilona/ 'he placed s.b., and...'
 [^Itō^{III}g^Ilō^Inà] /°toːg^Ilona/ 'he threw away, and...'

[^{IV}] Intense stress. Vowel: Extra long. Tone: High [ˈ]. Occurs only on syllables with [iː] and [ɛː], which have been interpreted as VV sequences [ii] and [ɛː]. It is apparently this sequence of two syllables which causes the intense stress.

[^{IV}hī^Iò] /ˈhiio/ 'speak! say! do! (pl.)'
 [^Iɛ^{IV}g^Ilī^Iò] /°ɛːg^Iliio/ 'take! (pl.)'
 [^{IV}bɛ^Iì^Iò] /ˈbɛːio/ 'sit! (pl.)'
 [^{IV}ii^Iò] /ˈiio/ 'go! (pl.)'

Since [^{IV}] occurs only with the VV sequences [ii] and [ɛːi], and [^{III}] never occurs in that environment, their distribution is mutually exclusive and they are submembers of one emic stress unit.

[^Iɛ^{III}g^Ilī^Iò] /°ɛːg^Ilio/ 'take! (sg.)'
 [^Iɛ^{IV}g^Ilī^Iò] /°ɛːg^Iliio/ 'take! (pl.)'
 [^{III}bɛ^Iì^Iò] /ˈbɛːio/ 'sit. (sg.)'
 [^{IV}bɛ^Iì^Iò] /ˈbɛːio/ 'sit! (pl.)'

Each word has one, and only one, stress syllable.

4. DISTRIBUTION

4.1. Syllable Patterns

There are four syllable patterns:

V Occurring word initially and finally, and word medially only in very few instances.

CV Occurring word initially, medially, and finally.

CVC Occurring word initially, medially, and finally.

VC Occurring mainly word initially, and word medially and finally in very few instances.

4.2. Phonemes

- V All vowels may occur in any position of the syllable in the word.
- CV All vowels may occur in any position of the syllable in the word.
All consonants except /ʔ/ may occur in word initial position of the syllable, and all consonants, including /ʔ/, may occur in word medial and final position of the syllable.
- CVC All vowels may occur in any position of the syllable in the word.
Preceding consonant, C₁: All consonants, except /ʔ/, may occur in word initial position, and all consonants, including /ʔ/, may occur in word medial and final position.
Syllable closing consonant, C₂: Only /ʔ/ may occur in any position of the syllable in the word.
- VC All vowels may occur in any position of the syllable in the word.
Of the consonants, only /ʔ/ may occur in any position of the syllable in the word.

5. MORPHOPHONEMICS

5.1. Effects of Pre-glottalisation

As stated before (cf. p.21), preglottalisation may occur with all consonants except voiceless stops,⁶ and [g], [g̊], [m], [s], and [f].

If in complex words, a glottal stop would have to occur preceding one of the above consonants (e.g. present progr. prefix /noʔ-/ or /nɛʔ-/, negation prefix /aʔ-/), the following changes take place:

/g/ becomes voiceless: /ʔ/ + /g/ > /k/.

/-gsva/ [-gsva] 'big, large, great' (suff.)

/ʔigopa/ [ʔigopa] 'ground'

/igoʔpagsva/ [igoʔpagsva] 'large ground'

/haʔnina/haʔniʔ/ [haʔnina/haʔniʔ] 'night, darkness'

/haʔniksva/ [haʔniksva] 'great darkness'

/m/ becomes a voiced stop: /ʔ/ + /m/ > /b/.

/ˈana/ˈa?/ [ˈana/ˈa?] 'woman, female'
 /-ma?/ [-ma?] 'nominalizer, subject-indicator'
 /ˈaba?/ [ˈa?ba?] 'woman' (subj.)

/s/ and /f/ cause the glottal stop to disappear:

/ʔ/ + /s/ > /s/.

/ˈssⁱo/ [ˈssⁱo] 'hang it up!'

/aˈssⁱo/ [aˈssⁱo] 'do not hang it up!'

/ʔ/ + /f/ > /f/.

/fiŋliˈdiɛ/ [fiŋliˈʔdiɛ] 'he died'

/afiŋliˈdiɛ/ [afiŋliˈʔdiɛ] 'he did not die'

5.2. Affix Allomorphs

/-nɛ/ > /-na/

The indicative 2nd person singular suffix /-nɛ/ changes to /-na/ preceding the change-of-subject-indicator suffix /-ga/.

/noʔˈans/ [noʔˈans] 'you are coming'

/noʔˈanagada/ [noʔˈanaga?da] 'you are coming, and I...'

/-ʔɛ/ > /-ʔa/

The indicative dual suffix /-ʔɛ/ changes to /-ʔa/ preceding:

the change-of-subject-indicator suffix /-ga/;

the nominalising suffix /-ma?/; and

the interrogation suffix /-vis/.

/nɛʔˈaʔɛ/ [nɛʔˈaʔɛ] 'you two are coming'

/nɛʔˈaʔagani/ [nɛʔˈaʔagani] 'you two are coming, and he...'

/nɛʔˈaʔama?/ [nɛʔˈaʔama?] 'you two who are coming'

/nɛʔˈaʔavis/ [nɛʔˈaʔavis] 'are you two coming?'

/m/ > /p/

/m/ changes to /p/ in the nominalising suffix /-ma?/ when a preceding /n/ is absorbed.

/ˈgɛ huˈdus/ [ˈkɛ huˈʔdus] 'I said the word'

/ˈgɛ huˈduma?/ [ˈkɛ huˈʔduma?] 'the word which I said'

/ˈgɛ huˈdans/ [ˈkɛ huˈʔdans] 'you said the word'

/ˈgɛ huˈdapa?/ [ˈkɛ huˈʔdapa?] 'the word which you said'

/ˈgɛ huˈduns/ [ˈkɛ huˈʔduns] 'we said the word'

/ˈgɛ huˈdupa?/ [ˈkɛ huˈʔdupa?] 'the word which we said'

/v/ > /p/

/v/ changes to /p/ in the interrogation suffix /-vis/ when a preceding /n/ is absorbed.

/hi'sus/ [hi'sus] 'I shall say it'

/hisu'vis/ [hisu'vis] 'shall I say it?'

/hi'suns/ [hi'suns] 'we shall say it'

/hisu'pis/ [hisu'pis] 'shall we say it?'

/v/ changes to /p/ in the locative suffix /-vi?/ when a preceding /?/ is absorbed.

/'hoya/ [/'hoya] 'garden'

/'hoyavi?/ [/'hoyavi?] 'in the garden'

/'nina/'ni?/ [/'nina/'ni?] 'water'

/'nipi?/ [/'nipi?] 'in the water'

/ɟl/ > /t/

/ɟl/ changes to /t/ in the locative suffix /-ɟlo?/ when a preceding /?/ is absorbed.

/'yava/ [/'yava] 'tree'

/'yavaɟlo?/ [/'yavaɟlo?] 'on (in) the tree'

/ya'vana/ya'va?/ [ya'vana/ya'va?] 'stone'

/ya'vato?/ [ya'vato?] 'on the stone'

5.3. Contraction of Vowels

Sometimes when two successive verb forms form a semantic unit, the two vowels at their junction are contracted, and the final vowel of the preceding verb is assimilated with the initial vowel of the verb following. Thus the two verbs unite to form one word. But since that word has two stresses, it is treated as two separate words in the phonemic spelling.

/'hsⁱda o'dus/ [/'hsⁱ?da o'?'dus] > [/'hsⁱ?do'?'dus] 'I came up here' (lit.: 'I ascended, and came')

/ɛ'ɟlina ɛ'sis/ [ɛ'ɟlina ɛ'sis] > [ɛ'ɟlins'sis] 'he shall bring' ('he shall take, and come')

/ɛ'ɟlika u'o/ [ɛ'ɟlika u'o] > [ɛ'ɟliku'o] 'take it away!' ('take it, and go!')

/ɛ'ɟlina i'sis/ [ɛ'ɟlina i'sis] > [ɛ'ɟlini'sis] 'he shall take it away' ('he shall take it, and go')

The same happens in the case of other words (nouns, adjectives, and non-conjugatable verb stems occurring with

another verb) with final /a/, which form a semantic unit with the verb following.

/,sⁱgava sⁱ,diɛ/ [ˈsⁱgava sⁱ,ʔdiɛ] > [ˈsⁱgavsⁱ,ʔdiɛ] 'he woke up'

/,hstama sⁱ,diɛ/ [ˈhstama sⁱ,ʔdiɛ] > [ˈhstamsⁱ,ʔdiɛ] 'he divided out'

/da:mota sⁱ,diɛ/ [daˈmota sⁱ,ʔdiɛ] > [daˈmotsⁱ,ʔdiɛ] 'I was afraid'

6. PRACTICAL ORTHOGRAPHY

	PHONEMES			CHARACTERS USED IN PRACTICAL ALPHABET
/p/	[p]	[p·]	[ʔp]	p
/b/	[b]	[ʔb]		b
/t/	[t]	[t·]	[ʔt]	t
/d/	[d]	[ʔd]		d
/k/	[k]	[k·]		k
/g/	[k]	[g]	[g]	g
/ʔ/	[ʔ]			,
/f/	[f]	[p]		f
/v/	[v]	[b]		v
/h/	[h]			h
/s/	[s]			s
/m/	[m]			m
/n/	[n]			n
/ɟl/	[ɟl]			l
/y/	[y]	[ɟ]	[j]	y
/i/	[i]			i
/ɛ/	[ɛ]			e
/ɛ ⁱ /	[ɛ ⁱ]			ei
/u/	[u]			u
/o/	[o]			o
/o ^u /	[o ^u]			ou
/a/	[a]			a
/a ^ɛ /	[a ^ɛ]	[a ⁱ]	[æ]	ae
/a ^o /	[a ^o]	[a ^u]	[ɔ]	ao

Although stress isemic, it does not have to be written, and should not be written. The indication of stress in the

practical orthography would be beneficial for the non-indigenous reader only. For the indigenous, unsophisticated reader, the indication of suprasegmentals is usually more confusing than helpful, since he will probably pronounce the words correctly even without stress indicated.

It would be possible to show [I] in the spelling by indicating the short vowels in a special way (cf. p.41). But a different analysis of the vowels would be necessary for that, and also the introduction of special characters or diacritics for the short vowels, and/or the writing of consonant clusters to indicate transition vowels. But the latter especially would disturb the CVCV pattern, and that pattern seems so much the rule that literate indigenous speakers object very much to the writing of CC clusters. For that reason the practical alphabet has been set up as outlined above.

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NOTES

1. Not included in this figure are the 760 or so Yagaria speaking inhabitants of the Yagusa area in the Keigana Census Division. The ancestors of these people are said to have migrated into this area from a village called Yagusa which was situated in the present-day Yagaria linguistic area.

2. S.A. Wurm, "The Linguistic Situation in the Highlands Districts of Papua and New Guinea", published in *Australian Territories*, vol.1, No.2, February 1961, pp.14-23.

3. S.A. Wurm, *Phonological Diversification in Australian New Guinea Highlands Languages*, Canberra, 1964, p.2.

4. The rule is that voiceless stops cannot occur pre-glottalised. If, therefore, for morphological reasons (e.g. negation prefix [aʔ-]), a glottal stop would have to occur with a voiceless stop, the glottal stop either disappears, or the voiceless stop is lengthened. Some speakers, however, tend to say the glottal stop in such cases with [p] and [t] (never with [k]), usually with a short transition vowel in between the glottal stop and the stop. Thus fluctuation between voiceless stops and their lengthened and/or preglottalised counterparts occurs.

[apa'mio/ap·a'mio/aʔa'pa'mio] /apa'mio/ 'don't give them!'
[ato'ɟlo/at·o'ɟlo/aʔa-to'ɟlo] /ato'ɟlo/ 'don't throw away!'
[aka'mue/ak·a'mue] /aka'mue/ 'I am not giving you'.

Since the preglottalised voiceless stops are only fluctuations of their non-preglottalised counterparts, they can be disregarded here.

5. For morphophonemic reasons: [ʔ] + [g] > [k].

6. cf. Note 4.