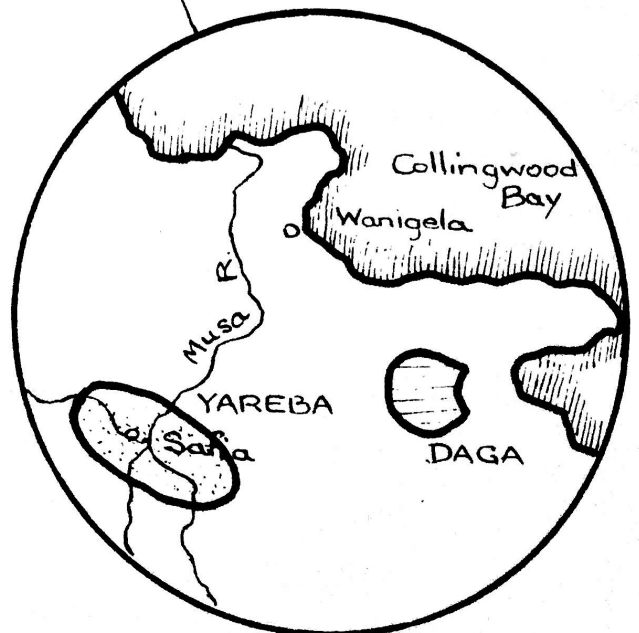
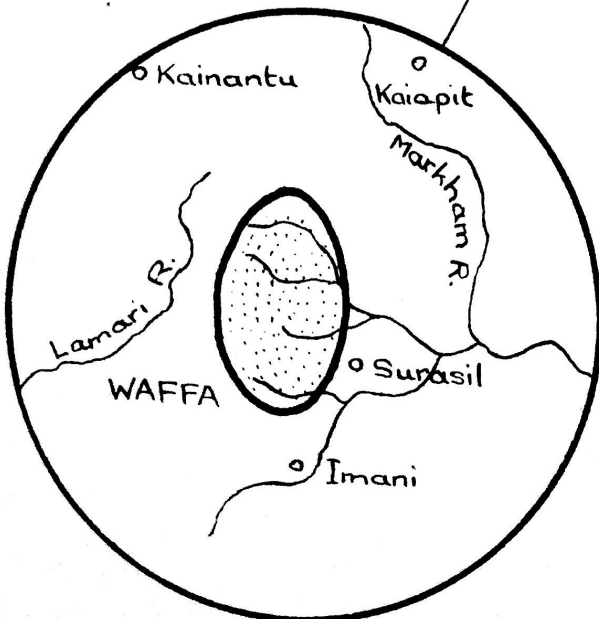


Territory of Papua and New Guinea

LANGUAGE LOCATION MAP



MANAMBU PHONEMES

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|--------------------------|-------------------------------------|
| 0. Introduction          | 4. Priorities in Vowel Conditioning |
| 1. Vowels                | 5. Distribution                     |
| 2. Consonants            | 6. Orthography                      |
| 3. Stress and Intonation |                                     |

0. Introduction

Manambu is a member of the Ndu language family, and the speech community is located on the Sepik River in the Ambunti Sub-District. There are 1200 to 1500 speakers of Manambu living in six villages extending about ten miles either side of Ambunti. The data for this paper were collected during nine months residence in the village of Yambon, plus three months informant work at the Summer Institute of Linguistics Base at Ukarumpa.

Informants were Kalapas and Jam Nugul, both aged 34-40, and Yam Nubw and Kupwalyi, both in their late teens. Miss Eunice Pike of the Summer Institute of Linguistics gave help in vowel and stress analysis.<sup>1</sup>

1. Vowels

There are only three vowel phonemes. /i/, /a/, and /aa/, each of which has several allophones as follows:

/i/ ranges from high close vocoids (front [i] central [ɨ], back [u]) to high open vocoids (front [ɪ] and back [ʊ]) and the mid open front vocoid [ɛ]. [i] precedes /y/; [u] precedes /w/; [ɨ] occurs in alveolar and

1. The field work for this study was undertaken during 1962-63. For further reference to Manambu phonology, see E. Pike (1964). A brief description of Manambu phonology is also given by Laycock (1965:120).



velar environments; [u] appears contiguous to labialised consonants and following /w/; [ɪ] and [ɛ] occur in non-contrastive free variation contiguous to labials except /w/ and to fronted alveolars and palatals except preceding /y/.

/a/ ranges from mid close vocoids (front [e], central [ə], back [o]) to low vocoids (front [æ] and central [a]) and a vocoid glide from low open central to high close back [a<sup>u</sup>]. There is a tendency toward variation with some allophones — [e] precedes /y/ with occasional variation to [a]; [o] tends to occur in unstressed syllables preceding /w/ or labialised consonants (but not word initially); [a] occurs contiguous to /w/, to alveolars and velars following labialised consonants, and preceding labialised bilabials in stressed syllables. [a] freely varies with [ə] in unstressed syllables. [æ] tends to occur contiguous to labials except /w/ and to fronted alveolars and palatals except preceding /y/. [a<sup>u</sup>] occurs preceding labialised velar stops in stressed syllables. /aa/ is a complex nucleus of low vocoids separated by glottal stop.

Allophones range from [aʔa] to [æʔæ] to [aʔa<sup>u</sup>]. [aʔa] tends to occur in alveolar and velar environments, with /w/, and also following labialised consonants and preceding labialised bilabials. [æʔæ] tends to occur contiguous to labials (except /w/ or labialised consonants), fronted alveolars and palatals. [aʔa<sup>u</sup>] tends to occur preceding labialised velar consonants.

Contrastive sets for the vowel phonemes are as follows:

/diy/	<u>defecation</u>	/day/	<u>they pl.</u>	/daay/	<u>mouth</u>
/wiw/	<u>fruit sp.</u>	/waw/	<u>fly sp.</u>	/waaw/	<u>may I talk?</u>
/mij/	<u>spear sp.</u>	/maj/	<u>vein</u>	/maaj/	<u>rope</u>
/ɾ <sup>w</sup> is/	<u>canoe paddle</u>	/g <sup>w</sup> as/	<u>turtle sp.</u>	/g <sup>w</sup> aas/	<u>palm flower sheath</u>

## 2. Consonants

Twenty consonant phonemes occur in Manambu. There is a primary division between labialisation and non-labialisation. The labial and velar voiceless and voiced stops and the labial nasal contrast with their labialised counterparts.

The non-labialised consonants all show a three-way contrast in point of articulation at labial, alveolar, and palatal-velar. In manner of articulation contrast exists with non-prenasalised (voiceless) stops, prenasalised stops, fricatives, nasals and liquids.

The labialised consonants show less contrast, with only labial and velar points of articulation, and only voiceless and voiced stops and nasal contrasting in manner of articulation.

CHART 1

Consonants

	Non-Labialised			Labialised	
	Labial	Alveolar	Palatal/Velar	Labial	Velar
Stops (Non-Prenasalised)	p	t	k	p <sup>w</sup>	k <sup>w</sup>
Stops (Prenasalised)	b	d	g	b <sup>w</sup>	g <sup>w</sup>
Fricatives	v	s	j		
Nasals	m	n	ɲ	m <sup>w</sup>	
Liquids	w	l	y		

2.1 Description of Consonants

/p<sup>w</sup>/ and /k<sup>w</sup>/ are voiceless labialised stops, bilabial and velar respectively.

/b<sup>w</sup>/ and /g<sup>w</sup>/ are prenasalised labialised stops, bilabial and velar respectively. Each has two allophones as follows: voiceless [mp<sup>w</sup>] and [ɲk<sup>w</sup>] word medially and finally, voiced [mb<sup>w</sup>] and [ɲg<sup>w</sup>] word initially.

/m<sup>w</sup>/ is a voiced and labialised bilabial nasal.

/p/, /t/, /k/ are voiceless stops, bilabial, alveolar and velar respectively. /p/ has three allophones: unaspirated [p] word initially, fricative [p̥] word medially, aspirated [p<sup>h</sup>] word finally. /t/ has two allophones: unaspirated [t] word initially and medially,



aspirated [t<sup>h</sup>] word finally. /k/ has three allophones: unaspirated velar [k] word initially, unaspirated backed velar [k̠] word medially, aspirated [k<sup>h</sup>] word finally.

/b/, /d/, /g/ are prenasalised stops, bilabial, alveolar, and velar respectively. /b/ and /g/ each have three allophones as follows: voiced [mb] and [ŋg] word initially, voiceless unaspirated [mp] and [ŋk] word medially, voiceless aspirated [mp<sup>h</sup>] and [ŋk<sup>h</sup>] word finally. /d/ has two allophones as follows: voiceless unaspirated [nt] word initially and medially, voiceless aspirated [nt<sup>h</sup>] word finally.

/v/, /s/, /j/ are fricatives, labial, alveolar and prenasalised alveopalatal respectively. /v/ has two allophones: voiced labiodental [v] word initially, voiced bilabial [b̠] word medially and finally. /s/ has two allophones: voiceless fronted alveolar affricate [ts̺] word initially, fronted alveolar grooved fricative [s̺] word medially and finally. /j/ has three allophones: voiced alveopalatal affricate [ndʒ] word initially, voiceless unaspirated alveopalatal affricate [ntʃ] word medially, voiceless aspirated alveopalatal affricate [ntʃ<sup>h</sup>] word finally.

/m/, /n/, /ɲ/ are bilabial, alveolar and palatal nasals.

/w/, /l/, /y/, liquids, are described as follows: /w/ is a voiced high close back rounded non-syllabic vocoid; /l/ has two allophones, voiced alveolar lateral [l] and flapped vibrant [ɺ] in free variation word initially, medially and finally;<sup>2</sup> /y/ is a voiced high close front unrounded non-syllabic vocoid.

The following set demonstrates the phonemic status of all consonants:

/pal/	<u>to come inside</u>	/va/	<u>to dig</u>
/p <sup>w</sup> ap <sup>w</sup> /	<u>lungs</u>	/sa/	<u>to spit</u>
/ta/	<u>to make a fibre skirt</u>	/ja/	<u>to rain</u>
/ka/	<u>to paddle</u>	/ma/	<u>buttocks</u>

2. Robin Farnsworth of the Summer Institute of Linguistics reports contrast between [l] and [ɺ] in downstream Manambu villages and among the older speakers at Yambon, e.g. /li/ she, /ri/ sit; /gila/ black, /gira/ to cry; /al/ type of palm tree, /ar/ lagoon.

/k <sup>w</sup> aay/	<u>shrimp</u>	/m <sup>w</sup> a/	<u>wind</u>
/bap/	<u>moon</u>	/na/	<u>yesterday</u>
/b <sup>w</sup> ad/	<u>egg</u>	/na/	<u>always</u>
/da/	<u>go down</u>	/wa/	<u>to speak</u>
/gap/	<u>a plug, stopper</u>	/la/	<u>cut</u>
/g <sup>w</sup> as/	<u>turtle</u>	/ya/	<u>to come</u>

### 3. Stress and Intonation

#### 3.1 Stress

Stress is phonemic, as is shown by the following contrasts:

/'sikaal/	<u>it is a long way</u>	/si'kaal/	<u>fish type</u>
/'miyil/	<u>to a tree</u>	/mi'yil/	<u>banana tree</u>
/'asadiy/	<u>they are dogs</u>	/asadi'yaay/	<u>nettle bush</u>

Although stress is not predictable it has a strong grammatical patterning in that its most frequent occurrence is on the final syllable of stems. Each example following contains one stem with its affixes set off by hyphens:

/a-'waal/	<u>(imperative prefix — to go up) go up!</u>
/'kaag <sup>w</sup> -ad/	<u>(small drum — it is) it is a small drum</u>
/ya'ga-na/	<u>(to be afraid — she) she is afraid</u>
/tap <sup>w</sup> i'ya-na-ñin/	<u>(to shave head — present — you) you are shaving a head</u>

Certain one-syllable verb stems form an exception to this pattern. When these are affixed with the present tense morpheme /-na/, which in turn is always followed by a person morpheme, the stress falls on the /-na/ as follows:

/g <sup>w</sup> a/	<u>to dig out grass</u>	/g <sup>w</sup> a-'na-ñin/	<u>you are digging grass</u>
/la/	<u>to cut</u>	/la-'na-diy/	<u>they are cutting</u>

The pitch pattern on Manambu words is a contour with the stressed syllable its highest point.

### 3.2 Intonation

Three intonation patterns have been observed in Manambu: tentative pause, final pause and interrogative.

In story telling the tentative and final pause patterns predominate. Tentative pause is signified by /↑/ and final pause by /↓/.

/'tayil 'nyanadiy tab<sup>W</sup>ina<sup>↑</sup> 'yadaal<sup>↓</sup> 'yakiw<sup>↑</sup> asi'tiyim<sup>↓</sup> 'lidiy<sup>↑</sup>  
 yiba'liykiw<sup>↓</sup> 'yata'ta'ka<sup>↑</sup> asi'tiyim<sup>↓</sup> 'lidiy<sup>↑</sup> 'likiw<sup>↓</sup> 'yata'ta'ka<sup>↑</sup>  
 yawaanab<sup>W</sup>ina<sup>↑</sup> 'balaam<sup>↓</sup> 'lidiy/

Long ago, our ancestors, came here to live. They came, they resided at Asitiy. Children were born. They stayed at Asitiy. After residing at Asitiy, they came to Yawaanabwunabal, and settled there.

Interrogative intonation is rising, and though this pattern is the same as tentative pause it can be distinguished by context.<sup>3</sup> Interrogative intonation, symbolised by /↑/, contrasts with final pause intonation.

/k<sup>W</sup>a'libaal 'yinaad<sup>↑</sup>/

Is he going to the jungle?

/k<sup>W</sup>a'libaal 'yinaad<sup>↓</sup>/

He is going to the jungle.

/sik<sup>W</sup>i'lik 'yina<sup>↑</sup>/

Is she cooking?

/sik<sup>W</sup>i'lik 'yina<sup>↓</sup>/

She is cooking.

### 4. Priorities in Vowel Conditioning

Certain consonants seem to exert more influence on vowels than others. Vowel allophones with their usual distribution are discussed in Section 1, but since a vocoid may easily occur in a 'mixed' environment, there are certain priorities which should be noted. /y/ or /w/ following a vocoid, is the most influential of consonants, e.g. /yiy/ [yiy] fire, /a'saaw/ [a'saaw] fry it. /y/ or /w/ preceding a vocoid, is the next most

3. Farnsworth reports a pitch contrast between tentative pause and interrogative intonation: the general pitch of the former is lower mid and the pitch of the final syllable rises sharply, whereas the general pitch of the latter is upper mid and the final syllable pitch rises slightly.



influential, e.g. /yil/ [yɪl] black palm type, /a'yaak/ [a'yǎʔǎk<sup>h</sup>] throw it away. Labialisation, plays the next most important role, e.g. /g<sup>w</sup>is/ [ng<sup>w</sup>ug] canoe paddle, /sam<sup>w</sup>/ [tsam<sup>w</sup>] shavings.

Velars either preceding or following are more influential with high vowels than are bilabials and palatals, e.g. /gi'viy/ [ŋgɨ'biy] nasal discharge, /si'kaal/ [tsɨ'kaʔal] fish type. Velars influence low vocoids they precede, e.g. /ka'miy/ [ka'miy] fish, /gaaj/ [ŋgaʔantš<sup>h</sup>] heron. Other consonants take priority when they occur preceding the vocoid, e.g. /tip/ [tɨp<sup>h</sup>] coconut, /asi'tay/ [ʔsɪ'tey] slide over.

## 5. Distribution

The syllable is the unit chosen as the basis for discussion. A syllable consists of one vowel only, with optional onset and/or coda. Patterns occurring either singly or in combination are V, VC, CV, and CVC.

V: /a/ the, /as.i.kiy/ a sneeze, /a.'viy/ hit it.

VC: /ap/ bone, /ad.a.'kap/ coconut shell, /naag<sup>w</sup>.ik/ for sago.

CV: /m<sup>w</sup>aa/ no, /ga.'piw/ strong post, /si.pa.k<sup>w</sup>i.diy/ lips.

CVC: /kap<sup>w</sup>/ alone, /'lim<sup>w</sup>.na/ she is planting, /si.'maag/ fish type.

There are limitations of occurrence of consonants and vowels in syllables. In V syllables only /i/ and /a/ occur. In VC syllables all vowels and consonants occur except /t/ and /n/ which have not been observed. CV and CVC syllables have no limitations.

When consonant clusters are formed in words only /w/, /l/, /y/ and /m<sup>w</sup>/ occur finally in the preceding syllable. In the material collected to date, /w/ occurs before /d m n l/; /l/ before /p s k b m n k<sup>w</sup>/; /y/ before /p t k b ñ w g<sup>w</sup>/; and /m<sup>w</sup>/ only before /n/. Some examples are /wa'liy maw'diy/ rainbow, /wil.'piy/ liver, /giy.'pa/ fastened together, /'lim<sup>w</sup>.na.win/ I am planting.

## 6. Orthography

The orthography used is the same as the phonemic symbolisation for all

phonemes except /h/ and /i/. /h/ is represented by ny and /i/ is represented by i for allophones [i, ɪ, e, ɛ] and by u for allophones [u, ʊ].

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