

## TIGAK PHONOLOGY

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1. **Introduction.** This paper is a description of the phoneme system of the Tigak<sup>1</sup> language and a consideration of orthographies used for it. Tigak has thirteen consonants and eight vowels, three of which are glides.

### 2. Chart of Phonemes

#### *Consonant Phonemes*

	Bilabial	Alveolar	Velar
Stops	p [p] b [b]	t [t]	k [k] g [g]
Trills		r [r̃] [d]	
Fricatives	β [β]	s [s] l [ɬ]	
Nasals	m [m]	n [n]	ŋ [ŋ]
Vocoid		y [y]	

#### *Vowel Phonemes*

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1. The Tigak language is a member of the Patpatar language family (Lithgow and Claassen 1968: Chart II) of New Ireland, New Guinea. There are about 3000 native speakers of this language. They inhabit the northern part of the New Ireland mainland, the western end of Djaul Island and most of the islands between New Ireland and New Hanover. There are central, western, southern and island dialects. This paper is based on a study of the central dialect.

The data for this paper was collected during the author's first eight months of residence in the village of Kableman on the East Coast of New Ireland in 1969. Principal informants were William Taupa, aged about 60, and Enok Tamasegai, aged about 65, both of Kaelok village. Other informants were also used.

	Front	Central	Back
High	i [ɪ] [i]		u [ʊ] [u]
Mid	e [ɛ] [e]		o [ɔ] [o]
Low		a [ʌ] [a] [ə]	
Glides	a <sup>i</sup> [e <sup>i</sup> ] [a <sup>i</sup> ]	a <sup>u</sup> [a <sup>u</sup> ]	o <sup>i</sup> [o <sup>i</sup> ]

### 3. Consonant Phonemes

/p/ [p] Voiceless bilabial stop. /tiptip/ 'heavy', /pasal/ 'to walk'

/t/ [t] Voiceless alveolar stop. /taŋ/ 'the', /βata/ 'sky', /masut/ 'bush'

/k/ [k] Voiceless back velar stop. /ka<sup>i</sup>/ 'to shout', /lakos/ 'only', /lak/ 'to come up'

/b/ [b] Voiced bilabial stop. /βabat/ 'cane (when used on a house wall)'

/g/ [g] Voiced back velar stop. /gan/ 'day', /iga<sup>i</sup>/ 'to ask'

/r/ [d] Voiced alveolar stop. Occurs only word initially and is in free variation with [r̃] in this position. [dɪk] [r̃ɪk] 'they'

[r̃] Voiced alveolar trilled vibrant. Occurs word initially, medially and finally. In initial position it is in free variation with [d]. [r̃uɾum] [duɾum] 'water'. It occurs word finally in borrowed words only: [mar̃] 'hundred' (from Tolai).

/β/ [β] Voiced bilabial fricative. /βuŋ/ 'red', /βiβila<sup>i</sup>/ 'action'

/s/ [s] Voiceless alveolar grooved fricative. /siba/ 'village', /a<sup>i</sup>sok/ 'work', /ga<sup>u</sup>s/ 'rope'

/l/ [l] Voiced alveolar lateral fricative. /lui/ 'house', /paloŋoni/ 'to hear', /nonol/ 'thought'

/m/ [m] Voiced bilabial nasal. /masut/ 'bush', /namemtul/ 'we three (excl.)', /rom/ 'to cut down'

/n/ [n] Voiced alveolar nasal. /nuk/ 'you (sing. subject)', /ina/ 'of', /gan/ 'day'

/ŋ/ [ŋ] Voiced velar nasal. /ŋisa/ 'tooth', /naŋas/ 'happy', /saŋ/ 'to arrive'

/y/ [y] Voiced high front unrounded non-syllabic vocoid. /yas/ 'sun'

#### Contrasts

p/b /papasa/ 'to preach', /βabat/ 'cane (for wall)'

p/β /po/ 'completed action', /βo/ 'future action'

t/r /to/ 'wave', /ro/ 'good'

k/g /kara/ 'we (plural<sup>2</sup> incl.)', /gara/ 'here'

2. Plural in referring to pronouns in this paper means 'more than three' as there are separate dual and triad forms.

b/β /βabat/ 'cane (for wall)', /βaβalana/ 'stupid'<sup>3</sup>  
 r/l /tara<sup>i</sup>/ 'to see', /talo<sup>i</sup>/ 'spirit'  
 n/ŋ /naŋas/ 'happy', /ŋan/ 'to eat'

#### 4. Vowel Phonemes

/i/ [i] Voiced high front unrounded vocoid. Occurs word finally and sometimes in other open syllables. [imi] 'you (plural, object)', [riqə] 'they (plural, past)'  
 [ɪ] Voiced lower high front unrounded vocoid. Occurs in all positions except word finally. It is sometimes in free non-contrastive variation with [i]. [iɾiɾuɪ] 'them (3, object)', [ɪmɔ] [imɔ] 'to come'

/e/ [e] Voiced mid front unrounded vocoid. Occurs word finally and sometimes in other open syllables. [kɛ] 'must', [rɛqə] 'they (2, past)'

[ɛ] Voiced lower mid front unrounded vocoid. Occurs in all positions. It is sometimes in free variation with [e]. [ɛqəŋ] 'here', [nɛns] [nɛne] 'he'

/a/ [a] Voiced lower low central unrounded vocoid. [aɬu] 'again', [tatana] 'his'

[ʌ] Voiced low central unrounded vocoid. Occurs in all positions. [ʌniɾi] 'for them (plural)', [ʃʌtʌ] 'sky'

[ə] Voiced mid central unrounded vocoid. Occurs word medially and finally. [tɪqəri] 'husband', [riqə] 'they (plural, past)'

These three allophones do not contrast. [ʌ] is the most common.

/o/ [o] Voiced mid back rounded vocoid. Occurs word finally. [aŋiso] 'when?'

[ɔ] Voiced low back rounded vocoid. Occurs elsewhere. [ɔt] 'thing', [a<sup>i</sup>sok] 'to work'

/u/ [u] Voiced high rounded back vocoid. Occurs in open syllables. [utak] 'yet', [ɬaŋuna<sup>i</sup>] 'yet', [piu] 'dog'

[ʊ] Voiced lower high rounded back vocoid. Occurs in closed syllables. [a<sup>i</sup>muɔ] 'later', [ʊɪpʊki] 'to turn'

/ai/ [ai] Voiced lower low central unrounded vocoid gliding to voiced high front unrounded vocoid. Occurs word initially, medially and finally. In final position it is in free variation with [ei]. [a<sup>i</sup>sok] 'to work', [ŋa<sup>i</sup>n] 'to sing', [kəkɔɬa<sup>i</sup>] [kəkɔɬe<sup>i</sup>] 'crooked'

[ei] Voiced lower mid front unrounded vocoid gliding to voiced high front unrounded vocoid. Occurs only word finally. [eɬei] 'above'

/au/ [au] Voiced lower low central unrounded vocoid gliding to voiced high back rounded vocoid. /a<sup>u</sup>neŋ/ 'as follows', /ta<sup>u</sup>an/ 'men', /petau/ 'crowd'

3. [b] is more common in the island dialect. 'To wish' is [bubʊk] in island, [βubʊk] in central and [ββʊk] in southern dialect.

/o<sup>i</sup>/ [o<sup>i</sup>] Voiced low back rounded vocoid gliding to voiced high front unrounded vocoid. /ko<sup>i</sup>/ 'black', /po<sup>i</sup>son/ 'how many?'

### Contrasts

i/e /rik/ 'they (plural)', /rek/ 'they (2)'  
 i/a<sup>i</sup> /ri/ 'them (plural, obj.)', /ra<sup>i</sup>/ 'wind'  
 e/a<sup>i</sup> /ke/ 'must', /ka<sup>i</sup>/ 'to carry (a young child)'  
 e/a /irek/ 'them (2, obj.)', /irak/ 'us (2, incl., obj.)'  
 a/o /kana/ 'his', /kono/ 'sand'  
 a/a<sup>i</sup> /ka/ 'jug', /ka<sup>i</sup>/ 'to carry (a young child)'  
 a/a<sup>u</sup> /a/ 'the, a', /a<sup>u</sup>/ 'me (obj.)'  
 o/u /kola/ (negative command), /kula/ 'because'  
 o/a<sup>u</sup> /po/ (completed action), /pa<sup>u</sup>/ 'frog'  
 o/o<sup>i</sup> /ko/ 'in', /ko<sup>i</sup>/ 'black'  
 a<sup>i</sup>/o<sup>i</sup> /ka<sup>i</sup>/ 'to carry (a young child)', /ko<sup>i</sup>/ 'black'

## 5. Distribution

### Stress

Stress normally falls on the first syllable of the word. Prefixes such as pa-, ta- and e- are not stressed and stress then falls on the second syllable. ['kΛ.ɬΛ.pɔŋ] 'to understand', ['a<sup>i</sup>.sɔk] 'to work', [pΛ.'ɬɔ.ŋɔ.ni] 'to hear', [tΛ.'təm] 'your (sing.)'

### Syllables

There are four types of syllables

V /i.ga<sup>i</sup>/ 'to ask'  
 VC /ot/ 'thing'  
 CV /si.βa/ 'village'  
 CVC /a<sup>i</sup>.sok/ 'to work'

VC syllables occur only word initially. V syllables occur only initially or finally. CVC and CV syllables occur in all positions.

### Phonemes

Most phonemes occur in all positions. The exceptions to this are:

Word initially only : /y/

All positions except word or syllable finally : /b,g,β,r (except in borrowed words)/

Only in CV syllables : /o<sup>i</sup>/

*Word breaks*

Where one word ends in a vowel and the next begins with a vowel there is a glottal stop in between.

/ga oŋ/ [gʌʔoŋ] 'it is bad'

**6. Orthographies**

No previous attempt at a systematic analysis of the phonology of the Tigak language seems to have been made. Some attempts have been made at writing the language. Rev. D.T. Reddin of the Methodist Missionary Society produced a translation of the Gospel of Mark in 1911 using the dialect around Omo. In 1921 the Methodist Mission published a hymn book and catechism (in one volume) by Rev. E. Boettcher, based on the dialect of Nusa Island in Kavieng harbour. Both of these are out of print and long out of use. A booklet was produced in 1968 on 'God and Magic' in a series called Harambee Papers. This was a translation of the English booklet on the same subject and was presumably translated by a native speaker. Only a small number of copies of this were duplicated. In July 1969 the author of this paper had a translation of the Lord's Prayer duplicated for use by the United Church in the Tigak villages. This was reprinted as Beaumont 1969, and was based on a tentative orthography.

*Table of Orthographies*

Phoneme	1911	1921	1968	1969	Suggested
/p/	p	p	p	p	p
/t/	t	t	t	t	t
/k/	k	k	k	k	k
/b/	b	b	b	*4	b
/g/	q	q	g	g	g
/r/	(r (d	r	r	r	r
/β/	(v (b	(w (b	v	v	v
/s/	s	s	s	s	s
/l/	l	l	l	l	l
/m/	m	m	m	m	m
/n/	n	n	n	n	n
/ŋ/	g	g	ng	ng	ng
/y/	i	(i (j	(i (j	*	i
/i/	i	i	i	i	i
/a/	a	a	a	a	a
/e/	e	e	e	e	e

	(1911)	(1921)	(1968)	(1969)	(Suggested)
/o/	o	o	o	o	o
/u/	u	u	u	u	u
/a <sup>i</sup> /	ai	(ai (ei	ai	(ai (ei	ai
/a <sup>u</sup> /	au	au	(au (ou	*	au
/o <sup>i</sup> /	oi	oi	oi	*	oi
<i>Examples</i>					
/rik/ 'they'	(rik (dik	rik	rik	rik	rik
/gan/ 'day'	qan	qan	gan	gan	gan
/βili/ 'make'	bili	wili	vili	vili	vili
/saŋ/ 'arrive'	sag	sag	sang	sang	sang
/kissan/ 'but'	keisag	kesag	kisang	keisang	kisang
/taβa <sup>i</sup> / 'give'	tavai	tawai	*	tavei	tavai
/yas/ 'sun'	ias	ias	ias	*	ias
/yesu/ 'Jesus'	Iesu	Jesu	(Jesu (Jesus	*	Iesu
/gaβeak/ 'no'	qaveak	qaweak	gavek	gaveak	gaveak

In introduced names and words only the 1921 book also uses *h*, *f* and *d* and the 1968 Harambee Paper uses *h*, *f*, *d*, *c* and *y*.

The 1911 alphabet was very economical in the number of letters used. The use of *g* for /ŋ/ with *q* for /g/ avoided the use of a digraph. This was in line with the spelling used in Tolai (Kuanua) at that time. The disadvantage of this was the dissimilarity with English. These Tolai spellings have since been changed to conform to English and they could not be considered practical now. According to my analysis the use of *b* was excessive and the use of *d* unnecessary.

The 1921 Hymnbook is similar to the 1911 spelling. *w* replaced *v*, reflecting German influence. *d* is used only in writing Biblical names. In this book there is a greater tendency to introduce new letters for Biblical names and borrowed words e.g. *profet* 'prophet'. The 1911 spelling of this was *parovit* which used only existing letters and syllable patterns. The Harambee Paper (1968) has fairly satisfactory spelling. The main difference between the Lord's Prayer and my suggested spelling is with the phoneme /a<sup>i</sup>/ which I earlier recorded as *ei* and *ai*. The example /kisaŋ/ given above reflects dialect differences.

The chief difference between the phonemic alphabet and my proposed orthography is that /y/ is represented by *i*. This conforms with the spelling of the Tolai language which was used as the church language by the Methodist Mission and is still used for hymn singing and some Bible reading. The occurrence of /y/ is very limited and the use of an extra letter seems unnecessary. Other differences are those needed for practical printing purposes.

Many Tigak people write letters in their own language. These vary in spelling a little but two short letters and two new hymns examined are close to the proposed orthography.

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