

Organised Phonology Data Supplement
Wuvulu Language

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1.0 Introduction

The Wuvulu-Aua language (Proto-Admiralty, Western Admiralty, Wuvulu-Aua--henceforth referred to as *Wuvulu*) is spoken on the islands of Wuvulu and Aua, which are located on the western edge of the Manus Province of Papua New Guinea. There are estimated to be 1500 speakers of *Wuvulu*, with approximately 1300 speakers resident on the two islands.

There are three dialects of *Wuvulu*: two are spoken on Wuvulu and one is spoken on Aua. The data for this paper have been collected over a nine-year period of intermittent linguistic fieldwork on Wuvulu Island and are therefore not representative of the *Aua* dialect of the language. The differences between the two dialects on Wuvulu Island are minor: a conditioned phonetic variant of one phoneme and a slight difference in intonation contour.

2.0 Phonemic and Orthographic Inventory

/a ai ao au ε ei i o oi u b f h j l m n p t w r ʔ/
 <a ai ao au e ei i o oi u b f h y l, d m n p t, s w r, g ʔ>
 <A Ai Ao Au E Ei I O Oi U B F H Y L, D M N P T, S W R, G >

3.0 Phonological Units

3.1 Consonants

The chart below shows the consonant phonemes of the language.

<i>place/manner</i>	Bilabial	Labio-dental	Alveolar	Palatal	Glottal
Plosive	p b		t		ʔ
Nasal	m		n		
Fricative		f			
Approximant			r	j	h
Lateral Approximant			l		

/w/ voiced labio-velar approximant

Phoneme	Orthography	Phonetic form	Gloss
b	baubara	[bau.ˈba.xa]	‘adolescent male’
	halaba	[ˈha.la.ba]	‘turtle’
f	fainaroa	[ˌfai.na.ˈxo.a]	‘eight’
	lofu	[ˈl ^o .fu]	‘brother of a male’
h	hawihawi	[ˌha.wi.ˈha.wi]	‘sharktooth sword’
	punehafi	[ˌpu.nɛ.ˈha.fi]	‘coral stove’
j	yau	[jau]	1S PRON
	piye	[ˈpi.jɛ]	‘beach’
l	lalo	[ˈla.l ^o]	‘in, inside’
	pa’ale	[ˈpa.ʔa.lɛ]	‘dolphin’
	oloroa	[ˌʔo.l ^o .ˈxo.a]	‘six’
	lomi	[ˈl ^o .mi]	‘no’
	diai	[ˈdi.ai]	‘again’
	badu	[ˈba.du]	‘child’
m	maremare	[ˌma.xɛ.ˈma.xɛ]	‘cough’
	humu	[ˈhu.mu]	‘house’
n	nadi	[ˈna.di]	‘okay’
	hanuna	[ha.ˈnu.na]	‘its meaning’
p	papa	[ˈpa.pa]	‘beside’
	fipui	[fi.ˈpu.i]	‘together’
r	ranu	[ˈxa.nu]	‘fresh water’
	loralora	[ˌl ^o .xa.l ^o .xa]	‘sore’
	gigei	[ˈgi.gei]	‘door’
	fagigi	[fa.ˈgi.gi]	‘slowly’
t	tau	[ˈtau]	‘papaya’
	atona	[ʔa.ˈto.na]	‘Monday’
	sifisifi	[ˌtʃi.fi.tʃi.fi]	‘deceive’
	fesu	[ˈfɛ.tʃu]	‘wash’

w	wagieni	[₁ wa.gi. ¹ ε.ni]	‘today’
	weloweloi	[₁ wε.l ⁰ o. ¹ wε.l ⁰ oi]	‘spin’
ʔ	o’odu	[ʔo. ¹ ʔo.du]	1P INCL PRON
	du’ua	[du. ¹ ʔu.a]	‘food’

3.2 Vowels

	i	u	
	ε	o	
	a		
a	nadi	[¹ na.di]	‘okay’
	parara	[pa. ¹ xa.xa]	‘thunder’
ε	nene	[¹ nε.nε]	‘behind, later’
	piye	[¹ pi.jε]	‘sand’
i	nia	[¹ ni.a]	‘fish’
	fafi	[¹ fa.fi]	‘afternoon greeting’
o	lomi	[¹ l ⁰ o.mi]	‘no’
	mafufuo	[₁ ma.fu. ¹ fu.o]	‘morning’
u	Fufudu	[fu. ¹ fu.du]	‘Wuvulu’
	humu	[¹ hu.mu]	‘home’

3.3 Diphthongs

ai	aipoi	[¹ ʔai.poi]	‘day before yesterday’
	baibai	[¹ bai.bai]	‘mosquito’
ao	fa’obao	[₁ fa.ʔo. ¹ baɔ]	‘Thursday’
	nanao	[na. ¹ naɔ]	‘adolescent female’
au	yau	[jau]	1S PRON
	maunu	[¹ mau.nu]	‘rain’
ei	fei	[fei]	‘the’
	gigei	[¹ gi.gei]	‘door’
oi	poi	[poi]	‘good night’
	hoi	[hoi]	‘dear (sweetheart)’

All diphthongs involve falling sonority.

4.0 Syllable Patterns

There are two predominant syllable patterns in *Wuvulu*: V, and CV. The exception is that a final vowel is sometimes dropped for...CV syllables where C is a nasal.

humu-mu
house-2S.POSS
'your house'

hu.'mu.mu 'your house' becomes *hu.'mum* with a pattern which could be interpreted as CV.CVC.

V	mi.'no.a	'yesterday'
	fi.'pu.i	'together'
CV	'fu.da	'taro'
	'mau.nu	'rain'

Phonetically, the V syllable pattern never occurs word-initially because the speaker automatically inserts a glottal stop as the default consonant.

Diphthongs pattern as single vowels for syllabification and stress. Though they are regarded as single vowels on an abstract phonemic level, they are still considered to be separate vowels phonetically.

5.0 Prosodic Features

5.1 Stress

Like most Austronesian languages of the Pacific Islands, stress is usually penultimate for *Wuvulu* words. For words of four or more syllables, stress typically occurs penultimate within each of the two-syllable parts of the word (i.e., stress iterates backwards on even-numbered syllables preceding the primary stress).

There are several grammatical environments which cause stress to fall on the ultima. These involve a lengthened word-final vowel and are discussed in the section on morphophonemics. For a more detailed explanation of the underlying concepts of moraic association and weighting of syllables, the reader is referred to Kenstowicz (pp. 425-442).

5.2 Intonation

The intonation contour of a Wuvulu question rises at the end of the sentence. Statements usually have a flat intonation profile.

 <i>Ona bigi'aa fei?</i> 'You did that?'	 <i>Ona bigi'aa fei.</i> 'You did that.'
 <i>Ina bigi'ia.</i> 'She did it.'	

Intonation rises for dependent clauses and then falls with the corresponding independent clause.

 <i>Ei ro'a bigi'aa fei,</i>	 <i>inamina siba.</i> 'When they did it he was very angry'
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5.3 Duration and Pitch

To show a greater degree of respect to the addressee, Wuvulu people will often greet others with a lowered pitch and an increase in the duration of the stressed syllable.

6.0 Morphophonemics

6.1 Word-Final Geminate Vowel Formation

There are four grammatically determined environments in which a word-final vowel is lengthened in duration, resulting in what sounds to be a stressed ultima. The orthographic convention that has been adopted for such syllables is to write the original consonant plus a geminate pair of vowels.

6.1.1 Transitive Verbs Preceding Explicit Direct Object Noun-Phrases

A transitive verb may be suffixed with a marker which agrees in person and number with the direct object of the verb (Hafford, 1999).

	[₁ bi.gi.'ʔ i.a]
<i>Ro-na</i>	<i>bigi'-ia.</i>
3P-REALIS	work-3S
'They did it.'	

Whenever the direct object is present as an explicit noun phrase, the word-final vowel of the verb is lengthened with stress shifting to the ultima.

	[₁ bi.gi.'ʔaa]		
<i>I-na</i>	<i>bigi'a-a</i>	<i>fei</i>	<i>bigi'a-na.</i>
3S-REALIS	work-TRANS	ART	work-3S.POSS
'He did his work.'			

6.1.2 Juxtaposed Possessed-Possessor Noun-Phrases

One of the strategies for indicating possession in *Wuvulu* is juxtaposition of two noun phrases where the first phrase is the possessed and the second the possessor. For the first noun phrase, the final vowel of the head noun is lengthened and the ultima of the word is stressed.

	[ha.'xoo]			
<i>Ei</i>	<i>haroo</i>	<i>ro'ou,</i>	<i>ro-na</i>	<i>rawani.</i>
ART	spouse	3P.PRON	3P-REALIS	good
'Their spouses are good.'				

This contrasts with the uninflected form of the word which retains its normal penultimate stress pattern.

			[¹ ha.xo]
<i>Hia</i>	<i>hemea</i>	<i>rawani'a</i>	<i>haro.</i>
3S.PRON	ART	good	spouse
'He is a good spouse.'			

6.1.3 First-person Possessive Suffix with Word-final *u*

For a noun that ends in *u*, when the first-person possessive morpheme, *-u*, is suffixed to it, the vowel is lengthened and the stress shifts to the ultima.

[hu.'muu]
Humu-u, fei.
 house-1S.POSS ART
 ‘That is my house.’

This contrasts with the typical usage of the word in which the stress is on the penultimate syllable.

[¹hu.mu]
Ro-na bigi-diga-a fei humu.
 3P-REALIS work-PERF-TRANS ART house
 ‘They have finished building the house.’

6.1.4 Reciprocal Morpheme Circumfixation with Word-final *i*

To indicate a reciprocal relationship in *Wuvulu*, a word is circumfixed with both *fi-* and *-i*. If the original word happens to end in *i*, then the final vowel of the inflected form is lengthened and stress falls on the ultima.

A word such as *tafi* ‘sister’ would receive normal penultimate stress:

[¹ta.fi]
Hia hemea hafelo'a tafi.
 3S.PRON ART bad sister.
 ‘She is a bad sister.’

If the same word is used in a reciprocal sense, the inflected form has ultimate stress:

[fi.ta.¹fii]
Lagua fi-tafi-i.
 3DUAL.PRON RECIP-sister-RECIP
 ‘The two are sisters.’

6.1.5 Attributive Morpheme with Word-final *a*

The final vowel of a noun can be lengthened to indicate an attribute or characteristic. Such words have ultimate stress.

[na.xa.na.¹xaa]
Hia mei naranara-a.
 3S.PRON ART think-ATTRIB
 ‘He is the thinker.’

Note that secondary stress on the unlengthened form is the same:

[₁na.xa.'na.xa]

<i>Fei</i>	<i>naranara</i>	<i>fei,</i>	<i>i-na</i>	<i>hafelo.</i>
ART	thought	ART	3S-REALIS	bad

‘That particular thought is bad.’

6.2 Diphthong Formation

Since Wuvulu has open syllables and words are begun with consonants, the typical boundary condition between two words is such that there will be a word-final vowel followed by a consonant-initial word with a vowel as its second segment:

...V₁ # CV₂...

If the word-initial consonant of the second word is the glottal stop (which, by convention is not written word-initially) and V1 and V2 can combine to form one of the diphthongs *ai*, *au*, *ei*, or *ao*, then in rapid speech, speakers sometimes drop the word-initial glottal stop and form one word with a diphthong where the boundary of the two words had been.

<i>Ma</i>	<i>i-na</i>	<i>auu.</i>
CONJ	3S-REALIS	go

‘And he left.’

Spoken rapidly:

<i>Maina</i>	<i>auu.</i>
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‘And he left.’

<i>Ba</i>	<i>u-'a</i>	<i>u'uga-a</i>	<i>feni</i>	<i>u'uga-u.</i>
COMPL	1S-IRREAL	story- TRANS	DEM	story-1S.POSS

‘I am about to tell you this story of mine.’

Spoken rapidly:

<i>Bau'a u'ugaa feni u'ugau.</i>

‘I am about to tell you this story of mine.’

6.3 Degemination Involving *fa-* and *ha*

When the causative morpheme, *fa-*, is prefixed to a word which begins with *ha*, the *h* drops and there is degemination of [a] from the causative and the following word.

hafelo'a, ‘bad’
fa-, causative morpheme
fa- + *hafelo'a* becomes *fafelo'a*, ‘destroy’.
fa- + *haipani*, ‘five’ becomes *faipania* ‘fifth’.

6.4 Degemination Involving Pronouns

Either of the pronouns *hamugua* 2DUAL, or *hamu'ou* 2P can fuse with a preceding word if that word is the conjunction, *a'a* 'with', or if the preceding word is in a possessed-possessor relationship with the pronoun.

a'a *hamu'ou*
with 2P.PRON
'with you'

In casual speech, this can become *a'amu'ou*, 'with you'.

bigi'aa *hamugua*
work 2DUAL.PRON
'the work of you two'

In casual speech, this can become *bigi'amugua*, 'the work of you two'.

7.0 Conventions: Phonological

/ɛ/ is tensed to [e] in the diphthong [ei].

/t/ becomes [s] when adjacent to a close vowel {i, u}.

[s] is in free variation with [tʃ].

/l/ is pronounced [d] in the Onne Village dialect when adjacent to a close vowel {i, u}.

/l/ is pronounced [l⁰] before /o/.

[l⁰] is a lateral simultaneously articulated with a voiced inter-dental fricative release.

/f/ intervocalic can become [v] in rapid speech.

/r/ has 3 allophones within the dialects of *Wuvulu*: [x] and [g] on Wuvulu Island, and [r] on the island of Aua. [x] and [g] are in complementary distribution; [g] is always adjacent to a close vowel: [i] or [u]; [x] is never adjacent to a close vowel.

The pronunciation of /r/ has characteristics of both [ɹ] and [r]. It is still uttered by people on Aua Island and by older people on Wuvulu Island. The younger people on Wuvulu (<60 years old) pronounce /r/ as either [x] or [g] depending upon the conditioning environment. Wuvulu people comment that residents of Aua speak the older form of the language which uses [r].

8.0 Conventions: Orthographic

Although [r], [x] and [g] appear to be allophones, we have decided to overdifferentiate and use <r> for [r] and [x], and <g> for [g]. The decision for overdifferentiation is due to sociolinguistic factors—preference of the people. They also prefer to write <d> even though it is underlyingly /l/. This is true too for <s> which is underlyingly /t/. Previous exposure to and familiarity with English and Melanesian Pidgin seems to be the reason for these preferences.

Since /ʔ/ and /h/ are contrastive word-initially, we have adopted the convention of writing <h> word-initially and not writing the glottal grapheme, <ʔ>. For example, [ʰu.pu], ‘green coconut’, is written *hupu*, whereas [ʔu.pu], ‘grandchild’, is written *upu*.

Another important orthographic convention (motivated by sociolinguistic and literacy factors) is that verbal prefixes are separated from the verb stem (Hafford, 1999:40).

9.0 Orthography Chart

See (Hafford and Hafford, 1996) for the orthography chart from the Nyindrou language of Manus Province, Papua New Guinea. The Nyindrou language does not have any influence on the *Wuvulu* orthography. It is included only to show an example of the orthography of a [somewhat distant] "neighboring" language.

Since Wuvulu is a Seventh Day Adventist community, they have made a decision that they would like proper names to be spelled as they are in English bibles. For acceptability we have followed that convention.

10.0 Sample Text

Phonemic Representation

harau wawa. warieni a wareaa eni tatalaiaa jau ei balui. ei balui, biri?au na mafufuo na ati?a a?a amau ma inau, nalinaa piye. ere rararapa, wawani?o, biri?aa ena pele narau, tamanu ena narau jau na apa?ia.

mau?a rararapa, baolii, una nomai, linami a?a amau ma inau. na ware, "una bao jau." hefarani laruna farawani, amau ma inau. fani hanau. nolimai arewa?ei, na aunuliai. ere rararapaliai. nolimai, na bao. naware a?a amau ma inau, "na bao jau."

"ahhh! lomi lu?ua! tamanu biri?amu? oare rararapa?ua jei. ma oare bao?ua mai?"

ti?ei, na tiba jau, amau. ruta. na ruta faloloa?i. jau, ware amau, "pelu faibiri?amu ale?ena. omina rararapa wataula. ruta famalumu i rufuu o?olu. tamanu ei manumanu hairua napa?i, joi ona pa?i. ma oa rararapa wataula, ma?ila lu?ua hairua na pa?i, joi lomi hanamu." na pelu.

Orthographic Representation

Harau Wawa. Wagieni a wareaa eni tatalaiaa yau ei badui. Ei badui, bigi'au na mafufuo na asi'a a'a amau ma inau, nadinaa piye. Ere rararapa, wawani'o, bigi'aa ena pele narau—tamanu ena narau yau na apa'ia.

Mau'a rararapa, baodii, una nomai, dinami a'a amau ma inau. Na ware, "una bao yau." Hefarani laguna farawani—amau ma inau. Fani hanau. Nodimai arewa'ei, na aunudia. Ere rararapadiai. Nodimai, na bao. Naware a'a amau ma inau, "Na bao yau."

"Ahhh! Lomi du'ua! Tamanu bigi'amu? Oare rararapa'ua yei. Ma oare bao'ua mai?"

Si'ei, na siba yau, amau. Guta. Na guta faloloa'i. Yau, ware amau, "Pedu faibigi'amu ale'ena. Ominia rararapa watauda. Guta famadumu i gufuu o'odu. Tamanu ei manumanu haigua napa'i, yoi ona pa'i. Ma oa rararapa watauda, ma'ida du'ua haigua na pa'i, yoi lomi hanamu." Na pedu.

English Free Translation

My name is Wawa. Today I'll talk about how I would play as a child. When I was a child I would get up in the morning with my father and mother and then go to the beach. I would wander around playing and doing whatever I thought about doing.

When I wandered around I would get hungry and would come back to my father and mother. I'd say, "I'm hungry." Sometimes the two of them were good to me; they'd give me food. Another day would come and I would go out again. It would be time to wander around again. Then I would come back again and say to my father and mother, "I'm hungry".

"Ahhh! There's no food! What work do you do? You only wander around. And you come back hungry?"

So, my father was cross. I sat there sorry. My father said to me, "Stop this habit of yours. You're always running around. Stay quietly at our home. Whatever we two have you can have. But if you're always running around, we two will have a small amount of food and you won't have any." The end.

Abbreviations

1DUAL	first-person dual	CONJ	conjunction
2DUAL	second-person dual	DEM	demonstrative
3DUAL	third-person dual	INCL	inclusive
1P	first-person plural	IRREAL	irrealis modality
2P	second-person plural	PERF	perfective aspect
3P	third-person plural	PL	plural
1S	first-person singular	POSS	possessive
2S	second-person singular	PRON	pronoun
3S	third-person singular	REALIS	realis modality
ART	article	RECIP	reciprocal
ATTRIB	attribute	TRANS	transitive
COMPL	complementizer		

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