

# KUNIMAIPA VOWEL HARMONY

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This brief paper presents the functioning of vowel harmony in Kunimaipa.<sup>1</sup> I show how this occurs in a parallel but different manner in a few nouns and a large number of verbs.

## 1. Data from Verbs.

Early during my encounters with the Kunimaipa language, I set up these paradigms:

### Paradigm A. Perfect

- soh "I went."
- seng "You went."
- sah "He, they went."
- seg "We, you (pl) went."

### Paradigm B. Imperfect

- soom "I will go."
- soopain "You and I will go."
- sək "You will go."
- sapan "He, they will go."
- sak "We will go."
- sepik "You (pl) will go."

This was paralleled by a number of other verbs, so I felt confident in cutting off s- as the verb stem, "go", and in regarding the remainders as portmanteau morphemes for person, number, and aspect.

As I got a bit farther into the analysis, I found these forms occurring with further suffixation as dependent verbs as follows:

### Paradigm C. Perfect medials.

- sohopuh "I went and ..."
- sengipuh "You went and..."
- sahapuh "He, they went and..."
- segipuh "We, you (pl) went and ..."

Paradigm D. Imperfect medials.

- soomapuh "I will go and..."  
soopainepuh "You and I will go and..."  
sekepuh "You will go and..."  
sapanepuh "He, they will go and ..."  
sakapuh "We will go and..."  
sepikepuh "You (pl) will go and ..."

Now I was in strife because I had to make 4 allomorphs of each suffix which occurred following the portmanteau suffixes isolated before, e.g. -opuh ~ -ipuh ~ -apuh ~ -epuh. This didn't seem too smooth an analysis.

In addition I found that in questions or emphatic speech at the end of a phrase, some final vowels kept cropping up, so that what was normally pronounced soh, would come out as soho, and what was normally pronounced sah, came out a saha. At first I assumed that this was merely a phonological feature of emphasis, whereby the vowel was rearticulated. With further observation I began to realize that every word ended in a vowel which normally was not articulated, but could be if the intonation demanded it. All of the five vowel qualities occurred consistently in this position and they tended to be pronounced more frequently following /r/,

2. Data from Nouns.

As I was working on nouns, I came up with an analysis which illuminated the problem of verb cuts. The words for 'water' and 'river' had me puzzled. I knew that in most Papua New Guinea languages the same word is used for both, but I had recorded [ibɔ:] 'water' and [iber̥] [iber̥i] 'river'. Obviously they were related, but how? As I tried to fit them into the general noun classification system I saw that my transcription of 'water' was incomplete. It fitted into the 'amorphous' class of nouns with qualitative suffix -vo. Some examples are:

Paradigm E. Amorphous class.

- it li-vo (fire ash-qual) 'ashes'  
bote-vo (lime-qual) 'lime powder'  
lama-vo (sick-qual) 'sickness'  
api-vo (sugar-qual) 'granulated sugar'  
(note contrast with : api-ra (sugar-qual) 'sugar cane')

So I realized that to fit this pattern I must write 'water' ivo-vo (phonetically [ibɔb]),

confirmed by careful listening).

River on the other hand, fitted the pointed or sharp group of nouns with qualitative suffix -ri.

Paradigm F. Pointed class.

ena-ri (axe-qual) 'axe'  
toka-ri (tail-qual) 'tail'  
ive-ri (river-qual) 'river'

In a number of instances noun stems seemed to fall into more than one classifier group, and thus to refer to distinct but related items:

Paradigm G. Noun overlap.

gele-vo (stone-qual) 'stone'  
gele-ngade (stone-qual) 'ground oven'  
iti-ngade (fire-qual) 'fire'  
iti-ra (fire-qual) 'firewood'  
iti-mede (fire-qual) 'dry tree'  
mara-si (arm-qual) 'arm'  
mara-pu (arm-qual) 'finger'

As I looked at 'water' and 'river', it occurred to me that they could well have the same stem, with a vowel harmony effect proceeding back from the vowel of the stem to the vowel of the suffix. The hypothesis gained weight when I discovered this paradigm on the word 'this' with various noun classifier suffixes:

Paradigm H. 'this'.

epo-pu  
epo-vo  
epe-ngi  
epe-repe  
epa-ta  
epe-kapi  
epe-ngade  
epo-ngabo

In this case it is always the final vowel of the suffix that conditions the final vowel of the stem. The fragmentary nature of this data suggests that vowel harmony in nouns is not an active system at this time.

### 3. Analysis.

Now as I looked again at my verbs, I was struck with the parallel system found in them and was able to confidently redraw the cuts I had tried to make previously. Interestingly, the conditioning vowel is usually word final and therefore not pronounced in the normal flow of speech.

My paradigms were now revised to be as follows:

Paradigm I. Perfect (revised)		Paradigm J. Imperfect (revised)	
Sg	DI & PI	Sg	DI & PI
0	so-ho	so-oma	sa-ka
1	se- ngi	se-gi	
2		se-ke	se-pike
3	sa-ha		sa-pane

There would be various ways of describing this vowel harmony by rule, depending on the chosen theoretical framework. I will use a statement compatible with the tagmemic grammatical descriptions of Kunimaipa that have been written. I set up the following morphophonemes and rules.

#### 1. Morphophonemes.

- a. [A] is /o/ preceding a syllable containing /o/ or /u/; /e/ preceding a syllable containing /e/ or /i/; and /a/ elsewhere.
- b. [E] is /o/ preceding any morpheme the last vowel of which is /o/ or /u/; /e/ preceding any morpheme the last vowel of which is /e/ or /i/; and /a/ elsewhere.

#### 2. Rules.

- a. The morphophonemes are converted to phonemes one at a time proceeding from left to right.
- b. Morphemes ending in /i/, /e/, /o/, or /u/ do not have allomorphs exhibiting vowel harmony with a following morpheme.
- c. Word final vowel is lost, except when the word is at the end of a phonological sentence with a question or emphatic intonation contour.

Paradigm K. Morphophoneme examples.

$[sA]$  +  $-ho \rightarrow$  soho  $\rightarrow$  soh 'I went'  
 $[vA]$  +  $-ho \rightarrow$  voho  $\rightarrow$  voh 'I got (it)'  
 $[nA-]$  +  $[vA]$  +  $-ho \rightarrow$  na- +  $[vA]$  +  $-ho \rightarrow$  navoho  $\rightarrow$   
 navoh 'I got you'  
 $[vA]$  +  $[-amA]$  +  $-ho \rightarrow$  va +  $[-amA]$  +  $-ho \rightarrow$  vaamoho  $\rightarrow$   
 vaamoh 'I'm getting (it)'  
 $[nA-]$  +  $[vA]$  +  $[-amA]$  +  $-ho \rightarrow$  na- +  $[vA]$  +  $[-amA]$   
 +  $-ho \rightarrow$  na- + va +  $[-amA]$  +  $-ho \rightarrow$  navaamoho  $\rightarrow$  navaamoh  
 'I'm getting you'  
 na- +  $[vA]$  +  $-tu \rightarrow$  navotu  $\rightarrow$  navot 'I won't get (it)'  
 na- +  $[vA] \rightarrow$  nava  $\rightarrow$  nav 'I didn't get (it)'  
 na- +  $[nA-]$  +  $[vA]$  +  $-tu \rightarrow$  na- + na- +  $[vA]$  +  $-tu \rightarrow$   
 nanavotu  $\rightarrow$  nanavot 'I won't be getting you'  
 $[lepE]$  +  $-ngade \rightarrow$  epengade  $\rightarrow$  epengad 'this fire'  
 $[lepE]$  +  $-pu \rightarrow$  epopu  $\rightarrow$  epop 'this person'  
 $[lepE]$  +  $-ta \rightarrow$  epata  $\rightarrow$  epat 'this thing'  
 $[ivE]$  +  $-vo \rightarrow$  ivovo  $\rightarrow$  ivov 'water'  
 me+  $-ho \rightarrow$  meho  $\rightarrow$  meh 'I put (it)'  
 na- +  $[nA-]$  + me +  $-tu \rightarrow$  nanemetu  $\rightarrow$  nanemet  
 'I didn't put you'  
 $[nA-]$  + vi +  $-ho \rightarrow$  neviho  $\rightarrow$  nevih 'I left you'

FOOTNOTES

1. Kunimaipa is spoken by some 8,000 people living in the Central and Morobe Districts. Published works on the language include:

Pence, Alan R. 1964. "Intonation in Kunimaipa, New Guinea", Linguistic Circle of Canberra Publications, Series A, No. 3:1-15.

Pence, Alan R. 1966. "Kunimaipa Phonology: Hierarchical Levels," Linguistic Circle of Canberra Publications, Series A, No. 7:49-67.

Pence, Alan R. 1968. "An Analysis of Kunimaipa Pronouns," KIVUNG 1(2):109-115.

Pence, Alan, Elaine Geary, and Doris Bjorkman. 1970. "Kunimaipa Nominals." Linguistic Circle of Canberra Publications, Series A, No. 23:8-35

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