Halăng Phonemes [1]

JAMES & NANCY COOPER

0. Introduction.

Halăng is a Mon-Khmer language which is spoken in Kontum Province of the Republic of Viet-Nam. Halăng people are also reported to be located north of Kontum Province and west of Kontum Province in Laos. Kơyong, a nearby dialect, is mutually intelligible with Halăng. The speakers of Kơyong live west of Daktô in Kontum Province. There are an estimated 10,000 Halăng people.

The language data for this paper was gathered over a period of one year, beginning in March 1963. Five months were spent living in the village of Plèi Khôk Hơnar, a 'new life' hamlet 15 kilometers west of Kontum City.

1. The Consonant Phonemes.

1.1 Problems of Intèrpretation.

1.1.1 Preglottalized Consonants and Voiceless Nasals.

The preglottalized consonants present a problem of unit/cluster interpretation. The voiced stops, nasals, and liquids (except *r*) can be preceded by glottals. The resultant preglottalized liquids (*ʔl, ʔw, ʔy*) could be interpreted as clusters following the existing well-established pattern of stop plus liquid. But the lack of an existing pattern of stop plus stop or stop plus nasal could weigh heavily toward an analysis of all preglottals

1 The assistance of David D. Thomas of the Summer Institute of Linguistics has been greatly appreciated in the preparation of this paper.

as complex unit phonemes.

The interpretation of voiceless nasals must be considered here, also. If preglottalized nasals were interpreted as units, then voiceless nasals (or *h* plus nasal) should also be considered as units. The liquids which are preceded by *h (hl, hw, hy, hr)* may be interpreted as clusters, following the pattern of consonant plus liquid. But, there is no non-suspect pattern of consonant plus nasal.

However, there are two important factors to consider. (1) A unit interpretation of preglottalized consonants and voiceless nasals would considerably enlarge the phoneme inventory. (2) *?* and *h* are a separate class of phonemes, functioning differently from all other consonant phonemes. (See Section 1.2, Description of consonants *?* and *h*.)

The question seems to be whether to interpret preglottalized consonants and voiceless nasals as units since there is no established pattern of consonant plus nasal or stop, or to postulate a new position for the *?/h* class of phonemes and thereby eliminate the eleven suspect phonemes from the chart. At this present time the latter choice seems to be the better one. The preglottalized suspect consonants (*?b, ?d, ?j, ?m, ?n, ?n̂, ?ŋ*) and voiceless nasals (*hm, hn, hn̂, hŋ*) are interpreted as clusters.

1.1.2 Aspirated Stops. Following the well-established pattern of stop plus liquid, the aspirated stops (*ph, th, kh*) could be interpreted as units, since liquids are found following aspirated stops. However by the new position postulated for *?* and *h* (see Section 1.1.1. Preglottalized Consonants and Voiceless Nasals), the aspirated stops could also be interpreted as clusters. The *h* follows the voiceless stops (*p, t, k*) but precedes the nasals and liquids.

	Bilabial	Alveolar	Alveopalatal	Velar	Glottal
Vl.	p	t	c	k	
Stops					
Vd.	b	d	j	g	
Nasals	m	n	n̂	ŋ	
Liquids	w	l,r	y		
Post-Glottal	w?		y?		
Others		s			h,?

Chart 1. The Consonant Phonemes

A cluster interpretation better fits the language for the following reasons. First, the aspirated stops are not found in word-final position, just as no clusters are found in word-final position. Second, the stops (*p, t, k,*) and *h* are found in word-initial and word-final positions operating as independent phonemes. Third, a cluster interpretation would eliminate three more phonemes from the chart. So, the aspirated stops (*ph, th, kh*) are interpreted as clusters.

1.1.3 Consonants Followed by Glottals. *w?* and *y?* occur in word-final position. Since no clusters are found in this position, they must be treated as complex units or be considered as allophones of other phonemes.

There is the possibility of treating them as allophones of voiced stops *b* and *j*. They are phonetically similar in that they share the point of articulation and are voiced. The voiced stops never occur in word-final position and the phonemes *w?* and *y?* are found only in word-final position. This interpretation eliminates two phonemes from the chart, but it is faced with other problems. There are no counterparts for *d* and *g* in word-final position. The fact that it would symmetrize the distribution of voiced stops is offset by the fact that word-final position is not completely symmetrical. For example, *n̂* and *c*, alveopalatals, do not occur in word-final position.

In view of the foregoing, the phonemes *w?* and *y?* are being interpreted as units appearing only in word-final position.[2]

1.2 Description and Contrasts of Consonants.

(Capital letters stand for neutralization of long and short vowels before *?* and *h*).

/p/ is a voiceless bilabial stop.

p : ph *'pee* 'three', *phee* 'hulled uncooked rice'

2 Since writing this paper a number of names of Halăng people have been found which have a final consonant *wh* as in *Diawh*, *Chiawh*. This added information indicates that the *ih* which has been interpreted as an allophone of *s* should be listed as a complex final consonant *yh*, the complex final consonants being *w?*, *y?*, *wh*, and *yh*. This analysis is also supported by the fact that alveopalatals do not occur in word-final position.

p : b *pak* 'to break', *bak* 'to put on'
p : ʔb *pee* 'three', *ʔbee* 'not'

/t/ is a voiceless alveolar stop.

t : th *tak* 'sound of shooting', *thak* 'to stub toe'
t : d *tak* ,, *dak* 'spear trap'
t : c *tak* ,, *cak* 'body'
t : ʔd *tòoŋ* 'small house in rice field, *ʔdòoŋ* 'military camp'

/c/ is a voiceless alveopalatal stop.

c : t *cak* 'body', *tak* 'sound of shooting'
c : j *cak* 'body', *jak* 'to move'
c : s *cak* 'body', *sak* 'sack'
c : ʔj *cAh* 'difficult to cut', *ʔjrAh* (*ʔjrÌh ʔjrAh*) 'scattered'

/k/ is a voiceless velar stop.

k : kh *kaa* 'fish', *khaa* 'expensive'
k : g *kal* 'need', *gal* 'enough'
k : ʔ *kal* 'need', *ʔal* 'numerous'

/b/ is a voiced bilabial stop.

b : p *bak* 'to put on', *pak* 'to break'
b : ʔb *bOh* 'salt', *ʔbOh* 'to dull a knife'

/d/ is a voiced alveolar stop.

d : t *dak* 'spear', *tak* 'sound of shooting'
d : ʔd *dok* 'monkey', *ʔdok* 'read'
d : r *hàdoŋ* 'winnowing basket', *hàroŋ (hàrii hàroŋ)* 'lots of work'

/j/ is a voiced alveopalatal stop.

j : c *jak* 'to move', *cak* 'body'
j : ʔj *jAh* 'have', *ʔjrAh (ʔjrIh ʔjrAh)* 'scattered'
j : d *jaŋ* 'if', *daŋ* 'to look for'

/g/ is a voiced velar stop.

g : k *gal* 'enough', *kal* 'need'
g : ʔ *gal* 'enough', *ʔal* 'numerous'

/m/ is a voiced bilabial nasal

m : hm *mA?* 'don't', *hmA?* 'to be acquainted with'

m : ʔm *mA?* *ʔmA?* 'to rescue from water'

/n/ is a voiced alveolar nasal.

n : hn *noo* 'term for calling children', *hnoo* 'repeat'

n : ʔn *naaw* 'more', *ʔnaaw* 'new'

n : n̂ *hànuk* 'happy', *hàn̂uk* 'beads'

n : ŋ *hànuk* 'happy', *hàŋuk* 'pile of leaves'

/n̂/ is a voiced alveopalatal nasal.

n̂ : ʔn̂ *n̂aŋ* 'loudly', *ʔn̂aŋ* 'bitter'

n̂ : n *hàn̂uk* 'beads', *hànuk* 'happy'

n̂ : ŋ *hàn̂uk* 'beads', *hàŋuk* 'pile of leaves'

/ŋ/ is a voiced velar nasal.

ŋ : ŋʔ *ràŋoat* 'quiet', *màʔŋoat* 'hungry'

ŋ : n *hàŋuk* 'pile of leaves', *hànuk* 'happy'

ŋ : n̂ *hàŋuk* 'pile of leaves', *hàn̂uk* 'beads'

/w/ is a voiced bilabial rounded vocoid.

w : h *waa* 'third dual pronoun', *haa* 'to open mouth'

w : y *waa* 'third dual pronoun', *yaa* (*bEh yaa*) 'water snake'

w : p *wàk* 'mango', *pàk* 'to pierce'

/l/ is a voiced alveolar lateral.

l : ʔl *lEh* 'time', *ʔlEh* 'burned with fire'

l : r *lEh* 'time', *rEh* 'pluck a guitar'

/r/ [r̂] is a voiced alveolar trill. It occurs only as the initial or final consonant of a word.

[r̆] is a voiced alveolar flap. It occurs only between vowels or in consonant clusters.

r : l *rEh* 'to pluck a guitar', *lEh* 'time'

r : y *raa* (*ree raa*) 'terrified', *yaa* (*bEh yaa*) 'water snake'
r : w *raa* (*ree raa*) 'terrified', *waa* 'third dual pronoun'
r : d *hàroŋ* (*hàrii hàroŋ*) 'lots of work' *hàdoŋ* 'winnowing basket'

/y/ is a voiced palatal vocoid.

y : r *yaa* (*bEh yaa*) 'water snake', *raa* (*ree raa*) 'terrified'
y : ʔ y *yaw* 'insect', *ʔyaw* 'female animal'
y : y ʔ *braay* 'thread' *braay ʔ* 'tired'

/wʔ/ is a voiced bilabial rounded vocoid followed by a glottal. /wʔ/ occurs only in word-final position.
w ʔ : w *chaawʔ* 'rice soup', *chaaw* 'burn'

/yʔ/ is a voiced palatal vocoid followed by a glottal.
/yʔ/ occurs only in word-final position.
y ʔ : y *braay ʔ* 'tired', *braay* 'thread'

/s/ [s] is a voiceless alveolar fricative which occurs in word-initial and word-medial positions.
[yh] is a voiceless alveopalatal fricative which occurs only in word-final position.
s : c *see* 'vehicle', *cee* 'do'
s : t *see* 'vehicle', *tee* 'kind of trap'
yh : h *jayh* 'bamboo spear trap', *jAh* 'have'
yh : h *jayh* 'bamboo spear trap', *jay* 'happy sound'

/h/ is a voiceless glottal fricative.

h : ʔ *haak* 'vomit', *ʔaak* 'crow'; *lAh* 'to come', *lAʔ* 'a lean-to'
h : s *haa* 'open mouth', *saa (saa tàlùum)* 'name of wood'
h : yh *jAh* 'have', *jayh* 'bamboo spear trap'

/ʔ/ is a voiceless glottal stop.

ʔ : k *sAʔ* 'natural', *sak* 'sack'; *ʔal* 'numerous' *kal* 'need'
ʔ : # *lAʔ* 'a lean-to', *laa* 'leaf'
ʔ : h *ʔaak* 'crow', *haak* 'vomit'; *laʔ* 'a lean-to', *lAh* 'to come'

ʔ and *h* form a separate class of phonemes, since they act differ-

ntly from all other consonant phonemes. (1) Long and short vowels are neutralized before word-final *?* and *h*. (2) Free alternation occurs between word-initial *?* and *h* in a presyllable. *(hàtEh, ?àtEh* 'speak) (3) Nasalization of vowels usually occurs in an environment of *?* and *h*. (See Section 3.2 Description of Nasalization)

2. Consonant Patterns and Positions.

A word may consist of one or two syllables. There are two types of syllables: the 'main syllable' and the 'preliminary syllable'. The 'main syllable' receives the heavier stress and has a maximum pattern of GCLVC. (*G* stands for glottals, *?* and *h*; and *L* stands for liquids *r, l, r, y.)* The 'preliminary syllable' receives the lighter stress and has a pattern of CV or CVC (sometimes GCLVC when there is reduplication) in which the vowel is usually a mid-central vocoid. The phonological word then may be defined as a unit consisting of only one main syllable with or without a preceding preliminary syllable.

The general maximum pattern of the word is:

$C_1\ V_1\ C_2.\ G\ C_3\ L\ V_2\ C_4.$

.1 Preliminary Syllable.

The preliminary consonant position (C_1) is usually filled by a single consonant. All consonant phonemes are found in this position except *w?* and *y?*, which occur only in word-final position. But when consonant clusters and the single consonants *n*, *ñ*, ŋ, *l*, *w*, *y* occur, they are a reduplication of the initial consonants of the main syllable. Voiced stops occur only when voiced consonants or *?* and *h* are found initially in the main syllable.

The second position of the preliminary syllable (C_2) is usually filled by ŋ. When reduplication occurs, the (C_2) position may be filled by t, ?, l, h, but most often by ŋ and *k*.

.2 Main Syllable.

The main syllable begins with one, two or three consonants. The class of *?* and *h* (G) appears in cluster with stops, nasals and liquids. The *h* precedes the voiced stops (*b, d, j)*, the nasals *(m, n, ñ,* ŋ*)*, and the liquids (*l, y, w*). The *h* is found before nasals, before the liquids, and

following the voiceless stops (*p, t, k*).

The main consonant position (C_3) may be filled by voiceless stops, voiced stops, nasals and *s*. The liquids (L) occur singly, or as last members of clusters.

The consonants occuring at the beginning of the main syllable may be shown as follows :

(G)	(C_3)				(L)			
ʔ, h	p,	t,	c,	k	w,	l,	r,	y
	b,	d,	j,	g				
	m,	n,	ñ,	ŋ				
	s							

c, g, and *s* are not found in cluster with the phonemes *ʔ* and *h*. The distribution of the liquids is not complete, but all are found following *h*.

The word-final position (C_4) may be filled by all consonants except *c* and *ñ*, and voiced stops. Peculiar to this position are the phonemes *wʔ* and *yʔ*.

Consonant clusters are not found in word-final position, but when *m, n,* ŋ, and *l* occuur in word-final position, each is preceded by a non-phonemic lenis voiced stop at the same point of articulation. When a nasal is found elsewhere in the word, the voiced stop is dropped before the final nasal ; but the voiced stop always precedes the *l*. Examples : *hàŋ* [hàgŋ], 'burning sensation', *ñàŋ* [ñàŋ] 'hear', *tuul* [tuudl] 'to fall down', *nuul* [nuudl] 'not hear'.

3. The Vowel Phonemes.

3.1 Problems of Interpretation.

The vowels have five contrastive points of articulation — two front, two back and one central. Except for the central vowel, at each point of articulation there occurs a three-way contrast — short, long and breathy-long. With the central vowel (*a*), there is a four-way contrast — short, breathy-short, long and breathy-long. Glides also occur ; the front and back vowels glide to the central vowel. Contrastive breathiness occurs with the two high glides. This gives a total of twenty-two contrastive vowels. (See Chart 2).

Breathiness, which is peculiar to this language, may be treated as a suprasegmental feature since it does not significantly change the articulation of the vowels. This eliminates eight vowel contrasts from the total phoneme count. (See Chart 3).

Length is another characteristic of the vowels which can be treated as a suprasegmental feature. Length occurs with *i, e, a, u, o,* and this eliminates five more vowel contrasts from the basic phoneme count.

The chart is then left with vowels *i, e, a, u, o,* and the glides *ia, ea, ua,* and *oa*; length and breathiness are suprasegmental features.[3] (See Chart 4.)

	Front	Central	Back
High	i, ii, ìi, ia, ìa		u, uu, ùu, ua, ùa
Low	e, ee, èe, ea	a, à, aa, àa	o, oo, òo, oa

Chart 2. Twęnty-two Vowel Analysis

	Front	Central	Back
High	i, ii, ia		u, uu ua
Low	e, ee, ea	a, aa	o, oo, oa

Suprasegmental: breathiness (ˋ)

Chart 3. Fourteen Vowel Analysis

	Front	Central	Back
High	i, ia		u, ua
Low	e, ea	a	o, oa

Suprasegmental: breathiness (ˋ)
length (double vowel)

Chart 4. Nine Vowel Analysis

3.1.1. Vowels before *ʔ* and *h*. Long and short vowels are neutralized before word-final *ʔ* and *h*.

3.1.2 Vowels in Open Syllables. In open main syllables, only long

3 The next step in this progression is a five-vowel analysis. The suprasegmental features would consist of breathiness, length and offglide. However, this analysis has not been chosen.

vowels and high glides occur. *à* is also found in open syllables but only in clitics.

3.2 Description and Contrasts of Vowel Phonemes. (See Chart 4.)

/i/ [i] is a voiced high-front close unrounded vocoid appearing when the vowel is long and when it is contrastively breathy. [i] also appears before word-final *ʔ* and *h*.

[ɪ] is a voiced high-front open unrounded vocoid appearing when the vowel is short. Before consonants *p*, *t* and *k*, [ɪ] is slightly breathy.

i : ii : ìi *liŋ* 'think', *liiŋ* 'to cry out', *lìiŋ* (*luŋ lìiŋ*) 'flood.'

/e/ [e] is a voiced mid-front close unrounded vocoid appearing when the vowel is long. It also appears before word-final *h* when the vowel is non-breathy ; and before word-final *y*.

[ɛ] is a voiced mid-front open unrounded vocoid appearing when the vowel is short. It also appears before word-final *ʔ*, and before word-final *h* when the vowel is breathy.

e : ee : èe *leŋ* 'strong', *leeŋ* 'to hate', *lèeŋ* 'name of woman'.

/a/ [ə] is a voiced mid-central unrounded vocoid, and appears only when the vowel is both short and breathy.

[a] is a voiced low-central unrounded vocoid, appearing elsewhere.

a : aa : àa *taŋ* 'side', *taaŋ* 'in place of', *tàaŋ* 'to beat a drum'.

a : à : aa *daŋ* 'look for', *dàŋ* 'finished speaking', *daaŋ* 'fruit'.

/u/ [u] is a voiced high-back rounded vocoid.

u : uu : ùu *puŋ* 'to fall', *puuŋ* 'to speak much', *pùuŋ* 'name of man'.

/o/ [o] is a voiced mid-back rounded vocoid appearing when the vowel is short, and when the vowel is long in open main syllables. It also appears before word-final *w*.

[ɔ] is a voiced low-back rounded vocoid appearing when the vowel is long, and when the vowel comes before word-final *ʔ* and *h*.

([ɔ] appears in open main syllables in five words—two Vietnamese loan words, one name, and two seemingly Halăng words. Because of such a few occurrences in open main syllables, [ɔ] is not made a separate phoneme from [o].).

When breathiness accompanies the vowel *o*, the [o] has less roundness.

o : oo : ȍo *sok* 'hair', *sook* 'name of woman', *sȍok* 'happy'.

/ia/ [iə] is a voiced high-front close unrounded vocoid glided to a voiced mid-central unrounded vocoid.
ia : ìa *jian* 'friend', *jìan* 'to become'.

/ea/ [ea] is a voiced mid-front close unrounded vocoid glided to a voiced low-central unrounded vocoid.

/ua/ /uə] is a voiced high-back rounded vocoid glided to a voiced mid-central unrounded vocoid.
ua : ùa *jua?* 'a step', *jùa?* 'sour'

/oa/ [oa] is a voiced mid-back rounded vocoid glided to a low-central unrounded vocoid.

Further contrasts :

i : e : a : u : o	*din* 'bamboo pipe', *'den* 'near', *da*ŋ 'to look for', *dun* 'a name', *don* 'to help'
ia : ea : ua oa	*tian* 'black wood', *tean* 'to oommand', *tuan* 'to inquire', *toan* spear'

/Breathiness/ A distinctive feature of the Halăng language is the breathiness which occurs with the vowel phonemes. The Halăng describe the vowel quality as *brȍon* meaning 'having undertones' or 'dark sounding', as distinguished from *kliin* meaning 'shrill' or 'clear'. The words *brȍon* and *kliin* are both used to describe the quality of talking, singing, and the sounding of musical instruments—gongs, flute and xylophone. This *brȍon* vowel quality parallels the 'deep vowel' of the Jeh language and the laryngealization of the Sedang language, two neighboring languages.

Phonetically, there is less vibration in the vocal cords but with more oral resonance, and there is increased pressure from the diaphragm.

/Length/ Length occurs with vowels *i, e, a, u, o.*

/Nasalization/ Nasalization of vowels occurs very infrequently but it is

contrastive. When it occurs, it is usually in the environment of an *h* or a *ʔ*, and the *h* or *ʔ* may precede or follow the vowel. Most of the nasalized words are onomatopoeia describing sounds or the cries of animals.

Examples: *màhǫ̣ǫ̣al* 'spirit', *tǫ̣h hǫ̣h hǫ̣h* 'sound of coughing'.

4. Vowel Patterns and Positions.

The general maximum pattern for the word is:
$C_1V_1C_2$. G C_3 L V_2C_4.

4.1 Preliminary Syllable.

The first vowel position (V_1) is filled by one vowel — *à*. It is a total neutralization of all points of vowel articulation. When reduplication is present, any short vowel (*i, e, a, u, o*) may occur.

4.2 Main Syllable.

The second vowel position (V_2) may be filled by all vowel phonemes, but with the following limitations.

(1) *e* and the front glides *(ia, ea)* do not occur before word-final *s*.

(2) *à* does not occur before #, *ʔ*, *h*, *w*, *wʔ*, *y*, *yʔ*.

(3) *ea* does not occur before word-final *y*.

(4) *oa* does not occur before word-final *w*.

(5) *ua* and *ùa* do not occur before *w* and *wʔ*.

(6) *ea* and *oa* do not occur before #, *ʔ*, *h*, *wʔ*, *yʔ*.