Halang Phonemes 1

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0. Introduction.

Halang is a Mon-Khmer language which is spoken in Kontum Province of the Republic of Viet-Nam. Halang people are also reported to be located north of Kontum Province and west of Kontum Province in Laos-Koyong, a nearby dialect, is mutually intelligible with Halang. The speakers of Koyong live west of Daktô in Kontum Province. There are an estimated 10,000 Halang 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 Honar, a 'new life' hamlet 15 kilometers west of Kontum City.

1. The Consonant Phonemes.

1.1 Problems of Interpretation.

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 (?l, ?w, ?y) 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, ?n, ?n, ?n) and voiceless nasals (hm, hn, hn, hn) 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.

V1.	Bilabial p	Alveolar t	Alveopalatal c	Velar k	Glottal
Stops					
Vd.	Ъ	d	j	g	
Nasals	m	n	n	ŋ	
Liquids	w	1,r	у		
Post-Glottal	M\$		у?		
Others		s			h,?

Chart I. 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, n 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.

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 Halang 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 yhthe 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.

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pak 'to break', bak 'to put on'
      p:b
                                  ?bee
                                        'not'
                     'three',
      p:?b
                pee
/t/ is a voiceless alveolar stop.
                    'sound of shooting', thak 'to stub toe'
              tak
     t:d
               tak
                                        dak 'spear trap'
                                        cak 'body'
               tak
     t:c
              tòon 'small house in rice field, ?dòon 'military camp'
     t:?d
/c/ is a voiceless alveopalatal stop.
                   'body', tak 'sound of shooting'
     c:t
               cak
     c:i
               cak
                   'body', jak 'to move'
               cak 'body', sak 'sack'
     c:s
               cAh 'difficult to cut', ?jrAh (?jrlh ?jrAh) 'scattered'
     c:?i
     is a voiceless velar stop.
/k/
     k:kh
               kaa 'fish', khaa
                                   'expensive'
               kal 'need', gal
                                   'enough'
     k:g
     k:?
               kal
                     'need', ?al
                                   'numerous'
/b/ is a voiced bilabial stop.
               bak
                     'to put on', pak 'to break'
     b:p
     b:?b
               bOh
                     'salt'.
                                      ?bOh 'to dull a knife'
/d/ is a voiced alveolar stop.
      d:t
               dak
                                      tak 'sound of shooting'
                     'spear',
      d:?d
               dok
                                      ?dok 'read'
                     'monkey',
              hàdon 'winnowing basket', hàron (hàrii hàron) 'lots of work'
      d:r
     is a voiced alveopalatal stop.
               iak
                   'to move'.
                                      cak 'body'
      1:C
      1:?1
               jAh
                     'have'.
                                      ?jrAh (?jrIh ?jrAh) 'scattered'
      i : d
               jan
                     'if'.
                                      dan 'to look for'
    is a voiced velar stop.
               gal
                   'enough',
                                      kal 'need'
      g : ?
               gal
                     'enough', ?al 'numerous'
 /m/ is a voiced bilabial nasal
      m:hm \quad mA? 'don't',
                                      hmA? 'to be acquainted with'
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r:1

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?mA? 'to rescue from water'
       m:?m
               mA?
/n/ is a voiced alveolar nasal.
                     'term for calling children', hnoo 'repeat'
      n:hn
               noo
                                     ?naaw 'new'
              naaw 'more',
      n:?n
                                     hànuk 'beads'
      n:n
              hànuk 'happy',
                                    hànuk 'pile of leaves'
              hànuk 'happy',
      n:n
/n/ is a voiced alveopalatal nasal.
                                   ?nan 'bitter'
      n :?n
               nan 'loudly'.
              hànuk 'beads',
                                    hànuk 'happy'
      n:n
                hànuk 'beads',
                                         hànuk 'pile of leaves'
/\eta is a voiced velar nasal.
       \eta:\eta?
                 rànoat 'quiet',
                                        mà?noat 'hungry'
                hànuk 'pile of leaves',
                                        hànuk 'happy'
       \eta:n
                                        hànuk 'beads'
       n:n
                 hànuk 'pile of leaves'.
/w/ is a voiced bilabial rounded vocoid.
                 waa 'third dual pronoun', haa 'to open mouth'
      w:h
                waa 'third dual pronoun', yaa (bEh yaa)
      w:y
                     'water snake'
                 wàk 'mango',
                                          pàk 'to pierce'
      w:p
/1/ is a voiced alveolar lateral.
      1:31
                 lEh 'time',
                                          ?lEh 'burned with fire'
                lEh 'time'.
      1 : r
                                          rEh 'pluck a guitar'
/r/ [r] is a voiced alveolar trill. It occurs only as the initial or final
      consonant of a word.
      [r] is a voiced alveolar flap. It occurs only between vowels or in
      consonant clusters.
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rEh 'to pluck a guitar'. lEh 'time'

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raa (ree raa) 'terrified', yaa (bEh yaa) 'water snake'
       \mathbf{r}:\mathbf{y}
              raa (ree raa) 'terrified', waa 'third dual pronoun'
       r:w
              hàron (hàrii hàron) 'lots of work' hàdon 'winnowing basket'
       r:d
/y/ is a voiced palatal vocoid.
              yaa (bEh yaa) 'wa er snake', raa (ree raa) 'terrified'
       y:?y yaw 'insect', ?yaw 'female animal'
       y: y? braay 'thread' braay? 'tired'
/w?/ is a voiced bilabial rounded vocoid followed by a glottal. /w?/
       occurs only in word-final position.
       w?:w chaaw? frice soup, chaaw 'burn'
/y?/ is a voiced palatal vocoid followed by a glottal.
       /y?/ occurs only in word-final position.
       y?: y braay? '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'
             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.
              haak 'vomit', ?aak 'crow'; lAh 'to come',
      h · ?
              lA? 'a lean-to'
              haa 'open mouth', saa (saa tàlùum) 'name of wood'
      h: yh jAh 'have', jayh 'bamboo spear trap'
/?/ is a voiceless glottal stop.
            sA? 'natural', sak 'sack'; ?al 'numerous'
              kal 'need'
      ?: # lA? 'a lean-to', laa 'leaf'
             ?aak 'crow', haak 'vomit'; la? 'a lean-to',
              lAh 'to come'
      ? and h form a separate class of phonemes, since they act differ-
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ntly from all other consonant phonemes. (1) Long and short vowels re neutralized before word-final? and h. (2) Free alternation occurs between word-initial? and h in a presyllable. (hàtEh, ?àtEh 'speak) (3) Vasalization of vowels usually occurs in an environment of? and h. (See Section 3.2 Description of Nasalization)

. 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 ev, 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 phonogogical 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: $C_1 V_4 C_2$. G $C_3 L V_2 C_4$.

2.1 Preliminary Syllable.

The second position of the preliminary syllable (C_2) is usually filled by η . When reduplication occurs, the (C_2) position may be filled by t, t, t, t, but most often by t, and t.

2.2 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 precedes the voiced stops (b, d, j), the nasals (m, n, n, n), and the iquids (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 occurring at the beginning of the main syllable may be shown as follows:

c, g, and s are not found in cluster with the phonemes? 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 n, and voiced stops. Peculiar to this position are the phonemes w? and y?.

Consonant clusters are not found in word-final position, but when m, n, n, and l occur 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: $h\grave{a}_{n}$ [$h\grave{a}_{n}$], 'burning sensation', $n\grave{a}_{n}$ [$n\grave{a}_{n}$] '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 breathylong. 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 Low	i, ii, ì i , ia, ìa e, ee, èe, ea	a, à, aa, àa	u, uu, ùu, ua, ùa o, oo, òo, oa
	Chart 2.	Twenty-two Vowel	Analysis
High	Front i, ii, ia	Central	Back u, uu ua
Low	e, ee, ea	a, aa	o, oo, oa

Suprasegmental: breathiness (')

Chart 3. Fourteen Vowel Analysis

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

Suprasegmental: breathiness (') length (double vowel)

Chart 4. Nine Vowel Analysis

- 3.1.1. Vowels before ? and h. Long and short vowels are neutralized before word-final? 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. \dot{a} 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? and h.
 - $[\nu]$ is a voiced high-front open unrounded vocoid appearing when the vowel is short. Before consonants p, t and k, $[\nu]$ is slightly breathy.
 - i:ii:ii lin 'think', liin 'to cry out', liin (lun liin) '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.
 - [ϵ] is a voiced mid-front open unrounded vocoid appearing when the vowel is short. It also appears before word-final ϵ , and before word-final ϵ when the vowel is breathy.
 - e:ee:èe len 'strong', leen 'to hate', lèen 'name of woman'.
- /a/ [a] 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 tan 'side', taan 'in place of', tàan 'to beat a drum'. a:à: aa dan 'look for', dàn 'finished speaking', daan 'fruit'.
- [u] is a voiced high-back rounded vocoid.
 u:uu:ùu pui 'to fall', puui 'to speak much', pùui '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.
 - [5] is a voiced low-back rounded vocoid appearing when the vowel is long, and when the vowel comes before word-final? and h.
 - ([o] appears in open main syllables in five words—two Vietnamese loan words, one name, and two seemingly Halang words. Because of such a few occurrences in open main syllables, [o] is not made a separate phoneme from [o].).

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

o: oo: do sok 'hair', sook 'name of woman', sook 'happy'.

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

 ia: la jian 'friend', jian 'to become'.
- /ea/ [ea] is a voiced mid-front close unrounded vocoid glided to a voiced low-central unrounded vocoid.
- /ua/ /ua] is a voiced high-back rounded vocoid glided to a voiced midcentral 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', dan 'to look for', dun 'a name', don 'to help'
ia:ea:uaoa tian 'black wood', tean 'to oommand', tuan

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

'to inquire', toan spear'

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?, and the h or ? may precede or follow the vowel. Most of the nasalized words are onomatopoeia describing sounds or the cries of animals.

Examples: mahoal 'spirit', toh hoh hoh 'sound of coughing'.

4. Vowel Patterns and Positions.

The general maximum pattern for the word is: $C_1V_4C_2$. G C_3 L V_2C_4 .

4.1 Preliminary Syllable.

The first vowel position (V_4) is filled by one vowel — \dot{a} . 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 (V₂) 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 #, ?, h, w, w?, y, y?.
- (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 w?.
- (6) ea and oa do not occur before #, ?, h, w?, y?.

