

CHAPTER 2

A REVIEW OF LAHU PHONOLOGICAL ANALYSES IN THE LINGUISTIC LITERATURE

In this chapter, five previous phonological analyses of different dialects of the Lahu language will be summarized. Bradley (1979), provides a short description of eight dialects of Lahu (Black, Red, Sheleh, Laba, Hpu, Banlan, Bakeo and Ahpubele.) Bradley (1979) gives the only Lahu Bakeo phonological description in the literature. Matisoff (1973a) and Lewis (1986) both have written a short introduction to Black Lahu phonology. Cooper (1995) present a preliminary phonological analysis of the Banlan dialect. Sirisai (1986) published a description of Red Lahu phonology. Only four dialects; Black, Red, Banlan and Bakeo, will be considered in this chapter². Aspects of Black Lahu phonology will be discussed first, with variations noted when present in the other dialects.

2.1 Syllable Structure

2.1.1 Black Lahu

In Black Lahu, every syllable has a vowel and a pitch. Most syllables begin with a consonant, and more rarely with a vowel. Matisoff (1973a), Lewis (1986) and Bradley (1979) all agree that the syllable structure of Black Lahu is (C)VT, where C is an optional initial consonant, V is an obligatory vowel nucleus, and T is an obligatory tone.

² Yellow Lahu is divided primarily into Banlan and Bakeo dialects. Banlan is considered the standard Yellow Lahu dialect.

Bradley (1979:73) states that "Some syllables end in a glottal stop in certain juncture environments but otherwise there are no final consonants". He suggests that a final glottal stop consonant occurs only with high-falling or high-rising checked tone and half-low falling checked tone. Bradley does not include a glottal stop in his consonant chart, but considers the syllable-final glottal stop as a feature of tone.

2.1.2 Red Lahu

The syllable structure of Red Lahu is analyzed differently from other dialects. Bradley (1979:91) states that "In word initial position, every syllable in Red Lahu begins with a consonant". Therefore, Bradley gives the syllable structure of Red Lahu as CVT. In this case Bradley includes /ʔ/ as a syllable-initial consonant when other consonants are not present preceding a vowel.

Sirisai (1986) proposes a different syllable structure for Red Lahu. He states that the syllable structure of Red Lahu is C(C)V(V)T and can be divided into 4 subtypes.

1. The syllable structure may consist of a single consonant, vowel and tone, CVT, such as, /mɛ²²/ 'to be delicious', and /pa²²/ 'male'.
2. The syllable structure may consist of a consonant cluster, vowel and tone, C1C2VT, such as, /p^hu⁴⁴/ 'to be inflated', /bv^u⁴⁴?/ 'to be full'. Bradley, in contrast, interprets these kinds of consonant clusters as single affricate segments.
3. The syllable may consist of a single consonant, complex vowel and tone, CVVT, such as, /hau³³/ 'to be surprised', and /kai³³/ 'to go'.

4. The syllable structure may consist of a consonant cluster, vowel cluster and tone, C1C2VVT, such as, /la⁴⁴.kfui³³/ 'a leopard'. Sirisai, however, finds only one example for this type of syllable structure.

2.1.3 Banlan

Banlan syllable structure is identical to Black Lahu.

2.1.4 Bakeo

Bradley (1979) states that in Bakeo every syllable consists of an initial consonant, an obligatory vowel, and a pitch or contour. In some cases there are also final features, i.e., a glottal stop. According to Bradley, the syllable structure for the Bakeo dialect is CV(C)T.

2.2 Consonants

2.2.1 Black Lahu

Matisoff (1973a), Lewis (1986) and Bradley (1979) all agree that there are 24 consonant phonemes in Black Lahu as shown in Table 1:

		Bilabial	Labio-dental	Alveolar	Palatal	Velar	Uvular	Glottal
Plosive	vl. asp.	p ^h		t ^h		k ^h	q ^h	
	vl. unasp.	p		t		k	q	
	vd.	b		d		g		
Affricate	vl. asp.				tʃ ^h			
	vl. unasp.				tʃ			
	vd.				dʒ			
Fricative	vl.		f	s				h
	vd.		v			ɣ		
Nasal	vd.	m		n		ŋ		
Approx	vd.				j			
Lateral	vd.			l				

Table 1: Black Lahu consonant phonemes

2.2.2 Red Lahu

The Red Lahu consonant chart is exactly the same as Black Lahu, except for the addition of a glottal stop /ʔ/ (Bradley 1979).

2.2.3 Banlan

The consonant phonemes of Banlan are shown in Table 2: (Bradley 1979)

		Bilabial	Labio-dental	Alveolar	Palatal	Velar	Uvular	Glottal
Plosive	vl. asp.	p ^h		t ^h		k ^h		
	vl. unasp.	p		t		k		ʔ
	vd.	b		d		g		
Affricate	vl. asp.				tʃ ^h			
	vl. unasp.				tʃ			
	vd.				dʒ			
Fricative	vl.		f	s				h
	vd.		v			ɣ		
Nasal	vd.	m		n		ŋ		
Approx	vd.				j			
Lateral	vd.			l				

Table 2: Banlan consonant phonemes

There are 23 consonant phonemes including the glottal stop /ʔ/. Cooper (1995), on the other hand, presents only 22 consonant phonemes and does not include the glottal

stop /ʔ/. He says, "The syllable final glottal stops are a feature of two of the tones" (1995:5).

Two pairs of contrasting consonants which are present in Black Lahu, have merged in the Banlan dialect, which has no uvular plosives.

Black Lahu Banlan Lahu

/k, q/ /k/

/k^h, q^h/ /k^h/

2.2.4 Bakeo

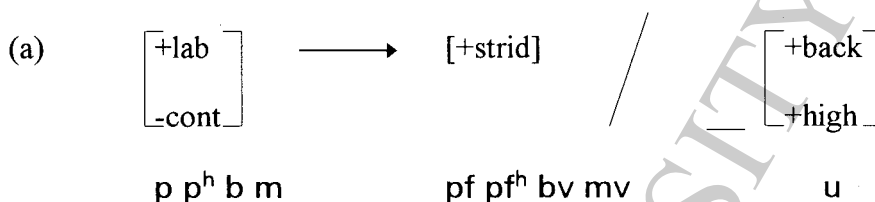
The consonant chart of the Bakeo dialect is exactly like that of Black Lahu, except for the addition of an initial glottal stop /ʔ/ (Bradley 1979).

2.3 Affrication and Dissimilation

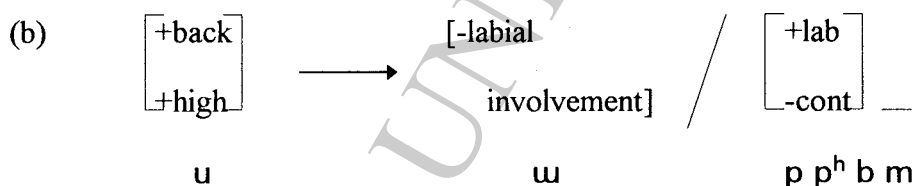
Every dialect of the Lahu language has the same processes of affrication and dissimilation. Both Bradley (1979) and Matisoff (1973a) agree that the labiodental affricates [pf], [p^hf], [bv] and [mv], and alveolar affricates and fricatives [ts], [ts^h], [dz], [s], and [z] occur only before one vowel each, and these vowels do not occur after other consonants. The vowel which occurs after the labiodental affricates is a high unrounded back vowel [ɯ]. A central extra high vowel [ɨ] occurs after alveolar affricates and fricatives.

Matisoff (1973a) states that the labials divide themselves naturally into two groups, /p p^h b m/ versus /f v/. /p p^h b m/ occur freely before all nine simple vowels, but

certain vocalic contrasts are neutralized after /f v/. /p p^h b m/ are all affricated before /u/, such as /pû/ [pfû] 'carry on the back', /phû?/ [pf^hû?] 'turn around', /bù?/ [bvù?] 'write', and /mû.jè/ [mvû.jè] 'rain'. This can be expressed as:

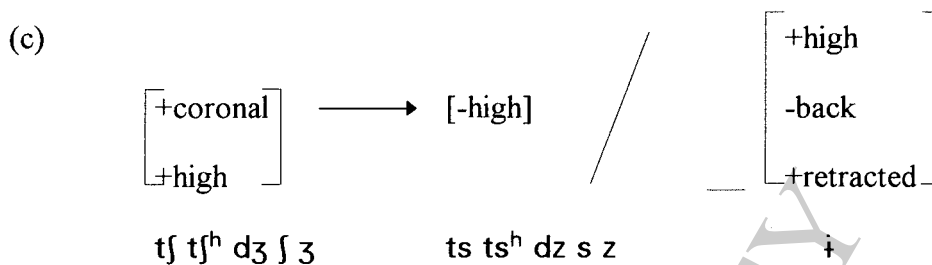


A high rounded back vowel /u/ itself loses its roundness in this environment by a sort of 'dissimilation of lip-action' Matisoff (1073a). This can be expressed as:

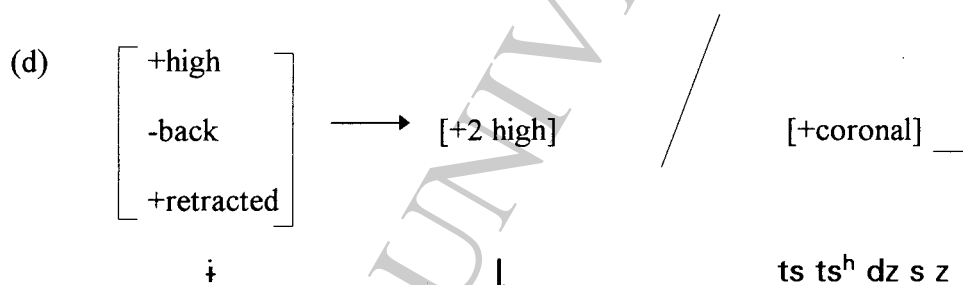


The combined effect of (a) and (b) is to transfer the roundedness of the vowel to the preceding consonant.

Before the high central vowel /i/, the palatals are realized as their alveolar counterparts, for example, /tʃi/ [tsʃ] 'stick, stab', /tʃ^hi/ [ts^hʃ] 'wash', /dzì/ [dz] 'liquor', /ʃi/ [s] 'die', /zì/ [z] 'sleep'. This can be expressed as:



The high central vowel /ɨ/, has an especially high variant [ɨ]³ after the palatals and is [ɨ] in all other environments, [ɨ] is pronounced with the tongue so high that it is actually touching the roof of the mouth. This can be expressed as:



These processes are accounted for in my Bakeo data also. An explanation based on articulatory movements will be given in section 3.2.1 (for consonants), and 3.3.1 (for vowels).

³ Matisoff's symbol.

2.4 Vowels

2.4.1 Black Lahu

Bradley (1997) and Matisoff (1973a) both agree that there are nine vowels in Black Lahu. Lewis (1986) includes the same nine vowels, plus an additional high unrounded vowel which cannot be described apart from the consonants with which it appears (see preceding section). It never occurs syllable initially and is found following only nine consonants. The Black Lahu vowel phonemes are shown in Table 3.

	Front Unrounded	Central Unrounded	Back Rounded
High	i	ɨ	u
Mid	e	ə	o
Low	ɛ	a	ɔ

special (Lewis)⁴

ɯ

Table 3: Black Lahu vowel phonemes

2.4.2 Red Lahu

Bradley (1979) and Sirisai (1986) both claim that the vowel system of Red Lahu is the same as Black Lahu.

⁴ Lewis uses 'uh' to denote the elusive high unrounded vowel.

2.4.3 Banlan

Both Bradley (1979) and Cooper (1995) agree that there are eight vowels in the Banlan dialect as shown in Table 4.

	Front Unrounded	Central Unrounded	Back Rounded
High	i		u
Mid	e	ʌ	o
Low	æ	a	ɔ

Table 4: Banlan vowel phonemes

Unlike Black Lahu, Banlan does not have /i/⁵, and the /ə/ is replaced by a mid central unrounded vowel /ʌ/, which follows all consonants except /f, l, ʃ/ and /n/. Cooper (1995) gives /ʌ/ the name "clenched teeth" vowel.

2.4.4 Bakeo

The vowel system in Bakeo is very similar to Black Lahu, excluding the special vowel. Unlike Black Lahu, the half-close vowels are quite easily distinguished from the close vowels.

⁵ Black Lahu /i/ goes to /i/ in Banlan.

2.5 Diphthongs

2.5.1 Black Lahu

Matisoff (1973a) states that there are two types of diphthongs in Black Lahu, "intrinsic" and "fusional". Intrinsic diphthongs occur within a single morpheme, for example:

/ai/	<i>qai</i>	'go'
/ɔæ/	<i>pɔæ</i>	'festival'

Almost all intrinsic diphthongs have come into the language through borrowing. Lewis (1986) states that diphthongs in Lahu are borrowed from other languages, especially Tai languages.

Matisoff also states that fusional diphthongs are the result of phonetic telescoping⁶ across morpheme boundaries, for example:

/ao/	<i>gao</i>	'arrived already'
/ɔo/	<i>mɔo</i>	'seen already'

The word /*ga*/ means 'arrive'. A morpheme /*o*/ means 'finished already'. Therefore, when combining these two morphemes together in a word, the vowel becomes a fusional diphthong (*/ga/ + /o/ = /gao/*) meaning 'arrived already'.

⁶ The word "telescoping" means merging of a final vowel with the initial vowel of a following morpheme.

Diphthongs in Lahu are sequences of the nine monophthongs. In vowel-initial syllables, the first vowel of a diphthong is usually the syllable nucleus and the following vowel acts as a semivowel.

2.5.2 Red Lahu

Bradley (1979) states that diphthongs in Red Lahu start with the close, half-close, and half-open back vowels, and glide into front vowels. Sirisai (1986), on the other hand, states that there are two types of diphthongs in Red Lahu, backing diphthongs⁷ and fronting diphthongs⁸. The disagreement is due to varying analyses.

2.5.3 Banlan

Cooper (1995) states that "In Banlan the data contains eleven vowel-vowel sequences. Only the vowels /i ε a ɔ o/ and /u/ occur in sequences. Some sequences are clearly in loan words. Speakers are generally able to separate the vowels, but in regular speech, most of the sequences sound like diphthongs."

2.5.4 Bakeo

There is no mention of diphthongs in Bakeo in the literature.

2.6 Tones

2.6.1 Black Lahu

Matisoff (1973a), Lewis (1986) and Bradley (1979) all agree that there are seven tones in Black Lahu.

⁷ A backing diphthong is a diphthong which starts at the front of the tongue and glides to the back of the tongue.

⁸ A fronting diphthong is a diphthong which starts at the back of the tongue and glides to the front of the tongue.

Tone 1	high-falling tone
Tone 2	half-low falling tone
Tone 3	half-high rising tone
Tone 4	low level tone
Tone 5	mid level tone
Tone 6	high-falling checked tone
Tone 7	half-low falling checked tone

The first five tones all occur in long-vowel syllables which could be called "open". Tones 6 and 7 differ from tones 1 to 5. They are short-vowel syllables with a final glottal-stop which could be called "checked".

2.6.2 Red Lahu

Bradley (1979) states "As in Black Lahu, there are seven tones in Red Lahu, and they correspond exactly in pitch, contour, and final possibilities to those of Black Lahu".

2.6.3 Banlan

Banlan also has seven tones as the other dialects of Lahu do. Tones 1 to 5 occur in long-vowel syllables, tones 6 and 7 occur in short-vowel syllables with a final glottal-stop. Tones 4 and 5 have a final glottal-stop after a long vowel in sentence final and sometimes in word medial positions. Therefore, in word medial and sentence final positions the only distinction between tones 4 and 7 is one of vowel length. Bradley (1979) claims that Matisoff (1973a) agrees in suggesting a six tone system for Banlan, with tones 4 and 7 represented by the same tone.

2.6.4 Bakeo

Like other dialects of Lahu, Bakeo has seven tones. Bradley (1979) claims,

"Bakeo has either Yellow or Black Lahu realizations for tones. The frequency of each depends on the attitude and previous contacts of the speaker, and whom he is talking to. Thus, Bakeo who live with Banlan will use more Yellow forms, while those who live with Red Lahu will use more Black Lahu... Unlike the Black Lahu dialects, Bakeo shows no trace of the Black Lahu "tone sandhi"."

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