

TIBETO-BURMAN TONOLOGY IN AN AREAL CONTEXT

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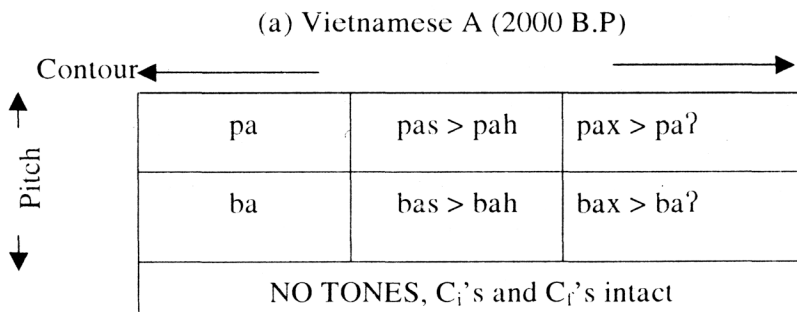
In the beginning was the Sino-Tibetan monosyllable, arrayed in its full consonantal and vocalic splendor. And the syllable was without tone and devoid of pitch. And monotony was on the face of the mora. And the Spirit of Change hovered over the segments flanking the syllabic nucleus...And Change said, "Let the consonants guarding the vowel to the left and right contribute some of their phonetic features to the vowel in the name of selfless intersegmental love, even if the consonants thereby be themselves diminished and lose some of their own substance. For their decay or loss will be the sacrifice through which Tone will be brought into the world, that linguists in some future time may rejoice...And it was so. And the language saw that it was good, and gradually began to exploit tonal differences for distinguishing utterances –yea, even bending them to morphological ends. And the tones were fruitful and multiplied, and diffused from tongue to tongue in the Babel of Southeast Asia... [Matisoff 1973:73]

Tibeto-Burman (TB) tonology is a vast topic that I cannot begin to treat adequately in this brief paper. I hope merely to show how complicated the tonal picture is in the "tone-prone" TB area, and to raise a few theoretical issues about the nature, variety, and diffusibility of tonal systems. After some general remarks on tonogenesis and its relationship to syllable structure, I attempt a rough typology of TB tonal systems. Finally I take up the issue of whether a single system of proto-tones can be set up at the PTB and/or PST level, and the strange fact that tones and other prosodic features are eminently diffusible.

1. Tonogenesis

The basic mechanisms of tonogenesis were explained with respect to Vietnamese by Haudricourt in a classic article (1954). See Figure 1.

FIGURE 1. Vietnamese Tonogenesis



(b) Vietnamese B (6th c. C.E)

Mid	Falling	Rising
pa	pà	pá
ba	bà	bá
THREE TONES: exeunt laryngeal C _f 's/enter "contours"		

(c) Vietnamese C (12th c. C.E)

HIGHER	pa "ngang"	pả "hỏi"	pá "sắc"
LOWER	pà "huyền"	pã "ngã"	pạ "nặng"
SIX TONES: exeunt voiced C _i 's/enter "registers"			

According to this model, which has gone basically unchallenged by subsequent scholars, tonogenesis is best explained as a compensatory mechanism for the depletion of consonantal contrasts at syllable-final or syllable-initial position.² In language of the proper structural type, the loss of a final laryngeal */-ʔ/ or */-h/ (the latter often from an earlier */-s/) had a raising or lowering effect on the syllable's pitch-contour, respectively (as in Vietnamese B). At the other end of the syllable, the loss of a voicing contrast in initial position typically led to a tonal split (as in Vietnamese C)—a multiplication of an already existing contrast, such that formerly *voiced-initial syllables assumed a distinctive tone setting them off from syllables with originally *voiceless initials.

Tone is by no means a simple matter of relative pitch, but rather a complex bundle of features, including phonation-type, tongue position, pharyngeal tension, vowel length, and contour. Whatever the exact interrelationships of these phonetic mechanisms may be, the fundamental opposition seems to be between what we could call the tense vs. lax laryngeal syndromes. See Figure 2.

² Rarer tonogenetic mechanisms include a vowel length contrast being transphonologized into a tonal one. See Svantesson 1988

FIGURE 2. Laryngeal attitudes ³

TENSE-LARYNX SYNDROME	LAX-LARYNX SYNDROME
Higher pitch /rising contour association with -ʔ	Lower pitch/falling contour association with -h
voicelessness	voicedness, breathiness
retracted tongue-root	advanced tongue root
(creaky) laryngeal turbulence	“rasping” laryngeal turbulence
larynx tense and/or raised= reduced supraglottal cavity	larynx lax and/or lowered= distended supraglottal cavity

2. Typology of Tibeto-Burman tone systems: syllable structure and tone

The TB family is remarkable for its typological diversity: phonological, morphological, and grammatical. ⁴ Although TB morphemes are basically monosyllabic, the TB monosyllable varies in complexity from that of Written Tibetan (WT, which closely approximates what is set up for Proto-TB) and that of Lahu. See FIGURE 3.

FIGURE 3: *PTB, WT and Lahu syllable canons*

	[T]
PTB	: (P ₂) (P ₁) Ci (G) V (:) (Cf) (s)
WT	: (P ₂) (P ₁) Ci (G) V (Cf) (s)
	T
Lahu	: (Ci) V

The abundant presence of prefixes (or preinitials) means that PTB was really more sesquisyllabic--i.e. a syllable-and-a-half in length – than strictly monosyllabic. Many TB languages are sesquisyllabic to the present day⁵. In favorable cases it can be demonstrated that the sources for these “minor”, unstressed prefixal syllables were independent morphemes to which meanings can be assigned (e.g. Written Burmese (WB) *pərwak* ‘ant’ <PTB * *bəw-rwak* (**bəw* ‘insect’). In addition, all TB languages have polysyllabic words, due to such morphological processes as compounding, affixation, reduplication, and elaboration – not to mention the borrowing of unanalyzable polysyllables from non-TB languages.

³ Matisoff 1973:76.

⁴ Much of this diversity is explicable in terms of the interinfluence of the two great linguistic areas dominated by China and India: what I have called the Sinoshpere and the Indoshpere. See § 4 below

⁵ Mazaudon (1974:84-90) divides up the TB family into “schwa-languages” vs. “non-schwa languages”, according to whether they are sesquisyllabic or strictly monosyllabic.

Sinospheric TB languages tend to be more strictly monosyllabic than others. Since they also preserve final consonants and prefixes less well than many Indospheric languages, they are usually more tonally complex than less uncompromisingly monosyllabic languages. Strictly monosyllabic languages seem especially “tone-prone”:

“There is something about the tightly structured nature of the syllable in monosyllabic languages which favors the shift in contrastive function from one phonological feature of the syllable to another...So tightly interdependent are these neighboring vowels and consonants, that certain phonetic features seem bounced back and forth from vowel to consonant and back again through the history of the TB languages...” (Matisoff 1973:78-9):

On the other hand, many TB languages with complex monosyllables (i.e. relatively good consonant preservation) are only marginally tonal, or have no phonemic tonal contrasts at all.

In view of their diversity in terms of syllable structure, it is not surprising that the tonal TB languages differ in the size of their *tone-bearing unit* (TBU), varying from the single syllable to “phonological words” which may contain 2, 3, 4 or more syllables. Tone systems may also vary in the role played by phonational (register) differences, as opposed to mere pitch and contour contrasts. It is in fact impossible to draw a strict dividing line between “tone” and “phonation”.

The rough typological distinctions in the following sections are not mutually exclusive. Burmese is simultaneously a (mildly) sesquisyllabic language (2.2) and a phonation-prominent one (2.3). Jingpho is highly sesquisyllabic (2.2) but also has a secondary tone that appears mostly in dissyllables (2.5).

2.1 Omnisyllabic tone languages

2.11 *Lahu: an omnisyllabically tonal, non-schwa language with many compounds*

Lahu is a Sinospheric, strictly monosyllabic language, like Chinese (especially Southern dialects like Cantonese). If particles are in danger of losing their stress, they just get fused with other particles, and the particle combination as a whole has stress. Even prefixes (including the ubiquitous δ - < PLB *aŋ-) are fully stressed and tonal. (This δ -prefix, which sometimes serves to nominalize verbs, usually disappears in compounds: **u** ‘lay an egg’, δ - **u** ‘an egg’, **gâʔ-u** ‘hen’). Even polysyllabic loanwords receive a tone on each syllable (**kōmīť** ‘committee’).

As indicated in Figure 3 above, Lahu is a language with very simple monosyllables, with no initial consonant clusters and no final consonants, and no contrast in vowel length; many syllables lack an initial consonant entirely. In compensation there is a rich system of seven tones, 5 open and 2 checked. The two