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Labiovelar unit phonemes in Lolo-Burmese? A case to chew over:

\[
\text{Lahu } \hat{b}^\text{E} \text{ 'chew' } < \text{PLB } *N\text{-gwya}^2
\]

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The existence of consonant combinations consisting of velar stop plus \(-w-\) can confidently be posited for all time-depths in T[ibeto]-B[urman], including the Proto-TB level [Matisoff 1980]. Whether these 'labiovelars' are best regarded as consonant clusters or as unit phonemes at a given stage depends on familiar criteria of phonemic analysis.

In a language like modern Rangoon Burmese, where \(-w-\) combines freely with consonants at all positions of articulation, there is no reason to single out \([kw-, khw-, gw-, ngw-]\) as constituting phonemic units. Synchronously speaking, these 'labiovelars' are merely consonant clusters, like \([pw], [cw], [lw], [nw]\), or a dozen others in the language.

Sometimes, however, the phonological history of an etymon points to a special closeness of bonding between a velar and a following labial element—such a close meshing of phonetic features that one can only assume that the \([velar + w]\) combination somehow functioned as a phonological unit at an earlier stage.

Three roots have already been discovered where Lahu has a labial stop corresponding to a velar stop in other TB languages.\(^2\) Of these the most important is DOG:

\[(1) \text{DOG: W[ritten] B[urman] } \hat{k}h\text{wÊ } / \text{Lahu } phÊ / \text{Mpi } \hat{k}\text{huu}^2 < \text{P[roto]-L[olo]-B[urman] } *\text{kwiy}^2.\]

A closely parallel example is NEST, where the Lahu and Mpi forms are identical (except for tone) to DOG, though a WB cognate is lacking:

\[(2) \text{NEST: Lahu } phÊ, \text{ Mpi } \hat{r}a^2 \text{ khuu}^6 < \text{PLB } *\text{kwiy}^1.\]

The third etymon of this type to come to light was COMB, reconstructed as PTB \(*\text{kwi(y)}\) in STC \#480 on the basis of the following forms:

\[(3) \text{COMB: Pwo and Sgaw Karen } \hat{k}\text{wi, Digaro } s\text{-ki, Lushai } \text{khui?}.\]

To these we may add Lahu \(p^\text{i}= 'to comb', p^\text{i}=\text{-kÊ}^2 'a comb', as well as WB

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1 Author's note: Due to limitations in our computer graphics capabilities, certain diacritical marks (e.g. , , \&) have been drawn in by hand. In other cases substitute symbols have been used: E for \(\epsilon\), O for \(\sigma\), \(\theta\) for \(\vartheta\), uu for \(\upsilon\), ng for \(\eta\), \(\Omega\) for \(\bigcirc\).

2 Let us leave aside another case, STAR/MOON, where I claim that the Lahu labial nasal in m\(\hat{e}k\text{Ê}\) 'star' derives from a labiovelar nasal prototype \(*\text{ngw-}\). This etymology is discussed at length in Matisoff 1980.

3 Matisoff 1978a, p. 6.
The Lahu low level tone (here written 'h'), as well as the correspondence between the Burmese aspirate and the Lahu glottalized initial, unambiguously point to a preglottalized initial at the PLB stage, so that we may reconstruct PLB *kwiy². It is noteworthy that in this case, unlike DOG, Burmese and Lahu have both developed a labial stop from the labiovelar sequence.

I would now like to suggest that Lahu bu 'to chew' represents another instance of a Lahu labial stop that has arisen from an earlier labiovelar.

In STC #424, a PTB root *wa-t 'bite; chew' is set up on the basis of forms from the following four languages:

(4) Jingpho gəwá-kəwá 'bite', WB wá 'chew', Bodo wat ~ ot, Dimasa wai 'bite'.

The two Barish forms are referred to an allophonic with dental suffix, *wat, about which we shall have no more to say in the present context.) Of key importance here are the Jingpho forms with velar prefixes. These are directly relatable to four Loloish forms with velar initials cited in Ma and Dai (1982):

(4a) Lisu qua 31, Hani g’a 31, Xide ngguu 33, Naxi ngguu-ngguu 33-33 (all meaning 'chew').

It seems clear that the minimal root-form of this etymology was *wa, as in WB wá. gəwá-kəwá reflects a 'prefixal' stage, where the velar element is relatively separate from the root-initial w-, with an audible shwa-vowel between them. Lisu qua 31 represents a further degree of integration between the velar and labial elements, to the point where the labial is felt to be subordinate in salience to the velar instead of the other way around. Synchronically we are no longer dealing with a 'velar prefix plus labial root'-initial, but rather with a 'velar initial plus labial glide.' The high back unrounded vowels in Xide and Naxi (here written -uu) are reasonable reflexes of -wa. (As we shall soon see, Lahu has also developed a high back vowel, -u, from PLB *wa.) The prenasalization in the Xide and Naxi forms reflects a later addition of a nasal prefix to the velar stop that was once a prefix itself.

The tones of the WB, Lisu, Hani, Xide, and Naxi forms all correspond regularly, reflecting PLB Tone *2. We may then set up this etymology as PLB N-gwa². Combining these Loloish forms with those adduced in STC #424, we come p with the following provisional PTB reconstruction (or, more accurately, pan-allophonic formula):

The credit for first setting up PLB *glottalized initials to account for correspondences like these belongs to Burling (1967).

See my note 16 to Benedict 1979 (p. 27). Benedict, largely on the basis of the Lushai final -j, revises the PTB reconstruction to *kwis. Certain Kuki-Naga languages also appear to have cognates with labial stops, e.g. Ntenyi hapi, Chokri pitho, Rengma pheká 'comb' (Marrison 1967, Vol. II, p. 58).

The Lisu and Hani forms are given on p. 59, the Xide and Naxi on p. 67. The Hani/Akha voiced velar fricative here written "g" sometimes descends from PLB *g- (as does Lahu g'), but sometimes, as here, from PLB *g- cf. also NINE: PLB *guw² > Lh. gpt, Ak. g'oe; RETURN: PLB *gok LS > Lh. gpt, Ak. g'ot}.
What then of Lahu be 'chew'? I would like to claim that it too is cognate to the forms in (4) and (4a), though this is far from obvious at first bite.

(A) TONE: the high-falling tone /\/ is the correct Lahu reflex of PLB tone *2 (in words with non-*glottalized and non-*voiceless fricative initials). 9

(B) MANNER OF INITIAL: the voicing of the initial unmistakably reflects a *prenasalized prototype, 10 which agrees well with the Xide and Naxi forms.

(C) POSITION OF ARTICULATION OF INITIAL: the Lahu labial b- corresponding to the velars in the other languages we take to exemplify the 'regular' Lahu position of articulation that developed from earlier *labiovelars. At the pre-Lahu stage the originally prefixal *g- and root-initial *-w- evidently formed a tight phonetic ensemble, leading to a 'compromise' reflex b- that combines the occlusion of the g- with the labiality of the -w. 11

(D) VOWEL: here we have a problem.

The immediate prototype of Lahu be cannot be PLB *N-gwa, since the Lahu reflex of -wa is not -E, but rather -u, as demonstrated by three solid examples:

(5) HANDSPAN: PLB *twâ 1 > WB thwa, Lh. thu.

(6) CATTLE: PLB *nwa 2 > WB nwa, Lh. nû

(7) TOOTH: PLB *s-wa 2 > WB sâ, Lh. -shu=, 'tooth-like part of tools' (as in pî=-ka?:shu= 'tooth of a comb', li-1@:shu= 'sawtooth', ga?-shu= 'tooth of a rake').

Lahu -E is the reflex of several proto-rhymes with nasal finals (*-um, *-ing, *-im), but none of these are relevant in the present case. Instead, the best candidate for a prototype for Lahu -E in this etymon is the rhyme *-ya, as in the following examples:

(8) BEE: PLB *bya 2 > WB pyâ, Lh. pê.

(9) FIELD: PLB *hya 1 > WB ya 'cultivated spot of ground', Lh. hê 'swidden'.

(10) EYE: PLB *s-myak HS > WB myak, Lh. mÊ.

Fortunately help is not far off! Alongside qwâ 'chew', Jingpho has a form mëya 'to masticate, chew', as in jîmêlût mëya 'chew tobacco' [Hanson p. 444]. This word has already been compared to WB ya 'make a quid of betel', ëtëya 'quid of betel-leaf with the contents made up for chewing' [Matisoff 1974, 9

9 There also exists a reduplicated baby-talk variant with hypocoristic tone-change: bê-be te ve, lit. "make chew-chew."

10 See Matisoff 1972 (esp. pp. 15-17) and my note 123 in STC (p. 38).

11 Greek developed a similar reflex b- from P*[roto]-I*[ndo]-E[uropean] *gw- before front vowels, e.g. LIFE: PIE *gewiyo- > Gk. bios.
I would now like to claim that these Jingo and Burmese forms represent an earlier *m-ya, which in turn is ultimately related allophonically to our tymon *N-g-wa-t. This necessitates setting up a single pan-allophonic formula like the following:

\[ *s- \quad g-w-y-a-t. \]

\[ N- \]

his reconstruction, with its 'double glide' -wy-, may appear novel for TB, though such sequences certainly have existed at various times and places in sino-Tibetan.\(^3\)

Returning to Lahu bE, we may well marvel at how much historical information is packed into its three constituent phonemes: the voiced labial top b- reflects the prenasalized labiovelar *Ngw-; the vowel -E comes from -ya; and the tone */y/ derives from PLB Tone *2. We conclude that Lahu bE is a direct reflection of an earlier *N-gwya\(^2\). For those who are reluctant to admit he possibility of double glides at earlier stages of TB, the unit-phoneme analysis of *gw- would impose itself even more strongly. If *gw- functioned as a phonological unit, there would be no phonotactic objection to having it luster with a following -ya- (I.e. the sequence *gwya- would be no different structurally from, say, *bya-).\(^4\)

We have still left a thread hanging, however. There is a widespread TB root for TOOTH of the shape *s-wa [see set (7) above], reflected by such forms

\(^2\) Hanson (p. 718) derives Jg. ya khau 'quid of tobacco, betel, lime, etc.' "from ya, meya 'to chew' and hkau 'to be mixed'"; clearly implying that he does not regard the first syllable to be a loan from Shan ya 'medicine' (cf. Siamese jaa). Unfortunately Hanson is not strict in arranging disyllabic compounds under their proper monosyllabic head-entry. This compound ya khau is in fact interalphabetized with several others where the first syllable is definitely of Shan origin, e.g. ya-phyen 'opium' (glossed literally as 'drug that is an enemy' in Maran [in prep., p. 1105]; cf. phyen 'enemy'), and ya sai 'species of cutch grass' (cf. Siamese jaa 'grass'). One compound in this list, ya ya is glossed 'medicine (Shan)' in Hanson (p. 719), but more accurately as 'herbal medicine' in Maran (p. 1106), implying that it literally means 'medicinal grass'. Maran agrees with Hanson in relating ya khaw to 'ya or meya 'to chew'" and alphabetizes it separately from those compounds containing the Tai-derived morphemes meaning 'medicine' or 'grass'.

\(^3\) Cf. e.g. WB kywat 'be loose, free', khwawt 'release, liberate' < PTB *g-lwat [STC #209]; Lushai ts'warp 'lungs' < PTB *tsywap [STC #239], ult. from a disyllabic prototype *tsiwap [see Matisoff, 1978b, pp. 113-123]. Our reconstruction *s-gwawt looks in fact very 'Archaic Chinese-like!' (Cf. such etyma as Arch. Ch. *ngwawt [GSR #306-a-f] 'moon'.)

\(^4\) The unit-phoneme analysis of similar -yw- sequences seems now to be preferred by Benedict, who revised such reconstructions as *sywar 'flow' [STC #241], *tsyak 'red' [STC #184] to *Swar, *Sak, etc. shortly before publication of the Conspectus.