

Initial s-Actuated Register Shift in Yipoic Languages*

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ABSTRACT

Matisoff hypothesized a system of voiced initials governing register shift in certain Yipoic (Loloish) syllables of the CVQ-type. Along the lines of my 2005 paper—where I argued such a hypothesized system is not needed to explain the reflexes seen in modern Yipoic languages—here, I argue that such a system is not necessary to account for register shift seen in some Yipoic words of the type sVQ, either. This paper suggests that such register shifts are due to the initial s- itself, and that this effect is also seen in the *sRVQ-type syllable and even in some other syllable types. That all these shifts can be connected to the influence of initial s- (or a similar voiceless fricative) is an attractive simplification of the historical phonology of the Yipoic group.

Key Words: Loloish (Yipoic) languages, historical phonology, register shifts

In languages such as Tibetan and Chinese, syllables beginning with voiceless s- and ending in stops (symbolised as *sVQ) behave in the tonogenetic process no differently than similar syllables with other voiceless initials: they all end up in the upper register. Thus Written Tibetan *bsad* ‘killed-’ = Lhasa Tibetan *sɛq*, and

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In this area of Yipo-Burmic studies, Thurgood 1977 is an important contribution which has not received the attention it deserves. His paper has several points in common with what I propose here, but we differ in other respects, besides which Matisoff’s analyses continue to receive much greater attention. In this paper I hope to renew some older criticism, present new arguments, and propose a more powerful theory in explanation of the YB register inversions.

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In the Tibeto-Burman Yipo-Burmic (YB, AKA Lolo-Burmese) group, however, we see an unusual development: there are some rather common words, classifiable as stop-final syllables with initial *s*-, which are found in the upper tone register, just like above, but others which are in the lower register or in a special tone category by themselves. Lahu *šĩq̃* ‘tree, wood’ is in the upper register, but *šĩ̃²* ‘new’ has a different, mid-rising tone. The latter can be regarded as

- The top half represents Matisoff's traditional "H" register, the lower half, the "L" register.

PLB	cYB	WD	NOS	LOL	LIS	SAN	LAH	LCH	wBrm	nBsh
pak	pak	p ^h âq	p ^h aq	p ^h aq	p ^h â	p ^h â	p ^h aq	paq	p ^h ak	p ^h âk
^spak	^hpak	pâq	paq	paq	pâ	pâ	paq	paq	p ^h ak	^h pâk
N-pak	npak	Np ^h âq	Nbaq	baq	bah	bâ	baq	baq	pak	pâk
	^cpak	bâq	baq	baq	bah	bâ	paq	baq	pak	pâk
C-pak	bak	p ^h âq	p ^h â	p ^h â	p ^h aq	p ^h aq	p ^h âq	pâq	p ^h ak	p ^h âk
^ʔbak	^hbak	pâq	pâ	pâq	pâ	pâ	pâ	pâq	p ^h ak	^h pâk
N-bak	nbak	Np ^h âq	Nbâ	bâq		baq	bâq	bâq	pak	pâk
^cbak C-bak	^cbak	bâq	(N)bâ	bâq	baq	baq	pâq	bâq	pak	pâk

basically a lower register tone, with its lcHani and Lisu cognates being $s\hat{t}q$ and $s\hat{t}q$ respectively. Matisoff in his 1972 “the Loloish Tonal Split Revisited” (= LTSR) explained the difference as $\check{s}\hat{t}q < *sik$ vs. $\check{s}\hat{t} / s\hat{t}q < *C-sik$ where C was to be a voiced prefix which “pulled down” the originally voiceless initial into the lower register. In this paper I explain the difference as being $\check{s}\hat{t}q < *se\eta$ vs. $\check{s}\hat{t} / s\hat{t}q < *sik$.

The tone category in which we find Lahu $\check{s}\hat{t}q$ ‘tree’ is the same as other etymologically voiceless initials, e.g. Lahu $t\hat{a}q$ ‘go up-’ $< *'tak$ or $p^h\hat{u}q$ ‘overturn’ $< *p^hup$. In Matisoff’s reconstruction, this word’s $*s$ -initial is the unmarked type, thus we may presume that he took the above systems (Thai, Chinese etc.) as models. Therefore he had to find some other, more marked source for the low-tone register type exemplified by $\check{s}\hat{t}$ ‘new’. Benedict’s 1972 STC has a tentative-sounding footnote from Matisoff (p. 89): “certain exceptional forms perhaps reflect lost prefixes, e.g. B-L $*sat$ ‘kill’ (low series=voiced initial) $< TB *g-sat$ ”, but this was quickly superseded by the above-mentioned LTSR, in which we find the full-blown theory of voiced prefixes causing an originally voiceless initial to become voiced, and thus end up in the low-tone register. Matisoff thus says that the original difference between these two types ($\check{s}\hat{t}q$ ‘tree’ vs. $\check{s}\hat{t}$ ‘new’) was the presence of a since vanished prefix attached to the latter; in this paper I will instead suggest that the explanation for the tonal inversion in the second type is not some hypothetical, ancient prefix but instead is something still right before our eyes, the basic TB s -initial itself, and that words of the first type do not represent YB $*sVQ < TB *sVQ$, but are instead later independent YB developments or, more rarely, loan words.³

Let us look at a list of words of the first type, adapted mostly from LTSR plus some examples from Matisoff 2003 and comparative TB dictionaries such as Huáng 1992 (=YZ) and the Yun-nan sheng-zhi 1998 (=SZ):

gloss	PLB _{JAM}	YB examples	other TB
pour-	* $\check{s}at$	LAH $\check{s}\hat{e}q$ LCH $s\bar{e}q$ JIN $\check{s}\hat{a}$ SAN $x\hat{a}$ BIS $\check{s}\hat{e}t$	
rough	* $\check{s}ak$	LAH $\check{s}\hat{a}q$ AKH $s\bar{a}q$ JIN $\cdot sa$ LQ $s\hat{a}q$ XP $\check{s}\bar{e}q$ nLIS $s\bar{e}$ AXI $s\bar{e}q$	
rub-	* $\check{s}ap$	LAH $\check{s}\hat{o}q$ AKH $s\bar{o}q$ nLIS $s\bar{o}$ ZW sop	

3. For more on this theory and its relationship to stopped syllables with initial stops, see Dempsey (2005).

scrape-	*søk	LAH šôq AKH sōq	WNX sō (?)
tree	*sik	LAH šîq JIN suu· LIS sî LQ sîq XP sîq SAN sî AXI sîq OP šêi DF sē BY sîq BOL sak· cNUS siq·	tbPRM sē SMP šeq poKRN sēg KMN sōg
whistle-	*sit	LAH ·šîq LIS suh (?)	WTIB sid (?)
wipe-	*sut	wBRM, lCACH sut BOL sot LAH šîq LIS sî	WNX sî

Notes: a) ‘pour-’ (the “.” indicates a verb): Although the *LTSR* and Bradley 1979 both have Bisu šêt, Xú 1998, a 279-page monograph on Bisu, has Huai Chomphu Bisu šet and Lán-měng (Yunnan) Bisu sît with a mid, not low tone for both.⁴ b) ‘tree’: Tibetan dialects show various vowels, e.g. lsTib šîg, Alikhe Amdo x^haŋ, Zhong-dian Kham šeN·. The same variations are found in languages of the Qiangic group.

In the above table, if we restrict ourselves to common, phylum-wide etyma, we have only ‘tree/wood’,⁵ and in TB in general this word is not of the *sVQ type under discussion since it is only in YB that the final -ŋ has turned to -k (and then often to -q).⁶

Here are words of the second type, derived from the same sources:

gloss	PLB _{JAM}	YB examples	other TB
breath(e)	*C-sak	wBRM sak LAH šă LIS sēq lCHAN sâq BOL, cNUS saq JIN să GAZ sâ	mpKRN θăq MNG sâ: BGS sak PṬN sæg KHM sâ: LUŚ t ^h ək CKR əsəqsə YMC šak·co CAO (t·) saši JP n·saq

4. Xu (1998:166).

5. As for ‘wipe, rub-’, Lahu has šîq, but the word which seems to be cognate in Burmish is *sut; Matisoff 2003 presents some evidence for -it ~ -ut alternations in YB, but it mostly involves forms for ‘knee’ which are not even from the YB group; on the whole, the evidence is not very persuasive. He also wishes to connect Lahu šîq with Tangkhul k·k·šut ‘wipe-’, but the normal reflex of TB *s- in Tangkhul is t^h-, not š-, cf. t^hum ‘three’, t^hat ‘kill-’. The Southern Kuki language Cho has the form t^hut ‘wipe-’ which could be cognate with wBrm sut, but it is one lonely possibility, and in a word meaning ‘wipe, rub-’ an independent onomatopoeic origin is also another factor to consider. The wTib šud and Jingpo g·cút cited by Matisoff are not possible cognates according to what we know of TB historical sound-changes. Again, all this is about the possible cognacy of one single word, not one out of a list of several established cognates, because there is no such list.

6. Matisoff 2003: 520–525 has a list of such -ŋ / -k variants, along with related items.

kill-	*C-sat	WBRM <i>sat</i> LIS, lCHAN <i>sêq</i> JIN <i>sê</i> GAZ <i>sî</i>	CHP <i>sət</i> PKIR * <i>sét</i> WTIB <i>gsod/bsad</i> altTIB <i>psat</i> CGL <i>še</i> LUŚ, TNK <i>t^hat</i> CAO <i>t·psət</i> GAR <i>so²t</i> JP <i>sat</i> eGYR <i>ka·sat</i> KMN <i>sat</i> TRN <i>sē</i>
new	*C-sik	WBRM <i>sac</i> BOL <i>sak</i> LAH <i>šī</i> LIS <i>šiq</i> lCHAN <i>sġq</i> JIN <i>·sī</i> GAZ <i>sī</i>	eGYR <i>k·šək</i> WNX <i>šġ</i>
morning	*C-sok	LAH <i>šō</i>	
pluck-	*C-šak	LAH <i>šá</i> SAN <i>šêq</i> LIS <i>xāq</i>	JP <i>šoq</i>
seven	*snit	WBRM <i>hnac</i> LGS <i>hnat</i> lCHAN <i>sġq</i> JIN <i>šī</i> SGK <i>sīq</i>	JP <i>s·nit</i> SMP <i>ʼnis</i> eGYR <i>k·šnəs</i> SDK <i>sīt</i> eADI <i>k·nət</i> PṬN <i>hnizi</i> DMS <i>si·ni</i> lCTGS <i>s·nat</i> CAO <i>t·net</i> ZEM <i>s·na</i>
thirsty	*C-sip	WBRM <i>·sip</i> LAH <i>šī</i> SAN <i>sġq</i> LIS <i>sêq</i> JIN <i>šī</i> GAZ <i>·sġ</i>	

Notes: ‘breath(e)’: ‘kill, new’: In the “adjectives-section” (#0964-1125) of YZ, 89% of the Gyarung entries contain sesquisyllabic forms, the overwhelming majority of which are the same *k^ə* as in *k·šək* ‘new’. These same prefixes appear with monotonous frequency in YZ’s large “verbs-section” also. Such a through-going, regular pattern is not found in any of the other Qiangic languages listed, which indicates that it is a new morphological development within Gyarung itself and not reflective of any ancient TB phonology. In short, such Gyarung forms do not constitute evidence that the words were prefixed in the TB protoforms.

In this second table, if we restrict ourselves to common, phylum-wide etyma, we have ‘breath(e)’, ‘kill-’ and, marginally speaking, ‘new’ and ‘pluck-’. Although ‘seven’ is included in the corresponding table in *LTSR*, it does not fit the *sVQ type for TB in general nor even for many languages in the YB group. ‘Breath(e)’ shows occasional prefixing in the Naga group; the Jingpo form with its nasal prefix does not qualify as the type of “voiced prefix” *C- which Matisoff requires in this group.⁷ The prefixes seen in Alike Tibetan, Chungli Ao and eastern Gyarung are all voiceless, thus not the best evidence for Matisoff’s voiced *C-. It is

7. Matisoff (1972:14).

impossible to determine the voicing or non-voicing of Written Tibetan's prefixes; indications that they may have been voiceless are: 1) their reflexes in modern Tibetan are either voiceless or voiced/voiceless depending on the following consonant, 2) the same written symbols are used in Written Tibetan for final stops, which are and always have been voiceless. In any case, the vast majority of TB languages show no prefixes at all in their cognates of these words.

There are however TB etyma which can be reconstructed with a prefix on a phylum-wide basis: for example, a velar prefix similar to what we see in Written Tibetan *gñis* 'two' is found in the cognates of all the major subgroups throughout TB, and the dental prefix in Tibetan *dgu* 'nine' is found in all branches of TB except Karen and the eastern super-group (Qiangic and YB). By contrast, the prefixes seen occasionally in the second table have a much more limited distribution, and there is no indication that they were ever a part of the original proto-TB form of these words, or that they had any connection with proto-forms in the YB group.

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Another, seemingly unrelated tonal behavior involves initial *s- when followed by a sonorant, again in stopped syllables. Three similar words can illustrate the issue, with examples in Lahu / Lolopo:

nâq / *nêq* 'early', *nā* / *nêq* 'deep', and *nâq* / *nêq* 'black'.

Matisoff explains these as deriving respectively from **nak*, *ʔ-*nak*^L, and **s-nak*^H. (All these reconstructions are to be understood as Common Yipoish=PLB)

There are some problems with Matisoff's protoforms: I have found no TB languages that show any evidence for a *s- in 'black'; the rare prefix to be found is velar as in Written Tibetan *g·nag* (an alternate form to the common *nag·*) and E.Gyarung *k·nak*, Gexi *ga·ñā*, Geshiza *ɣna* 'dark'⁸ (both Western rGyalrongic), otherwise Ao *t·nak*.

Another TB word, 'blow-' (e.g. Lahu *mêq*, Gazhuo *m̂*, Sangkong *mīq*) is in the same tonal category as 'black'. Matisoff's reconstruction is PLB **s-mut*^H, but again there is no trace of any *s- in available cognates; this wide-spread etymon does show other prefixes, however: Written Burmese *hmut*, Jingpo *k·wut*, eGyarung *ka·mot*, Ergong *ɣmɛ*, Zemei *ke·mət*, N. Rengma *gi·mu*, Lamgang *kλ·muut*.⁹ I suggest that the aspiration in Burmese derives not from *s- but from an earlier *k- in the same way that the initial in Written Burmese *hnac*

8. Dorji (1998).

9. The last three examples are from Weidert (1987:403).

‘two’ derives from earlier **k.n-*.¹⁰

Björverud 1998 contains many examples of Lalo words such as *ʔnìq* ‘deep’, *ʔl̥q* ‘dry/sun-’, *ʔn̥q* ‘snot’, as well as words without *-q* such as *ʔlā* ‘trousers’ and *ʔnā* ‘nose’. Although she describes such initials as “glottalised”, and characterises the glottalisation as something heard throughout the initial (personal communication, October 2004), Matisoff 2003 p.112 rechristens them “**preglottalized** sonorants”, supposedly because he is convinced that such initials “correspond quite well” with his reconstructions for PLB. Matisoff uses the term “preglottalised” since, on the next page (ibid p.113) he refers to the origin of the prefix in an unstressed syllable of the form *ʔə*, thus a clear glottal stop; although he has retained the *ʔ* symbol up to and including Matisoff 2003, he now seems to be saying that the earlier glottal stop changed in YB to a glottalisation of the entire syllable. That the Lalo words on page 112 of Matisoff 2003 have nothing to do with a prefixed glottal stop is evident from some of the examples, e.g. *ʔlā*

10. Thurgood (1977:164) first presents a set of four words to be reconstructed with the Loloish **(s-)*, to use the LTSR notation. They are: **(s-) nōk* ‘bean’, **(s-) nak* ‘black’, **(s-) mak* ‘dream’ and **(s-) myak* ‘eye’.

It is certainly true that in many Yipoish languages the tonal categories of these words are typical of the “upper register”, not what one would expect of plain nasal initials. However, I see no evidence anywhere of an **s-* prefix (or replacement). E.Gyarung has *tə-stok* for ‘bean’ and *ta.rmo* for ‘dream’; is the *st-* cluster to be derived from an earlier *sn-*? I looked through several hundred examples of E. Gyarung verbs (from Huang, ed. (1992) and found no other examples of *st-* which could possibly be related to **sn-*, but I did find several instances (#1405, 1449, 1683, 1706, 1743) with intact *sn-* initials. The *sn-* in #1405 ‘squeeze-’ seems to be cognate with wBrm *hñas* and with Lahu *ní* and Lisu *ñê* (55), both indicative of **sn-* according to my analysis, also according to Thurgood’s since the wBrm reflex indicates PLB **s-*, not Loloish **(s-)*. For ‘dream’, Central Nusu has *hmaq*, which could derive from **sm-*, but as the Thurgood article makes clear, **s-* or **(s-)* is not the only prefix which could evolve to an aspirated initial. In any case, since this root ends in **-aŋ* in TB, my paper argues that the earliest form in proto-YB was **smaŋ* (tone unclear), and, just like proto-YB **seŋ* ‘tree’, has modern reflexes in the upper register due to an **s-* effect that has nothing to do with the register inversion problem being discussed here. Finally, the form *ɣñək* ‘eye’ in Alike Tibetan would seem to indicate a velar prefix, although the prefix *d-* is sometimes seen in earlier Tibetan orthography. As I discussed above in this paper, I could find no cognate evidence at all for an **s-* in TB ‘black’, instead there was some evidence for a velar prefix.

In short, based on the cognate evidence, somewhat meager though it is, this group of **(s-)* words—all with Frazer #3 tone (level, glottalised), should be reconstructed with the **k-* prefix, whereas the group following that (Thurgood (1977:164)), with words such as ‘bird’ and ‘heart’, should be reconstructed with an **s-* prefix and a final *-k* that derives from TB (and early YB) *-ŋ*. He seems to want to treat the word ‘blow-’ as some kind of exception, but it has the same Frazer #3 tone and, as I mention in the paper, some cognates with velar prefixes, none with *s-* prefix.

‘trousers’, whose cognates such as Nosu *hlā* and Haoni *hl̥* show that we are either dealing with a voiceless spirant (*h-* or *s-*) + *l*, or a voiceless and/or aspirated *l-*/*l̥-* at the Yipoish level. In the case of ^ʔ*nā* ‘nose’ and ^ʔ*n̄yq* ‘snot’ there is ample evidence that the prefix was indeed *s-*. Zhou 2005 derives similar initials in the related Tā-liú language (他留話) from **hC-* and ultimately from **sC-*. Jino *hnā* ‘deep’ would then be just another example of the same process, with *hnā* deriving from **snak*, thus the opposite of Matisoff’s version. According to my analysis, the effect of **s-* in Yipoish is the same, with no difference between its status as a simple initial or as part of a cluster. In either case the result is register inversion.

Thurgood 1977 p. 162–3 argues against Matisoff’s two different prefixes: “For proto-Lolo-Burmese, only a single ‘glottalizing’ prefix, the **s-*, needs to be reconstructed. Matisoff (1972) posits two, the **s-* and an **ʔ-* (**H-*), but it will be shown below that at the Lolo-Burmese level there is no contrast between the **s-* and **ʔ-* prefixes; instead Matisoff’s correspondence sets reflect the contrast between a PLB **s-* and a PL (proto-Loloish) **s-* [footnote 42: . . . only found in the Loloish subgroup]. Further, it can be demonstrated that the single PLB glottalizing prefix should be reconstructed as an **s-* not a **ʔ-* (**H-*).” Thurgood *ibid.* already sees the derivation sequence **s->ʔ-*, made more explicit in Matisoff 2003, as (phonetically) “implausible”, in particular, unlikely in cases such as the causative form for ‘sleep-’ in wBrm and Sani, which would require **s->ʔ->s-*.

Thurgood *ibid.* p.167 states that Matisoff’s glottal dissimilation theory can be explained with a prefixed **s-* just as easily as with a prefixed **ʔ-*.¹¹

11. The rationale for register inversion through initial “*s*” is similar to the “glottal dissimilation” explanation found on page 20 of LTSR. Although on a world-wide basis it appears typologically unusual, the idea is that (acoustically speaking) the high frequencies associated with initial **s-* (or in Matisoff’s case, with initial **ʔ-*) and with the final stop (also apparently including a creaky-voice flavored coda or perhaps even a *-ʔ* coda to be associated with protoforms in proto-tone contour II, e.g. **kʰaʰ* ‘bitter’) produce, when occurring together in the same syllable, a dissimilatory effect. Thus the “phonetic explanation” is actually related to Matisoff’s reasoning, not purely my own invention. The result is an inversion or flip-flop, with high to low and low to high. My (and Thurgood’s) **s-* takes stop-final syllables as well as TC-II syllables from the upper to the lower register in Lahu, but in Lisu, the effect is exactly the opposite. As it should be understood in Thurgood’s paper, it is also the view in my paper that this special effect of an initial **s-* (in Thurgood’s paper limited to prefixes) was a one-time event early in the history of the Yipoish group; thus it did not “contradict” the more commonly seen effect that **s-* has been observed to have in other cases, e.g. **s-* with (originally) non-stopped codas (e.g. ‘dream’) or **s-* with stopped codas in words borrowed or developed in Yipoish after the **s-* inversion effect had run its course.

In what strikes me as a strange place for a major revision, a little footnote at the bottom of Matisoff 2003 page 113 has the ʔ - being replaced with s - in these “preglottalized” syllables, e.g. PLB $*\text{ʔ-krak}^H \rightarrow *s\text{-krak}^H$, but also a prefixed s - is suggested for the voiced equivalent: $*\text{ʔ-grak}^L$ (still unchanged in this new revised PLB) is to be derived from TB $**s\text{-grak}$. That would however lead to what seems to be a contradiction: the s - prefix, in Matisoff’s system, leads to rising-tone syllables such as $k\acute{a}$ when it is attached to a stop, but it supposedly leads to high-falling tone syllables such as $n\grave{a}\text{ʔ}$ when it is attached to sonorants. Since I see no reason for this alleged divergent effect, this is yet another reason to consider that Matisoff’s reconstructed prefixes on sonorant initials should be reversed:

gloss	PLB _{JAM}	YB _{JD}	LQ	JIN	JX	SAN	LIS	SGK
black	$*s\text{-nak}^H$	$*^c\textbf{nak}$	$n\grave{a}q$	$\cdot na$	$n\bar{e}q$	$n\hat{e}$	$\cdot n\epsilon h$	$d\bar{a}q$
deep	$*^{\text{ʔ}}\text{-nak}^L$	$*\textbf{snak}$	$n\acute{a}q$	$\cdot hn\acute{a}$	$n\grave{e}q$	$n\acute{e}$	$n\hat{e}$	$n\grave{a}q$

It can be seen here that the suggested $*s$ - for ‘deep’ may be directly reflected in the h - of the Jino cognate. The small ‘mark before the n in $*^c\textbf{nak}$ ‘black’ represents an unspecified, non-strident consonant, probably a stop, and in this case probably a velar stop, which caused syllables with sonorant root-consonants to end up in the upper tone register, exactly paralleling what we see in Lhasa Tibetan.

This inversion-effect, whether it be of the $*sVQ$ type first discussed above, or of the $*\textbf{snak}$ type (more generally, the $*sRVQ$ type where R =sonorant) has left traces in all branches of Yipoish, and therefore by itself it is not so useful as a criterion for sub-grouping.

The table (p.174) shows evidence for two different patterns of tonal inversion: the first is seen by comparing the first two rows with the third row ‘tree’. This pattern also is found in the southern Yipoish languages, although not evident from this table. IcHani has $s\grave{a}q$ for ‘breath, air’ but $s\acute{a}q\cdot$ for ‘rough’. The second pattern of inversion is seen by comparing the third vertical section with the second and fourth. Many of these Yipoish languages show aspirated or voiceless initials in the third section. Some of these languages also show aspirated/voiceless initials in the second section, but with different tones. In about half of the languages here, the tone patterns in the third and fourth sections are the same, but a contrast is maintained due to the aspirated/voiceless initials in the

gloss	NOS	LQ-WD	JIN	GAZ	SAN	LIS	LOL	LAH	SGK	HON	BIS
kill-	<i>sí</i>	<i>síq</i>	<i>sé</i>	<i>sî</i>		<i>sèq</i>	<i>séq</i>	<i>ší</i>	<i>sèq</i>	<i>sìq</i>	
new	<i>·sɿ</i>	<i>šíq</i>	<i>ší</i>	<i>sí</i>	<i>šiq</i>	<i>šiq</i>	<i>šéq</i>	<i>·ší</i>	<i>·sɿq</i>	<i>·sɿ</i>	<i>·šú</i>
tree	<i>sɿq</i>	<i>sìq</i>		<i>sɿ·</i>	<i>sɿ</i>	<i>sí·</i>	<i>šɿq</i>	<i>šíq</i>			
black	<i>·nɔ̄</i>	<i>nāq</i>	<i>·na</i>	<i>nā</i>	<i>nē</i>	<i>·nɛh</i>	<i>nēq</i>	<i>nāq</i>	<i>dāq</i>	<i>nā</i>	
shake-		<i>hlɪq</i>				<i>luh</i>				<i>hlɔ̄q</i>	
eye	<i>nɔ̄·</i>	<i>nāq</i>	<i>mja·</i>	<i>nā</i>	<i>nē</i>	<i>mjɛh</i>	<i>mēq</i>	<i>mēq·</i>	<i>mjāq·</i>	<i>mā·</i>	<i>mē·</i>
blow-		<i>mūq</i>		<i>ṁ</i>		<i>muh</i>		<i>mɔ̄q</i>	<i>mīq</i>		<i>mī</i>
deep		<i>nāq</i>	<i>·hná</i>	<i>nā</i>	<i>nē</i>	<i>nē</i>	<i>nēq</i>	<i>ná</i>	<i>nāq</i>	<i>nā</i>	<i>·nā</i>
dry/sun-	<i>hlí</i>	<i>hlɔ̄q</i>	<i>hlɔ̄</i>	<i>lě</i>	<i>hlɔ̄</i>	<i>lē</i>	<i>lɔ̄q</i>	<i>xú</i>	<i>hāp·</i>	<i>hlā</i>	<i>hlāw</i>
herd-	<i>hlú</i>	<i>hlúq</i>	<i>hló</i>	<i>lǒ</i>	<i>lú</i>	<i>ló</i>	<i>·lúq</i>				
early		<i>nāq</i>	<i>ná</i>	<i>nā</i>	<i>nēq</i>	<i>nēq</i>	<i>nēq</i>	<i>nāq</i>	<i>dāq</i>	<i>nā</i>	<i>·dā</i>
hand	<i>lɔ̄</i>	<i>lāq</i>	<i>lá·</i>	<i>lā·</i>	<i>lēq·</i>	<i>lēq</i>	<i>lēq</i>	<i>lāq·</i>	<i>lāq</i>	<i>·lāq</i>	<i>lā</i>

Notes: Lahu 'kill-' is Yellow Lahu. The table is divided vertically into four main sections.

First section: words with *s-* showing inversion. Second section: upper-register words showing no inversion. Third: words of the **sRVQ* type showing inversion. Fourth: lower-register words with plain initials.

third section. In the case of Sangkong and Bisu, we can hypothesize that an earlier voiceless initial in the third section prevented the denasalisation process seen in the fourth section. In the case of Haoni, laterals preserve aspiration, but nasals have lost it and thus have become assimilated to the fourth section pattern.

Whether we divide Yipoish into northern, central and southern groups, or follow some other *Stammbaum* pattern, the languages appearing in the above table are in any case representative of all the various major branches of Yipoish. It can be seen (in the shaded portions of the first and third sections) that the two patterns of tonal inversion occur in all the major branches of Yipoish, therefore this must have been a special innovation which occurred very early in the history of the Yipoish group.

Let us look at some suggested protoforms for the four sections of the table:

- 1: 'kill-': **sat*
- 2: 'tree': **sek* < **seq*; 'black' **k·nak*
- 3: 'deep': **snak*
- 4: 'early': **nak*

The explanation for the tonal inversions can thus be unified into one theory: an original TB *s*- initial, whether as a single initial or as a prefix before a sonorant initial, caused the tonal inversion seen in many YB languages (when the syllable had a final stop). The lack of inversion in words with a similar pattern such as ‘tree’ and ‘rough’ can be explained in two different ways: generally speaking, these words were not of the **sVQ* pattern when the tonal inversion process occurred. In the case of ‘tree’, it still had the original TB form with *-ŋ* when YB tonal inversion took place, and only changed to a final stop at some later date when the tonal inversion process had already run its course. In the case of ‘rough’, it must be an innovation, a word newly formed within YB only after the tonal inversion process was finished. I could not find any cognates anywhere to demonstrate that the word has any connection with anything outside of the YB branch. These two different, but related explanations can also be applied to historically contrastive pairs such as ‘shake-’ (group 2 in the table) and ‘herd-’ (group three), although in the case of words such as ‘shake-’, if it is an original TB word, the *hl*- initial must derive from earlier **kl*- or some other, non-strident consonant plus *-l*- (cf. Tibetan *dkrug* ‘stir, shake-’) vs. something like **s.lok* for ‘herd-’.

Related Phenomena

Although this article has as its focus the tone-shifting effect of initial *s*- and **s*- in YB stopped syllables, if we look at a few examples of some other kinds of tone-shifts, we may be able to establish a broader framework for the phonetic analysis which can be applied to such phenomena.

Let us first compare LAH *fâq* < **k.wak* ‘rat’ with LAH *fâ* ‘hide-’ (transitive verb). The latter is connected with the intransitive LAH *vâq* ‘hide-’, and we can imagine a scenario where the causative **s*- prefix was added to the latter form: **svak* > **fak* > *fâ*. Due to my limited acquaintance with the broader scope of Lahu’s verbal system, I cannot pass judgment on whether this sequence of sound-changes is the only plausible one or not; in Tibetan, however, I can testify that the addition of the TB **s*- prefix is not the only way to produce transitive or causative verbs; there are other methods that can be observed, e.g. *bje* ‘open-’ (intrans.) vs. *p^hje* ‘open-’ (trans.). Such pairs in Tibetan (realised as low-tone vs. high-tone aspirated initials in Lhasa Tibetan) do not involve the presence or absence of a discrete morpheme such as the commonly seen TB **s*- prefix. Instead, the different verbal categories are related in a way which is similar to the arbitrary variation seen between the two English verb forms ‘give’ and

‘gave’.¹²

The question therefore is: did this special tonal inversion, resulting in the rising tone in Lahu, occur because of the *s- prefix, or is it the result of a more general class of initials: voiceless fricatives? Let us look at some Lahu words with the *x*- initial (*h*- in Matisoff’s system): there are words such as *xâq* ‘wag, flap-’ and *xôq* ‘cover, lid’ and many others in the same tone category, but none of them (at least in my examination of Matisoff’s wonderfully thorough dictionary) show a clear inherited TB origin. Yet we again have the same situation where the words that have undergone tonal inversion include some which clearly derive from the old TB stock, e.g. *xǎ* ‘stone’ and *xí* ‘eight’. If we reconstruct *xǎ* < **xrak* and *xí* < **xjet*,¹³ then we can use the same explanation for all these tone-shifts: at an early stage in the history of the YB group, syllables inherited from TB which started with a voiceless fricative and had a stopped coda underwent a tonal “flip/flop” inversion, with originally high-toned syllables becoming low-toned, although in the case of Lahu this type of low-tone now has the form of a mid-to-high rise.

The scope of this analysis can be broadened even further by considering syllables which do not presently have stopped codas, but may have had something like a glottal stop or creaky phonation in the past: such syllables are sometimes referred to as (tone-contour) TC-II, the second-most-common non-stopped coda-type. In Lahu, syllables in this tone-category generally show a high-falling tone, e.g. *câ* ‘eat-’, *k̥â* ‘bitter’, but words which can be reconstructed with the causative *s- prefix, e.g. *ca* ‘feed-’ have undergone a similar inversion from high to low tone (and this in itself is an excellent reason for suspecting that an initial *s- had the same effect in other syllables such as ‘kill-’, with no need for Matisoff’s vanished prefix to actuate the register inversion); this is also the case for words of TB stock in this tone-category which began with *s- or *š-, e.g. *šǐ* ‘blood’, *šǎ* ‘flesh’; the same high-to-low inversion is also found with syllables in this tonal category that begin with *x*-, e.g. *xǎ* ‘trousers’, *xô* ‘grandchild’. In some

12. Although these sorts of ablaut in Germanic, Greek etc. can be traced back to Indo-European, there has not been much progress in determining a phonological “explanation” for many of the alternations. This author has frankly found it a bit puzzling that some scholars want to break up and analyse such apophonic pairs as 見 *kienn* (jiàn) ‘see-’ and 現 *yienn* (xiàn) ‘be seen-’; instead of simply accepting the alternation of **k*- with **g*-, Baxter (1992) for example would like to see both OC forms with the same initial **k*-, but with the latter prefixed by a (voiced) nasal. Here again, as with the Tibetan, I prefer Occam’s Razor (avoid introducing extra entities unless an argument absolutely requires them).

13. Dempsey (1995).

cases the initial *x*- may itself reflect an earlier **s*-. Some puzzles remain in this regard: *xo* ‘grandchild’ and *xô* ‘heavy’ both seem to be derived from **hli^s* (where the ^s symbol marks a word as having TC-II), and both have old TB pedigrees. Why did one word invert, and the other not? Was the prefix added on later in the case of ‘heavy’? Furthermore, it has already been established that words of TB stock in this tone-category show the inversion, while some other Lahu words with initial **š*- such as *šê* ‘sand’ do not invert because they must not have been in the language yet at the early stage when inversion took place. A final problem is that while this inversion of TC-II words is fairly regular in Lahu, corresponding cognates in Lisu show the inversion (as a high, level tone) about half the time, but do not show inversion (remaining as the unmarked TC-II low-falling tone) about half the time.

Some puzzles remain, but I hope that this paper has shown that the tonal inversions which we see all have the same causative agent (initial voiceless fricative in syllables with stopped codas or TC-II) and that therefore there is no need to invoke some hypothetical prefixes or to require fundamentally different explanations for different cases of these inversions.

Abbreviations

ACH=Achang	JIN=Jino	OP=Ē-pō (Eastern Yipo)
AKH=Akha	JP=Jingpo	pKIR=proto-Kiranti
alTIB=Alike Tibetan	JX=Jing-xīng	PRM=Primi/Pumi
AXI=A-xi	(Southern Yipo)	PṬN=Pattani
BGS=Byangsi	KHM=Kham	SAN=Sani
BIS=Bisu	KMN=Keman	SDK=Serdukpen
BOL=Bola	KRN=Karen	SGK=Sangkong
BRM=Burmese	LAH=Lahu	TB=Tibeto-Burman
BY=Biyo	LAL=Lalo	TGS=Tangsa
cAO=Chungli Ao	LCH=Lü-chün Hani	TIB=Tibetan
CGL=Tsangla	LIS=Lisu	TNK=Tangkhu
CHP=Chepang	LOL=Lolopho	TRN=Taraon
CKR=Chokri	LQ=Lü-quān	WD=Wü-dīng
DF=Dā-fāng Yipo	LUŠ=Lušei	XP=Xin-píng
DMS=Dimasa	MNG=Manang	(Southern Yipo)
GAR=Garo	MP=Monpa	YB=Yipo-Burmish
GAZ=Gā-zhuō	nBsh=Northern Burmish	(=Lolo-Burmese)
GYR=Gyarung	NOS=Nosu	YMC=Yimachungra
HON=Haoni	NX=Naxi	ZEM=Zemi
	NUS=Nusu	ZW=Zaiwa

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s-開頭引起的彝語支調階變換

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摘 要

有關彝語支的 CVQ 音節在歷史音韻學上的聲調發展，Matisoff 曾以假設的有聲前綴子音系列對此問題發表過論點，並以此假設來解釋 sVQ 音節的聲調發展。本文作者認為，前者事實上可以簡單化，並以類型學上常見的解釋來取代舊的學說，詳見田雅客（2005）。而解釋 sVQ 音節聲調發展也同樣可以用更簡單的辦法來取代。本文提出的新論點可以進一步解釋 *sRVQ 音節。此外，其他幾種音節的歷史發展，不管是開頭聲母或前綴，也同樣可利用 s- 的聲調發展來解釋。所以本文提出的論點比 Matisoff 的方法更簡單，應用的範圍也更為廣大。

關鍵詞：彝語支，歷史音韻學，調階變換

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