

SANI'S FORTIS SEE-SAW AND INITIAL DEVOICING

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Sani, like many other Loloish languages, has moved towards the weakening of all final stops into -ʔ, which is further realized in modern dialects as abruptness of tone or constriction of the preceding vowel. One striking fact is that such end-constriction has lost its trace in syllables with *voiceless initials and has usually been found only in those with early *voiced initials or prefixes (except the nasal prefix). Contrast the following:

	Sani	Lahu	Akha	*PL ¹
'burn'	du ²²	tòʔ	dòʔ	*duk ^L
'waist'	dzu ²²	còʔ	jòʔ	*gyok ^L ~džok ^L
'hand'	le ²²	làʔ	làʔ	*lak ^L
'pig'	ve ²²	vàʔ	àzàʔ	*wak ^L
'year'	qhy ²²	qhòʔ	xòʔ	*C-kok ^L
'leaf'	phɛ ²²	áphàʔ	ápàʔ	*C-pak ^L

*Figure 1a. *PL checked tone with voiced onset*

	Sani	Lahu	Akha	*PL
'wear (hat)'	qhu ⁴⁴	qhôʔ	xôʔ	*kok ^H
'peck'	thu ⁴⁴	thôʔ	tôʔ	*tok ^H
'sharp'	the ⁴⁴	thâʔ	tāʔ	*tak ^H
'black'	ne ⁴⁴	nâʔ	nāʔ	*(s)-nak ^H
'ascend'	de ⁴⁴	tâʔ	dāʔ	*Ntak ^H
'cold'	dže ⁴⁴	kâʔ	gāʔ	*Nkrak ^H

*Figure 1b. *PL checked tone with voiceless onset*

¹ Raised ^L and ^H indicate low and high tone series respectively. PL =Proto-Loloish.

I will call this phenomenon Fortis See-Saw, a dissimilation rule which says that when a fortis quality weighs down one side, no constriction of the vocal cords is allowed at the other end.² In other words, for the above cases, the constricted coda was cancelled by the fortis force at the onset but may well be in balance with the (lenis) voiced onset. However, the later development of prefixes can lead to the opposite result in modern reflexes. Note the last two examples in each series, where the loss of voiced prefixes left the modern reflexes with a co-occurrence of voiceless initials and end-constriction (Figure 1a), while the voicing assimilation to the nasal prefix later gave rise to reflexes with voiced obstruent initials and open ending (Figure 1b). Thus:

	year *C-kok ^L	wear *kok ^H	ascend *Ntak ^H
Stop endings > ?	C-ku?	ku?	Nte?
Fortis See-Saw rule	C-ku?	ku	Nte
Changes of prefixes	ku?	ku	de
Other rules	qhy ²²	qhu ⁴⁴	de ⁴⁴

The scheme may be summarized as follows:

Proto onset		Tone series	End- constriction	Modern initials
any voiced onset	>	low	yes	voiced
C _{VD} + vl.obstruent	>	low	yes	voiceless
any voiceless onset	>	high	no	voiceless
N + vl. obstruent	>	high	no	voiced

The discussion so far has shown cases where end-constriction was cancelled by the fortis onset. I hope to suggest now that the opposite phenomenon can also occur, i.e. the end-constriction may prevent a potential fortis onset.

In contrast with the initial development in words with PL tone *1, the voiced initials of words with PLB *checked tone have not undergone devoicing. Contrast Figure 1a with the following:

² There is a similar dissimilatory phenomenon in Akha (noticed as long ago as Burling 1967, Lewis 1968), where the *voiceless series of stops develops into aspirates in non-checked syllables but into plain voiceless stops in checked syllables. Cf. also the phenomenon of "glottal dissimilation" in Lahu (Matisoff 1970). [Ed.]

	<i>Sani</i>	<i>Lahu</i> ³	<i>Akha</i>	<i>*PL</i>
'bridge'	tsy ³³	cò	dzím	dzam ¹
'wing'	ty ³³	tō-là?	dón	don ¹
'rice'	tsa ³³	cà	dzā (Lisu)	dza ¹

Figure 2. **PL tone 1 with voiced onset*

Exceptions where initial devoicing does occur in **checked tone* may be found, but usually in forms with an early velar initial. For instance, 'crooked' Sani qu²²-Lahu qǝ? Akha yǝ? PL **gok^L*. As in Lahu and Akha, Sani's velar became postvelar unless followed by **-r-*, where it remained velar (cf. 'six' in Figure 2a). Thus, the reason for the exceptions here could just be the simple fact that voicing at the uvular point of articulation is relatively hard to maintain. In Akha it becomes spirantized. Following is the summary of reflexes of velars in the chosen languages:

<i>*PL</i>		<i>Sani</i>	<i>Lahu</i>	<i>Akha</i>
<i>*k-</i>	>q	qh-	qh-	x-
<i>*kr-</i>		kh-	kh-	k-/kh- ^{4,5}
<i>*g-</i>	>G	q-	q-	ɣ-
<i>*gr-</i>		g-	k-	g-

Figure 2a. *Reflexes of velars and velar clusters*

*PL	Sani	Lahu	Akha	
*ka ²	qho ¹¹	qhâ	xà	‘bitter’
*kok ^H	qhu ⁴⁴	qhǝ?	xǝ?	‘wear (hat)’
*C-krok ^L	khɿ ²²	khǝ?	kǝ?	‘six’
*gok ^L	qu ²²	qǝ?	yǝ?	‘crooked’
*gra ²	ga ¹¹	kâ	gâ	‘hear’

Similar restraint on Sani's initial devoicing occurs in forms with PL tone **2*. This has been earlier noted, but without explanation (Matisoff 1979). In a closer look, I found that the initial non-devoicing behavior in forms with PL

³ Lahu tō-là?(-qǝ) reflects **2*; all other LB forms are < **1*.

⁴ The *kh-* variant appears in words with other PL **tones*.

⁵ The presence or absence of aspiration depends on whether or not the syllable is checked. Compare Akha [kǝ?] 'six' and [khǝ-ma] 'daughter-in-law' < **krway*². [Ed.]

tone *2 and in those with PL *checked tone are also parallel in hosting exceptional cases like the devoicing of early voiced velar *g- (>G- >q-).

	Sani	Lahu	Akha	PL
'thin'	ba ¹¹	pâ	bà	*ba ²
'eat'	dza ¹¹	câ	dzà	*dza ²
'hear'	ga ¹¹	kâ	gà ²	*gra ²
'head'	qo ¹¹	--	[gu ⁵⁵ (Yi)]	*gaw ^{2?}

Figure 3. *PLB tone 2 with voiced onset

By analogy with this internal evidence, I propose to extend the Fortis See-Saw rule as an explanation for the resistance to devoicing of words with PLB tone *2. That is, I suggest that there used to be an end-constriction, probably a glottal stop or its weakened form such as a laryngealized quality accompanying the tone. Comparative evidence from some languages of the Bodo-Garo and Himalayish groups may be found to further support this:

	Bodo	Garo	Chepang
'thin'	ba?	pa?	be?
'eat'	ja?	ca?	je?

and may suggest that the proposed end-constriction for pre-Sani words in tone *2 could be the retention of a similar quality in PL rather than an innovation.

Illustrated in Figure 4 below are the developments discussed so far. Underlined double stars indicate that rules such as coda weakening and initial devoicing were overridden by the superimposing Fortis See-Saw rule. Other changes, however, might overlap or later override the effect of the rule.

		Initial Devoicing	Coda weakening stop endings > -?	Devoicing of G-(<g-); -? > <u>ʔ</u>
'rice'	*dza ¹	tsa	--	tsa ³³
'eat'	*dza ²	<u>**</u>	dza	dza ¹¹
'crooked'	*gok ^L	<u>**</u>	go?	qu ²²
'year'	*C-kok ^L	--	C-ko?	qhu ²²
'wear (hat)'	*kok ^H	--	ko(<u>**?</u>)	qhu ⁴⁴

Figure 4. Fortis See-Saw Rule.