

The Third Proto-Karen Tone

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"Between the two solutions, i.e. the *B' tone and the *-s, if I have to choose one, my preference will be the *-s. However, ..." (Luangthongkum 2019: 49)

"I would prefer to support Haudricourt's hypothesis that reconstructs Tone *2' [sc. the third proto-tone] rather than Luangthongkum's hypothesis" (Kato 2018: 37)

1. Background

1.1 Proto-Karen, a 2 + 1 tone system

- Live syllables (sonorant final): two tones "A" and "B". Split and merged under the conditioning effects of initial laryngeal feature--voicing, aspiration, and glottalization--much as in Tai, Kam-Sui and Hmong-Mien.
- Dead/checked syllables (oral stop final): at first atonal, then acquiring tone and participating in splits/mergers under the same conditioning as live syllables. These daughter-language tones are referred to as "D".
 - Pwo, Sgaw, Pa-O: proto-/p t k/ finals merge to glottal stop, with 2-way tonal contrast conditioned by proto-initial.
 - All others: final stop is dropped, sometimes remaining as a separate tonal category (Kayaw), sometimes merging with one or more live-syllable categories (WBwe).

[Siamese tone matrix]

[Pwo tone matrix]

1.2. Or maybe 3 + 1?

There's a third pattern. Originally Luce and Haudricourt defined it as Sgaw A = Pwo B, later filled out as A in Pa-O and Sgaw, B in Pwo, and D in all others (where D can be distinguished).

Provisionally called B' ("B-prime").

Languages, abbreviations, sources:

Pa-O	Pk	EKy	WKy	Kyw	WBwe	PI	P	S	pK
Pa-O	Pekon (Kayan)	Eastern Kayah Li	Western Kayah Li	Kaya w	Western Bwe	Palaychi	Pwo	Sgaw	proto-Karen
My notes, Jones 1961	Manson via STEDT database	My notes	My notes, KLD 1994	My notes	Henderson 1997	Jones 1961	Jones 1961, Purser & Aung 1920-22	Jones 1961, Wade 1896	Solnit 2013

Pekon, Eastern Kayah, Kayaw, Western Bwe, and Palaychi make up a geographic grouping—not a linguistically-defined subgroup—that we can call Central Karen (CK).

A selection of the most widely-attested B-prime etyma:

Gloss	Pa-O A1	Pk D1	EKy D1	Kyw D1	WBwe	PI	P B1	S A1	pK
rice plant	bì	bì	bó	bȳ	bu	bùq	bȳ	bý	*bu B'
road	klài	kʰlài	klé	klē	kle	klèq		klé	*klai B'
arm/hand	cù	sù	cú	cȳ	-cu	cùq	sù	sy@	*cu B'
blow w/ mouth	ʔù	ù	ʔó		ʔu	vù	ʔù	ʔú	*ʔu B'
clear (water)	cì		chía		cá chí	shríq	xí	shyí ši	
oil, fat			ʔasú	sū	-θo	tàtòq	θô	θó	*so B'
right (side)	ʔəthwè phéʔ	tʰwè	cá thwá	tré thē	dəthwe	thwèq	thwê	thwé	*thw- B'
evening	hà	hà	hé	lý mỳ hā	mu hε	mỳhàq	yâ	há	*ha B'
many	ʔà	à	ʔé	ʔā			ʔâ	ʔá	*ʔa B'
flea	təkhri	kʰlè	təklá	klē	kle		thwí khli	klí	*khl ~ kl B'
orphan	təchài		khre	phū jʰē	ʃe	fòqxèq	phô xwê	xé	*khr B'
bat	plà	blà	təpleə	plā	ple		phlá	blá	*pl~phi~b B'
breath	sà	θà	sé	sā	θε		θâ	kəθá	*sa B'
muddy	tədù		kədó		đu	dùq	dû	dý	*đu B'

Display of B-prime mergers:

Tone	Proto-Karen	Pa-O	Pk	E-Ky	W-Ky	Kyw	WBwe	PI	P	S
B'	*cu ^{B'} 'arm, hand'	cù	sù	cú	—	cȳ	cu	cùq	sù	sý
A	*sum ^A 'three'	sòm	ʃaʃyán	sō	ʃwā	sý	ʃó	týq	ʃàn	ʃá
B	*hme ^B 'fire'	mé	mĕ	mi	mi	mì	mɪ	miʔ	mê	mê
D	*thak 'needle/iron' tháʔ	thà	təthé	təthé	thō	thāʔ	tha	thàq	thàʔ	thāʔ

Special characteristics of B-prime cognate sets

- Fewer than other sets. In Luce's data, 33 sets vs 400 with tone A (159 A1), 340 with tone B (138 B1).
- No *voiced initials (i.e. only merge with high-category tones).
- "Rarely" have nasal finals. Actually only 2 out of Luce's 33, of which Haudricourt cites only 'abattre' (Luce's 1464 'to cut down with dah, axe'). Luce 1465 'pomelo, shaddock'. See Appendix below.
- Seldom comes out as a separate tone in modern languages. Found only in three Kayan varieties so far.

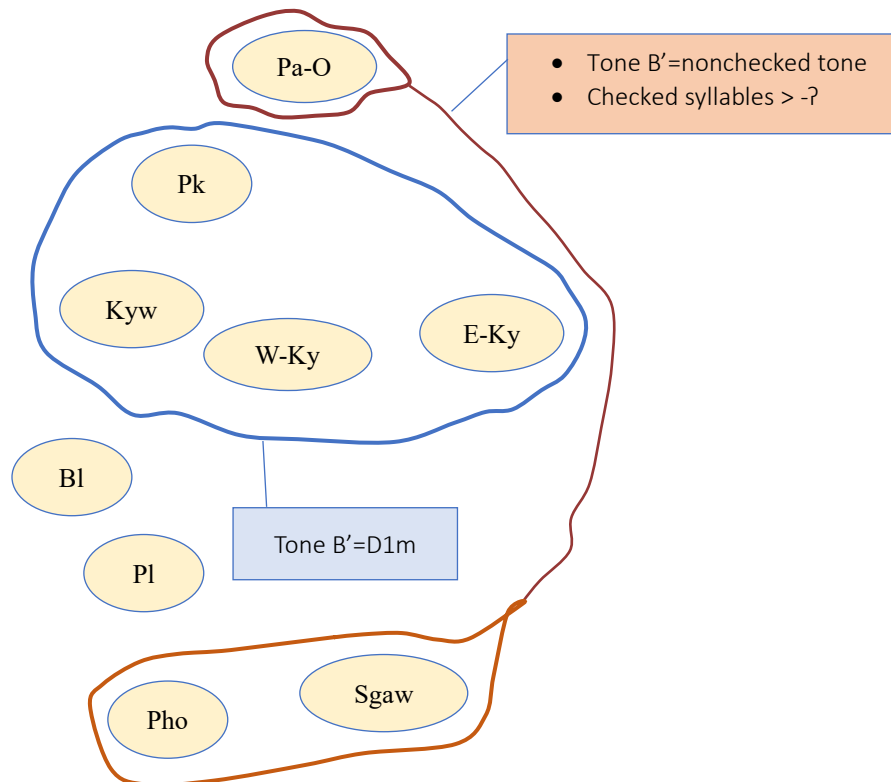
Two main points of this talk:

- The languages that lose checked syllables are exactly those that assign “B-prime” words to the D category.
- Account for the five etyma where Pa-O has final -t for other B-prime.

2. Linkage of development of B-prime and of *checked syllables.

2.1 B' and checked syllables.

The peripheral languages Pa-O, Pho, and Sgaw preserve checked syllables, with final *p t k merged as ʔ. (Kayaw keeps *checked syllables as a separate tone category, but drops the final consonant.) So the languages that have preserved checked syllables are exactly the languages that merge tone B' with one or the other of the nonchecked tones (A and B). A coincidence?



2.2 My proposal.

"Tone B-prime" etyma were characterized by:

- A final obstruent, so had some affinity with checked syllables,
- That was not an oral stop, so had some affinity with *non*-checked syllables.
- A subset have final -t in Pa-O (discussed below), indicating a final *dental* obstruent.

*-s is an obvious candidate.

3. Discussion

3.1. Problems (1)

3.1.1. Or was it final glottal stop?

Haudricourt says: tone B corresponds to Burmese "falling" tone, written -ḥ (visarga), so B-prime must be "rising, with glottal stop." And (he says) the Burmese tone B is from earlier -s as in Vietnamese.

But,

- Karen and Lolo-Burmese tones do correspond, but it doesn't follow that they had the same realization or origin.
- Matisoff (2003, 478) opposes reconstructing LB tone *2 as coming from -s.
- Some modern Karen languages have final glottalization/creak in (high-series) reflexes of B, suggesting a final glottal feature for that proto-tone rather than B-prime.

3.1.2. No voiced initials.

Separate treatment of voiced initials is not unusual. More specifically, a tone split where the low-series reflex merges with (reflexes of) other tones while the high-series reflex remains distinct.

- Mandarin (and other Sinitic?), where B/*shang*/rising with voiced obstruent initials merged with C/*qu*/departing (濁上入去)--cited by Haudricourt.

[tone matrix]

- Cases where checked syllables + voiced initial merge with nonchecked, but checked + unvoiced stay distinct. Biao Min, Eastern Kayah Li

[tone matrix?]

3.1.3. "Rare" nasal finals. There are only two etyma here, and they are confined (as far as present knowledge goes) to Pwo and Sgaw. One ('pomelo') may be a recent borrowing from Tai; see Appendix. Anyway, rarity of nasal finals has no bearing on tone vs suffix that I can see.

3.2 Problems (2) Pa-O final -t and Benedict's proto-Karen final -s

There are five B-prime etyma in which Pa-O has, not tone A1, but D1 with final t (in this section we omit Pl and WBwe, which don't readily distinguish D tones):

Gloss	Pa-O	Pk	EKy	Kyw	P	S	pK	Benedict
bone	chút	s ^h wì	khwrí	ʃ ^h ŷ	shəxwê	xí	kh - B'	*khrus
spicy, hot	hát	hài	hé	hē	γê	h'é	h - B'	*[hy]as
tooth, tusk	thóʔ təmét	mài	təm'é		mê	m'é	hm - B'	
to whip	phrát	-plè	plí		phlê	phlé	phl - B'	
carry by tumpline	bít	bwì	ví	bī	ʔwí	wí	B'	*ʔbüs

As shown, Benedict (1979) reconstructs final -s for three of these. We need to reconcile that proposal with ours.

Before going any further, let's take a closer look at Pa-O final -t.

3.2.1. Final t in Pa-O, proto-Karen, and proto-Tibeto Burman

Pa-O has *four* final stops: p t k ʔ. Glottal stop is the regular reflex of all three proto-Karen final stops.

3.2.1.1. Proto-Karen *-t > Pa-O -ʔ

Proto-Karen is reconstructed (Solnit 2013) with the usual three final stops, labial/dental/velar. Final *-k is relatively abundant, occurring after five of the six proto-vowels. The other two are less abundant, but *(w)at and *it are fairly well attested.

The regular Pa-O reflex of proto-Karen *-t is glottal stop.

Gloss	Pa-O	Pk	EKy	Kyw	WBwe	PI	P	S	pK	other
leech, land	təwáʔ	θù	swá	sū	θáyò		θəʔwàʔ	θūʔ	*s-wat	#2555 PTB *k-r-pʷat LEECH
civet	thwáʔ		thwá	thū ʃʰi	thɔ				*thwat	Hayu ɔt
go out (fire), be extinguished	phèʔ	pú	pī		bì	pí~píq ~pìq	lan phāiʔ	lɔ piʔ	*bit	#31 PTB *s-mi:nʷ~*s- mi:t DIE/EXTINGUISH/SHUT ABRUPTLY/WINK/.. (provisional)
dark	thā khéʔ	mān kʰə	khí	khì	khi		khàiʔ	khìʔ	*khit	

As the table indicates, many pK *-t are inherited from pTB.

3.2.1.2. Pa-O final -t: mostly secondary.

Most Pa-O p t k are secondary, not traceable to proto-Karen. Some examples with -t:

- Tai borrowings., *kí rít* 'cricket' (Siamese จิ้งหรีด *ciŋ riit*); *dèn cét* 'month 3, roughly May' (Tai 'month' + 'seven', counting from November--this calendar occurs in other Tai groups); *nót chán* 'mustache' (Shan *not*² (D1L) 'beard' + native Karen **chwan*^B 'body hair')
- Burmese: *tút* 'blunt, not pointed' (WB *tut* 'chubby, stout, short, thick'); *phàt* 'read' (WB *phat* 'read audibly' < Indic)
- Other borrowings. *kā bàt* 'bus' (English?); *ʔút* 'brick' Tai? Bm?;
- Expressive. *katét* 'cluck', *wā lát thát* 'bulbul', *karít* 'very black', *lát* 'very white', *dít* 'tiny', *təʔk* 'hiccup'

3.2.1.3. TB *-t > Pa-O -t

A few TB (and pK) -t seem to survive in Pa-O, as exceptions to the regular development described above.

Gloss	Pa-O	Pk	WKy	Kyw	WBwe	PI	P	S	pK	TB
eight	sət	sʰə	θjɔ	ʃʰɔ T!	xɔ3	xó	xəʔ	xəʔ	kr~gr	*b-r-gyat
grind	khrit						γāiʔ	γiʔ	gl-~r-	*kri:t

Note that GRIND also fits in the expressive category, and we can't exclude borrowing from Burmese *krit* 'grind'.

3.2.1.4. TB *-s > Pa-O -t.

There are two cases of Pa-O -t representing TB (and, I suggest, proto-Karen) final *s:

gloss	Pa-O	Pekon	EKy	Kyw	WBwe	PI	Pho	Sgaw	pK	TB
small bee	təwát	mè B'=D1	vé D1	hwē D1	wē		kwe ⁵⁵ Am	kweʔ ⁴⁵ D1	*hw~kw	*was
to comb	khút (KLS?)	k(h)wì B'=D1	kū A1	khī D1	wī	khwèq	khwì A1	khwí A1	*khw	*kwis

Now let's return to the five etyma where Pa-O final -t corresponds to other Karen B-prime:

Gloss	Pa-O	Pk	EKy	Kyw	P	S	pK	Benedict
bone	chút	s ^h wì	khwrí	ʃ ^h ỹ	shəxwê	xí	chr - B'	*khrus
spicy, hot	hát	hài	hé	hē	γê	h'é	h - B'	*[hy]as
tooth, tusk	thóʔ təmét	mài	təm'é		mê	m'é	hm - B'	
to whip	phrát	-plè	plí		phlê	phlé	phl - B'	
carry by tumpline	bít	bwì	ví	bī	ʔwí	wí	B'	*ʔbüs

Since we just saw (SMALL BEE, TO COMB) that TB root-final *s becomes -t in Pa-O, I propose that in these five etyma Pwo and Sgaw reanalyzed root-final *s as a suffix, producing the Pwo B = Sgaw A pattern characteristic of B-prime. For the Central languages the distinction between root-final and suffix -s collapses: both result in D-category tones and no final consonant.

3.2.2 Benedict's proto-Karen *-s

Benedict (Four Forays 1979) reconstructs pK *-s for eight etyma in which Pa-O -t corresponds to various smooth-syllable rhymes in the rest of Karen. We have already covered four of them:

- PUNGENT, BONE, and CARRY BY TUMPLINE (Benedict glosses 'carry by headstrap') are in the set just discussed, with root-final *s reanalyzed as suffix in Pwo and Sgaw.
- TO COMB is one of our two etyma with TB final *s, listed in 3.2.1.4 above.

The remaining four are the numerals FOUR, FIVE, SEVEN, and NINE. Below I add EIGHT, and cite Western Kayah because Eastern has replaced the numerals 6-9 with compound expressions ('twice-three' for 'six' and so on):

Gloss	Pa-O	Pk	KyW	Kyw	P	S	pK
four	lít	lwé (D2)	lwī (D2)	lí (A2)	lí (B2)	lwì (B2)	*l
five	ɲát	ɲáì- (D2)	ɲjā (D2)	jé (A2)	jé (B2)	jè (B2)	*ɲ ~ hɲ
seven	nít	nwè- (A1)	nuó (D1)	né (A1)	nwè (A1)	nwé (A1)	*hn
eight	sát	s ^h ò (A1)	θjó (D1)	ʃ ^h ó (A1)	xóʔ	xòʔ (D2)	*kr~gr
nine	kút	khwí- (B1)		khw (A1)	khí (B2)	khwí (A1)	*k~kh

Here the languages other than Pa-O show a bewildering collection of tonal reflexes, about evenly distributed among A, B, and D. I suggest that, whatever is going on here, it has less to do with the B-prime question than it does with the tendency for numerals to influence each other. Matisoff 1997 provides examples of "prefix runs", citing similar cases in Indo-European (Jasanoff 1994) and Austroasiatic; Pa-O and the other languages showing checked-syllable reflexes would seem to be a case of a suffix run.

Elsewhere in TB, EIGHT has final *t (*b-r-gyat), and TWO and SEVEN have -s. Either of these could be what propagated to FOUR and FIVE.

Conclusion.

The so-called B-prime etyma are the result of

- Suffix *-s
- Root-final *s, reanalyzed as suffix in Pwo and Sgaw

Put another way: we can distinguish suffix from root-final -s in proto-Karen. The regular development is:

1. Suffix *-s > Pa-O A1, Central D1, Pwo B1, Sgaw A1--the B-prime etyma.
2. Root-final *-s > Pa-O -t D1, other Karen D1 (mostly) BEE, TO COMB

Two divergent treatments:

3. Root-final *-s reanalyzed as suffix in Pwo and Sgaw. SPICY, BONE, TUSK, WHIP, and CARRY BY TUMPLINE
4. In five numerals, a final -s and/or -t (difficult to distinguish) is propagated as a kind of 'suffix run'.

The paucity of clear root-final *s—only two etyma—is due to Pwo & Sgaw preferring to interpret final -s as suffix, rather than keep the root-final vs suffix distinction. This echoes the TB-wide difficulty of distinguishing the two.

Proto-Karen thus has two major syllable types, each subdivided in two:

- Live, tonal
 - Tone A
 - Tone B
- Dead, atonal
 - final continuant obstruent (*s)
 - final oral stop (*p t k)

pK	Pa-O treatment	other K treatment	Pa-O	other Karen	comment	examples
suffix *-s	regular	regular	live syll A1	CK D = Pwo B = Sgaw A	the regular B-prime development	CLEAR, TURBID, MANY, 12 more
root-final *s (~sfx *-s)	regular	P, S, (PI?): CVCs > CVC-s	-t D1	CK D = Pwo B = Sgaw A	inherited TB-s	BONE, SPICY, TUSK, WHIP, TUMPLINE
root-final *s	regular	regular	-t D1	mostly D1	inherited TB -s	SM.BEE, COMB(v)
numeral	-s or -t propagated	some propagation	-t D1	no pattern	-s/t propagated to five numerals, most thoroughly in Pa-O, perhaps instigated by EIGHT	FOUR, FIVE, SEVEN, (EIGHT), NINE
*-t	regular	regular	-? D1	D1	regular	CIVET, L.LEECH, DARK...

Remaining questions.

- Why no *-s after nasal finals—just an arbitrary phonotactic constraint?
- What is the value/meaning of this suffix *-s? Unknown: we would always prefer an affix to have some derivational or other semantic value—but we don't always get that in Tibeto-Burman.

Appendix: The two nasal-final B-prime words

- 'cut, chop, slash' Pwo *klón*, Sgaw *kló* Luce #1464. Full glosses are Pwo 'cut (with dah, axe)'; Sgaw 'slash off; incise, gash'
- 'pomelo' Pwo *ပိၵ်ဂံၼ်* *ṗō*, Sgaw *ပိၵ်ဂံၼ်* *ṗō*. Luce #1465. Neither syllable is glossed on its own. Note the similarity to Siamese *ส้มโอบ* *sôm ṗoo*. And not to Burmese: *klwa kau paŋ* per Google glosbe.om. A recent loan to P and S?

I haven't found cognates in any other Karen.

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