

LEXICAL COMPARISONS BETWEEN PROTO-KUKI-CHIN AND JINGHPAW: EVIDENCE FOR A CENTRAL BRANCH OF TRANS-HIMALAYAN

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Abstract

This paper presents a set of lexical correspondences between Jinghpaw and Proto-Kuki-Chin as reconstructed by VanBik (2009) which have no attested comparanda outside the hypothesized Central branch of Trans-Himalayan/Sino-Tibetan suggested by Bradley (1997) and DeLancey (2021). Jinghpaw and South Central/Kuki-Chin represent two hypothesized groupings, Sal and Kuki-Naga, which are the major constituents of this proposed branch, so these comparisons are adduced as potential evidence for the Central hypothesis. Included in these lexical comparisons is a substantial number of sets where there are Jinghpaw comparanda for one or the other, or both, of the alternating verbal stems reconstructed for PKC. It is argued that these represent particularly strong evidence for a special genealogical connection between the languages.

Keywords: Sino-Tibetan, Trans-Himalayan, Tibeto-Burman, classification, historical phonology, lexical evidence

ISO 639-3 codes: kac, mni, lus

1 Introduction

My purpose in this paper is to present a set of lexical comparisons between Proto-Kuki-Chin as reconstructed by VanBik (2009) and Jinghpaw, and to argue for interpreting them as evidence for a Central branch of Trans-Himalayan (Sino-Tibetan),¹ as proposed in Bradley 1997 and DeLancey 2015, 2021. My version of the Central branch is very close to Matisoff's "Kamarupan" (Matisoff 1999), relabeled in STEDT² as the "Northeast Indian Areal Group". DeLancey (2015) presents some morphological evidence that this is a genealogical rather than an areal grouping; in this paper, I present some lexical evidence. Lexical resources for the languages of northern Myanmar and Northeast India are limited, so it is impossible at present to assess the extent of the lexical connections among the various putatively Central languages and groups. In this paper, my main purpose is to argue for a relationship between Jinghpaw and Proto-Kuki-Chin such that they must belong to a lower-level unit than Trans-Himalayan.

The comparisons in this paper are presented in support of the hypothesis of a Central branch of Trans-Himalayan, which includes most of the Tibeto-Burman languages situated between the traditional Bodish or Western branch and the controversial but promising Burmo-Qiangic or Eastern branch. This represents the union of two long-suggested but still controversial units, Sal (Burling 1983), including Jinghpaw, Northern Naga, and Bodo-Garo (Shafer's (1966) "Baric" or van Driem's (2001) "Brahmaputran" plus

¹ I use "Trans-Himalayan" rather than "Sino-Tibetan" for reasons discussed in DeLancey 2021. These entail the abandonment of the idea of a "Tibeto-Burman" clade, but when referring to Matisoff's "Proto-Tibeto-Burman" reconstructions, I will follow the source and label them "PTB".

² The *Sino-Tibetan Etymological Dictionary and Thesaurus* website at <https://stedt.berkeley.edu/~stedt/cgi/rootcanal.pl/>

Jinghpaw), and Kuki-Naga (Shafer's (1950) Kukish), including South Central³ ("Kuki-Chin"), Tangkhulic, Zeme, Ao, Angami-Pochuri, Meitei, and Karbi. I will not argue specifically for either of these groupings in this paper, but see DeLancey (2018, 2022) for some arguments for Kuki-Naga, Matisoff (2013) for a current assessment of Sal, and §4 for the implications of the present paper for the question. What I will do in this paper is to show lexical connections between Jinghpaw and Proto-Kuki-Chin which are not shared outside of my proposed Central branch. I have not searched extensively for comparanda from other putatively Central languages, but no classification scheme links Jinghpaw and South Central, so any evidence that they share a common ancestor more recent than Proto-Trans-Himalayan is evidence for something like my Central branch, regardless of what may turn out to be its full membership. (Note that a lexical set which currently has only Jinghpaw and PKC members is not necessarily evidence for any special relationship between these languages within Central; in our present state of documentation for the relevant languages, negative evidence is almost meaningless).

This paper is based on a list of cognates which I have found between VanBik's (2009) Proto-Kuki-Chin (hereafter PKC) and Jinghpaw, using Hanson 1906 and Kurabe 2016 as resources for the latter. This paper discusses those cognates from that list for which I cannot find further comparanda outside of the putative Central branch. In §2, I present a set of lexical correspondences which I show are phonologically regular, and which appear to have no cognates outside of the Central languages, and thus constitute evidence for a Central branch. In §3, I will present sets in which a Jinghpaw verb corresponds to one or the other of two stem alternants in PKC, or where there are two Jinghpaw verbs, one corresponding to each PKC stem. I will argue that these constitute particularly strong evidence for a special relationship between these languages. Finally, §4 summarizes the evidence and argument of the paper.

2 PKC and Jinghpaw: Lexical innovations

Out of 1,355 reconstructed PKC forms in VanBik, I have found fairly obvious Jinghpaw cognates for about 170 ("about" reflecting the slipperiness of "fairly obvious"). A majority of these are attested in some Eastern and/or Western languages and are therefore probably reconstructable for Proto-Trans-Himalayan (PTH), and many of them have played a role in the reconstructions of Benedict 1972, Matisoff 2003, and STEDT. In this section, I present 25 PKC-Jinghpaw correspondence pairs for which I can find no potential cognate outside of the Central branch:⁴ I have omitted here a number of resemblant sets with certain types of imperfect correspondences which are sometimes adduced in comparative Trans-Himalayan studies: non-matching stop codas, stop codas corresponding to homorganic nasals, sets where one or the other language has an *-r-* or *-l-* cluster and the other doesn't. I am very confident that some of these will in fact turn out to be valid cognate sets, but they cannot be taken as evidence of special relationship at the discovery stage. In §2.1, I will present the sets, with some additional discussion of a few pairs. In the remaining subsections, I will present evidence for the regularity of the phonological correspondences which we see in these comparisons.

2.1 Jinghpaw comparanda to VanBik's PKC

Table 1 lists 24 cognate pairs between PKC and Jinghpaw for which STEDT does not list plausible cognates outside of the Central languages. All forms labelled "PKC" are from VanBik 2009. Jinghpaw forms are either from Kurabe 2016 or Hanson 1906.⁵ All Jinghpaw forms are presented in Kurabe's system.

³ I use "South Central" rather than "Kuki-Chin" to respect the discomfort which speakers of some of the languages feel about the latter term. In this paper, I will use Proto-Kuki-Chin/PKC to refer specifically to the reconstructions in VanBik 2009.

⁴ I am grateful to Jim Matisoff for helping me prune an earlier less careful list. I have retained a few sets against his advice.

⁵ Hanson does not record tone or phonemic glottal stops, but I have used a copy of his dictionary in which these have been added by LaRaw Maran.

Table 1: PKC-Jinghpaw sets with no extra-Central comparanda

Gloss	PKC	Jinghpaw
bunch/bundle	* <i>ɓor</i> ‘bunch (of flowers)’	<i>bòn</i> ‘to bundle’
collect	* <i>khon</i> -I * <i>khon</i> -II	<i>mə-khòŋ</i> <i>lə-khon</i>
complete/full	* <i>kim</i>	<i>khum</i>
crack/split	* <i>kak</i>	<i>gàʔ</i>
dig, hoe	* <i>laay</i> ~ * <i>hlaay</i>	<i>lay</i>
drum	* <i>tum</i>	<i>dùm</i> _(v)
entertain, feed	* <i>daw</i>	<i>dó</i>
forbid	* <i>kha(a)m</i>	<i>khùm</i> ‘prohibit’
grind	* <i>rial</i>	<i>rín</i>
louse (body)	* <i>khraʔ</i>	<i>ɛə-krát</i>
overflow	* <i>liam</i>	<i>lím</i>
plain _(n)	* <i>yaan</i> ‘field in the plains’	<i>yaŋ</i> ‘level (ground)’ <i>lə-yaŋ</i> ‘low, level country; plain’
post/tree	* <i>phun</i> ‘erect/pitch/post’	<i>phún</i> ‘tree; fencepost’
see/find	* <i>hmuu</i> -I	<i>mù</i>
sharp	* <i>tay</i> -I ‘adze _(v) /sharp’	<i>dáy</i>
smooth/supple	* <i>neel</i> ‘smooth/supple’	<i>mə-nen</i> ‘slippery, smooth, oily’
take/fetch	* <i>laa</i> -I	<i>lá</i>
taste	* <i>tsam</i> ~ <i>tsom</i>	<i>cím</i>
teach	* <i>hrilʔ</i>	<i>ɛə-rín</i>
trap _(v)	* <i>kam</i> ‘set (trap)/prop up’	<i>khám</i> ‘to trap’
uproot ⁶	* <i>ɓot</i> -I / * <i>ɓoʔ</i> -II	<i>bó</i>
use/used to	* <i>maŋ</i> -I / * <i>man</i> -II	<i>man</i>
wander	* <i>leen</i> -I / * <i>leen</i> -II	<i>lèn</i> ‘ramble, roam’
wear/cover	* <i>puan</i> ‘cover/garment’	<i>phún</i>

A few of these need some further discussion. In STEDT, both the PKC and Jinghpaw forms for ‘dig, hoe’ are connected to others outside the Central sphere. The simple English gloss doesn’t capture the closeness of the semantic equation. The Mizo verb means ‘dig, delve, hoe, excavate, mine’, the Jinghpaw, ‘dig up, exhume, disinter’. Benedict (1972:288) reconstructs Proto-Tibeto-Burman **la:y*, based only on Jinghpaw and Mizo. STEDT adds Tshobdun (Caodeng) Rgyalrong *lweʔ* to the set, providing a non-Central witness. But STEDT notes a resemblance between this and a distinct, more widely attested, root, PTB **lu* ~ **lwa*, which “must be kept separate”. This latter root is attested only in Qiangic and Rgyalrongic, including all of the Rgyalrong languages other than Tshobdun. I suggest that Tshobdun *lweʔ* belongs with this set, despite the erratic vowel correspondence, rather than with **la:y*, which would require some explanation for the Tshobdun glide.

For both ‘see/find’ and ‘sharp’, STEDT links the Jinghpaw form, but not the PKC, to more widely attested etyma. STEDT assigns the Jinghpaw form *mù* ‘see’ to #1227 **mraŋ*, but this is implausibly irregular. The PKC form is treated as a separate root (#4880), but the correspondence between this and the Jinghpaw form is obvious and regular. Similarly, STEDT assigns Jinghpaw *dáy* ‘sharp’ to the provisional set #3435 **m-ta:y* ‘sting (as bees), scold (a person)’, with most of the non-Jinghpaw resemblants having meanings like ‘sting’, ‘scold’, or ‘wasp’, but PKC **tay* ‘sharp’ is treated as a distinct root (#4173). First, it is clear that the Jinghpaw and PKC forms must be cognate, since they correspond perfectly in both form and meaning. We cannot say definitely that the extra-Central forms having to do with sharp tongues and insects’ stingers are not cognate to the PKC-Jinghpaw set, but the semantic connection is not sufficient to prove that they are. At the very least, PKC and Jinghpaw share a semantic shift not attested elsewhere.

‘Post/tree’ gives us a solution to an apparent irregular correspondence in the literature. Benedict (1972 166, fn. 443), Matisoff (2003:416), and STEDT (#2176) all link Jinghpaw *phún* ‘tree, bush, stalk (as of flower

⁶ Kurabe (2018:5) gives Asakian evidence for a final *-k in this form, but neither the Jinghpaw form nor the PKC Stem II are consistent with this.

or grain); wood’ with the PKC forms which VanBik reconstructs as **bul*⁴ ‘stump, base’, with the irregular initial correspondence incorporated in the allofamic reconstruction **bul* ~ **pul*. I suggest instead that Jinghpaw *phún* corresponds to PKC **phun*¹ ‘erect, pitch, plant(v.), post’, i.e., erect by burying one end in the ground; compare Jinghpaw *phun-dùŋ* ‘fencepost’. This equation is completely regular phonologically, and semantically at least as plausible as Benedict’s.

It is worth noting the connection between ‘grind’ and ‘teach’ in both languages. These forms are evidently related:

Table 2: ‘Grind’ and ‘teach’

Gloss	PKC	Jinghpaw
grind	<i>*rial</i> ⁴	<i>rín</i>
teach	<i>*hril</i> ³	<i>εə-rín</i>

In Jinghpaw, ‘teach’ is transparently the causative of ‘grind’. (Hanson (1906:569) includes in the entry for *rín* “fig. to grind it out, to master, acquire a knowledge of”). The voiceless sonorants of South Central are generally interpreted as reflecting the same causative **s-* prefix as Jinghpaw *εə-*. The final glottalization in PKC ‘teach’ is probably also a transitivity derivation. Thus, it seems that the metaphor of ‘grind’ for ‘learn’ and ‘cause to grind’ for ‘teach’, and the lexical pairs incorporating it, were part of the common ancestor of PKC and Jinghpaw, and that when the causative of ‘teach’ was obscured in PKC by the loss of the prefix, the metaphor was reinforced by a secondary causativization.

The paired comparanda under ‘collect’, and the fact that in the ‘use’ and ‘wander’ sets the Jinghpaw form matches the PKC Stem II rather than Stem I, are of considerable comparative interest; this will be the topic of §3.

2.2 Verbal voicing in Jinghpaw

Initial obstruents correspond in voicing throughout the data, except for ‘crack’, ‘drum’, ‘grasp’, and ‘sharp’ in Table 1, where Jinghpaw has a voiced initial where the PKC initial is voiceless. This is not completely regular, but there are several other sets in which the Jinghpaw member is a verb, and an obstruent initial is voiced. These are given in Table 3:

Table 3: Verbal voicing in Jinghpaw

gloss	PTB	PKC	Jinghpaw
bind	<i>*(g/k)(y)it</i>	<i>*khit</i> ³	<i>gyít</i>
cover	<i>*(g/k)wap</i>	<i>*khup</i>	<i>də-gúp</i>
peel off	<i>*s/r-kwak</i>	<i>*khok</i>	<i>gù?</i>
call/summon	<i>*(g/k)aw</i>	<i>*kaw</i> ^{3/4}	<i>gaw</i>
shoot	<i>*ga:p</i>	<i>*kaap</i> ²	<i>gàp</i>
sweet	<i>*twi(y)</i>	<i>*tuuy</i> ^(4?)	<i>dùŋ</i>
weave	<i>*(t/d)ak</i>	<i>*tak</i> ⁽³⁾	<i>dà?</i>
play instr	--	<i>*tum</i> ⁽¹⁾	<i>dùm</i>
throw	<i>*s/m-ba:y</i>	<i>*paay</i> ⁽³⁾	<i>gə-bày</i>
mount	--	<i>*tsuaŋ</i> ¹ / <i>*tsuan</i> ³	<i>jòn</i>
urine	<i>*g-ts(y)i-t</i>	<i>*tse</i> ³ ‘urinate uncontrollably’	<i>jí</i> ‘urinate’
chop	<i>*tsyat</i>	<i>*tshat</i> ^{2-I} , <i>*tsha</i> [?] -II	<i>ʔə-dzàt</i>

This does not reflect any synchronic fact about Jinghpaw, where verbs with voiceless initials are not uncommon. (Indeed, there is a verb *kyít* ‘gird, girdle, tie around the waist which is evidently related to *gyít* ‘bind’). But this pattern is very common, though not completely regular, so I count the sets in Table 1 as regular.

2.3 Onset correspondences

Except for examples of verbal voicing in Jinghpaw, obstruent onsets general correspond identically. Exceptions in Table 1 are ‘complete/full’, ‘louse’, ‘trap’, and ‘wear/cover’, where aspirated obstruents correspond to unaspirated. This phenomenon has been long noted and much discussed; the likely explanation for this variation is that both South Central languages (Mortensen 2013, Zakaria 2021) and Jinghpaw (Dai 1995) are very prone to adding, and sometimes then losing, “prefixes” (Matisoff 2003:87-156) to monosyllabic roots, and that irregular correspondences in voicing reflect the influence of now-lost prefixes (see also Nishida 1977).

PKC has a set of voiceless initial sonorants which correspond regularly to Jinghpaw simple voiced sonorants, as summarized in Table 4:

Table 4: PKC voiceless sonorant onset correspondences

Gloss	PTB	PKC	Jinghpaw
ripe	*s-min	*hmin ⁴	<i>myin</i>
otter	*sram	*hram ⁴	<i>εə-ram</i>
round	*s-lum	*hluum ¹	<i>lùm</i>

Correspondences for affricate and sibilant onsets are not clear, but the initial correspondence for ‘taste’ is regular (Note verbal voicing in ‘mount’ and ‘urinate’), as shown in Table 5:

Table 5: Correspondence sets for PKC *ts- = Jinghpaw /c-/

Gloss	PKC	Jinghpaw
chirp	*tsiap	<i>cáp</i>
mount	*tsuaŋ ¹ *tsuan ³	<i>jàwn</i>
urine	*tseʔ ³ ‘urinate uncontrollably’	<i>jì</i> ‘urinate’

2.4 Rime correspondences

Jinghpaw has merged the PTH/PKC liquid codas with *-n, as we see in ‘bunch/bundle’, ‘grind’, ‘smooth/supple, and ‘teach’. Other pairs supporting this correspondence are given in Table 6:

Table 6: PKC *-l and *-r merge with *-n in Jinghpaw

Gloss	PTB	PKC	Jinghpaw
flower	*ba:r	*paar	<i>pan</i>
wash	*syal	*sil	<i>gə-εin</i>
twenty	*m-kul	*kul	<i>khun</i>
circle	*wal	*weel	<i>wàn</i>

The correspondence PKC *-k = Jinghpaw /-ʔ/ in ‘crack/split’ is regular (Matisoff 2003, Kurabe 2018). Some examples are given in Table 7:

Table 7: PKC *-k = Jinghpaw /-ʔ/

Gloss	PTB	PKC	Jinghpaw
‘weave’	*(t/d)ak	*tak	<i>dàʔ</i>
‘acid’	*m-tak ‘sharp’	*thak	<i>mə-sàʔ</i>

The correspondence PKC *-ʔ = Jinghpaw /-t/ in ‘body louse’ regularly reflects PTB *-s. Other examples are given in Table 8:⁷

⁷ The PTB reconstruction of ‘comb’ from STEDT interprets the Jinghpaw final as original, but we can see here that the correct reconstruction is *-s.

Table 8: PKC *-ʔ = Jinghpaw /-t/ < PTB *-s

Gloss	PTB	PKC	Jinghpaw
bone	*g-rus	*ruʔ ³	ṅ-rùt
comb	*m-si-t	*thiʔ ³	mə-sìt (v.)
seven	*s-nis	*sa-ríʔ ³	sə-nìt

Note for future reference (§3.2) the regular tone correspondence in this set. PTB *-s regularly gives PKC *-ʔ in Tone 3, and Jinghpaw reflexes with /-t/ and low tone (§2.3).

2.5 Vowel correspondences

The ‘complete/full’ pair shows variation in vowels which is seen elsewhere in the languages and in the family. Matisoff (2003:368, 370-371) notes variation, sometimes within the same language, between *-i-* & *-u-* preceding coda **-p*. An example in these data is ‘sleep’, PTB **yip* & **yup*, PKC **ʔip*, Jinghpaw *ʔyúp*. The same correspondence in ‘complete/full’ suggests that coda **-m* has the same effect as **-p*.

PKC diphthongs regularly correspond to simple vowels in Jinghpaw. The PKC **ua* = Jinghpaw /u/ correspondence in ‘wear/cover’ is supported by other sets given in Table 9:

*Table 9: PKC *ua = Jinghpaw /u/*

Gloss	PTB	PKC	Jinghpaw
nine	*d/s-kəw *s-kwa	*kua ¹	jə-khù
hole	*kwar	*kua ³	khu

‘Grind’ and ‘overflow’ are the only examples I have of PKC **ia* = Jinghpaw /i/. There are two other sets with a slightly different correspondence, presented in Table 10:

*Table 10: PKC *ia = Jinghpaw /e/*

lower	*nem & *nyam	*niam ¹	ɛə-nèm
clean	--	*thian ⁴	seŋ ‘to clean (tr.)’

2.6 Tone correspondences

Tone correspondences patterns are quite complex. There is considerable coincidence with the correspondences noted by Weidert (1987), but with enough non-corresponding sets that we cannot take these as reliable. There are, however, two consistent patterns which I note here because they will be important to the argument in §3. VanBik reconstructs four tone categories, labelled *TC1-4. There is very strong correlation between PKC *TC4 and Jinghpaw Mid tone, and between PKC *TC3 and Jinghpaw Low tone. By far the most frequent correspondence is PKC *TC4 = Jinghpaw Mid. Example sets are given in Table 11:

Table 11: PKC *TC4 = Jinghpaw Mid tone

Gloss	PTB	PKC	Jinghpaw
barking deer	*d-kəy	*s ^h a-khi ⁴	cə-khyi
dove	*m-krəw	*khruu ⁴	ʔù-khru
five	*l/b-ŋa	*ŋaa ⁴	mə-ŋa
flea	*s-ləy	ʔuy ¹ -hli ⁴	khəly
flower	*ba:r	*paar ⁴	pan
four	*b-ləy	*li ⁴	mə-li
name	*r-miŋ	*miŋ ⁴ ~ hmiŋ ⁴	(ʔə-)myiŋ
otter	*s-ram	*hram ⁴	ɛə-ram
ripe	*s-min	*hmin ⁴	myin
roast	*ka:ŋ	*kaŋ ⁴	gə-kaŋ
three	*g-sum	*thum ⁴	mə-sum
twenty	*m-kul	*kul ⁴	khun
warm	*s-lum	*lum ⁴ ~ hlum ⁴	lum

For PKC *TC3, we find corresponding Jinghpaw forms in all three tones, but for nearly half of the reconstructed *TC3 forms, the Jinghpaw cognate has Low tone; examples are given in Table 12:

Table 12: PKC *TC3 = Jinghpaw Low tone

Gloss	PTB	PKC	Jinghpaw
liver	*m-sin	*thin ³	mə-sin
see/find	--	*hmuu ³	mù
sneeze	--	*haʔ-thiaw ³	gə-thi
stream	*lwi(y)	*luuy ³	lùy (v)
yawn	*m-ha(:)m	*haam ³	gə-hàm

These correspondences will be useful for identifying the correct Jinghpaw cognate for distinct PKC verbal stems in §3.2.

3 Verbal stem alternation in lexical comparisons

VanBik (2009:9) presents verbal stem alternation, which will be briefly introduced in §3.1, as one of “two shared innovations that separate Kuki-Chin languages from the rest of the Tibeto-Burman family”. If stem alternation is a PKC innovation, then we would expect to find no trace of it in other languages. Since Stem II appears to be the derived stem in PKC, this means that we should find Jinghpaw cognates corresponding only to PKC Stem I. In fact, as we will see in §3.2, in some sets we see a Jinghpaw cognate to Stem I, in others to Stem II. And most interestingly, in some cases there are distinct Jinghpaw cognates to each PKC stem, as we will see in §3.3.

3.1 Stem alternation in South Central languages

Verb stem alternation is attested in almost all South Central languages, though there is variation in how pervasive it is. In Haka Lai, 80% of all verbs have distinct stem alternants (Hyman & VanBik 2002), but in some languages the percentage seems to be lower. VanBik reconstructs many alternant pairs to PKC, so the phenomenon is at least that old. The synchronic functions of stem alternation vary across the languages (King 2009), but do not bear crucially on our concerns.

The formal relation between the two stems shows several recurrent patterns across the branch, but is not regular either within any one language or in correspondence among different languages (VanBik 2009:12). As an example, consider the stem alternations in Mizo (Central SC) in Table 13. Each exemplifies a pattern found in a substantial set of verbs:

Table 13: *Sample Mizo stem alternations (Chhangte 1993)*

	Verbal stem	Nominal stem
‘hurt’	<i>nââ</i>	<i>nat</i>
‘cut grass’	<i>ààt</i>	<i>aʔ</i>
‘take’	<i>laa</i>	<i>lààk</i>
‘ascend’	<i>chow</i>	<i>chowʔ</i>
‘early’	<i>mhââ</i>	<i>mhaa</i>

For some verbs, Stem I is open and Stem II has an added /t/ or /k/ coda (‘hurt’, ‘take’), while for others Stem I is open and Stem II has a final glottal stop (‘ascend’), or Stem I has an oral stop coda and Stem II replaces it with a glottal stop (‘cut grass’). It is impossible to reconstruct a simple morphological derivation – e.g., the addition of a specific consonant, such as #-s, to Stem I to form Stem II – which can account for all of the attested alternation patterns even in one SC language, much less for the entire branch. For purposes of comparison, it is useful to divide reconstructed PKC stem alternations into three main classes and five subclasses, as presented in Table 14:

Table 14: *Categories of PKC stem alternation*

		Stem I	Stem II
Class I:	Ia	-ŋ	-n
	Ib	open	-t
Class II:	IIa	open	-ʔ
	IIb	-SON	-SONʔ
	IIc	-k/-t/-p	-ʔ
Class III:	III	open	-k

We will see examples of each pattern in the next sections.

3.2 *Jinghpaw cognates*

For a morphological process which we consider to be a PKC innovation, we should expect to find cognates outside of the branch only for the underived form. An inflectional or derivational process which is unique to PKC will produce forms that will only be found in PKC. And of those verbs for which VanBik reconstructs both stems, the majority of Jinghpaw cognates are to Stem I. However, there is a significant number of sets where the Jinghpaw form corresponds to PKC Stem II. Even more interesting are a set of comparisons in which there are two distinct Jinghpaw verbs, one corresponding to each PKC stem, which will be discussed in §3.3.

3.2.1 *Jinghpaw cognates to PKC Class I verbs*

VanBik reconstructs two stems for 221 verbs. Almost a third of these (71) belong to Class Ia, where Stem I has a final *-ŋ and Stem II *-n. Since both codas are preserved in Jinghpaw, it is easy to see which stem a Jinghpaw cognate corresponds to. There are 5 PKC Class Ib stems with Jinghpaw cognates. In one of these, ‘fresh/alive/green’, the Jinghpaw cognate matches PKC Stem I, as we would expect if the stem alternation were a purely PKC innovation. There is only one set involving a Class Ib verb, and here too the Jinghpaw form corresponds to Stem I. These examples are presented in Table 15. (Placement of the Jinghpaw form in the cells is aligned with the corresponding PKC stem type):

Table 15: *Class I verbs where the Jinghpaw form corresponds to PKC Stem I*

Gloss	PKC	Jinghpaw
fresh/alive /green	*hriŋ ⁴ *hrin ³	<i>riŋ</i>
‘itch’	*yaa ¹ *yaat	<i>gə-yá</i>

But in Table 16, we see that in the other four sets with PKC Class Ia verbs the Jinghpaw form corresponds to PKC Stem II:

Table 16: Class Ia verbs where the Jinghpaw form corresponds to PKC Stem II

Gloss	PKC	Jinghpaw
mount/ sit on	*tsuaŋ ¹ *tsuaŋ ³	<i>jòn</i>
‘dry up’	*kaŋ *kan	<i>khùn</i>
‘wander’	*leey ² *leen ³	<i>lèn</i>
‘accustomed’	*maŋ ⁴ *man ⁽³⁾	<i>man</i>

In all except ‘accustomed’, the tone regular correspondence (§2.6) confirms the equation. The ‘mount’ set is slightly irregular; in §2.5 we saw evidence that PKC *ua = Jinghpaw /u/; here the Jinghpaw vowel is /o/. This may parallel the PKC *ia = Jinghpaw /i/ or /e/, which we noted. On the other hand, the semantic correspondence is perfect, with a sense in all languages centered around travel by conveyance, prototypically on horseback.

3.2.2 Jinghpaw cognates to PKC Class II verbs

For PKC Class IIa-b verbs, we again have some sets where the Jinghpaw cognate corresponds to Stem I, and others where it corresponds to Stem II. Consider the sets in Table 17:

Table 17: Class IIa-b verbs with Jinghpaw cognates

Gloss	PKC	Jinghpaw
‘dead’	*thij ⁴ *thiʔ ⁽³⁾	<i>sì</i>
‘laugh’	*(h)nuy ⁴ *(h)nuyʔ ⁽³⁾	<i>mə-ni</i>
‘see, find’	*hmuu ³ *hmuʔ ³	<i>mù</i>
‘throw’	*paay ⁽³⁾ *payʔ ³	<i>gə-bày</i>
‘resemble’	*ɓaŋ ³ *ɓaŋʔ ^{??}	<i>búŋ</i>
‘sharp’	*tay ^{??} *tayʔ ^{??}	<i>dáy</i>

Since PKC *-ʔ not reflecting PTH *-s corresponds to an open rime in Jinghpaw, and there is no marked category of sonorant codas, the Jinghpaw forms correspond equally well segmentally to either PKC stem, as these are distinguished by oppositions which Jinghpaw lacks. But in §2.6 we saw evidence for tonal equations PKC *TC4 = Jinghpaw Mid, PKC *TC3 = Jinghpaw Low. These tell us that for ‘dead’ and ‘laugh’ the Jinghpaw form corresponds to PKC Stem I, but for ‘see’ and ‘throw’ the correspondence is with Stem II. I do not have enough grasp of tonal correspondences to have any idea how to interpret the tone correspondence in ‘resemble’ and ‘sharp’.

For Class IIc verbs, where the Stem I final stop is replaced in Stem II by *-ʔ, the situation is clearer, since Jinghpaw retains final stops. Again, we have clear examples where a Jinghpaw form corresponds to one or the other stem. Recall that Jinghpaw /-ʔ/ always corresponds to PKC *-k, never to *-ʔ (§2.4). Table 18 presents sets with PKC Class Ic verbs where the Jinghpaw form corresponds to PKC Stem I:

Table 18: Class IIc verbs where the Jinghpaw cognate corresponds to PKC Stem I

Gloss	PKC	Jinghpaw
‘acrid’	*thak ³ *thaʔ ³	mə-sàʔ
‘ashamed’	niŋ-yak niŋ-yaʔ	gə-yàʔ
‘weave’	*tak ⁽³⁾ *taʔ	dàʔ
‘tie’	*khit *khiʔ	gyit
chop	*tsat-I *tsaʔ-II	ʔə-dzət
‘cry, weep’	*krap ³ *kraʔ	khràp
‘sleep’	*ʔip *ʔiʔ	ʔyúp

Table 19 presents three sets with PKC Class IIc verbs where the Jinghpaw form corresponds to PKC Stem II:

Table 19: Class IIc verbs where the Jinghpaw form corresponds to PKC Stem II

Gloss	PKC	Jinghpaw
‘explode’	*puak-I *puaʔ-II	gə-pò
‘pluck, uproot’ (see fn. 7)	*bot-I *boʔ-II	bó
‘roam, wander’	*waak-I *waʔ-II	wà ‘go, return’

In these sets, the Jinghpaw form can only be compared to the PKC Stem II, since Stem I has a final stop coda which has a regular correspondence in Jinghpaw. For ‘explode’, for example, a regular correspondence to PKC Stem I would be hypothetical *pòʔ rather than attested pò.

3.2.3 Jinghpaw cognates to PKC Class III verbs

For Class III, again we see both correspondences. Table 20 presents the sets where the Jinghpaw cognate corresponds to PKC Stem I:

Table 20: Class III verbs where the Jinghpaw form corresponds to PKC Stem I

Gloss	PKC	Jinghpaw
‘bitter’	*khaa ^{2/3} *khaat~*khaak	khá
‘take’	*laaa ⁽²⁾ *laak	lá

And Table 21 shows the sets where the Jinghpaw form corresponds to PKC Stem II:

Table 21: Class III verbs where the Jinghpaw form corresponds to PKC Stem II

Gloss	PKC	Jinghpaw
‘carry on back’	*pua *puak	bàʔ
‘peck’	*tsuu ³ *tsuk	céʔ

As Jinghpaw /-ʔ/ regularly, and as far as we know, only, reflects PTB *-k, the Jinghpaw forms in Table 21 correspond to Stem II rather than Stem I.

3.3 Sets where distinct Jinghpaw forms correspond to PKC Stem I and Stem II

The obvious inference from the correspondences discussed in the preceding subsections is that PKC stem alternation may have roots deep enough that they are reflected in Jinghpaw forms. This is confirmed when we find five PKC verbs with a distinct Jinghpaw cognate for each stem. These sets are shown in Table 22:

Table 22: Sets where a Jinghpaw form corresponds to each PKC Stem

Gloss	PKC I-II	Jinghpaw
‘collect’ Ia	*khon ⁴	<i>mə-khòŋ</i> ‘gather, collect, hoard’
	*khon ⁽³⁾	<i>lə-khon</i> ‘collect money for religious purpose’
assemble/ gather Ia	*pon ⁽⁴⁾	<i>hpòŋ</i> ‘gather, congregate, assemble’
	*pon	<i>hpòn</i> ‘gather together (tr.)’
dry up Ia	*kaŋ ²	<i>kaŋ</i> ‘to be dry, as paddy, garments, or the like’ (H)
	*kan	<i>khùn</i> ‘drying (vi.) as the ground after a rain or a laundry’
‘sick’ Ib	*naa ⁽⁴⁾	<i>ʔə-nà</i> ‘sickness’
	*nat ³	<i>nát</i> ‘spirit, demon’
‘peel off’ Ic	*khok	<i>gùʔ</i> ‘to scale (fish), to skin (as rattan)’
	*khoʔ	<i>gó</i> ‘to bark, peel off, as the bark of a tree’

There is a *-t suffix reconstructable for PTH, often, but not always, with transitive function (LaPolla 2017:43), so we might hypothesize that the Jinghpaw pairs go back to PTH. But there is no discernable consistent semantic or valence difference between the Jinghpaw pairs. (Matisoff (2003:453-455) discusses Jinghpaw pairs in which one has an open rime and the other a /-t/ coda – the same as the Class Ib alternation in PCK – and notes that in several instances the open rime is a verb and the /-t/ stem a noun, a pattern exemplified by ‘sick’ in Table 39).

The examples presented here and in §3.2 imply the possibility that we might find PKC stem pairs in which Stem-I has a cognate in one Central language, and Stem-II in another. I have not searched exhaustively for such examples, but in Table 23, I present three sets from Table 16 in §3.2.1 with added Meitei cognates, showing a systematic pattern where Meitei has a cognate with PKC Stem-I, and Jinghpaw with PKC Stem II:

Table 23: Class IIa verbs where the Jinghpaw form corresponds to PKC Stem II

Gloss	PKC	Meitei ⁸	Jinghpaw
mount/ sit on	*tsuaŋ ¹	<i>toŋ</i>	<i>jòn</i>
	*tsuan ³		
‘dry up’	*kaŋ	<i>kaŋ</i>	<i>khùn</i>
	*kan		
‘wander’	*leen ²	<i>leŋ</i>	<i>lèn</i>
	*leen ³		

Similarly for ‘collect/save’, PKC *khon-I, *khon-II, VanBik’s proto-gloss is based on Hakha Lai *khôŋ-I*, *khõn-II* ‘collect, save’, but Tedim *khon²* ‘collect (of donations, offerings)’ fits better semantically with Jinghpaw *lə-khon* ‘collect, as money for religious purposes’ and Bodo *káng* ‘collect subscription, dues, etc.’ (Mochari 1985). The fact that we find a perfect cognate to PKC Stem I in one Sal language, Bodo, and a perfect cognate to Stem II in another, Jinghpaw, suggests that both were present in the nearest common ancestor of all three languages.

⁸ Meitei forms from Imoba 2004.

4 Conclusions

A standard criterion for establishing a genealogical subgroup is shared phonological innovation. A phonological innovation found in all and only putatively Central languages – which for present purposes means shared by PKC and Jinghpaw – would be evidence for the cladistic status of this grouping. But in this case, this is inherently problematic. The reconstruction scheme of Matisoff 2003 and STEDT is based on that of Benedict 1972, which is based on the comparison of seven “branches”, in current terminology Tibeto-Kanauri, Kiranti-Newar, Tani, Jinghpaw, Lolo-Burmese, Bodo-Garo, and Kuki-Naga. If two (Jinghpaw and Bodo-Garo within Sal), three (following H. Sun’s (1988) inclusion of Tani in his Kachinic branch), or even four (adding South Central/Kuki-Naga, which is what I am proposing here) of these belong to a distinct branch of the family, then any innovations which they might share would not have been recognized, but attributed to the proto-language. In fact, Benedict’s reconstruction is principally based on languages representing only five of these: Written Tibetan (Tibeto-Kanauri), Written Burmese (Lolo-Burmese), Jinghpaw, Mizo (Kuki-Naga), and Garo (Bodo-Garo) (Benedict 1972:13). According to the Central hypothesis, three of these belong to one major branch of the family, with Tibetan and Burmese the sole representatives of the Western and Eastern branches. Thus, to identify a phonological innovation shared among Jinghpaw-Asakian, Bodo-Garo, and Kuki-Naga – or, for our purposes, by Proto-Kuki-Chin and modern Jinghpaw – would require rethinking the original reconstruction of the system from which it is being proposed that they innovated. Such an attempt is well beyond the scope of this paper.

Shared lexical innovation is weaker evidence for genealogical relationship than shared phonological or morphological innovation, as it is more easily transferred horizontally from one language to another. Nevertheless, all historical and extant classifications of the Tibeto-Burman languages are primarily based on shared lexicon. For a directly connected example, the case for Sal has been made entirely on the basis of lexical evidence (Burling 1983; for discussion of the evidence see Matisoff 2013). Therefore, it is relevant that, although the lists of reconstructions in Joseph and Burling 2006 and VanBik 2009 are not entirely comparable, in an attempt to identify Jinghpaw cognates for Joseph and Burling’s Proto-Bodo-Garo, I found considerably fewer strong comparative pairs than with VanBik’s Proto-Kuki-Chin. By the standards which have obtained in the field in the past, this could suggest a stronger genealogical connection between Jinghpaw and South Central than between Jinghpaw and Bodo-Garo. I do not believe that the available data particularly support such a conclusion; that is, if these comparisons are interpreted as evidence that Jinghpaw and PKC have a common ancestor not shared by the Eastern or Western languages, then the clade of languages descended from that ancestor is the Central branch and not some hitherto unsuspected lower-level clade. Still, it is the case that at this point, with the inclusion of the data discussed in this paper, that the available facts do not strongly support a special relationship between Jinghpaw and Bodo-Garo, and thus the Sal hypothesis.

There is no doubt that the languages which I am calling Central do belong to an areal grouping, which in the east includes Burmish and Karen, defined (perhaps among other things) by a strong iambic stress pattern which is the basis of the phenomenon of sequisyllabicity (DeLancey 2014). Areal groupings may easily have shared vocabulary which is independent of genealogical connections. James Matisoff (p.c.) points out that there are no basic vocabulary items in the list presented in §2.1 (as well as the curious fact that the majority of them are verbs). And there are a few – certainly ‘collect dues or donations’ and ‘entertain’, plausibly ‘drum_(v)’, ‘plain’, ‘mount’, ‘teach’, or ‘wear/cover’ – which have the kind of cultural associations which might make them especially prone to borrowing. At present, the interpretation of these comparisons is made difficult by the impossibility of determining to what extent they are shared with other putatively Central languages, for most of which we lack adequate lexical resources.

The comparisons in §3, however, are of a different sort. Note first that they refute the idea that stem alternation is a South Central innovation, by showing that some alternation ancestral to PKC stem alternation was present in the nearest common ancestor of PKC and Jinghpaw. If stem alternation in the branch is entirely traceable to a PKC innovation, then there is no reason for there to be forms corresponding to PKC Stem II in any other language. Since there are such comparanda in Jinghpaw, we must conclude that (at least for some verbs) both stem forms existed in a language ancestral to both Jinghpaw and PKC, so that the PKC innovation is not a new morphological derivation, but simply the systematization of a verbal lexicon with a large number of morphologically related doublets.

This means that either we reconstruct this for Proto-Trans-Himalayan – which is certainly not inconceivable – or else we have evidence for a more recent common ancestor for these two languages. This, then, is an argument for the claim that Jinghpaw and its nearest cousins (Sal, for those who accept it) and

South Central and its nearest cousins (in my opinion certainly Tangkhulic, probably most or all of Shafer's Kuki-Naga) must form a higher-order subgroup, which is then my hypothetical Central branch.

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