What can Tamangic medial *l* tell us about Bodish verbal morphology? Lingzi Zhuang Cornell University lz458@cornell.edu

While prefixal verbal morphology is a centerpiece of Tibetan historical linguistics and a key contribution of Tibetan to the study of Tibeto-Burman, its investigation in more closely related languages, viz. "Bodish" (Bradley 1997), has been lacking. This paper studies clues to verbal prefixes *g*- and *m*- (in alternation with *b*-) as preserved before medial *l* in Proto-Tamangic/TGTM (reconstructed by Mazaudon (diss. 1994)). These preservations point to a proto-Bodish verbal prefix system that is strikingly similar to that of WT, even though it would still be at a pre-paradigmatic stage.

1. WT verbal morphology in Bodish

The traditional four-part paradigms of WT verbs, comprising the imperfective ("present"; *da-lta-ba*), perfective ("past"; *hdas-pa*), irrealis ("future"; *ma-hongs-pa*) and imperative (*skul-tshig*) stems, constitute the amplest and best-studied repository of verbal morphology in Bodish. The internal variation of WT verbal morphology has stimulated much research that aims to classify verbs into paradigmatic classes (Li 1939, Shafer 1950, Coblin 1976, Hill 2010, Jacques 2012). (1) is a recent classification by Hill (2010:xix), cf. also Jacques (2012:218).

(1) WT verbal paradigms in 11+1 classes (Hill 2010:xix)

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Weak Verbs

Paradigm:
h-,
-s

Strong Verbs

Paradigm 1:
h-,
b-s,
b-,
-s

Paradigm 2:
h-d,
b-s,
b-,
-s

Paradigm 3:
-d,
b-s,
b-,
-s

Paradigm 3:
-d,
b-s,
b-,
-s

Paradigm 4:
g-,
b-s,
b-,
-s

Paradigm 5:
g-,
b-,
d-,
-s

Paradigm 6:
h-d,
b-,
d-,
-s

Paradigm 7:
h-d,
b-s,
d-,
-s

Paradigm 7:
h-d,
b-s,
d-,
-s

Paradigm 9:
h-,
bX-s,
d-,
X-s

Paradigm 10:
h-d,
bX-s,
d-,
X-s
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Variation notwithstanding, it is hard not to note the similarity of the component morphemes across different classes in each stem. The present stem is marked by a velar pre-initial $g_- \sim h_-$, the past stem by the bilabial pre-initial b_- and the suffix -s (allophonically -d), and the future by a bilabial pre-initial b_- which allophonically alternates with d_- . The regularity of the distribution of these verbal morphemes naturally gives rise to the hypothesis that each morpheme has its own original, inherent semantics, and that stems in the paradigm are derived from this inherent semantics (Hill 2010:xx-xxi).

Comparatively, this hypothesis enables us to posit cognate relationships between individual WT verbal morphemes and their reflexes in other Bodish languages. The lack of paradigmatic status of these morphemes should not be a barrier, as long as the cognate relationship is otherwise well-supported.

2. Preservation of verbal prefixes in pTGTM: root-initial liquids

TGTM or Tamangic is a group of non-Tibetic Bodish languages spoken mainly in the central and eastern Pahad valleys of Nepal. A full reconstruction of Proto-TGTM is provided by Mazaudon (diss. 1994), containing 1,015 roots. The reconstructed pTGTM syllable structure is shown in (2a). Importantly, the pTGTM syllable does not allow pre-initials, unlike WT, as shown in (2b).

(2) a. pTGTM syllable (from Mazaudon 1994:II.40)

	Tone	Initial	Medial	Rime	
	A/B	С	(L)(G)	$V/VV_{ai, oi, wi}/VC_{p, t, k, m, n, y, l, (s)}$	
Example			rw	at	'vulture'

b. WT syllable (from Beyer 1992:69-74)

	Pre-initial ₂	Pre-initial ₁	Initial	Medial	Rime	
	Ø {b}	${r, l, s, g, d, b, m, h}$ ${r, l, s}$	С	(L/G)	V/VC/VCC	
Example	()	{1, 1, 5} S	g	r	ond	'don/adorn.PST'

All modern TGTM languages have innovated agglutinative verbal morphology. (3) is an example of a maximal verbal complex from Sikles Gurung; the PRES tense suffix *-mu* comes from the existential-locative-possessive-attributive copula 2mu ; the STAT/IMPFV aspect marker *-i* is homomorphic with the GEN *-i*. In these respects the innovative verbal morphology is strikingly similar to that of modern Central Tibetan varieties.

(3) Maximal verbal complex in Sikles Gurung

Negation	\checkmark	Direction	Transitivity	Aspect	Tense
<i>aa-</i>	^{1}lo	-bi	-wa	- <i>i</i>	-mu
NEG-	learn	-BEN	-TRANS	-STAT	PRES
'be in the	e state of not teac	ching (someone)'			

Even though the TGTM verb root is invariant, vestiges of an older Bodish morphological layer remains in the verbal lexicon. In particular, it can be shown that the initial-medial cluster of some pTGTM forms in fact came from a verbal prefix (b-, m- or g-) and root-onset liquids. Adducing WT comparanda, Zhuang (in prep) shows that, for a non-trivial number of pTGTM br-onset verb forms (6 out of 10, listed in (4)), the initial b is a pre-pTGTM verbal prefix, and the medial r is part of the onset cluster of the pre-pTGTM verb root. What happened between pre-pTGTM and pTGTM is that the prefix b- and the root-onset r got reanalyzed as the initial and the medial, to

the exclusion of the original root initial (a process dubbed "prefix pre-emption" by Matisoff 2003).

pTGTM	Gloss	WT	Gloss
713 ^B bra, 721 ^B bra:	'to walk'	hgro-(bgros)-hgro, cf. bgrod-bgrod-bgrod-bgrod (< *grwat)	'to go'; (<i>bgrod</i>) 'to traverse'
717 ^A bra:	'to gather fodder, mow/cut grass'	(-)	(-)
718 ^A bra:	'to grind (large amount of grain with mill)'	rlog -brlags-brlag- rlogs	'to grind, crush>to destroy, annihilate, conquer'
722 ^A brai	'to lose, be defeated'	hbros-(h)bros-(h)bros- bros/phros	'to escape, flee'
725 ^B bran	'to wait'	cf. bran-mi	'servant'
726 ^A bri, 728 ^A bri:	'to write, compose, draw'	hbri/bri/hdri -bris-bri- ris/bris/phris	'to write, draw'
729 ^B bre/ brat/brew/ brje	'to leak'	rdal/rdol -brdald-brdal- rdald/rdold	'to spread out, spread over, pervade'
730 ^A bre:	'to shave, shear, cut hair'	hbreg-bregs-hbreg-bregs	'to cut (crops), cut with scissors, shear'

(4) pTGTM $br - \langle *b - + \text{root onset cluster containing } r$ (Zhuang in prep)

We would naturally like to know whether there are more cases where verbal prefixes are preserved by the same process. Besides r, the obvious next candidate to investigate is the lateral l. Indeed, as we will see, cases of pTGTM l-medial verbs preserving a verbal prefix abound.

3. Lateral *l*: a stable medial in pTGTM

In WT, lateral *l* is remarkably unstable in medial position. Jacques (2004) proposes a series of sound changes targeting *l and its palatalized counterpart *l' in WT. Essentially, all pre-Tibetan lateral medial *l' and *l have undergone some sound change. *l' becomes *zh* after plosives *b* and *g*, *j* after sonorants *m*, *n* and *r*, and *c* after h. Pre-Tibetan medial *l becomes glide *y* after plosives *b* and *ph*, *d* after sonorants *m* and *n*, and metathesizes after the homorganic plosive *d*.

Note that Jacques (2004), citing morpho-tactic evidence from Beyer (1992:74-78), points out that l occurring in (b) is most likely a true initial rather than a medial¹: to clusters in (b), only *b*- and no other pre-initial can be added. Since WT allows up to two pre-initials and only *b*- as the second pre-initial, this is evidence that the segment before *l* occupies the first pre-initial position.

By contrast, lateral *l* in pTGTM is a rather stable medial, and can occur after labial stops and nasals $(p, b, m, {}^{h}m)$ and all velar stops (k, kh, g). The reconstructed pTGTM lexicon counts 43 *l*-medial roots. It turns out that, like *r*, *l* also has a diachronic tendency to preserving prefixes by

¹ Although Beyer thinks that zl is an exception because of the existence of pairs of verbs like $zlog\sim ldog$, Hill (2011:443) citing Hahn (1999) shows that $\langle zl \rangle$ in those pairs in fact represents the cluster sl where s- is the causative (first) pre-initial. Thus Beyer's pairs are simply causative-intransitive pairs involving a root initial l.

being reanalyzed as medials. Thus pTGTM *l*-medial verbs give us a glimpse of a pre-Tibetan prefix system.

4. pTGTM forms containing proto-verbal prefixes preserved by *l

Prefix *g-: Table 1 (4 forms).

pTGTM	Gloss	WT	Gloss
131 ^A khla:, 132 ^B khla:	to throw away, discard, abandon, divorce,	(< *g-lhag) cf. lhag-lhag-lhag-lhag	to remain behind, remain as a surplus
192, 193 ^B glu	to buy	blu-blus-blu-blus	to buy off, ransom

Table 1: Prefix *g- in pTGTM and WT

Though only 2 distinct words with an unmistakable prefix *g- are attested, both forms are interesting because they show *g-prefixation that is not attested in WT. pTGTM 192, 193 ^{B}glu show that the WT paradigm must have been analogically leveled from the *b*-prefixed form. This is further supported by the WT deverbal noun *glud* 'ransom', which preserves a velar prefix.

A further observation from 131 ^{*A*}*khla*: and 132 ^{*B*}*khla*: is that prefix *g*- is associated with transitivity: WT only has the intransitive verb *lhag* 'to remain behind, remain as a surplus', though its cognate relationship with the pTGTM transitive ^{*A*,*B*}*khla*: is clearly visible from the semantics. This confirms that *g*- is a productive transitivizing prefix in pBodish, like *b*- (cf. Wolfenden 1929:24, Benedict 1972:110 Matisoff 2003:131)

If WT had inherited a *g*-prefixed form **g*-*lhag* from some pre-Tibetan ancestor, it would have emerged in the writing system as \dagger <klag>, by the orthographical convention that the cluster *g*-*lh* is always written as <kl> and the cluster *b*-*lh* is not consistently distinguished from *b*-*l*; both are written as <bl> (de Jong 1973, Hill 2011).

pTGTM	Gloss	WT	Gloss
806 ^{Bh} mlet	to forget	(< *m-rlyet) cf. brjed-brjed-brjed- brjed	to forget
600 ^A {p/m}lek, 633 ^A ple:, 635 ^A plek	to press down (with stick), flatten dough with stick	gleb-glebs-gleb-glebs, cf. leb	to make flat, press, tread, cf. flat
737 ^A bliŋ 630 ^A pliŋ/ ^A {p/m}liŋ	to push while rolling to be full, to fill	lings	whole, entire; round, spherical
742 ^B blo:, 769 ^B mlo:/mlul	to prick (of thorn)	(cf. Limbu <i>lukt-/lokt</i> 'to p Bantawa <i>rok</i> 'to poke', T stick in')	
Tamang (Risiangku)	to overturn, turn upside down, spill	ldug(s)/lhug/blug-blugs- blug-ldug(s)/blug(s)	to pour out, pour into

Prefix *m-(/*b-): Table 2, 10 forms.

¹ phluk ~ ¹ khlup	/lhugs (<√lhug)

Table 2: Prefix **m*-/**b*- in pTGTM and WT

Implicated here are quite a few forms for which Mazaudon's reconstruction contains a rather curious uncertainty between a *p*-initial form and an *m*-initial form² (600, 630, also the pair 742 and 769). The pair 742 and 769 is most surprising and revealing. As suggested in Zhuang (in prep), no good cognate for this pair of verbs are found in Bodish; rather, their phonological shape *lo:* (<**lok*) points to the verb of the form *lok/rok*³ in Kiranti languages. Since we know that TGTM languages have been in a prolonged contact situation with Kiranti languages, and that loanwords from Kiranti are not uncommon (cf. Honda 2013), the most plausible account is that 742 and 769 are Kiranti borrowings. Then, we must conclude that TGTM has prefixed this root independently with **m*- and **b*-. This is strong evidence that both prefixes were productive at the time this root was borrowed. If so, then we could also explain the two TGTM-internal forms 600 and 630 that show alternation between *p* and *m*: they are remnants of the erstwhile productive verbal prefixes **m* and **b*⁴.

There is also semantic evidence for this account. In comparative TB literature, prefix **m*- has been associated with "inner-directed states/actions" (Matisoff 2003:117), while prefix **b*- has been associated with "agentive transitive" functions (Wolfenden 1929:33). Now, this contrast is indeed borne out by the pTGTM causative 737 ^{*Ablig*} 'to push while rolling (to make round)', with *b*-prefixation, and the intransitive 630 ^{*Aplig/4*} {*p/m}lig*, with (at least a variant containing) *m*-prefixation. The WT cognate *lings* 'whole, entire < round, spherical', also in the adjective form *lings-po*, is very clearly a stative.

This is further supported by the trio 600, 633 and 635. TGTM *l*-medial verbs that have a labial and a velar stop in the initial and final positions can undergo a curious metathesis process that switches the initial and the final. In Risiangku Tamang (Mazaudon 1994:I) we have the pair ^{*l*}*phluk* ~ ^{*l*}*khlup* with basically the same meaning 'to make spill, overturn'. Now, this verb is clearly cognate with the WT transitive verb \sqrt{LHUG} : the pTGTM form ^{*l*}*phluk* comes from a **b*prefixed form, with regular transfer of the voicing and aspiration of *lh* onto the prefix (cf. 131, 132 in Table 1 above). ^{*l*}*khlup* is then the metathesized variant. In the case of 600, 633 and 635, the pTGTM form is the metathesized one, since WT has not only the *g*-prefixed (and analogically extended) transitive verb \sqrt{GLEB} 'to flatten' but also the unprefixed stative counterpart *leb*. What happened in pTGTM is that the metathesized form *plek* is then reanalyzed as having a **b*- prefix, which then gets an analogical alternation with **m*- to derive the stative: in fact it is indeed the alternating form 600 ^{*A*}{*p/m*}*lek* that has the stative gloss 'flat'.

² This means that some modern TGTM languages show one form while others show the other form. In reconstructing one uncertain form rather than two forms, Mazaudon must have believed that $p \sim m$ is some kind of alternation rather than completely unrelated segments.

³ The *-t* in Limbu *lukt-/lokt-* is apparently suffixal with a transitivity-related function (Aimée Lahaussois, p.c.).

⁴ I do not yet understand why *b- sometimes becomes a devoiced p.

Given this, we could be confident in analyzing pTGTM 806 ^{*B h*} mlet as also containing an erstwhile prefix **m*-. There are two possible accounts for the WT cognate *brjed*-paradigm. Both would propose the pre-Tibetan form **m*- $rl^i et$ (where * $l^i > j$): Hill (2013) considers the change **m* $rl^i et > brjed$ in WT to be a case of Simon's Law (**m*-r > h-br). The *h* would then be dropped because the cluster **hbrj* violates WT phonotactics. The other possible account would be that WT had extended a **b*-prefixed form to the whole paradigm whereas pTGTM preserves the *m*-prefixed form, possibly due to the "cognitive state" semantics of the verb. Though decidedly a more risky account, it could be entertained given what we have learned about the **b*-/**m*- prefix alternation in pre-pTGTM.

A further implication concerns Jacques' (2004) proposed sound change targeting medial l after labial stops in pre-Tibetan: *bl>by, *phl>phy. This sound change received the most skepticism in Hill's (2013) response. Hill mainly points out that the co-occurrence between l and vowel i in WT is rather rare, since in most cases pre-Tibetan *li would have been allophonically palatalized and subject to the further change $*l^i > zh$. He also notices that in all cases of WT *li* there is a velar final g or ng. Based on these facts, Hill proposes that where *li* still survives in WT is where originally the vowel was not *i* but *e*. An application of Dempsey's Law (**eng*>*ing*, **eg*>*ig*) would then derive the vowel *i* which we see. However, it seems to me that the single cognate on which Jacques' *bl>by sound change is based – which happens to be a TGTM-pTGTM cognate, namely, *plin* 'to be full' :: *byings-po* 'general, all, common' – is likely false. The etymology of *byings* seems to be the verb \sqrt{BYING} 'to sink', from which emerges the sense of 'depth', as in *byings-can* 'with depth > deep trance-immersion', and further, 'expanse'. The *d*-prefixed nominal form *dbvings* 'expanse, space, *dhātu*' is rather similar to this last sense. On the other hand, if we fully consider the correlation in pTGTM between the preserved prefix **b*- and the transitive semantics attested especially in 737 ^{*Ablin*} 'to push while rolling', we would naturally conclude that the pTGTM form is simply the **b*-prefixed form of the stative *lin(s), and thus dispense with the insufficiently-evidenced sound change *bl>by.

5. Conclusions

Like liquid r, root-onset liquid l also has a tendency to preserve older, Bodish-level verbal prefixes into pTGTM through pre-emption. Importantly, through root-onset l, we see that pBodish has at least three prefixes *g-, *b- and m-, which is significantly closer to the range of prefixes attested in WT. Semantically, the preserved prefixes in pTGTM also corroborate the semantics of their cognates in WT: *g- and *b- are transitivizing, whereas *m- is stativizing. Thus, these prefixes and their semantics should be reconstructed to the pBodish level. More research is needed to investigate reflexes of these older Bodish-level morphemes, both internally to TGTM and Bodish-wide, especially given that the focus of descriptions of non-Tibetic Bodish languages is usually on innovative morphology.

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