Tibeto-Burman *dz- > Tibetan z- and Related Proposals

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Conrady, Li and others have noticed the Tibetan sound changes *bz > bzd and *hz > hj, but there is also evidence for the changes *dz > z and *j > ɻ (first noted by Schiefner). After presenting the evidence for *dz > z and *j > ɻ respectively, this paper considers the other origins of ɻ, namely *jɻ and *rɻ. Finally, an attempt is made to establish the relative chronology of the changes proposed.

Key words: Tibetan phonology, sound change, affricates, fricatives

1. Introduction

A paper of W. South Coblin’s from 1976 stands as the seminal contribution to the study of Tibetan verbal morphology. The decades since his treatment have seen only a few minor suggestions for revision (cf. Beckwith 1996, Hill 2010:xv-xxi, Jacques 2012). In gratitude to Coblin’s work on the Tibetan verb and his contribution to Tibeto-Burman comparative linguistics more generally, I here offer one such adjustment to the sound laws proposed in his study.¹

2. Tibeto-Burman *dz- > Tibetan z-

Taking note of a Tibetan verb paradigm such as bzdzin (present), bzuṅ (past), gzuṅ (future), zuṅs (imperative) ‘take’,² Li Fang-Kuei proposed that h- when proceeding a


² I transliterate the Tibetan alphabet as follows: k, kh, g, ɳ, č, čh, j, ɳ, t, th, d, n, p, ph, m, b, ts, tsh, dz, w, ɻ, z, ɻ, y, r, l, ś, s, h. For Burmese I follow the Library of Congress system, with the exception that I use h to mark the visarga. I take reconstructions of Old Chinese from the charts made available by William Baxter and Laurent Sagart on the homepage of the Centre de recherches linguistiques sur l’Asie orientale.
fricative, lateral, or rhotic, gave rise to an epenthetic dental stop (Li 1933:149). August Conrady also assumed this sound change, without explicit discussion (Conrady 1896:59). I have previously referred to this change as ‘Li’s first law’, but rather than crediting two laws to Li (as in Hill 2011:446-447), it is more elegant to amend ‘Li’s first law’ to ‘Conrady’s law’ and ‘Li’s second law’ to simply ‘Li’s law’.

*ḥs- > ḫts-, e.g. ṣo ‘nourish’, present *ḥso > ḫtsho
*ḥś- > ḫc- (=ḥts), e.g. ṣḍ ‘explain’, present *ḥsdad > ḫḥad
*ḥz- > ḫdz-, e.g. ṣzug ‘plant’, present *ḥzugd > ḫdzugs
*ḥź- > ḫj- (=ḥdc), e.g. ṣzo ‘milk’, present *ḥzo > ḫjо
*ḥr- > ḫdr-, e.g. ṣr ‘write’, present *ḥrі > ḫdrі

The inherent plausibility of this suggestion is such that R. K. Sprigg independently came upon exactly the same analysis (1970).4 Making use of this and other laws Coblin reconstructs the history of the paradigm ḫdz in, ḫzu n, ḫzu n, zd ‘take’ as follows (1976:58):

*ḥzu ūd, ḫzu n, *d-zu ū, zd ‘take’
*ḥzi ūd, ḫzu n, *d-zu ū, zd (u > i)
*ḥzi nd, ḫzu n, *d-zu ū, zd (-nd > nd)
*ḥzi nd, ḫzu n, zd, zd (-d > g-)

If the formulation of the sound change *ḥz- > ḫdz- is correct, one would expect the Tibeto-Burman cognates of Tibetan words with initial z- also to begin with z-; instead, they generally begin with dz- or ts-.

Tib. zam ‘bridge’ : Lahu cо, ‘bridge’ < Loloish *dzam’ (Bradley 1979:330-331, #393),6 Japhug Rgy. ndzоm ‘bridge’

3 On the paradigm of this verb see Hill (2005).
4 Such instances of epenthesis are far from unknown in the world’s languages (e.g. Old English thunor > English thunder).
5 To save space lists employ the following abbreviations of language names: Burmese (Bur.), Old Burmese (OBur.), Chinese (Ch.), Kurtıp (Kur.), Rgyalrong (Rgy.), Tibetan (Tib.).
6 Matisoff cites a Burmese word cam ‘bridge’ (2003:253), but I am unable to confirm this word in Judson (1893) or Myanmar Language Commission (1993).
In addition to this comparative evidence, Tibetan internal considerations weigh in favour of *dz- > z-. Although plenty of Tibetan words begin with tsh-, essentially no Tibetan word begins with dz-. This asymmetrical distribution suggests that there may have once been words that began with *dz, in which this initial subsequently changed into another sound. Tibetan zoṅ ‘merchandise’ is such a word; it is self evidently related to the verb ṣtson (btshan, btsans, btsan, tSh0l1s) ‘sell’. If zoṅ derives regularly from *dzon the relationship between these two words is that of voicing alternation. Without the law *dz > z the relationship is more difficult to account for.

In light of such evidence it would be preferable to analyze the root of ḡdzin, bzun, gzun, zuṅs ‘take’ as ḡdzuṅ rather than that ḡzuṅ. A look at the paradigm of another verb suggests a strategy for proposing such an analysis. Again following a proposal of Li’s (1933:146, §15), Coblin reconstructs the future of ḡdzug, btsug, gzug, tshugs ‘plant’ as *gdzug. In a more general discussion of lenition in Tibetan, Anton Schiefner earlier offered this same explanation for the derivation of future stems in voice alternating verbs (1852:364). The sound law *gdz- > gz- may be invoked in the analysis of ḡdzin, bzun, gzun, zuṅs ‘take’, yielding the future stem *gdzuni. The imperative is arrived at through the law that Anlaut dz- becomes z-, as the comparative data presented above suggests (i.e. *dzuni > zuṅs). In order to account for the past stem the parallel law *bdz- > bz- becomes necessary. Comparative data also support *gdz > gz- and *bdz > bz-.

Tib. gzan ‘to wear out, hurt, waste’ : Ch. 殘 dzan < *džan (0155c) ‘injure, remnant’
Tib. gzig ‘leopard’ : Rgy. kajśōk ‘leopard’ (Matisoff 2003:135)
Tib. gzim ‘sleep’ : Ch. 寢 tshimX < *tsIM? (0661f) ‘sleep’
Tib. bzaṅ ‘good’ : Ch. 臥 tsang < *tsaŋ (0727f) ‘good’

A Tibetan translation of the the Léngqié shīzī ji (楞伽師資記) discovered in Dunhuang cites the Guān pūxiān pūsà xìngfā jīng (觀普賢菩薩行法經) under the title ḡdzanṣ-khyab-gyi brtag-pahi chos-gyi yi-ge, in which the deity Samantabhadra (普賢 pūxiān) is referred to as ḡdzanṣ-khyab rather than the expected Kun-tu-bzaṅ-po (IOL Tib J 710,
f. 52, l. 4, cf. Ḥdrī guṃ skyabs mgon che tshāṅ 2010:99). The equation of Ḥdzāṅs-khyab and Kun-tu-bzaṅ-po makes clear that Ḥdzāṅs renders the word bzaṅ ‘good’; this variation between Ḥdz- and bz- encountered outside the verbal system, helps to reinforce the conviction that an affricate is original in this word, as the Chinese cognate confirms.

The sound change *dz- > z- elucidates a number of points discussed in other scholars’ work in Tibeto-Burman linguistics. James Matisoff (2003:588) reconstructs *(d)zil ‘dew’ in Tibeto-Burman in order to account for Tibetan zil ‘dew’ and Lolo-Burmese *ʔ-dziʔ. He appears to regard the loss of -l in Lolo-Burmese as regular sound change, but to regard the variation between *dz- and *z- as ‘allofamic’. This example shows the danger of positing such variation; Matisoff has mistaken regular sound change for proto-variation. The Tibetan sound change *dz > z- also clarifies some issues in the reconstruction of Old Chinese. Writing about the Chinese word ṭʂreng < *m-ts’reŋ (0811a) ‘strife, quarrel’, on the basis of Tibetan zin­-cha ‘quarrel, dispute’ and Ḥdzin­ ‘to quarrel, contend, fight’, and (citing Li 1933:148) Zev Handel suggests the Tibetan root appears to be zin, with the affricate of Ḥdzin­ arising under the influence of the prefix h-. ... Assuming that the Chinese and W[ritten][Tibetan] forms are cognate, it seems possible that the original Chinese stem is *siŋ, with affrication to *tsiŋ under the influence of a prefix r-” (2009:199 bold in original, Tibetan transcription adjusted).

In fact the Tibetan root is ṭdzin, directly comparable to Chinese tʂreng < *m-ts’reŋ (0811a) ‘strife, quarrel’, without further need to reconstruct a Chinese prefixed form *r-s-. In a similar case, Axel Schuessler proposes the Old Chinese consonant cluster *k-s­ (changing to Middle Chinese ts’-), based on such comparisons as Tibetan gziṃ ‘sleep’ and Old Chinese 譜 tshimX < *k-simʔ (0661f) ‘sleep’, both deriving from Tibeto-Burman *k-zim (2002:158). In this case also, there is no need to amend the Chinese reconstruction; as Walter Simon realized (1929:179, no.263), it is Tibetan which has innovated, changing *gdzim to gziṃ. These three examples from the work of Matisoff, Handel, and Schuessler demonstrate the widespread implications the suggestion *dz- > z- may have in Tibeto-Burman linguistics.

3. Tibeto-Burman *j- > Tibetan ʦ- 

On the grounds of symmetry it would be convenient to propose a sound change of *j- to ʦ-. Coblin follows Simon (1929:30) and Li (1933:144) in proposing the changes *gj- > ʦ- and *bj- > bʦ- in order to account for a verb such as ṭḥiib, bžibs < *bhjibs, gžib
< *gib, *jibs ‘suck’ (Coblin 1976:49). The Anlaut j- in the imperative of this verb is what leads Coblin to see it as part of the stem. There is however disagreement among lexicons as to whether the imperative should be jibs or *hjibs (Hill 2010:96-97). Given the overall rarity of Tibetan words beginning with j-, *jibs is probably not correct.7 Just as the connection of the word zoñ ‘merchandise’ with *tsøñ ‘sell’ (htsoñ, bsøñs, bsoñi, tsoñs) ‘sell’ suggested the change *dz > z-, the connection of the noun *vjal/čal ‘weigh, assess, judge’ (hjal, bčald, gčal, čhald) (Dotson 2007:35 note 39), argues in favour of a change *j > ž-. In addition, the spelling of the word khul-žo ‘crib’ as khu-ljo in the Old Tibetan Chronicle (PT 1287 line 43) also supports *j > ž-.

The sound change *j > ž clarifies the inflection of verbs which have an imperative with Anlaut ž-, such as žjog ‘cut, hew’ (*žjogs, žgōs < *žgog, žog < *žog). Coblin, invoking Conrady’s law, instead suggests that the root is *vžogs and the present stem *žjog may be reconstructed *žhog (1976:68). But, having accepted the validity of the changes *dz > z and *j > ž (hereafter referred to together as ‘Schiefner’s law’), it is tempting to speculate that at one point in Tibetan pre-history no roots began with z- or ž-.

4. Three origins of ž

Although for some words ż- < *j-, Old Tibetan ż- also has other origins. The source of ż- to have received most attention is *lž- (Benedict’s law, cf. Benedict 1939:215, Hill 2011:445). The following examples present the evidence for the change *lž > ž-.

Tib. bži < *bli ‘four’ : OBur. liy ‘four’, Chi. 四 sijH < *s.li[y]-s (0518a) ‘four’
Tib. žin < *lijn ‘field’ : Bur. lav ‘field’, Chi. 田 den < *luj (0362a) ‘field’
Tib. žo < *lo ‘yoghurt’ : Japhug Rgy. tr-lu ‘milk’
Tib. gži < *gli ‘ground’ : OBur. mliy ‘ground’, Chi. 地 dijH < *fej-s (0004b) ‘ground’
Tib. gžu 8 8 < *glu ‘bow’ : OBur. liy ‘bow’, Chi. 弓 syijX < *lij? (0560a) ‘arrow’

There are also grounds internal to Tibetan for such a reconstruction (Gong 2002[1977]: 391-392).

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7 Perhaps the most common such word is jo-bo ‘lord’, however three pieces of evidence demonstrate that originally this word was rjo-bo. First, it is spelled thus in PT 1287, ll. 28-29. Second, no words begin rjo- in Classical Tibetan. Third, this word is quite clearly related to rje ‘chief’, which confirms the cluster rj-.

8 The word is spelled gži in an Old Tibetan version of the Rama story (IOL Tib J 0737/1 line 168, cf. de Jong 1989:115).
Tib. gzogs < *glogs 'side of the body' : Tib. logs 'side'
Tib. bzêñ < *blêñ 'rise' : Tib. lañ 'rise'

On the basis of the comparison of Tibetan zag 'day' with Chinese 夜 yaeH < *N.rak-s (0800j) and Old Burmese ryak 'day' it is further possible to posit *r- as an origin of Tibetan ź-. Since Tibetan ź- has three potential reconstructions, as a working hypothesis it is judicious to assume that all examples of Tibetan ź- are innovative and that Tibeto-Burman should not be reconstructed with ź-. Whether ź- similarly has lateral and rhotic origins in addition to *dz- remains to be seen.

5. Relative chronology of sound changes

Conrady’s law suggests that *hz > hdz- and *hž > hj-. But, there is also substantial evidence for Scheifner’s law, namely *dz > z- and *j- > ź-. Two strategies are available to reconcile the evidence for both Conrady’s and Scheifner’s laws. First, one could reject the proposals *hz- > hdz- and *hž- > hj-. Such a revision of Conrady’s law however would not be elegant; it is odd to accept the changes *h$-> htsh- and *hš- > hj$- but reject the changes *hz > hdz- and *hž > hj-. Also, one would have to suppose that h- somehow blocked the softening of voiced affricates. Rather than the unconditioned changes *dz > z- and *j > ź-, it becomes necessary to specify the conditioned changes *#dz-, *gdz-, *bdz- > #z-, gz-, bz- and *#j-, *gj-, *bj- > #ž-, gž-, bž- (where # indicates a word break). Second, instead of rejecting *hz- > hdz- and *hž- > hj-, one may suggest that Li’s law occurred after Schiefner’s law had already completed. This explanation does lead to the inelegance of sound changes being directly undone, viz. *hdz- > *hz- > hdz-, *hj- > *hž- > hj-. Fortunately, there is independent evidence to suggest that the second explanation, i.e. that Li’s law applied after Schiefner’s law, is correct.

The following comparisons between Tibetan and Kurtöp make clear that the change *dz > z- had occurred already in the language, proto-Bodish, which is the ancestor of these two languages.

Tib. za ‘eat’ : Kur. zu ‘eat’ (Hyslop 2011:56)
Tib. zuñ ‘pair’ : Kur. zòn ‘two’ (Hyslop 2011:58)
Tib. zam ‘bridge’ : Kur. zan ‘bridge’ (Hyslop 2011:152)
Tib. zur ‘corner’ : Kur. zur ‘edge’ (Hyslop 2011:283)

In contrast, as Michailovsky and Mazaudon point out that the change *l- > ź- had not

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9 Although he accepts these comparisons, Jacques rejects this proposal (2013:296-297).

Tib. žiṅ ‘field’ : Kur. ³len ‘field’ (Michailovsky & Mazaudon 1994:553)

Since Japhug Rgyalron ³r-lu ‘milk’ confirms that Tibetan zo ‘yoghurt’ should be reconstructed *lo (Jacques 2008:128), the change *hʒ- > hj- must have occurred after the change *l > ž- in order for the present stem of the verb ‘to milk’ (hjo, bžos, bžo, žos) to turn out correctly, i.e. Li’s law (*hʒ- > hj-) took place after Benedict’s law (*l- > ž-).
The affected sound changes must be ordered as follows: 1. Schiefner’s law, 2. Benedict’s law, 3. Conrady’s law.10

Reconsidering the verb hjog, bžogs, gžog, žog ‘hew’ it becomes clear that both analysis in terms of the root vjog and analysis in terms of the root vžog are valid, but refer to different moments in history.

*ŋhjo, *bžogs, *gžog, *žog
*ŋhjo, bžogs, gžog, žog (Schiefner’s law)

Similarly reconsidering the verb ḍzin, bzuṅ, gzun, zuṅs ‘take’ both analysis in terms of the root ḍzun and in terms of the root vzuṅ are valid for different moments in history.

*ŋhzuṅ, bzuṅ, *d-zuṅ, zuṅs (Schiefner’s law)
*ŋhjiṅ, bzuṅ, *d-zuṅ, zuṅs (u > i)
*ŋhjiṅ, bzuṅ, *d-zuṅ, zuṅs (-nd > nd)
*ŋhjiṅ, bzuṅ, gzun, zuṅs (d- > g-)

10 While this article was in press, I came to decide that the order is in fact 1. Schiefner’s law, 2. Conrady’s law, 3. Benedict’s law, and that hjio, the present stem of the verb ‘to milk’, is an analogical development (cf. Hill 2013).
One should bear in mind however that the prefixes *b-, *d- and *g- may not have come into vogue until after Schiefner’s law took place.

A fresh look at the verb *bdzug, *btsug, *gzug, *tshugs ‘plant’ draws attention to the fact that voicing alternation was already a part of the Tibetan verbal system before Schiefner’s law occurred.

*bdzug, *btsug, *dzug, *tshugs
*b-dzug, *b-tzug, *d-dzug, *tsugs
*b-zug, *btsug, *d-zug, *tshugs 11 (Schiefner’s law)
*b-zug, *btsug, *gzug, *tshugs (*d- > *g-)
hdzug, btsug, gzug, tshugs (Conrady’s law)

Voicing alternation in the Tibetan verbal system is quite old.

6. Conclusion

The investigation conducted here permits several conclusions about the history of the Tibetan verbal system. Voicing alternation was a feature of the verbal system from very ancient times. Before the breakup of proto-Bodish voiced affricates softened to their corresponding fricatives (*dz -> *z- and *j- > *z-, i.e. Schiefner’s law). Subsequent to the break up of proto-Bodish further examples of *z- sprang from the palatalization of laterals (Benedict’s law *l- > *z-). Even later, epenthetic dentals appeared between *b- on the one hand and fricatives, rhotics, and laterals 12 on the other hand (Conrady’s law). Tibetan as attested in the earliest records has both the voiced affricates *dz- and *j- and the voiced fricatives *z- and *z-; they are nearly in complementary distribution (with the affricates after *r- and *b- and the fricatives elsewhere). An earlier unattested stage of the language would have had voiced fricatives and no voiced affricates. In a yet older stage of the language this situation was reversed with no voiced fricatives but only voiced affricates.


12 In the case of laterals subsequent metathesis and loss of *b- has obscured this change (i.e. *hl- > *hld- > *hdl- > *ld-), as one sees in a paradigm such as ldog, logs ‘reverse’ (cf. Li 1933:149).
References


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