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Zhangzhung and Qiangic languages

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Zhangzhung (ZZ), a dead Sino-Tibetan language only known by fragmentary sources, has no living descendant. The area of the former Tibetan empire is home to many non-Tibetan languages, some of which could be related to ZZ, and therefore be of tremendous importance for interpreting ZZ data. However, the huge diversity of Sino-Tibetan (ST) languages, and the poor accessibility of data on many non-literary languages, makes it difficult for specialists of Old Tibetan philology to evaluate etymological claims regarding the ZZ vocabulary.

The aim of the present paper is to evaluate the degree of relationship between ZZ and Qiangic languages. Several scholars, such as Hummel (1986), have proposed to locate the origin of ZZ in Eastern Tibet rather than in Western Tibet, using some linguistic comparative data. This hypothesis, if true, would be of far-reaching consequences for the study of Tibetan History. However, this paper will show that the evidence is rather limited.

Methodology

In this paper, we present all ZZ words with possible Qiangic etymologies (drawing data from Tangut and Rgyalrong).¹ However, finding cognates is not sufficient in itself to prove that two languages of the same language family belong to the same subbranch: according to August Leskien's principle, only *common innovations* are valid evidence.

In order to prove that ZZ is closely related to Qiangic, or to LB-Qiangic², we must not only find isoglosses between ZZ and these languages (words unfound in other branches of ST), but also prove that these isoglosses are innovations, not retentions from proto-ST.

Concerning the problem of the internal classification of ST languages, it should be stressed that since no common innovation has been found between all ST languages outside of Chinese, there is not a shred of evidence to talk of a 'Tibeto-Burmese' subgroup. Chinese seems to be just one of the thirty more branches of ST, and deserves no special place in the Stammbaum of the family.

Morphology

¹ The Rgyalrong data are from Jacques (2004, 2008), and the Tangut reconstruction is based on Gong Hwangcherng (2002). We indicate the number in Li (1997)'s dictionary for each Tangut character to facilitate crosschecking. We use the following abbreviations: Bu Burmese, Jpg Japhug, Jg Jingpo, LB Lolo-Burmese, MC Middle Chinese, OC Old Chinese, Si Situ, Skt Sanskrit, ST Sino-Tibetan, Tb Tibetan, Ta Tangut, Zb Zbu, ZZ Zhangzhung.

² It is probably that Qiangic languages, LB and Naxi form a clade in the ST family, though data are still insufficient to prove it.

Not much is known about ZZ morphology because of the lack of extensive texts in this language, and this paper is limited to the lexical evidence.

However, an interesting grammatical morpheme is the negative prefix kV-, found in words such as:

ZZ	Tb	Translation	Reference
ku-ri	mi-‘dzem	immodest, shameless	Martin 2004:13
ka-kyu	‘gyur-med, mi-‘gyur	unchanged, unchanging	Martin 2004:11

Table 1: Examples of the ZZ negative prefix.

This form is extremely puzzling, as ST languages usually do not have negative prefixes beginning with a velar stop. If one could find a ST language with a velar negative prefix, this would be an interesting clue to classify ZZ within the ST family.

Vocabulary

Here is a list of possible cognates between ZZ and Qiangic languages. Many of the words presented here are pan-ST, and thus of little help for classifying ZZ within the family. We found only two potential examples of common innovations between ZZ and Qiangic languages (examples 1 and 5) and two possible lexical isoglosses unfound outside Qiangic (examples 8 and 9), though all are problematic and might be errors.

Loanwords from Tb and Skt have not been included. Besides, we also discarded roots about which it is unclear whether they are cognates or loanwords, such as *dug* ‘poison’, *mig* ‘eye’ etc as they are identical with Tb.

We have tried to avoid presenting spurious comparisons in the present paper. Hummel (1986) found more examples than us between ZZ and Ta, but some of his proposed cognates are not reliable. For instance, he compares ZZ <wer> (=rgyal) ‘king, victor’ to Ta ‘wu-(tsu)’, in fact not a real Ta form, just the Mandarin reading of the characters 兀卒 that are used in Chinese historical texts to transcribe Ta 𑖦𑖪𑖫𑖬 #5306 #510 ṅwər¹ dzjwɪ¹ ‘emperor’. The first syllable of the Ta compound means ‘blue, sky’, while the second one 𑖦 dzjwɪ¹ means ‘lord’; This syllable is clearly unrelated to ZZ <wer>. He also compares ZZ <tal> (=lcags) ‘iron’ with MC 铁 *thet*, although this becomes impossible if the OC reconstruction *hl̥ik is taken into account.

Although we tried not to repeat such mistakes, errors may still have crept into this list of examples and some of the hypotheses proposed here might be eventually proven to be wrong.

The examples are listed following the order of the Tibetan alphabet, with the Tibetan gloss for each ZZ word in brackets.

1. ku ra (=khyi ‘dog’)

Some ZZ scholars have interpreted this word as derived from Skt *kukkura-* or a

Pkt equivalent thereof (Hoffmann 1972: 196), others have proposed cognates in various ST languages (Hummel 1986:12, Nishi and Nagano 2001:21).

The vocalism of the first syllable <ku> is consistent with the usual reconstruction *kwi proposed for this root in proto-Tb (in Tb, medial *-w- changes to -y- before front vowels). The second syllable, in turn, could be compared with the *na* element found in many ST languages, including Tamangic and Rgyalrong. This would suggest that a lenition *VnV > VrV would have taken place at some stage in the evolution of proto-ZZ. The existence of this lenition is proven by the word <gu-ra> (=yon-tan) ‘virtue’ (Haarh 1968, Martin 2004: 30), an obvious loanword from Skt *guṇa*.

It seems that the structure of the ZZ word is identical to Jpg *khur-na* : the first syllable is cognate to the pan-ST root in Tb *khyi*, OC 犬 *kkhwir, Ta 𑐳 #1200 khjwi 1.30, while the second syllable is cognate to Ta #573 𑐳 na 1.17.

To have exactly the same compound in both Rgyalrong and ZZ would be a strong evidence of a common innovation between ZZ and Qiangic, although such a compound could also have been formed independently recreated in two branches of ST. Of course, it is also possible that Hoffmann’s hypothesis is correct and that this word is a corruption of an Indic word, in which case any comparison with ST languages would be irrelevant.

2. rko / sko (=lus, gzugs ‘body’)

This word is cognate with Tb *sku* ‘body’ (Haarh 1968, Stein 1971: 248) and OC 軀 *qqho > khju, Jpg *tur-skhrui*, Ta #860 𑐳 kwər 1.84. Its pan-ST nature makes it useless for the purpose of language classification.

3. skod / skos (=so ‘tooth’)

This etymon is possibly related to Tb *so* ‘tooth’ (Matisoff 2001:174, Nishi and Nagano 2001:19 discuss this etymon). Tb *so* regularly comes from proto-Tb *swa. Cognates are found everywhere in the ST family, in particular Jpg *tur-ɕya*, Ta #169 𑐳 ɕjwi 1. 10.

The ZZ spelling is puzzling, but it could be an attempt at rendering a sound unfound in Tb, such as the velar fricative [ɣ]. If we assume a ZZ form such as *syo or *sywa, a spelling with a velar stop *<sko> or *<sgo> would have been the only possible way of representing this sound using the Tb alphabet. We have no explanation for the final consonants.

Hummel (1986:12) believes that ZZ <skod/skos> ought to be compared to Ta #39 𑐳 kowr 2.82 ‘tooth’. It is also a possibility, though the Ta word is isolated even within the Qiangic group. This etymology is mutually incompatible with the former one (*contra* Hummel, who treats all three words Tb *so*, Ta *kowr* and ZZ <skod/skos> as cognates).

4. khri (=gru ‘corner’)

The gloss ‘corner, tip’ is found in Martin (2004: 25). This word could be related to Jpg *ur-kuu* ‘corner, border’, itself a cognate of Tb *gru* ‘corner’. The distribution of this root in the ST is too wide to use it for classifying ZZ. The orthographic <i> is probably to be understood as a central vowel (the Tb dialect on the basis of which the orthography was conceived was perhaps like Khams and Amdo dialects).

5. lgyam (pra lgyam dug = phra rgyas dug)

Martin (2004: 37) translates <lgyam> as ‘wide’, but he insists that this entry is ‘rather dubious’.

The Tb term *phra-rgyas* corresponds to Skt *anuśaya-* ‘propensity’ (classical Skt ‘regret’, from *anu√śī* ‘to lie along, to adhere closely to’). However, the morphological structure of the Tb word is not directly modeled after its Skt equivalent. The concept of *anuśaya-* is the subject of the whole fifth chapter of Vasubandhu’s *Abhidharmakośa* (La Vallée-Poussin 1925:1-118). An explanation of the meaning of *anuśaya-* is given in *śloka* 39:

(1) Tibetan text:

gang phyir de dag **phra ba** dang /
rjes vbrel rnam gnyis **rgyas vgyur** dang /
rjes su vbrang bas de yi phyir /
phra rgyas dag tu bshad pa yin

(2) Sanskrit text:³

<i>aṇavo'nugatāścaite</i>	(aṇavas +anugatās+ca+ete)
<i>dvidhā cāpyanuśerate</i>	(dvidhā ca+api+ anuśerate)
<i>anubadhnanti yasmācca</i>	(anubadhnanti yasmāt+ca)
<i>tasmādanuśayāḥ smṛtāḥ</i>	(tasmāt+ anuśayās smṛtās)

De la Vallée Poussin (1925:78-79) translates this passage in the following way: « *Ils sont atomiques* (phra ba, *aṇu-*) ; *ils adhèrent* (rjes vbrel,⁴ *anu√gam*) ; *ils se nourrissent* (rgyas vgyur, *anu√śī*) *de deux manières* (rnam gnyis, *dvidhā*) ; *ils lient continuellement* (rjes su vbrang, *anu√bandh*), *c'est pourquoi* (de yi phyir, *tasmāt*) *on les nomme anuśaya-* ». The Tb word ‘phra ba’ translates Skt *aṇu-* ‘atom of matter’ (Nominative plural *aṇavas*), and *rgyas vgyur* corresponds to *anu√śī* ‘to lie along, to adhere closely to, to follow upon’ (Present 3pl Middle *anuśerate*), here translated by Poussin as ‘se nourrir’ (to feed).

Tb *rgyas vgyur* is not a literal translation of the Skt form:⁵ *rgyas-pa* has two distinct meanings: ‘to increase’ and ‘large, wide’. Therefore, *rgyas vgyur* could be

³ The Skt text comes from the Digital Sanskrit Buddhist Canon database: <http://www.uwest.edu/sanskritcanon/dp/>

⁴ De la Vallée Poussin reconstructs *anu√sañji*.

⁵ We would have expected something like *rjes su nyal ba.

translated either as ‘to grow’ or ‘to become wide’. De la Vallée Poussin (1925:78, n.ii.) analyzes Tb *phra-rgyas* as ‘atomique-étendu’, considering here *rgyas* to mean ‘wide’, not ‘to increase’. However, one of the Chinese translation of this term, 細增 ‘tiny-increase’ would suggest that *rgyas* means ‘to increase’, not ‘wide’.

Therefore, it is not straightforward to decide whether *rgyas* should be understood as ‘to increase’ or as ‘wide’ in this expression, and the ZZ syllable <lgyam> can be interpreted either way. If ‘wide’ is indeed the intended meaning of <lgyam>, it can be compared to two roots found in Qiangic and LB languages meaning ‘wide’ or ‘broad’ (Jacques 2004:244):

proto-Jpg *rtljom, Jpg *rjum* Si *rdzâm* ‘wide, broad (of a piece of clothes)’

proto-Jpg *ljam, Jpg *jom*, Si *jâm*, Zb *lâm* ‘wide (of a place)’.

These two roots are distinct in proto-Rgyalrong, but from the point of view of historical phonology, both are potentially comparable with Tangut 𐰇 #4874 and 𐰇 #34 low 2.47 and Zaiwa *lam*⁵¹. This root is probably derived from the ST root meaning ‘to fathom, to search, to stretch’, found in OC 覃 *dom* < *līm, 尋 *zim* < *s-līm, Tb ‘*dom-pa*’ ‘a fathom’, *lam* ‘path’. The semantic development to ‘wide’ is an example of a common innovation in Qiangic and LB languages, as it is not found in other ST languages. The fact that ZZ shared this common innovation would be an argument for postulating a closer relationship with the Qiangic-LB branch than to the Bodic one. However, it should be stressed that all these hypotheses rest on the assumption that <lgyam> translates *rgyas* in the sense ‘wide’, which is not at all certain.

The ZZ word spelled <lgyum> or <lgyu> meaning ‘road’ (Haarh 1968, Hoffman 1972, Martin 2004:38, Pasar *et al.* 2008: 49) is related to the same root, but this word is not discussed in this paper, as it is absent from Qiangic languages.⁶

The ZZ cluster spelled <lgy> (see the discussion in Hoffman 1972) does not necessarily represent a triple consonant cluster. It might be an attempt at representing a lateral palatal *ʎ, or it could be the result of a metathesis from a cluster such as *k-lj-. Alternatively, the -g- could be an epenthetic consonant, in the same way as -g- in Tb words such as *brgyad* < *p-rjat (Li 1959). None of these hypotheses are easy to test given our limited knowledge of the ZZ lexicon, but all have to be taken into consideration.

6. du (=sprin ‘cloud’)

This form ‘cloud’ is reminiscent of the Qiangic and LB root found in Jpg *zdum* ‘cloud’, Ta #2738 𐰇 djij 2.55, Bu *tim*. The loss of final –m reminds of the free alternation between the two forms <lgyu> and <lgyum> for ‘road’ in ZZ, and it is possible that final –m was lost in some contexts. This etymology is very tentative.

⁶ However, it is found in many ST languages, including Bu *lam*^C, Tb *lam*, Jg *lām* etc. A special phonetic change must have occur in this ZZ word, given the back rounded vocalism.

7. ni (=mi ‘man’), ne (=me ‘fire’), ma-ning (=ming ‘name’)

These three words are synonyms and cognates of Tb *mi* ‘man’, *me* ‘fire’ and *ming* ‘name’ respectively. These ubiquitous roots are found everywhere in the ST, including Rgyalrong (Jpg *turme*, *smi*, *tyrmi*) and Tg (#4574 𑄧 mjɿ 1.30 ‘the other one’, #4408 𑄧 mæ 1.31 ‘fire’, #2639 𑄧 mjij 2.35 ‘name’).

The presence of a dental instead of a labial initial is certainly due to a process of palatalisation before front vowel. The spelling <ma-ning> is possibly an attempt at representing *mniŋ by a Tb scribe who spoke a dialect where OT *mn-* clusters were simplified to *n-*.

8. pe brag / se brag (=srog gcod ‘kill’)

In this form, the first syllable <pe/se> corresponds to Tb *srog* ‘life’, and the second *brag* to Tb *gcod* ‘cut’. This syllable <brag> can be compared to Jpg *phaB* ‘cut, break’ and Tg #4007 𑄧 pha 1.17, #4459 𑄧 bja 2.17. ZZ would have added an -r- infix to this verbal root.

9. ma thun / mang thun (=sha ‘meat’)

This word ‘meat, flesh’ (Haarh 1968, Stein 1971:243, Martin 2004:105) is potentially comparable to a root exclusively found in Rgyalrongic languages, Jpg *tynthum* ‘cooked meat’. A serious problem with this etymology is the difference in final consonant *-n* vs. *-m*. If this comparison is genuine, it would be a very important isogloss between ZZ and Rgyalrongic, but it is likely to be a coincidence.

10. mu / dmu (=mkha', gnam, dbyings, gnas ‘sky’)

The ZZ word for ‘sky’ (Hummel 1972:14, Martin 2004:111, Pasar et al. 2008:184) is cognate with the Qiangic and LB root found in Jpg *tumw* ‘sky, rain’, Tg #3513 𑄧 mæ 1.27 ‘sky’, Bu *mui*^C ‘rain’.

11. mu zhi (=lto ‘phye che ‘snake’), mur (=klu ‘nâga’)

<mu zhi> translates Skt Mahoraga ‘The Great Serpent’ (Hummel 1974-5:515, Martin 2004:117).⁷ The second syllable <zhi> is comparable to Tb *che* or *chen* ‘big’ (*wer zhi* = rgyal *chen*, *tru zhi* = rin *chen* etc), so that the first one <mu> can be equated with *lto* ‘phye ‘serpent’. <mu> is to be compared to the ZZ word for Nâga

⁷ The Tb *lto* ‘phye is a mistranslation from Skt *uraga-*, which literally means ‘the one who moves (-ga) on his chest (*uras-*)’ (= serpent): Tb *lto* means ‘belly’ not ‘chest’. This error resulted from a confusion of the first part of the compound with Skt *udara-* ‘belly’. A form such as **udara-ga* ‘the one who moves on his belly’ would have been possible and semantically plausible as a metaphor for ‘serpent’.

<mur>, which comes from the pan-ST root ‘serpent’ (Stein 1971: 246) Tb sbrul <*s-mrul,⁸ OC 虺 *hmmilʔ, Bu *mrwe*^B (unrelated to the root ‘bug’, Tb ‘bu).

Cognate roots seem to be found in Qiangic languages: Jpg *qapri*, Ta #80 𐄎 phio 2.43, though no nasal initial appears there.

12. li / le (=rlung ‘wind’)

This word is clearly related to the pan-ST root found in Bu *le*^B ‘wind and Jp *būnglí* ‘breeze’ (Matisoff 2001:165). This root is attested in Qiangic: Jpg *qale*, Ta #2302 𐄎 lji 1.29.

13. sha ‘bal’ (=sta re ‘axe’)

This ZZ word for ‘axe’ (Namgyal 1998:16, Martin 2004:156, Pasar *et al.* 2008: 259) could be tentatively compared to the ST etymon found in OC 斧 *paʔ, Jpg *turpa*, #5203 𐄎 wji 1.67, under the assumption that a phonetic change *-al* → *-a* occurred in the Tb dialect of the person who wrote this ZZ word. This etymology is hypothetical.

14. shin (=shes pa ‘to know’)

This word is found in many compounds (Martin 2004:158) such as <kun shin> = *kun shes*, <ti shin> = *rnam shes*, <nges de shin> = *rang rig*. It is related to the ST root ‘know’ found in Tb *shes*, Bu *si*^A, Jpg *suts*. The final consonant *-n* could be a nominalizing suffix, as this ZZ form appears mostly in abstract words. <shin> would mean ‘the knowledge’ rather than the verb ‘to know’.

15. shin / shin ni / shin tun (=mchin pa ‘liver’)

The ZZ word for ‘liver’ (Stein 1971:237) belongs to a well-known ST cognate set, comprising Tb *mchin-pa*, Bu *a-sany*^C, Jpg *tumtshi*, Ta #5273 𐄎 sji 2.10 (Matisoff 2001:170).

16. sli (=zla-ba ‘moon’)

This word is only cited in Pasar *et al.* (2008:277). It is clearly related to the pan-ST root for ‘moon’ found in Tb *zla* (OTb also *sla*).

Nevertheless, its unusual front vocalism is interesting, because it suggests that the donor language underwent a ‘brightening’ change **-a* → *-i* (to use Matisoff 2004’s term) like Qiangic languages Ta #2814 𐄎 lhji² ‘moon’ or Prinmi *#*. Nevertheless,

⁸ Proto-Tb *m becomes denasalized between s- and -r-. The Tb *smr*- clusters (*smra*, *ngur-smrig* etc) are probably derived from proto-Tb *sə-mr-.

brightening in this word is also found in the non-Qiangic language Mtshosna monpa *le*⁵³ ‘month’. It is also difficult to explain why brightening did not occur in the word ‘axe’ (13).

17. hrang (=rta ‘horse’)

ZZ scholars have noted that this word is relatable to a root widespread in the ST family (Stein 1971:153): Bu *mrang*^C, Jpg *mbro*, Ta #764 𐎢 rjijr 1.74, and possibly OC *mmra?. However, this is not a genuine ST etymon, and must be a (relatively) late Wanderwort, as the horse was unknown in Eastern Asia before the second millennium BC.

18. Numerals

The ZZ numerals from one to ten are all attested (see Table 2), but it is not always clear whether these are corruptions of Tb forms or genuine ZZ etyma. Three comments can be made on the ZZ numerals.

First, the etyma ‘one’ and ‘two’ differ from Tb by not having the regular palatalisation *ti > ci and *ni > nyi.⁹

Second, the numeral ‘seven’ is the root found in most ST languages (for instance, Jpg *kuɕnɯs*), unlike Tb, where an innovative form *bdun* of unclear etymology replaced the original numeral.

Third, the numeral for ‘ten’ is <cu> and is suspiciously similar to Tb *bcu*: this root is not widespread in the ST family.

ZZ	Tb	Jpg	
tig	gcig	txɣ	1
ne, nis, ni	gnyis	ɕnɯs	2
sum	gsum	χsum	3
bing, bing-nga	bzhi	kuβde	4
nga	lnga	kumŋu	5
drug	drug	kutɕɣɣ	6
snis, sne, sni, snel, snes	bdun	kuɕnɯs	7
gyad	brgyad	kurcat	8
gu dun	dgu	kunguut	9
cu	bcu	sqi	10

Table 2: Numerals 1-10.

Conclusion

⁹ Syllables such as *ni* are extremely rare in Tb, and there is little doubt that a palatalization of dentals occurred in proto-Tb. There are many examples of dental stops with *i*, though (*mthil*, *gtib* etc), and the exact conditioning factors of palatalization are not entirely clear.

In this paper, we have found very little evidence of a special relationship between ZZ and the Qiangic languages. The most interesting examples, such as etyma #1 <ku ra> ‘dog’, #5 <lgyam> ‘wide?’, #8 <brag> ‘cut’ and #9 <ma thun> ‘meat’, are all problematic and might be coincidences. Other potential cognates are found throughout the whole ST family and are not usable as an argument that ZZ was related to Qiang and Ta as Hummel (1986) has suggested. The relationship of some ZZ etyma with Almora languages of Western Tibet seems more convincing (Stein 1971). This would be strong evidence *against* the hypothesis that ZZ originated in Eastern Tibet.

Several possible ZZ sound changes have been identified: the palatalisation of *m* to *n* before front vowel (7), the lenition of *n* to *r* between two vowels (1), the loss of final *-m* (the conditioning context is unclear, examples 5 and 6) and change *-a* → *-i* in open syllables (16).

Due to the fragmentary nature of our ZZ data, the hypotheses presented in this paper must all be considered as tentative and subject to revision if new data on the ZZ language are discovered in the future.

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