THE STRUCTURE OF THE TANGUT VERB

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ABSTRACT

The present paper is an attempt at analyzing the verbal morphology of Tangut from the point of view of both Tangut texts and modern Qiangic languages, its closest living relatives. Modern Qiangic languages, especially Rgyalrong, have a very strict verbal template. In this article, we propose that Tangut also had a verbal template, which was probably the result of independent grammaticalization rather than a shared inheritance with Rgyalrong. Then, we discuss apparent counterexamples to the proposed template and argue that other explanations are possible to account for them. Finally, we demonstrate the (previously unnoticed) existence of verbal incorporation in Tangut.

SUBJECT KEYWORDS

Tangut  Rgyalrong  Japhug  Incorporation  Directional prefixes

As in Middle and Modern Chinese, in the Tangut script, there is a one-to-one relation between syllables and characters. No word boundaries are represented in any way, giving the misleading impression that verbal prefixes and suffixes were just clitics or independent particles. In this paper, drawing on comparative data from modern Qiangic languages and Tangut texts, we will try to answer an important question regarding the degree of grammaticalization of directional prefixes in Tangut: are they fully grammaticalized affixes as in Rgyalrong, or do they preserve some degree of freedom, like the directional prefixes of German or Vedic? In order to solve this problem, we will try to establish the structure of the Tangut verb template, and then analyze in detail all the examples that seem to deviate from it and are not attested in modern Qiangic languages.

AN EXPLANATION OF THE GRAPHS YU, DU AND DI IN CHU BAMBOO MANUSCRIPTS: WITH AN EXCURSION ON THE RELATED ISSUES IN PALEOGRAPHY AND HISTORICAL LINGUISTICS

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ABSTRACT

This paper calls for a more rigorous methodology in the studies of paleography and-excavated manuscripts and for a closer marriage between paleography and historical linguistics. I use one example (the case of the decipherment of the graph yu, “to sell,” in Chu manuscripts) to illustrate the limits of the current methods and how a more rigorous method—including the application of the new development in Old Chinese phonology—can help paleographers to do better in their interpretation of excavated texts and to better understand language and graphic changes. I also use this example to argue that the mistake the scribes made in the manuscripts could be used as evidence for sound change in early China.

SUBJECT KEYWORDS

yu (“to sell”)  du and di  “Graphic alteration” and phonetic change  “Graphic borrowing based on rough phonetic similarity”  Synchrony of loan graphs.

1. THE VERBAL TEMPLATE IN ROYALRONG

Tangut belongs to the Qiangic subgroup of Sino-Tibetan. Some languages among the Qiangic group have a remarkably complex verbal morphology, especially Royalrong languages (Japhug, Situ, Tshobdun and Showu, see Sun 2000 and Jacques 2008a).

Royalrong languages have a very strict verbal template, mostly prefixing. A verb can have up to five or six different prefixes, and at most three suffixes. The order of the prefixes in the template never changes in a given language variety, but can differ across dialects of the same language (see for instance Jacques 2008a:249). The basic structure is the same in all Royalrong languages. Here is a simplified representation of the Japhug verbal template (Jacques 2008a:197-198):

<table>
<thead>
<tr>
<th>flexional prefixes</th>
<th>derivational prefixes</th>
<th>V</th>
<th>flexional suffixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>a-</td>
<td>mu-</td>
<td>-y-</td>
<td>-y-</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

Table 1: The Japhug verbal template.

(1) Irrealis
(2) negation
(3) Translocative/Cislocative
(4) Directional prefixes
(5) Second person
(6) Inverse
(7) Reflexive
(8) Causative
(9) Passive
(10) Autobenefactive
(11) Verb root
(12) Aorist 1sg/2sg transitive
(13) Personnal agreement suffixes

The most noteworthy feature of this template is that negative prefixes always appear before directional prefixes, which themselves occur before the reflexive prefix. In the following sections, we will argue that Tangut data can also be accounted for by assuming the existence of a verbal template.

2. TANGUT DIRECTIONAL AND NEGATIVE MORPHEMES

The Tangut verb presents some similarity to the Japhug one, although it has fewer distinct affixes. As in Japhug, we find several series of directional morphemes, first described by Kepping (1985:190):

<table>
<thead>
<tr>
<th>up</th>
<th>down</th>
<th>closer</th>
<th>farther</th>
<th>transloc.</th>
<th>cisloc.</th>
<th>neutral</th>
</tr>
</thead>
<tbody>
<tr>
<td>series</td>
<td>答</td>
<td>姑</td>
<td>姑</td>
<td>姑</td>
<td>姑</td>
<td>姑</td>
</tr>
<tr>
<td>1</td>
<td>ja⁰</td>
<td>nja¹</td>
<td>kji¹</td>
<td>wji²</td>
<td>dji¹</td>
<td>dji²</td>
</tr>
<tr>
<td>series</td>
<td>答</td>
<td>答</td>
<td>答</td>
<td>答</td>
<td>答</td>
<td>答</td>
</tr>
<tr>
<td>2</td>
<td>jj¹</td>
<td>njj²</td>
<td>kji¹</td>
<td>wji²</td>
<td>dji¹</td>
<td>dji²</td>
</tr>
</tbody>
</table>

Table 2: Tangut directional prefixes.

The character 答 ja is also used to transcribe an interrogative verbal prefix (Kepping 1985:199), which will be discussed in section 5 of this paper.

Several distinct negation morphemes are also found:

<table>
<thead>
<tr>
<th>negation</th>
<th>basic negation</th>
<th>past negation</th>
<th>negation of modal verbs</th>
<th>prohibitive</th>
</tr>
</thead>
<tbody>
<tr>
<td>nj¹</td>
<td>mj¹</td>
<td>mjj²</td>
<td>mji¹</td>
<td>tji¹</td>
</tr>
</tbody>
</table>

Table 3: Tangut negations.

For movement and concrete action verbs, the directionals indicate the direction of the action, but for most verbs, they seem to have been already grammaticalized and are used to indicate TAM parameters.

Negative and directional morphemes rarely co-occur, but when they do, the order is very strict: unlike Japhug, the negative morphemes appear after, not before, the directional prefix (Kepping 1985:188). This order, however, is also found in modern languages, for instance in Shixing (Chirkova 2009:63).
Here are some examples illustrating this order:

1) 鬬 鬬 鬬 嚴 鬬
1567 1906 4507 4521 5258
gii1 nioo1 cio1 jaar2 io1
boy after follow cry CONJ
 evacuation
1452 1918 0134
nya1-mji1-ju1
DIR1-NEG-look
The boy followed (her) crying, but she wouldn’t even look at him (Cixiao 11.8-12.1, Jacques 2007:39)4

2) 鬬 鬬 鬬 鬬 嚴 鬬
4342 1734 0509 4174 4868 0433
dja1-gji1-thjowr2-mju2 gji1 bju1
DIR1-PROHIB-move want INSTR
As he did not want her to have to move (by herself), (Leitin 03.29.A.1)

3) 鬬 鬬 鬬 鬬 嚴 鬬
2628 0243 1139 2590 1918 0134
goo1 sji1 sji1 .wij2-mji1-ju1
boy girl GEN DIR1-NEG-look
He wouldn’t look at these boys and girls. (Leitin 03.32.B.6-7)

4) 鬬 鬬 鬬 鬬 鬬 鬬 鬬
3926 1526 3818 0497 5354 2590 0290
nya1 tsji1-mji1-nya2 gowr2 thji2 .wij2-sju2
you serve-MLZ:A many this DIR1-be_like

5) 鬬 鬬 鬬 鬬 鬬 鬬 鬬
4435 1326 3583 0206 4435 1326
lij1 kji1 tja1 buur2 lij1 kji1
what ??? TOP victorious what ???

The examples above show that directional and negation morphemes appear in a fixed order, but do not prove that they are real prefixes in the same way as the prefixes of the Rgyalrong verbal system: they could be clitics, or even independent morphemes that just happen to follow an ordering constraint.

In order to determine whether the hypothesis that directional and negation morphemes are real prefixes is tenable, we will have to provide an account for all examples in which the plain order [directional+negation+verb root] is breached by having a directional morpheme appear without a verb or is separated from the verb root by another element. We found four such situations.5 First, the character 鬬 kji1 when not followed by a verb. Second, ‘double’ directional prefixes. Third, a grammatical element 鬬 lij1, 鬬 tsji1 or 鬬 tji1 inserted between the directional or negation morpheme and the verb. Fourth, a noun between the directional morpheme and the verb root.

After having accounted for all these cases, we will propose a series of phonological arguments to support the hypothesis that directional morphemes were real prefixes.

3. THE CHARACTER KJI1

Nishida (2002:8) and Lin (2006, 2007:177-181) have noticed numerous examples of the character 鬬 kji1 appearing in three contexts where directional morphemes do not usually occur.

First, it is found before various postpositions together with the interrogative 鬬 lij1 (Lin 2007:180):

5) 鬬 鬬 鬬 鬬 鬬 鬬 鬬
4435 1326 3583 0206 4435 1326
lij1 kji1 tja1 buur2 lij1 kji1
what ??? TOP victorious what ???

The question is, what is victory, and what is weakness? (dirghāgamasmūtra)
function. A possibility is that the noun-phrase final 贏 kji¹ in (5) to (7) is a variant of the numeral 贏 gji² ‘one’, and is thus cognate to the Japhug Rgyalrong indefinite ci ‘one, a little’. As 贏 kji¹ in examples (5) and (6), Japhug ci can also occur after an interrogative:

9) nuw cu ci ku-na-gu kuw
   DEM who INDEF GENR:S-auto-be Q
   “Who is it (who does all that)?” (Kunzhang, 333).

This indefinite ci also occurs after noun phrases containing a numeral, and has the meaning of ‘approximately’:

10) nuw-trxur w-ro ci ko-ce pjr-cha
   two-turn 3SG.POSS-rest INDEF EVD/EAST-go EVD-can
   nuw-gu
   CONST-be
   He could run a little more than two turns. (The Prince, 108).

We know too little about both Tangut and Rgyalrong historical phonology to have any certainty regarding any possible relationship between 贏 kji¹ and ci, but this seems a possibility, which will be testable when more examples from Tangut texts such as (5) or (7) come to light. This hypothesis, in any case, does not apply to sentence-final 贏 kji¹, for which a distinct explanation will be necessary.

4. DOUBLE DIRECTIONAL PREFIXES?

In Rgyalrong languages, as well as in most modern languages of Western Sichuan,⁶ no verb can have two directional prefixes at the same time: there is only one prefixal slot. However, in Tangut, some examples appear to contradict this general principle. In the previous section, we have already discussed the case of 贏 kji¹, which occurs before other directional prefixes in examples such as (7). We have argued that in these cases it was better to consider 贏 kji¹ not as a directional prefix, but as an indefinite.

However, other cases of “double” directional prefixes have been mentioned. Kepping (1979:306) noticed the following example:
The structure of the Tangut verb...
Besides, this element 談 tehjí appears with the negation 談 mji⁵ prefixed to the verb root. The compound 談 mji⁵ tehjí means “impossible to”; this special phenomenon is discussed in detail in Kepping (1985:292-4).

Third, if 談 tehjí truly were a pronoun, one would not be able to explain why the negative prefix 談 mji⁵ is used, as it normally appears only with modal verbs. For these three reasons, it seems more reasonable to treat tehjí as a verbal prefix unrelated to the demonstrative as Kepping did. It is not entirely clear which gloss would be most appropriate to describe the functions of the verbal prefix tehjí, but we can tentatively describe it as a marker of potential modality.

 İş lji⁵ is used as a conjunction linking two nouns inside a noun phrase (Kepping 1985:318):

An anonymous reviewer of this article thought that the element 談 tehjí was to be interpreted as an infixed pronoun coreferent with the patient (or with the only argument for intransitive verb). However, there are three reasons why this cannot be the case. First, as we mentioned above, tehjí only a demonstrative, is never used as a pronoun in Tangut, and even in this function as a demonstrative is restricted to a few lexical items. Second, tehjí also appears in sentences where both agent and patient are overt:

However, Kepping also points out that this morpheme is used as a concessive particle; it normally appears before directional and negative morphemes:
THE STRUCTURE OF THE TANGUT VERB

21) 零 零 零 零 零 零 零 零 零
1183 2893 1226 4444 0508 3092 3133
d4 khwi2 kj1-lji1-gwu2 dji1 sji1
affair big DIR1-CONCSV-be CONCSV today

22) 零 零 零 零 零 零 零 零 零
0795 4444 5113 5643 4444 5176
rij1-lji1-wji1 mji1-lji1-dzioow2
DIR1-CONCSV-do NEG-CONCSV-may

Although it is done, it is not satisfying; although it is completed, it is not profitable. (Tangut Proverbs 29a.3, Kychanov 1974:122,209)

Here mji1 appears with the modal negation 零 mji1 and derivational morphemes of the first series. Although the meaning of the sentence cannot be ascertained for sure, it confirms the fact that the concessive mji1 may appear between a directional or a negation and the verb root as in example (20). The concessive prefix mji1, like 零 tehj1, occurs between the negation and the verb, but before incorporated nouns.

Examples such as (19) show that the concessive mji1 can appear in two distinct positions within the verbal complex; this variability suggests that the process of incorporation of this element into the verb complex was not yet entirely completed at the time Tangut texts were written.

Lin (1995: 4.28-29#85) found an example where the concessive 憊 lji1 is placed between the directional and the verb:

20) 憆 憆 憆 憆 憆 憆 憆 憆 憆
2541 1139 2627 5258 2975 3744

dziwo2 jji1 lji1 lji1
man DAT place title
confess 零 零 零 零 零 零 零 零 零
5981 4444 2639 5113 3992 1105 2090
.ja-lji1-mji1-wji1 dji1
DIR1-CONCSV-name-make[1] CONCSV offer[1]-NOM

Although he granted land titles to these people, he had no (land) to give them. (Sunzi, 7A.4b).

This extremely interesting example also presents a noun between mji1 and the verb root. This will be examined as an example of noun incorporation in the next section.

Lin's example is by no means isolated in the corpus of Tangut texts. We found two other sentences of the same type. In the first one, 零 lji1 occurs after the directional 憆 kj11:
Another grammatical element that can be used between directional morphemes and the verb root is 坤 tsji¹. The character 坤 tsji¹ normally transcribes an adverb meaning ‘also’ (Kepping 1985:318-9):

23) 0824  5417  1245  1139  4342  4225  5916  2885
   tehji²-jar²  jji¹  jji¹  dja²-sja¹  xa³-phow¹
   immediately oneself  GEN  DIR1-kill  Han Ping

5026  1906  1245  5815  1245  1139  4342  4225
   mjii¹  niow¹  jji¹  tsji¹  jji¹  jji¹  dja²-sja¹
   hear[1] after oneself also oneself  GEN  DIR1-kill

He immediately killed himself. Han Ping 閔殞, when he heard this, committed suicide too. (Lelín 06.04B.3-4)

坤 tsji¹ is also used to transcribe an adjective meaning ‘small’, and appears in the reduplicated form 坤坤 tsja'tsji¹ ‘elder sister’:

24) 416  5815  4601  2098  4543  2600
   tsja¹-tsji¹-nja²  na²  mar¹-mjar¹
   elder_sister-2SG  me  moustache

4342  5670  4601  3425  3391  4601
   dja²-o¹-nja²  pja²-sjtj¹-nja²
   DIR1-have-2SG  grandfather-2SG

2098  3371  1144  4342  5449  4601
   na²  dzja²-dji¹  dja²-sjtj¹-nja²
   me  topknot  DIR1-put[1]-2SG

You are my elder sister; my moustache is here for you. You are my grandfather; my topknot was put for you. (Tangut proverbs 14b.5, Kychanov 1974:106;179).³

However, we find one example where 坤 tsji¹ is inserted between a directional from the first series and the verb root:

25) 0551  0551  4889  1139  2518  1045
   jow²-jow²  dzejwi¹  jii¹  njii¹  dda²
   relative  reciprocal  GEN  heart  word

1734  5612  5444  2763  3696  5124
   tji¹-tshji¹  lej³-yu¹  na¹-rar²
   PROHIB-say[1] night  tomorrow

4342  5815  4041
   dja²-tsji¹-kia³
   DIR1-??-hate[1]

4092  4092  2541  1139  1014
   khie¹-khie¹  dzejwo²  jii¹  ngwu¹
   reciprocal-hate[1]  man  GEN  word

1734  3551  4884  1906  2503  3513  2627
   tji¹-niow²-nji³  niow¹-ku¹  ms¹  lji¹
   PROHIB-evil-2PL  after  sky  earth

5981  5815  0756
   ja-tsji¹-dzii²
   DIR1-??-meet

If one does not say words from the heart to one’s relatives – the next day, one will hate them. If one does not speak evil to the men one hates, afterwards sky and earth will meet. (Tangut proverbs 23a.1-2, Kychanov 1974:197).
Although, as with many Tangut proverbs, the exact meaning of this sentence is not entirely clear, the element written as 䂸 qha must be a modal prefix whose place in the structure of the verb is the same as 䂸 ljj1 and 䂸 teji1. Additional examples are needed before one can determine its exact meaning.

Apart from these three prefixes, we find another prefixal element which can appear in the same position inside the verbal complex: 䂸 mja1-, which occurs together with the enclitic 䂸 mo2 as a circumfix marking irreals modality (Kepping 1985:317). Zhang (2009:23) presents an example showing that 䂸 mja1- can be preceded by a directional prefix too.

6. INCORPORATION

In Tangut texts, in some very rare instances, we find a noun between the directional prefix and the main verb, as in example (20).10 This could seem to be a very clear example of tnesis, where the prefix, in fact an independent adverb, can be separated from the verb by another syntactic element. Apart from (20), we have found only three such examples:

26) 麭 麁 麁 筆 筆 匙
1567 1139 1326 3266 3852 4601

The verb is seen in the form of the root 釉 and the incorporation is given as 釉-cause[2]-SG. The following sentence of the form ‘You made your son lord (of Zhongshan)’ (Leilin 03.10B.4)

In this example, we could analyze 䂸 ljj1 not as a directional prefix, but as an adverb as in examples (5) to (7). However, such an analysis is not an option with the two following sentences, when the directional prefix not 䂸 ljj1:

27) 麁 麆 麆 麆 麋 麋 麋
3798 4861 4962 3830 3045 5964 1139

The incorporation is given as 釉-cause[2]-SG. The following sentence of the form ‘You made your son lord (of Zhongshan)’ (Leilin 03.10B.4)

In examples (26) and (27), the noun appearing between the directional prefix and the verb root is the O (the verb being transitive), whereas in the last one, an intransitive stative verb, the noun corresponds to the S.

However, the tnesis analysis is not the only possible one. In other Qiangic languages such as Rgyalrong, we find extremely grammaticalized cases of verbal incorporation (Jacques 2008a:89-91). As the following examples will show, the incorporated noun is sandwiched between a derivational prefix and the verb stem, and sometimes undergoes vowel alternation.

<table>
<thead>
<tr>
<th>noun</th>
<th>verb</th>
<th>incorporation</th>
<th>meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>qha</td>
<td>ru</td>
<td>av-qha-ru</td>
<td>to turn around,</td>
</tr>
<tr>
<td>‘back’</td>
<td></td>
<td></td>
<td>to look back</td>
</tr>
<tr>
<td>si</td>
<td>phan</td>
<td>yar-sun-phan</td>
<td>to fell trees</td>
</tr>
<tr>
<td>‘timber’</td>
<td></td>
<td></td>
<td>to chop tr.</td>
</tr>
<tr>
<td>pootsa</td>
<td>sior</td>
<td>yar-pootsa-sior</td>
<td>to earn money</td>
</tr>
<tr>
<td>‘money’</td>
<td></td>
<td></td>
<td>‘to earn’ tr.</td>
</tr>
</tbody>
</table>

Table 4: Examples of incorporation in Japhug.

Flexional prefixes such as directionals will of course appear before the noun, as in example (29), where the incorporated noun -qha- (status constructus of qha) appears between the directional prefix lu- and the verb root -ru:

29) tha-nutsam

The verb is seen in the form of the root 釉 and the incorporation is given as 釉-cause[2]-SG. The following sentence of the form ‘As he was about to bring it back, he looked back inside’ (The Fox, 34)

Examples (26), (27), (28) and (20) are most probably instances of the same phenomenon. Ancient derivational prefixes have fused with the verb in Tangut,
leaving at best only indirect traces (Gong 1999), so we should not expect a syllable corresponding to Japhug *yav- or *nv-/*nw- to be present in Tangut.

The four examples presented above are probably not the only cases of noun incorporation in Tangut. However, in verb forms without a directional prefix, it is difficult to tell whether an object is incorporated or not. In the Tangut spoken language, a distinction might have existed between free noun and incorporated noun (tong sandhi might have occurred, for instance), but from the written sources, we have no way to decide.

7. PHONOLOGY

In sections 3-6 above, we have shown that all apparent counterexamples to the basic order [directional+negation+verb] could be accounted for in various ways, and that directional and negation morphemes could be in all cases interpreted as prefixes; However, we have not yet definitely proven that they cannot be analyzed as clitics.

When studying a dead language such as Tangut, it is quite difficult to distinguish between affixes and clitics. However, as far as directional prefixes, negations and the three modal prefixes 軟 lji¹, 軟 tchji¹ and 軟 tsji¹ are concerned, we do have an additional argument coming from phonology.

Going back to Table 2, one can observe that directional prefixes of series 1 only have two distinct rimes: -ji and -ja (rhyme -jir is a variant of -ji with a rhotic initial). The rhyme -ji is a reduced rhyme that appears in reduplicated forms, either in the first member (see section 4) or in the second member (in nouns such as 敢 tsa'tsji¹ ‘elder sister’ as we have seen in section 5). It can hardly be a coincidence that one of the negation prefixes, 軟 mjir¹, as well as all three modal prefixes 軟 lji¹, 軟 tchji¹ and 軟 tsji¹ also have the same rhyme. This can be explained as a case of phonological attrition caused after grammaticalisation. The same phenomenon is observed in other Qiangic languages where directional prefixes also tend to have a limited set of central or back unrounded vowels (in Japhug -m and -v, Jacques 2008a:244-5). Data from Pumi¹² show a good correlation between the -ja in Tangut and -a in Pumi and between -ji in Tangut and -o in Pumi:

<table>
<thead>
<tr>
<th>Tangut</th>
<th>Pumi</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>頭 nja¹</td>
<td>ts-</td>
<td>down</td>
</tr>
<tr>
<td>頭 kho-</td>
<td>no-</td>
<td>in</td>
</tr>
<tr>
<td>頭 ks-</td>
<td>in</td>
<td>out</td>
</tr>
<tr>
<td>頭 dji²</td>
<td>da-</td>
<td>cislocative</td>
</tr>
<tr>
<td>頭 dji³</td>
<td>tha-</td>
<td>translocative</td>
</tr>
</tbody>
</table>

Table 5: Comparison of Tangut and Pumi directional prefixes.

These data are not compelling enough to prove that the directional system of Pumi and Tangut share the same origin (though this possibility should still be considered), but show that the process of phonological attrition took place in a similar manner in these two languages. Phonological attrition is more easily explained as a consequence of grammaticalisation and agglutination to the verb stem.

Another piece of evidence comes from series 2 directional prefixes, which all have the rime -jir. This fact can be explained as the result of the fusion of the directional morpheme with a modal element which, unlike the three others 軟 lji¹, 軟 tchji¹ and 軟 tsji¹, was not maintained as a distinct syllable.¹³ This fusion would not be expected if both directional and modal morphemes were just clitics.

Vowel attrition and morpheme fusion are strong arguments in favor of analyzing directional and modal morphemes as prefixes.

8. CONCLUSION

In this paper, I have proposed that in the Tangut verb, prefixes occur in a fixed prefocal chain which can be aptly described as a template, typologically similar in structure to the Rgyalrong verb. Apparent deviations from this template were shown to be either caused by object incorporation, insertion of a different verbal prefix or simply a case of jiajie whereby a character normally used to transcribe a directional prefix is used to transcribe an unrelated syllable. I also suggest the need of a special slot for modal prefixes. The complete verbal template (without detailing all suffixes and vowel alternation) is the following:

<table>
<thead>
<tr>
<th>Directional/Interrogative</th>
<th>Negation</th>
<th>modal</th>
<th>Incorporated noun</th>
<th>verb root</th>
<th>suffixes</th>
</tr>
</thead>
<tbody>
<tr>
<td>軟 lji¹</td>
<td></td>
<td>軟 tchji¹</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
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<td>軟 mjir¹</td>
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Directional prefixes were already fully attached to the verb root in Tangut, and could not appear outside of this template. Nouns could be incorporated into the verbal complex, as in Rgyalrong, and example (20) shows that incorporated nouns were placed between modal prefixes and the verb root. The only prefix that can appear in two distinct positions in the concessive 虽 lji’, which in some examples such as (19) appears before all other prefixes, and in other examples appears inside the verbal template. Further research will be needed to account for this phenomenon.

NOTES

1. I wish to thank Anton Antonov, Katia Chirikova, Nathan Hill, Randy J. Lapolla, Lin Yingchin, Alexis Michaud, Vyacheslav Zaytsev and one anonymous reviewer for valuable comments and corrections on former versions of this article. All of the above are absolved from responsibility for any error in this article. The glosses in this paper generally follow the Leipzig Glossing Rules, except for the following: CONJ (conjunction), CONSCV (concessive), CONST (constative), DIR1 (directional prefix of the first series), DIR2 (directional prefix of the second series), GENR (generic), PROHIB (prohibitive). Fieldwork on Pumi was funded by the PASQI project (Phylogenetic Assessment of Southern Qiangic) from the Agence Nationale de la Recherche (France), headed by Ekaterina Chirikova.

2. Some languages with complex verbal morphology have a morphological structure that does not allow an analysis in terms of a template (for instance Siouan, see Rankin et al. 2002:186,190). Nevertheless, as far as Qiangic languages are concerned, we found no counterevidence up to now that such an analysis is possible.

3. All Tangut examples in this paper contain Tangut characters, the reference number of each character from Li (1997)'s dictionary, Gong (2002)'s reconstruction and a gloss in English. Numbers in square brackets [1] and [2] respectively indicate the first or second stem in verbs with vowel alternation (see Gong 2001 and Jacques 2009).

4. The main Tangut texts used in the present article are the 'Newly gathered notes on Maternal Love and Filial Piety', abbreviated as Cixiao (Jacques 2007) and the 'Grove of categories' abbreviated as 'Lelin' (Shi et al. 1990).

5. Other functions of the characters used to transcribe directional morphemes unrelated to the verbal system are not discussed here, such as 哎 a- as a numeral prefix and 爱 爱 as a conjunction.

6. Shixing is perhaps an exception, see Chirikova (2009).

7. The meaning of this sentence is not entirely clear. The translation given here is only provisional.

8. This example shows agreement suffixes on noun directly without a copula. This phenomenon was first mentioned in Jacques (2008b).

9. The translation of this sentence is provisional. In any case, the second person singular cannot be the agent of the second verb ('you put my topknot'), otherwise the verb should be 修 tjo’.

10. The existence of this phenomenon was first mentioned by Ma (1987), though he did not analyze it as incorporation. Unfortunately, this reference was not accessible to me.

11. The word peotu’s ‘paper money’ comes from the colloquial Chinese piaozi 票子.

12. Data from our fieldnotes on the Pumi dialect of Shuiluo, Muli, Sichuan.

13. The origin of this modal element is unknown. The rhyme –jij can be either from proto-Tangut *-jan or from *-jej.

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