Perfective stem renovation in Khalong Tibetan*

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1. Introduction

This paper presents preliminary findings on an unusual area of inflectional verb morphology in Khalong, a previously undescribed form of Tibetan spoken in a remote corner of Sichuan, as part of our continued efforts to investigate and document the minor Tibetan dialects distributed in that province (J. T.-S. Sun 2003a, 2003b, 2006; Lin 2002; J. T.-S. Sun and Lin 2002).

Khalong Tibetan is spoken along a section of the Dùkē (WT *<rdo.khog.chu>*[1]) River from Élā Village of Gāngmùdá Township to Khǎlóng (*kʰaloŋ <kha.long>*) Village of Wúyī (*vəxʒi*) Township, in central Rǎngtáng County of Aba Prefecture in Sichuan. For lack of a better term, I shall refer to this Tibetan dialect as Khalong after the name of the village my consultant comes from. There is widespread bilingualism at Khalong Village, where in addition to this form of Tibetan people also speak as a second language the Dàshígōu (*tɐrkəʔ*) variety of Showu rGyalrong,[2] the major indigenous tongue of Wuyi and Shílǐ townships in Rangtang County.

The position of Khalong among modern Tibetan dialects is not yet completely clear. Despite the general resemblance between Khalong and Amdo, the dominant Tibetan dialect in Aba Prefecture, Khalong preserves certain archaic phonological features not found in any known variety of Amdo, such as the distinction between the two liquid consonants at both prefixal (e.g. *lŋa <lnga>* 'five' vs. *rŋa <rnga>* 'drum') and coda positions (e.g. *m̥kʰalma <mkhal.ma>* 'kidney' vs. *m̥kʰar <mkhar>* 'stone watch tower'), and is moreover quite difficult to understand for Amdo speakers.[3] The aberrance of Khalong can be attributed in part to a Showu rGyalrong substratum, as evidenced by many Khalong terms for native plants, animals, and certain verbs with highly specific meanings[4] which are unrelated to Tibetan but clearly akin to the corresponding Showu rGyalrong words. For example:

(1)	Khalong	Showu[5]	Written Tibetan
	ɣoze 'fly (insect)'	*ɣozē*	*<sbrang.bu>*
	pəku 'owl'	*pə́ku*	*<'ug.pa>*
	rtili 'weasel'	*rtilīk*	*<sre.mong>*
	qʰale 'thrush (bird)'	*qʰɐlē*	*<'jol.mo>*
	qa 'wheat'	*qē*	*<gro>*
	rale 'turnip tuber'	*rɐlē*	*<nyung.ma>*
	sa-ʁloq 'badger'[6]	*ʁlōχ* 'to dig'	*<brum.pa>*

Another noteworthy Khalong deviation from the typical Amdo phonological system is the distribution of the high front vowels *i* and *e*. Khalong shares with Amdo Tibetan important sound changes which on the one hand altered the quality of Old Tibetan[7] **-i-* rhymes, turning the vowel in most such rhymes to *ə* and, on the other hand, merged the Old Tibetan rhymes **-ek- <eg>* with **-ak- <ag>* (into Khalong *əχ*) and **-eŋ <eng>* with **-aŋ <ang>* (into Khalong *əŋ*). Contrary to what one might expect, however, the inventory of Khalong phonology still contains rhymes the origins of which should have been obliterated by the above-mentioned sound changes, including *-eχ*, *-eŋ*, and all kinds of closed rhymes with the modern vowel *-i-*. Without exception, all such "mysterious" rhymes result from ablaut in the formation of perfective verb stems. This morphologically-based phonological aberrance, therefore, requires an explanation.

In what follows, I will show that this important characteristic of the Khalong dialect may again be due to rGyalrong substratal influence. Specifically, I will argue that the phenomenon at hand, namely innovative ablaut utilized to form perfective verb stems, represents a fascinating example of contact-induced morphological change inspired by Showu rGyalrong ablaut of similar vowel grades and function.

The remainder of the introductory section provides a brief summary of synchronic Khalong phonology (§ 1.1) and a summary of Khalong verb-stem alternations (§ 1.2). Section 2 is devoted to examining the origins of modern Khalong imperfective stems, which more often than not came from erstwhile perfective stems. The innovative ablaut patterns which created secondary perfective stems out of the new imperfective stems are introduced in Section 3, followed by a discussion of the extent of their applicability beyond the requirements of remedial morphology in Section 4. In the ensuing section, I set forth two probable affinities between modification by ablaut in the formation of the Khalong perfective stem and the functionally parallel second stem in Showu rGyalrong. The concluding section wraps up the findings of this study and supplies further exemplification of probable

Qiangic morphological features imported into other Tibetan dialects in close contact with Qiangic languages.

1.1. Phonological summary

The structure of the Khalong syllable in Khalong is $C^1C^2VC^3$. The segmental inventory includes fifty-seven consonants and six vowels. The (initial) consonantal phonemes are:

(2)

p	*t*	*ʦ*	*ʈ*	*c*	*ʧ*	*k*	*q*
ⁿpʰ	*ⁿtʰ*	*ⁿʦʰ*		*ⁿcʰ*	*ⁿʧʰ*	*ⁿkʰ*	
pʰ	*tʰ*	*ʦʰ*	*ʈʰ*	*cʰ*	*ʧʰ*	*kʰ*	*qʰ*
b	*d*	*ʣ*		*ɟ*	*ʤ*	*g*	
ⁿb	*ⁿd*	*ⁿʣ*	*ⁿɖʐ*	*ⁿɟ*	*ⁿʤ*	*ⁿg*	
f	*s*		*ʂ*		*ʃ*	*x*	*χ*
v	*z*				*ʒ*	*ɣ*	
m	*n*			*ɲ*		*ŋ*	
m̥	*n̥*			*ɲ̊*		*ŋ̊*	
	r						
	l						
	l̥						
				j			

Nine consonants (*p*, *m*, *t*, *n*, *x*, *ŋ*, *χ*, *r*, *l*) may occur at the syllable-coda position. Notably, the uvular coda *χ* contrasts with the velar coda *x* after the vowel *ə*. There are six vowel phonemes (*a*, *i*, *u*, *e*, *o*, *ə*). Khalong phonotactics permits a good many two-member complex onsets, but no vowel clusters at all.[8]

No distinctive use is made of such suprasegmental features as vowel length, nasalization, or tone. Pitch modulations play no role even at the allophonic level. The disyllabic words *kava* 'pillar' and *ʒaʒi* 'child', for example, are pronounced [$ka^{55}va^{53}$] and [$ʒa^{55}ʒi^{53}$] respectively, with high pitch on both syllables, although the final syllables are slightly more stressed. With affixed words, the stress falls predictably on the stem.[9]

1.2. Verb-stem alternations

The majority of Khalong verbs exhibit stem alternations. A maximum of three stems is formally distinguished: imperfective [IMPFV], perfective [PFV], and imperative [IMP]. For verbs that show two distinct stems, the

non-imperfective stem may serve perfective, imperative, or both perfective and imperative functions. These distributional possibilities are illustrated below:

(3) Three-stem verbs

IMPFV	PFV	IMP	
rɟap	*vɟep*	*rɟop*	'to beat'
fkol	*fkel*	*rkol*	'to boil (liquid)'

(4) Two-stem verbs

a.	IMPFV/IMP	PFV	
	ⁿtʰu	*ⁿtʰi*	'to drink'
	ⁿbot	*ⁿbet*	'to call'
b.	IMPFV/PFV	IMP	
	le	*ci*	'to do; to make'
c.	IMPFV	PFV/IMP	
	ɲu	*ɲe*	'to buy'
	ŋə	*ŋi*	'to weep'

2. The imperfective stem

A number of alternating Khalong verbs have retained the original imperfective stems, including 'to weep' and 'to butcher':

(5) a. 'to weep'

IMPFV	*ŋə* (WT [IMPFV] <*ngu*>)
PFV/IMP	*ŋi* (WT [PFV/IMP] <*ngus*>)

b. 'to butcher'

IMPFV	*ffa* (WT [IMPFV] <*bsha'*>)
PFV	*ffe* (WT [PFV] <*bshas*>)
IMP	*ʃe*[10]

However, direct preservation of the original imperfective stems is quite uncommon. As has also been noted elsewhere among modern Tibetan dialects (Jäschke 1954; Chang and Chang 1982; Qu 1985: 14), the spoken Khalong imperfective stems frequently trace back to Written Tibetan perfective stems. Examples of Khalong imperfective stems deriving from perfective stems are:

(6) a. 'to laugh'

IMPFV	*vgat* (WT [PFV] <*bgad*>)
PFV	*vget* (innovated)
IMP	*rgot* (WT [IMP] <*dgod*>)

b. 'to break [VT] (sth. stiff)'

IMPFV	*ʧəχ* (WT [PFV] <*bcag*>)
PFV	*ʧiχ* (innovated)
IMP	*ʧʰoχ* (WT [IMP] <*chog*>)

c. 'to break [VT] (sth. soft and pliable)'

IMPFV	*ʧat* (WT [PFV] <*bcad*>)
PFV	*ʧet* (innovated)
IMP	*ʧʰot* (WT [IMP] <*chod*>)

The following sets exemplify the other less common sources of Khalong imperfective stems, namely Written Tibetan future (7) and imperative (8) stems:

(7) a. 'to string (beads)'

IMPFV	*vʃə* (WT [FUT] <*brgyu*>)
PFV	*vʃi* (WT [PFV] <*brgyus*>)
IMP	*rʃi* (WT [IMP] <*rgyus*>)

b. 'to boil (solid food)'

IMPFV	*ptsu* (WT [FUT] <*btso*>)
PFV	*ptse* (WT [PFV] <*btsos*>)
IMP	*tsʰe* (WT [IMP] <*tshos*>)

(8) a. 'to drive (cattle)'

IMPFV	*tet* (WT [IMP] <*ded*>)[11]
PFV	*tit* (innovated)
IMP	*tet* (WT [IMP] <*ded*>)

b. 'to scratch (to stop an itch)'

IMPFV	*ptʂʰəx* (WT [IMP] <*phrug*>)[12]
PFV	*ptʂʰix* (innovated)
IMP	*tʂʰəx* (innovated)

In a number of cases, the new imperfective stems are hybrid forms based on Written Tibetan imperfective and perfective stems, as shown by:

(9) 'to accumulate'

IMPFV	*fsoχ* (mixture of WT [IMPFV] <*gsog*> and [PFV] <*bsags*>)
PFV	*fseχ* (innovated)
IMP	*soχ* (WT [IMP] <*sog*>)

The imperfective of 'to accumulate' *fsoχ* goes back to a proto-form with the initial of the WT perfective stem (*bs-*) and the rhyme of the WT imperfective stem (*-og*). Similar examples of compromise forms are:

(10) a. 'to dredge'

IMPFV	*χʃəŋ* (mixture of WT [IMPFV] <*gshong*> and [PFV] <*bshangs*>)
PFV	*χʃiŋ* (innovated)
IMP	*χʃoŋ* (innovated)

b. 'to reach for sth.'

IMPFV	*rɲ̊ap* (mixture of WT [IMPFV] <*snyob*> and [PFV] <*bsnyabs*>)
PFV	*rɲ̊ep* (innovated)
IMP	*rɲ̊op* (WT [IMP] <*snyobs*>)

In the Lhasa dialect, for example, the usurpation of the original imperfective stem by the future or perfective stems normally resulted in merger in favor of the perfective stem. Remarkably, Khalong generally preserved the perfectivity distinction in the verb stems by applying remedial morphology, the subject of the ensuing section.

3. The new perfective stem

For Khalong verbs that lost the original imperfective stems through stem usurpation, secondary perfective stems were created out of the new imperfective stems by means of ablaut. Taking for example the verb 'to laugh' again, ablaut turned the stem vowel *a* of the new imperfective stem *vgat* [IMPFV] into *e*, yielding *vget* [PFV]. The ablaut pattern *a* → *e*, which operates on the input stem vowel *a*, accounts for many alternating verbs in Khalong. Two more examples follow:

(11) a. 'to seek'

IMPFV	*ptsal* (WT [PFV] <*btsal*>)
PFV	*ptsel* (innovated)
IMP	*ts^{h}ol* (WT <*tshol*>)

b. 'to shave'

IMPFV	*vʒar* (WT [PFV] <*bzhar*>)
PFV	*vʒer* (innovated)
IMP	*vʒor* (WT <*bzhor*>)

It turns out upon further examination of the data that other ablaut patterns are required by different input stem vowels:

ablaut: *i* → *e*

(12) a. 'to do'

IMPFV	*pci*[13]
PFV	*pce*
IMP	*c^{h}i*

b. 'to open sth.'

IMPFV	*ffi* (WT [PFV] <*phye*>)
PFV	*ffe* (innovated)
IMP	*fe* (innovated)

ablaut: *u* → *i*

(13) a. 'to sell'

IMPFV	*ptsu* (WT [PFV] <*btsongs*>)
PFV	*ptsi* (innovated)
IMP	*ts^{h}i* (innovated)

b. 'to make (dresses); tailor'

IMPFV	*vzu* (WT <*bzo*>)[14]
PFV	*vzi* (innovated)
IMP	*rzi* (innovated)

ablaut: *u* → *e*

(14) a. 'to boil (solid food)'

IMPFV	*ptsu* (WT [FUT] <*btso*>)
PFV	*ptse* (WT [PFV] <*btsos*>)
IMP	*ts^{h}e* (WT [IMP] <*tshos*>)

b. 'to herd'

IMPFV	*ⁿʦʰu* (WT [IMPFV] <*'tsho*>)
PFV	*ⁿʦʰe* (WT [PFV] <*'tshos*>)
IMP	*ⁿʦʰe* (WT [IMP] <*'tshos*>)

ablaut: *e* → *i*

(15) a. 'to chase'[15]

IMPFV	*χɲet*
PFV	*χɲit*
IMP	*χɲot*

b. 'to drive (cattle)'

IMPFV	*tet* (WT [IMP] <*ded*>)
PFV	*tit* (innovated)
IMP	*tet* (WT [IMP] <*ded*>)

ablaut: *o* → *e*

(16) a. 'to boil (liquid)'

IMPFV	*fkol* (WT [PFV] <*bskol*>)
PFV	*fkel* (innovated)
IMP	*rkol* (WT [IMP] <*skol*>)

b. 'to accumulate'

IMPFV	*fsoχ* (cf. WT [IMPFV] <*gsog*> and [PFV] *bsags*)
PFV	*fseχ* (innovated)
IMP	*soχ* (WT [IMP] <*sog*>)

ablaut: *ə* → *i*[16]

(17) a. 'to roll sth.'

IMPFV	*ʈʂəl* (WT [PFV] <*dril*>)
PFV	*ʈʂil* (innovated)
IMP	*ʈʂʰəl* (innovated)

b. 'to pour (into container)'

IMPFV	*vləx* (WT <*blug*>)
PFV	*vlix* (innovated)
IMP	*ləx* (innovated)[17]

These ablaut patterns are summed up as follows:

Table 1. Perfective-stem ablaut in Khalong Tibetan

Input vocalism	Ablauted vocalism
a	*e*
i	*e*
o	*e*
u (WT <*o*>)	*e*
u	*i*
e	*i*
ə	*i*

It will be observed that Khalong perfective-stem ablauting consistently yields front unrounded vowels; moreover, after ablaut the input vocalisms *i* and *e* become interchanged.

4. Extended applicability of perfective-stem ablaut

The ablaut patterns uncovered in the foregoing section are innovative not only in that they created novel stems out of old sources, but also in that their application exceeds the requirements of remedial morphology. As shown above, innovative ablaut served mainly to replace verb forms lost in the paradigm through stem usurpation. However, sometimes ablaut itself became accountable for stem usurpation, causing replacement of readily available perfective stems. Consider for example the stems of the verbs 'to rub' and 'to spin (yarn)', where new ablauted perfective stems took the place of the proper reflexes of the original perfective stems <*phur*> and <*bkal*>:

(18) a. 'to rub'

IMPFV	*ⁿpʰər* (WT [IMPFV] <*'phur*>)
PFV	*ⁿpʰir* (innovated)

b. 'to spin (yarn)'

IMPFV	*ⁿkʰal* (WT [IMPFV] <*'khal*>)
PFV	*ⁿkʰel* (innovated)
IMP	*ⁿkʰol* (WT [IMP] <*'khol*>)

Although far from being completely productive, innovative verb-stem ablaut has in many cases extended its domain and created multi-stem verbs out of originally invariant ones. Examples of this type include:

(19) a. 'to scatter'

IMPFV	*χtor* (WT <*gtor*>)
PFV	*χter* (innovated)

b. 'to pull'

IMPFV	*ⁿtʰen* (WT <*'then*>)
PFV	*ⁿtʰin* (innovated)
IMP	*ⁿtʰon* (innovated)

c. 'to recount'

IMPFV	*ffat* (WT <*bshad*>)
PFV	*ffet* (innovated)
IMP	*ffot* (innovated)

Moreover, certain Khalong verbs with alternating stems originated from nominal roots. Khalong, for instance, not only verbalized the Written Tibetan nominal roots <*pang*> 'lap; bosom', <*zhal.ba*> 'lime or mud for plastering walls', <*sbar*> 'claw', <*rogs*> 'helper; assistance', and <*'dan*> 'door bolt', but also subjected them to stem ablauting:

(20) a. 'to hold in arms'

IMPFV	*pəŋ* (WT <*pang*> 'lap; bosom')
PFV	*piŋ* (innovated)
IMP	*poŋ* (innovated)

b. 'to plaster (walls)'

IMPFV	*ʒal* (WT <*zhal*> 'lime or mud for plastering walls')
PFV	*ʒel* (innovated)
IMP	*ʒol* (innovated)

c. 'to scratch with claws'

IMPFV	*rvar* (WT <*sbar*> 'claw')
PFV	*rver* (innovated)
IMP	*rvor* (innovated)

d. 'to help'

IMPFV	*roχ* (WT <*rogs*> 'helper; assistance')
PFV	*reχ* (innovated)

e. 'to bolt (door)'

IMPFV	*ⁿdan* (WT <*'dan*> 'door bolt')
PFV	*ⁿden* (innovated)
IMP	*ⁿdon* (innovated)

As a further manifestation of its vitality, stem ablaut applies even to loanwords, one likely example being *χsər* 'to stir-fry', a borrowing from a rGyalrong invariant verb with the same meaning:

(21) 'to stir-fry'

IMPFV	*χsər* (< rGyalrong?)[18]
PFV	*χsir* (innovated)

5. Stem-two ablaut in Showu rGyalrong

In two recent studies (J. T.-S. Sun 2000a, 2000b), I proposed that rGyalrong, Lavrung, and Horpa-Shangzhai[19] comprise a distinct rGyalrongic subgroup based on evidence of shared idiosyncratic verb-stem formation rules of tone/glottality flip-flop and ablaut. The relevant verbal morphology reaches its acme of richness in the Showu subdialect of Sidaba rGyalrong, where a range of phonological processes is utilized in the formation of verb stems, including a complex system of ablaut. In the Zhongre variety of Showu,[20] for instance, many common verbs display stem alternations that involve different vowel grades, as in:

(22) a. 'to bake in hot ashes'

Stem 1	*pə̄*
Stem 2	*pʰū*
Stem 3	*pō*

b. 'to borrow'

Stem 1	*ɲŋè*
Stem 2	*ɲŋì*
Stem 3	*ɲŋē*

Across the rGyalrongic languages that still preserve verb-stem distinctions, stem 1 is the citation and present imperfective stem, stem 2 occurs among other things in perfective and imperfect verb forms,[21] whereas stem 3 is restricted to singular transitive nonpast contexts. Thus, the closest functional equivalent of the Khalong perfective stem would be stem 2 in Zhongre rGyalrong. The formation of stem 2 via ablaut in Zhongre involves extensive vocalic alternations, which can be summarized in the following table:

Table 2. Stem 1 – Stem 2 ablaut in Zhongre rGyalrong

Stem 1 vocalism	Stem 2 vocalism
ɐ; *ʌ*; *e*; *ə*	*i*
ʌ	*ɐ*
o; *ə*	*u*
i	*e*
u	*o*
ɐ; *i*; *o*	*ə*

Upon close inspection of table 2, two possible affinities between ablaut patterns marking the Khalong perfective stems and the Zhongre second stems become apparent.

First, while Khalong perfective-stem ablaut invariably produces front unrounded *i* or *e* vowel grades, the front unrounded vowel *i* is also the most common output in Zhongre stem 2 ablaut, with four input vowels potentially leading to the *i*-vocalism in stem 2, e.g.:

(23) a. 'to yawn'
Stem 1 *χèm*
Stem 2 *χìm*
b. 'to use'
Stem 1 *ⁿʧʰʌ̄*
Stem 2 *ⁿʧʰī*
c. 'to catch up with'
Stem 1 *lcʰèv*
Stem 2 *lcʰìv*
d. 'to empty out'
Stem 1 *cə̄*
Stem 2 *cʰī*

A second point of similarity has to do with the interaction of the vowels *i* and *e* such that in Zhongre, as in Khalong Tibetan, the ablauted output of *i*-grade is *e* and vice-versa:

(24) a. 'to approach'
Stem 1 *rnì*
Stem 2 *rnē*

b. 'to unload'
Stem 1 *vlɟē*
Stem 2 *vlɟì*

Furthermore, in the formally richer Zhongre system vocalic alternation by inversion is extended also to the vowel pair *u* and *o*, for example:

(25) a. 'to entrust'
Stem 1 *ʃù*
Stem 2 *ʃō*
b. 'to carry on back'
Stem 1 *fkòr*
Stem 2 *fk^{h}ūr*

6. Conclusions

Khalong presents an interesting case of a Tibetan dialect on the receiving end of deep-rooted influences from its immediate linguistic neighbor – Showu rGyalrong. The Showu substratum manifests itself in considerable lexical loans pertaining among other things to native plant and animal life and, above all, in Khalong verbal morphology. Contrary to the general tendency for verb-stem variation to atrophy among modern Tibetan dialects,[22] Khalong favors the preservation and even propagation of distinct verb stems; in consequence, the majority of Khalong verbs, particularly transitive volitional ones, participate in stem alternation. A comparison with Written Tibetan indicates that the original perfective stems frequently evolved into modern Khalong imperfective stems. While in the other Tibetan dialects stem replacement of this kind normally led to leveling of stem alternations, Khalong uniquely developed "remedial" ablauting, which replenished the paradigm with secondary perfective stems in *-i* or *-e* vowel grades. Striking affinities are noticeable between Khalong innovative perfective-stem ablaut and Showu rGyalrong stem-building ablaut of comparable form and function. In view of these and other morphosyntactic parallels with rGyalrong,[23] a case can be made out for perfective-stem ablaut in Khalong Tibetan as an extraordinary morphological change induced by intimate contact with rGyalrong.

Contact as a source of morphological change in Tibetan is certainly not limited to the Khalong dialect. Verbal orientation marking in Zhongu[24] and Gami[25] dialects provides another striking example. Written Tibetan spatial

deictic morphemes acquired the role of verbal prefixes in these dialects. Zhongu Tibetan has grammaticalized two imperative prefixes *zə-* and *mə-*, respectively from WT <*ya*> 'up' and WT <*ma*> 'down', probably under contact influence from the Qiang language spoken in its vicinity. Sentence (26) illustrates:

(26) $t^hər$ *(mə-/zə-)di*
downward IMP-sit:IMP
'Sit down!'

Though still functionally marginal, *zə-* and *mə-* are on their way of becoming specialized imperative markers. Their erstwhile spatial semantics eroded, they are now interchangeable and the 'downward' meaning must be supplied by the adverbial $t^hə́(rə)$ (WT <*thur.rol*>). In Gami Tibetan, on the other hand, grammaticalization of spatial morphemes to verbal orientation prefixes has been carried further, in that orientational prefixes are now obligatory with many verb roots and, moreover, are required on all imperative verb forms (Huang 1993a: 145–148), e.g.:

(27) $k^hσ^{55}$ $*(mæ^{13}\text{-})tsõ^{53}$
mouth IMP-shut
'Shut up!'

Direct importation of Qiang morphological form and function into Tibetan grammar may also be the origin of the hearsay evidential suffix *-ji* in Ren'entang Tibetan;[26] compare the following Ren'entang sentence meaning 'S/he is eating a meal.' and its equivalent in Northern Qiang:

(28) a. Ren'entang Tibetan (personal research)
$tə^htə$ $k^hɐ^ngu$ *zɐ-ji*
3S meal eat-HEARSAY
b. Northern Qiang (Huang 1993b: 163)
qupu *stuaχa* $t^hə$*-ji*
3S meal drink-HEARSAY

The powerful influences Tibetan has exerted on surrounding languages are well appreciated (e.g. Róna-Tas 1966). Contact-induced linguistic infiltration in the opposite direction, however, has not drawn an equal amount of scholarly attention. I hope to have shown that this would indeed be a very important and promising area of research.

Abbreviations

DAT	dative	ERG	ergative
FUT	future	IMP	imperative
IMPFV	imperfective	PFV	perfective
PRG	progressive	S	singular
WT	Written Tibetan		

Notes

* The data on which this paper is based were gathered in two recent field trips to Sichuan, funded in part by two National Science Council (Taiwan) grants. Thanks are due to the Taiwan Affairs Office of the Sichuan Provincial Government for their kind assistance and hospitality, and to my consultants Mínzhēn (*toŋmidzọn*, from Khalong Hamlet of Khalong Village in Wúyī Township), Jīngāsōng (from Zhongre Village in Ribu Township) and Yǎluò (from Mulang Village in Ribu Township) for their devoted cooperation. I also gratefully acknowledge the helpful comments and discussion provided by Roland Bielmeier, Felix Haller, Boyd Michailovsky, and Nicolas Tournadre.

1. Written Tibetan forms will be given in Wylie's standard transliteration, enclosed in angle brackets.
2. Showu (*foʁu*, a Caodeng exo-ethnonym referring to this kind of speech form), which I have previously called Ribu, is a widely distributed subdialect of Sidaba (one of the three major dialects of rGyalrong) spoken at Caodeng (Shazuo and Baoyan Villages only), Ribu (except the Amdo-speaking Ruogu Village) and Dawei townships in Ma'erkang County, Rong'an Township in Aba County, as well as Shili and Wuyi townships in Rangtang County.
3. My consultant Minzhen reports that Khalong is quite similar to the speech of Nánmùdá and Róngmùdá townships to the north along the Zéqū River.
4. Such as 'to stir-fry', 'to do sth. to excess', and 'to set out'.
5. The Showu words cited here represent the speech of Mulang (*ⁿbrēm*) Village in Ma'erkang County, a variety rather close to those spoken in Rangtang County. Showu distinguishes two tones in word-final accented syllables: level (v̄) and falling (v̀); phonemic accent is represented by the acute accent (v́).
6. Literally 'earth-dig'.
7. This term is used here rather vaguely to refer to the idealized spoken Tibetan language of the seventh century reflected by the Classical Tibetan orthography.

8. Written Tibetan vowel clusters were either fused (*ftşi <spre'u>* 'monkey') or reflected by disyllables (e.g. *ka-ɣə <ga'u>* 'charm box').
9. As shown in the sentence below:
   ʒaʒí-ki *pəram* *zá-ʃəjətu*
   child-ERG candy eat:IMPFV-PRG
   'The child is eating candy.'
10. This set illustrates innovative *subtractive* morphology which turned perfective stems into corresponding innovative imperative by removing the labial prefix *<b->*. See also set (8b) below.
11. In place of WT [IMPFV] *<'ded>*, cf. also WT [PFV] *<bdas>*, [FUT] *<bda'>*.
12. Cf. WT [IMPFV] *<'phrug>*.
13. Cf. WT *<bgyid – bgyis – bgyi – gyis>* 'to do'; the Khalong verb forms may be related variants containing voiceless onsets.
14. The verb means 'to build, to make' in WT.
15. The origin of this verb is unknown.
16. This ablaut pattern produces *-e-* instead of *-i-* if the input stem is closed by the codas *-ŋ* and *-χ*, in conformity with a phonotactic constraint in Khalong.
17. The Khalong imperative form preserves the original Old Tibetan root **lug* unprefixed with the prenasal **N-*.
18. Cf. Zhuokeji *kʰsər*; Caodeng *xsər*; Zhongre *xsər*; the word seems relatable to WT *<gsir>* 'to twist, to spin' (Boyd Michailovsky; personal communication). However, Tibetan ordinarily uses the verb *<rngo>* for the meaning 'to stir-fry'.
19. Instead of the cumbersome language name Horpa-Shangzhai, I now propose the simpler term *Horpa*.
20. Spoken at Zhongre *(tşoŋrè)* Village of Ribu Township in Ma'erkang County. Unlike in the other Sidaba subdialect Caodeng, Showu does not oppose the past *versus* non-past stems straightforwardly by glottality inversion. The differences between the stems are much more complicated, see Sun (2004) for details.
21. In my earlier work, this stem is termed the past stem. Since it also occurs in progressive verb forms and oblique participant nominalizations, it is perhaps less confusing to label it simply as Stem 2.
22. For a useful survey, see Qu (1985).
23. Another suspected rGyalrong structural influence on Khalong verbal morphology is the syncretism of indirect evidential and mirative markings. While Amdo Tibetan generally maintains a formal distinction, Khalong Tibetan, like rGyalrong, expresses both epistemological meanings via a single mediative suffix; contrast:
   Amdo (*Mdzod.dge Byams.me;* personal research)
   ʃaji-ɣə *ʰmen* *ⁿtʰoŋ-zəɣ*
   child-ERG medicine drink:PFV-INDIRECT EVIDENTIAL
   '(I found out/heard that) the child drank the medicine.'

ŋa *^{h}ŋu* *jod-^{h}kə*
1S:DAT money exist-MIRATIVE
'So I have money!'
Khalong
ʒaʒi-ki *rm̥an* *^{n}t^{h}i-ʃə*
child-ERG medicine drink:PFV-MEDIATIVE
'(I found out/heard that) the child drank the medicine.'
ŋa-la *kormu* *jo-ʃə*
1S-DAT money exist-MEDIATIVE
'So I have money!'

24. Zhongu (personal research) is a newly discovered Tibetan dialect spoken at Zhongu Valley in Songpan County of northern Sichuan. For a phonological and lexical synopsis, see J. T.-S. Sun (2003a).
25. Gami is a variety of Tibetan of Muli County in Sichuan Province, where a number of Qiangic languages are also found. Data on Gami are from Huang (1993a).
26. Ren'entang (personal research) is another distinct form of Tibetan found in the Tibetan-Qiang borderland.

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