

Affricate series in Jintang Tibetan (Darmdo Municipality, Sichuan)

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[Abstract] This article primarily explores allophonic variation of the affricate series in two dialects (Changxu and Lianghekou) of Jintang Tibetan, spoken in Darmdo Municipality, Kandze Tibetan Autonomous Prefecture, Sichuan Province, China. The target language possesses different affricate series: tripartite (denti-alveolar, denti-postalveolar, and prepalatal) in Changxu and bipartite (denti-alveolar and prepalatal) in Lianghekou. However, we find at least five sorts of affricate sounds (denti-alveolar, denti-postalveolar, postalveolar, prepalatal, and palatal) in Lianghekou. The article discusses the sound correspondences of the affricate series between the two dialects as well as between them and Literary Tibetan. The results show that the Lianghekou dialect's allophonic forms reflect different origins in Literary Tibetan that have merged into two phonemic series.¹

[Keywords] Tibetic; Tibeto-Burman; affricate; allophone; sound correspondence

1 Introduction

This article examines the affricate series attested in two dialects of Jintang Tibetan, a Tibetic language spoken in Darmdo (Kangding) Municipality, Kandze Tibetan Autonomous Prefecture, Sichuan Province, China. This language has not received attention in academia so far and hence remains undescribed.

1.1 Tibetans' languages in Dartsendo Municipality

Since Fei's (1980) notice on the 'Ethnic Corridor' in West Sichuan, ethnic diversity within Darmdo Municipality has received attention by many scholars. Sun (1983) is one of the pioneer works on a linguistic description of non-Tibetic languages in the Ethnic Corridor. Currently at least eight Tibetans' languages are found in Darmdo Municipality:

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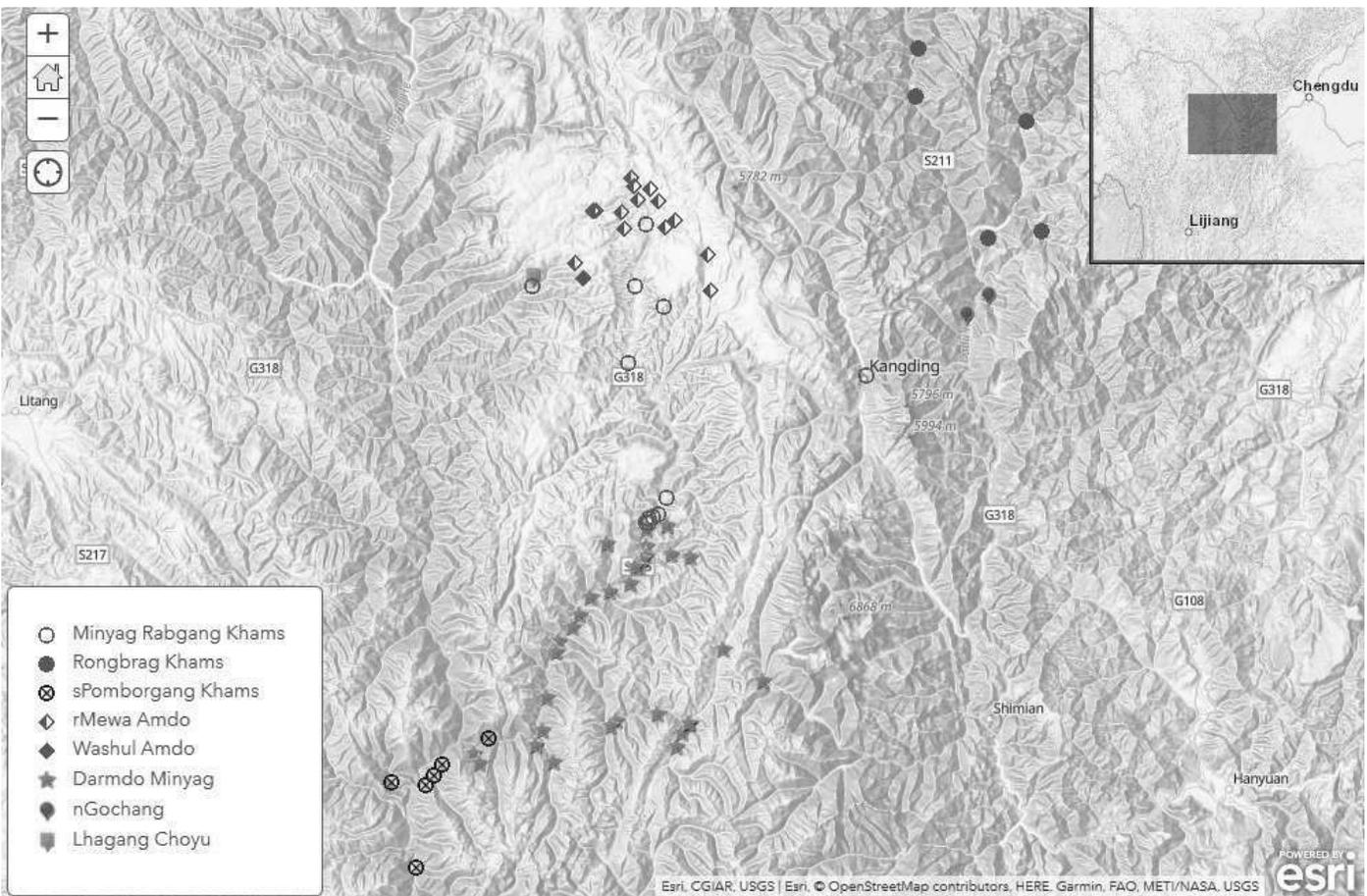
- Minyag Rabgang Khams (Tibetic): see Suzuki (2007c), Suzuki and Sonam Wangmo (2015abc, 2017), rTa-mgrin lHa-mo (2020)
- Rongbrag Khams (Tibetic): see Suzuki (2019, forthcoming)
- sPomborgang Khams (Tibetic): see Suzuki (2018), Li and Suzuki (2020)
- rMewa Amdo (Tibetic): see Suzuki (2015a), Suzuki and Sonam Wangmo (2019b)
- Washul Amdo (Tibetic): see Suzuki and Sonam Wangmo (2016b, 2019b)
- Darmdo Minyag (Qiangic): see Huang (1985, 2009), Ikeda (2006), Gao (2015), Dawa Drolma and Suzuki (2016), Dawa Drolma (2020)
- nGochang (Qiangic): see Sun (1983), Song (2011), Jiang (2015), Rao (2015), Roche and Yudru Tsomu (2018)
- Lhagang Choyu (Qiangic): see Suzuki and Sonam Wangmo (2016a, 2017, 2019a)

Additionally, among the languages spoken in Darmdo Municipality is the local Chinese variety (Sichuanese), which functions as a lingua franca everywhere in the city (Dartsendo; Lucheng Town) and town-centres, especially in the eastern area of the municipality. See Suzuki and Sonam Wangmo (2015b) for details.

Map 1 shows the location of each language mentioned above within Darmdo Municipality; see also Roche and Suzuki (2017) for an exhaustive map of non-Tibetic Tibeto-Burman languages in the eastern Tibetosphere (including Darmdo Municipality), and for Tibetic languages, see Suzuki (2009a) and Tournadre (2014), as well as Tournadre and Suzuki (forthcoming).

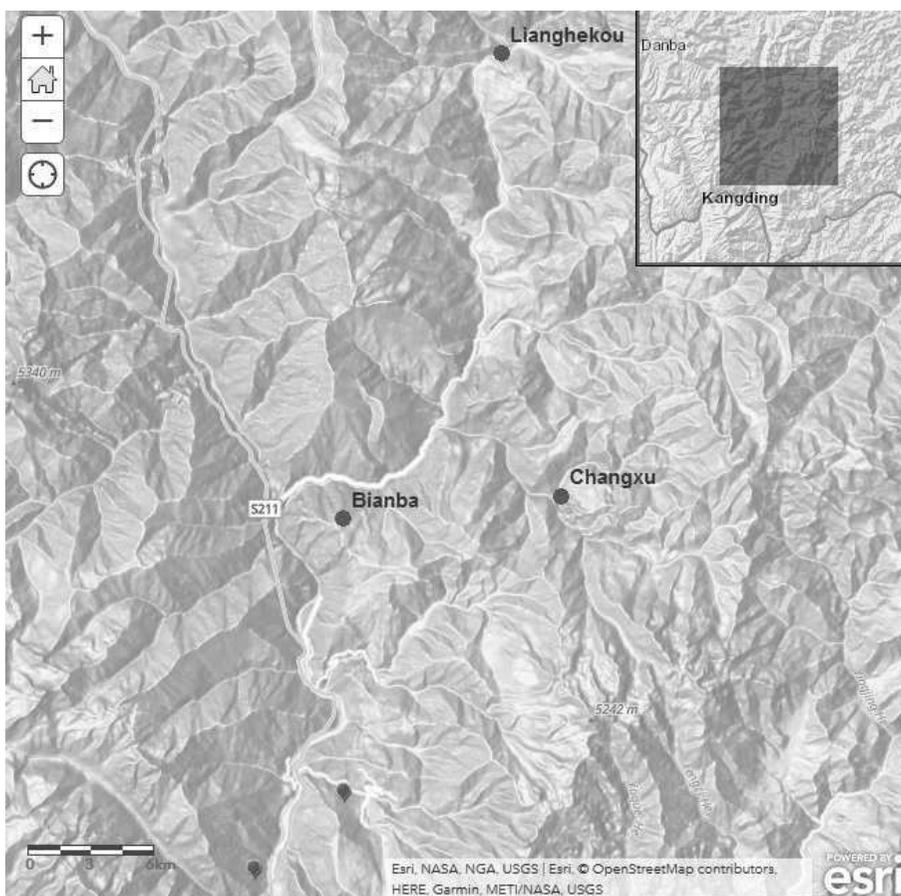
Suzuki (2019) reports that Jintang Tibetan belongs to Rongbrag Khams; however, specific examples to support his claim are not given. The principal dialects of Rongbrag Khams have often been called ‘Twenty-Four Villages’ Patois’ (Suzuki 2011), spoken in the south-eastern area of Rongbrag (Danba) County. The language area of Rongbrag Tibetan in Darmdo County is geographically connected to that in Rongbrag County, along the Daduhe [rGyal-mo rNgul-chu] River. Rongbrag Khams itself is one of the lesser-known dialect groups.

Jintang is a toponym of the area along the Jintanghe River, a tributary of the Daduhe River. There are three townships located along the Jintanghe River: Pengta, Jintang, and



Map 1: Language distribution in Darmdo Municipality.

Sanhe (Map 2); see *Kangding Xianzhi* (2000) for details. The origin of these toponyms has not been well investigated. As it is likely that the toponym Jintang originated from Chinese, we use pinyin to name the target dialects.



Map 2: Jintang area and research sites.

We have recorded three varieties from this area, namely, Changxu, Bianba, and Lianghekou. Changxu and Bianba are hamlets affiliated with Sanhe Township, whereas Lianghekou is a hamlet affiliated with Pengta Township. According to local Tibetans, their Tibetan varieties are mutually intelligible; however, many of them now speak the local variety of Sichuanese instead of Tibetan, and thus the number of native speakers of the local Tibetan language is gradually decreasing. Note that a partial region of Sanhe Township has belonged to the nGochang-speaking area, in which Yang et al. (1994:127) mention

Bianba Village. However, we have not confirmed the existence of nGochang speakers in that village.

A descriptive study of Jintang Tibetan might prove key to a philological study of the series of *Xifan(guan) Yiyu*, a bilingual vocabulary of Chinese and Tibetan languages compiled in the Ming and Qing dynasties (see Nishida 1963, 1970; Nishida and Sun 1990; Suzuki 2007ab, 2009b, 2015b). Jintang Tibetan is a variety spoken in the area closest to the region where the *Muping Yiyu (Chuan 6)* was recorded in the eighteenth century (present Baoxing County, east of Jintang). Suzuki (2007ab), a study of this vocabulary, concludes that the recorded language is close to Rongbrag Tibetan, which is in fact the dialect group to which Jintang Tibetan belongs. Therefore, elucidating the linguistic features of Jintang Tibetan holds the possibility of tracing the linguistic status recorded in the eighteenth century.

1.2 Content and methodology of the article

We have already conducted a preliminary analysis of the dialects of Changxu and Lianghekou through fieldwork, and we have found notable phenomena in their affricate series, for example, the existence of denti-postalveolar² affricates as phonemes and a tripartite distinction among denti-alveolar, denti-postalveolar, and prepalatal. The ‘denti-postalveolar’ articulatory manner is idiosyncratic in Tibetic languages. However, since we did not have the opportunity to examine it experimentally, we do not treat its phonetic characteristics (see Section 2 for our definition of ‘denti-postalveolar’). Instead, we will explore two issues:

- the sound correspondences of these affricates between the two dialects
- the sound correspondences of these affricates between the dialects and Literary Tibetan

The first task is a synchronic phonological analysis, and the second a diachronic phonological analysis following the methodology of Tibetan linguistics (see Nishida 1970). The article primarily focuses on a contrast in the sound system and phonetic variation in the two varieties, and we do not discuss any specific phonological analyses, although we will explain the distribution of their allophones in each dialect and their correspondences in the two dialects.

²The articulatory position ‘denti-postalveolar’ is typologically rare. We make a brief description of the articulatory manner in Section 2. See also Suzuki (forthcoming).

The methodology of the description of the sound system is as follows. The sound system consists of four parts: syllable structure, consonantism, vocalism, and suprasegmentals. The method for displaying the syllable structure follows Suzuki (2005). The description of segmental sounds follows the framework by Zhu (2010) as well as Suzuki (2016), including IPA (International Phonetic Alphabet) symbols and additional indispensable phonetic symbols employed in Chinese linguistics. The analysis of suprasegmental sounds follows Kitamura (1977), with a necessary expansion. Note that the description is restricted in the data that we were able to obtain. A full phonological analysis is left for future studies.

Syllable structure

The maximum syllable structure of both the Changxu and Lianghekou dialects is summarised as ^CCGVC, where ^C is a preinitial, C is a main initial, G is a glide including /w, j, r/, and V is a nucleus, that is, a vowel. C at a final position is restricted to /ʔ, w, j/. CV is a minimum, indispensable unit of a syllable.

Consonantism

Table 1 (Changxu) and Table 2 (Lianghekou) display the initial simplex sounds.

Table 1: Consonants of the Changxu dialect.

| | | A | B | C | D | E | F | G | H | I |
|------------|---------------|----------------|-----------------|------------------|----------------|------------------|---|----------------|---|----|
| plosive | aspirated | p ^h | t ^h | | t ^h | | | k ^h | | |
| | non-aspirated | p | t | | t̚ | | | k | | ʔ |
| | voiced | b | d | | d̚ | | | g | | |
| affricate | aspirated | | ts ^h | t͡s ^h | | t͡ʃ ^h | | | | |
| | non-aspirated | | ts | t͡s̚ | | t͡ʃ | | | | |
| | voiced | | dz | d͡z̚ | | d͡ʒ | | | | |
| fricative | aspirated | | s ^h | ʃ ^h | | | | x ^h | | |
| | voiceless | | s | ʃ̚ | | | | | | h |
| | voiced | | z | ʒ̚ | | | | | | f̥ |
| nasal | voiced | m | n | | | ɲ | | ŋ | | |
| | voiceless | m̚ | n̚ | | | ɲ̚ | | ŋ̚ | | |
| liquid | voiced | | l | | r | | | | | |
| | voiceless | | l̚ | | | | | | | |
| semi-vowel | voiced | w | | | | | j | | | |

Table 2: Consonants of the Lianghekou dialect.

| | | A | B | C | D | E | F | G | H | I |
|------------|---------------|----------------|-----------------|---|----------------|-----------------|---|----------------|----------------|---|
| plosive | aspirated | p ^h | t ^h | | t ^h | | | k ^h | q ^h | |
| | non-aspirated | p | t | | t̚ | | | k | q | ʔ |
| | voiced | b | d | | d̚ | | | g | ɣ | |
| affricate | aspirated | | ts ^h | | | tɕ ^h | | | | |
| | non-aspirated | | ts | | | tɕ | | | | |
| | voiced | | dz | | | dʒ | | | | |
| fricative | aspirated | | s ^h | | | ɕ ^h | | | | |
| | voiceless | | s | | | ɕ | | x | | h |
| | voiced | | z | | | ʒ | | | | ɦ |
| nasal | voiced | m | n | | ɳ | | | ŋ | | ɴ |
| | voiceless | m̥ | n̥ | | ɳ̥ | | | ŋ̥ | | |
| liquid | voiced | | l | | r | | | | | |
| | voiceless | | l̥ | | | | | | | |
| semi-vowel | voiced | w | | | | | | j | | |

N.B. A: bilabial; B: denti-alveolar; C: denti-postalveolar; D: retroflex; E: prepalatal; F: palatal; G: velar; H: uvular; I: glottal

Vocalism

Both dialects have the 12 vowel articulations shown in Table 3; each vowel also has the distinctions of nasality (plain and nasalised) and length (short and long). A few retroflex vowels are also observed, whose phonemic status awaits confirmation.

Table 3: List of vowels.

| | | | |
|---|---|---|---|
| i | ɨ | ɯ | u |
| e | ə | ɵ | o |
| ɛ | | | ɔ |
| a | | | ɑ |

Suprasegmentals

Both the Changxu and Lianghekou dialects have four-way pitch distinction at a word-initial position: high-level (ˉ), rising (ˊ), falling (ˋ), and rising-falling (ˆ). The tone-bearing unit is a phonological word (a root plus affixes), up to the first two syllables. Tones are not distinctive over syllables from the third syllable of a word, as well a phonological word, being realised as low level.

2 Description of the affricates

In this section, we elucidate how the tripartite affricate series (denti-alveolar, denti-postalveolar, and prepalatal) in the Changxu dialect corresponds to its bipartite counterpart (denti-alveolar and prepalatal) in the Lianghekou dialect. We also describe how many allophones appear for each series.

Before the description, we define the relevant terms and provide the respective IPA transcriptions, since several of the terms are not generally recognised in phonetics. We define the five articulations as follows:

denti-alveolar a sound produced in the denti-alveolar area with the blade of the tongue; the tongue tip is always downwards.

denti-postalveolar a sound produced with closure between an alveolar and a postalveolar position, followed by a dental, apical fricative; the tongue tip is always upwards, behind the upper teeth. See Suzuki (forthcoming) for details.

postalveolar a sound produced at a place between a postalveolar position and a prepalatal position, with the articulatory gesture made with the blade of the tongue; the tip is always upwards. Note that the postalveolar sounds attested in Jintang Tibetan do not occur with the labialisation found in English, French, and German.

prepalatal a sound produced between a postalveolar and a prepalatal position, with the articulatory gesture made with the front of the tongue body; the tip is always downwards.

palatal a sound produced at a palatal position, with the articulatory gesture made with a front of the tongue body; the tip is always downwards.

These series of affricates are transcribed below:

- denti-alveolar affricates: [tʰ, tʰ̣, dʒ]
- denti-postalveolar affricates: [tʰ̠, tʰ̠̣, dʒ̠]
- postalveolar affricates: [tʰ̠̠, tʰ̠̠̣, dʒ̠̠]
- prepalatal affricates: [tʰ̟, tʰ̟̣, dʒ̟]
- palatal affricates: [tʰ̟̟, tʰ̟̟̣, dʒ̟̟]

We abbreviate these as DA, DP, PA, PP, and P, respectively, and principally use them in tables when necessary.

2.1 Phonemic analysis and allophonic description

We now describe the phonological aspects of the affricate series in the Changxu and Lianghekou dialects.

2.1.1 The Changxu dialect

The Changxu dialect has three affricate series: denti-alveolar, denti-postalveolar, and prepalatal. This dialect does not show clear allophones, but the denti-postalveolar affricates are realised as denti-postalveolar and postalveolar variants. Examples are presented in Tables 4-8.

Minimal and pseudo-minimal pairs are found in the examples. For example, (4) and (12) form a minimal pair of denti-alveolar and denti-postalveolar affricates; (12) and (20) form a pseudo-minimal pair of denti-postalveolar and prepalatal affricates.

Table 4: Denti-alveolar phonemes and their allophonic variation (Changxu).

| No. | form | DA | DP | PA | PP | P |
|-----|-------------------------|----|----|----|----|---|
| (1) | ʰuʔ tsi: ‘piglet’ | ○ | | | | |
| (2) | ˦tse: ‘one’ | ○ | | | | |
| (3) | ʰtsʰa tsʰu ‘hot spring’ | ○ | | | | |
| (4) | ˦tsʰɔ ‘salt’ | ○ | | | | |
| (5) | ˦tsʰu ‘lake’ | ○ | | | | |
| (6) | ʰmo ˦dzɯ ‘gunpowder’ | ○ | | | | |

As Table 4 shows, the phonetic realisation of denti-alveolar phonemes is stable. Strictly speaking, we find minute differences in articulation following different vowels; however, they do not matter within the present scheme.

Table 5: Denti-postalveolar phonemes and their allophonic variation (Changxu).

| No. | form | DA | DP | PA | PP | P |
|------|--------------------------------|----|----|----|----|---|
| (7) | ʰt͡ɕʰi ‘dog’ | | ○ | | | |
| (8) | ʰt͡ɕẽ̞ ^{fi} ɬu ‘16’ | | ○ | | | |
| (9) | ʰt͡ɕẽ̞ ^{fi} ŋɔ ‘15’ | | ○ | | | |
| (10) | ʰt͡ɕʰa ^{fi} qɔ̃ ‘ice’ | | ○ | ○ | | |
| (11) | ʰt͡ɕaʔ ‘iron’ | | ○ | ○ | | |
| (12) | ʰt͡ɕʰɔ ‘pair’ | | ○ | | | |
| (13) | ʰt͡ɕʰõ t͡ɕʰõ̃ ‘small’ | | ○ | | | |
| (14) | ʰna t͡ɕu ‘ear’ | | ○ | ○ | | |
| (15) | ʰt͡ɕʰu ‘10’ | | ○ | | | |
| (16) | ʰt͡ɕə̃ ‘tongue’ | | ○ | | | |

The phonetic realisation of denti-postalveolar phonemes includes postalveolar affricates. In Table 5, we see that the postalveolar variants appear when the vowel is /a, ɔ, u/. We have not collected sufficient examples to determine the phonological conditioning of the variants; at present, our data do not suggest that the realisation as postalveolar affricates shows an allophonic distribution. The principal phonetic realisation is denti-postalveolar.

Table 6: Prepalatal phonemes and their allophonic variation (Changxu).

| No. | form | DA | DP | PA | PP | P |
|------|---------------------------------|----|----|----|----|---|
| (17) | ʰt͡ɕi wɔ ‘mouse’ | | | | ○ | |
| (18) | ʰd͡zɛ: ‘eight’ | | | | ○ | |
| (19) | ʰd͡za kə̃ ^{ph} u ‘bat’ | | | | ○ | |
| (20) | ʰt͡ɕaʔ pɔ̃ ‘excrement’ | | | | ○ | |
| (21) | ʰd͡zɔ̃ ‘100’ | | | | ○ | |
| (22) | ʰt͡ɕʰuʔ ‘cattle’ | | | | ○ | |

As Table 6 shows, the phonetic realisation of prepalatal phonemes is stable. Strictly speaking, we find minute differences in articulation following different vowels; however, they do not matter within the present scheme. Additionally, we have never recorded palatal affricate sounds even as variants.

2.1.2 The Lianghekou dialect

The Lianghekou dialect has at least five articulatory allophones for the two affricate series: denti-alveolar, denti-postalveolar, postalveolar, prepalatal, and palatal.

Table 7: Denti-alveolar phonemes and their allophonic variation (Lianghekou).

| No. | form | DA | DP | PA | PP | P |
|------|--|----|----|----|----|---|
| (23) | ^h tsi ^{fi} di: ‘hardworking’ | ○ | | | | |
| (24) | ^h ʔa tse ‘elder sister’ | ○ | | | | |
| (25) | ^h tse ‘beg’ | ○ | | | | |
| (26) | ^h ŋe e ^h u ^h tsa: h ^h tɕi ‘21’ | ○ | | | | |
| (27) | ^h tsɔ mɔ ‘clean’ | ○ | | | | |
| (28) | ^h ts ^h u ‘lake’ | ○ | | | | |
| (29) | ^h tsə wa ‘grass’ | ○ | | | | |

As Table 7 shows, the phonetic realisation of denti-alveolar phonemes is stable. Strictly speaking, we find minute differences in articulation following different vowels; however, they do not matter within the present scheme.

Table 8: Prepalatal phonemes and their allophonic variation (Lianghekou).

| No. | form | DA | DP | PA | PP | P |
|------|---|----|----|----|----|---|
| (30) | ^h tɕo: h ^h tɕi ‘11’ | | | | ○ | |
| (31) | ^h tɕe ^h pɔ ‘male’ | | | | ○ | |
| (32) | ^h tɕeɣ ^h pɔ ‘excrement’ | | | | ○ | |
| (33) | ^h tɕa p ^h u ‘cock’ | | ○ | | ○ | |
| (34) | ^h tɕa ^h ‘press’ | | | | ○ | |
| (35) | ^h tɕə ‘tea’ | | | | ○ | |
| (36) | ^h tɕo mo ‘nun’ | | | | ○ | |
| (37) | ^{fi} na tɕɔ̃ ‘ear’ | | ○ | ○ | ○ | |
| (38) | ^h tɕe wɔ ‘mouse’ | | ○ | ○ | ○ | |
| (39) | ^h tɕe ^{fi} ni ‘12’ | | | | ○ | |
| (40) | ^h tɕ ^h u ‘water’ | | ○ | ○ | ○ | |
| (41) | ^h tɕe: ts ^h i ‘bird’ | | | | ○ | |
| (42) | ^{fi} tɕə ^h dzɛ: ja ‘how’ | | | | ○ | |
| (43) | ^h tɕə ‘tongue’ | | ○ | ○ | ○ | |
| (44) | ^h tɕəw ‘vomit’ | | | | ○ | ○ |
| (45) | ^{fi} dzəw ‘do’ | | | | ○ | ○ |

N.B.1 The phonetic realisation in (30) pertains to the second syllable.

N.B.2 The phonetic realisation in (42) pertains to the first syllable.

As Table 8 shows, the variation of sounds is the greatest for the prepalatal series in the Lianghekou dialect; the prepalatal sound is always acceptable in any environment. Therefore, we can consider prepalatals to be the basic phonetic realisation. Based on our observations, the realisations besides prepalatals in Table 8 do not exhibit a complementary

distribution. Examples with a denti-postalveolar variant also occur with a postalveolar counterpart except for (33). This exception has not been described yet.

Note that examples with denti-postalveolar sounds and those with palatal sounds are separated, especially before /ə/; see (42)-(45). However, this difference is not phonemic but constitutes phonetic variation.

2.2 Phonological correspondence between the two dialects

Theoretically, there are six (3*2) possible correspondences. However, only three correspondences are found: Changxu /ts/ : Lianghekou /ts/ (Table 9), Changxu /tʂ/ : Lianghekou /tʂ/ (Table 10), and Changxu /tʃ/ : Lianghekou /tʃ/ (Table 11). The others, Changxu /tʂ/ : Lianghekou /ts/, Changxu /tʃ/ : Lianghekou /ts/, and Changxu /ts/ : Lianghekou /tʃ/, are not attested.

Table 9: Changxu /ts/ : Lianghekou /ts/.

| No. | meaning | Changxu | Lianghekou |
|------|----------|------------|----------------------------|
| (46) | ‘lake’ | ˈnʰtsʰu | ˈnʰtsʰu |
| (47) | ‘one’ | ˈhʰtseː | ˈha tsə |
| (48) | ‘finger’ | ˈnʰdzui ku | ˈnʰdzui ^{fi} gʰʌ? |

N.B. The first syllable /ha/ (Lianghekou) of (47) may be ignored here.

Table 10: Changxu /tʂ/ : Lianghekou /tʂ/.

| No. | meaning | Changxu | Lianghekou |
|------|---------|----------------------|----------------------|
| (49) | ‘bitch’ | ˈtʂ ^{hi} mu | ˈtʂ ^{hə} mu |
| (50) | ‘tea’ | ˈtʂə | ˈtʂə |
| (51) | ‘tail’ | ˈnʰdzuiʔ mu | ˈnʰdzʉ mə |

N.B. The sound correspondence between denti-postalveolar (Changxu) and prepalatal (Lianghekou) is also found in fricatives. See Table 17.

Table 11: Changxu /tʃ/ : Lianghekou /tʃ/.

| No. | meaning | Changxu | Lianghekou |
|------|---------------|-----------------------|-----------------------|
| (52) | ‘cock’ | ˈtʃə p ^h u | ˈtʃə p ^h u |
| (53) | ‘Han Chinese’ | ˈfi dzə | ˈfi dzə |
| (54) | ‘excrement’ | ˈhʰtʃəʔ pə | ˈhʰtʃəʔ pə |

Based on the observations above, we can conclude that for the affricate series phonetic variation is important for the prepalatal affricate series of Lianghekou. The denti-alveolar series is stable in both dialects.

3 Historical analysis

We now explore the sound correspondences between Jintang Tibetan and Literary Tibetan (LT), which reflects the sound system in an earlier period. For the sounds hypothesised as being represented by LT forms, see sKal-bzang 'Gyur-med and sKal-bzang dByangs-can (2004:379-390). Previous works on Tibetic languages, such as Qu and Jin (1981), Nishi (1986), Nishida (1987), Jiang (2002), and Zhang (2009:259-357), emphasise the importance of clarifying the sound correspondences between a given spoken language and Literary Tibetan, although one cannot be certain that all the dialect forms originate from the written variety. Among these works, Nishida (1987) explicitly states that exploring the origin of affricate series in a spoken variety is of great significance for a study of Tibetic languages. Nevertheless, we should note that the ‘affricates’ in our description do not include retroflex obstruents, which we have excluded from discussion. In our notation, the retroflex obstruents are analysed as retroflex plosives (see Tables 1 and 2).

When discussing the affricate series, we refer to the following series in LT:

- C-series: all the combinations including *c*, *ch*, and *j* as a main initial
- TS-series: all the combinations including *ts*, *tsh*, and *dz* as a main initial
- Ky-series: all the combinations including *ky*, *khy*, and *gy* as a main initial plus a glide
- Py-series: all the combinations including *py*, *phy*, and *by* as a main initial plus a glide

Other series and combinations are unnecessary for the present discussion. For additional cases, we define the term when required.

The denti-alveolar affricates in Jintang Tibetan, whose phonetic realisations show a stable articulation as shown in Tables 4 and 7, correspond to the LT TS-series.

Table 12: Sound correspondences of LT TS-series.

| No. | Literary Tibetan | Changxu | Lianghekou |
|------|-------------------------|----------------------------------|-------------------------------------|
| (55) | <i>tshwa</i> ‘salt’ | ṽts ^h ɔ | ṽts ^h ɔ |
| (56) | <i>mtsho</i> ‘lake’ | ṽ ⁿ ts ^h u | ṽ ⁿ ts ^h u |
| (57) | <i>mdzu gu</i> ‘finger’ | ṽ ⁿ dzui ku | ṽ ⁿ dzui ^h gʷ |

There are a few exceptions, among which we should note the form of the word ‘one’. In Jintang Tibetan, a form with a denti-alveolar initial /ts/ is used for ‘one’ (but not in ‘eleven’, although it is morphologically analysable as ‘ten’ + ‘one’; cf. Example 30). Its LT form is, in most cases, *gcig*; however, some dialects use a sound that seems to correspond to **gtsig*. This sound correspondence is also found in other Tibetic languages such as rGyarwagshis and Sharkhog (our fieldnotes). Hence, the form in Jintang Tibetan should be considered as corresponding to the latter dialectal form, not as an exceptional sound correspondence relevant to the LT form *gcig*.

The denti-postalveolar and prepalatal affricates in Jintang Tibetan, which are highly variable in articulation, correspond to the LT C- (Table 13), Ky- (Table 14), and Py-series (Table 15).

Table 13: Sound correspondences of LT C-series.

| No. | Literary Tibetan | Changxu | Lianghekou |
|------|-----------------------|------------------------------------|------------------------------------|
| (58) | <i>bcu gcig</i> ‘11’ | ^h tʂe ^h tʂi: | ^h tʂo: ^h tʂi |
| (59) | <i>chu</i> ‘water’ | ^h tʂ ^h u | ^h tʂ ^h u |
| (60) | <i>ja</i> ‘tea’ | tʂo | tʂo |
| (61) | <i>mjug ma</i> ‘tail’ | ⁿ dʒuʔ mu | ⁿ dʒu mɔ |
| (62) | <i>lce</i> ‘tongue’ | ^h tʂə | ^h tʂə |

Table 13 shows that the C-series exhibits a regular sound correspondence with denti-postalveolars in Changxu and prepalatals in Lianghekou.

Table 14: Sound correspondences of LT Ky-series.

| No. | Literary Tibetan | Changxu | Lianghekou |
|------|-----------------------------|-----------------------------------|-----------------------------------|
| (63) | <i>skyag pa</i> ‘excrement’ | ^h tʂaʔ pɔ | ^h tʂeʔ pɔ |
| (64) | <i>rgya</i> ‘Han Chinese’ | ^{fi} dʒo | ^{fi} dʒo |
| (65) | <i>khyi mo</i> ‘bitch’ | ^h tʂ ^h i mu | ^h tʂ ^h ə mu |
| (66) | <i>skyug</i> ‘vomit’ | ^h tʂuʔ | ^h tʂəw |
| (67) | <i>rgyab</i> ‘do, beat’ | ^{fi} dʒaʔ | ^{fi} dʒəw |
| (68) | <i>gyon</i> ‘wear’ | tʂewĕ | tʂewĕ |

Table 14 shows that the Ky-series exhibits regular sound correspondences with the prepalatals in both Changxu and Lianghekou; however, we find the exception of the word for ‘bitch’, which has an irregular sound correspondence in Changxu: a denti-postalveolar affricate. We should note that the general word for ‘dog’ itself is irregular in Lianghekou, /ki ti/, which does not correspond to LT *khyi*. Hence, the lexical forms for ‘dog’ might have originated in different dialects.

Table 15: Sound correspondences of LT Py-series.

| No. | Literary Tibetan | Changxu | Lianghekou |
|------|------------------------|---------|------------|
| (69) | <i>bya</i> ‘cock’ | ʼtɕɔ | ʼtɕɔ |
| (70) | <i>phyugs</i> ‘cattle’ | ʼtɕʰuʔ | ʼtɕʰu: |
| (71) | <i>byi ba</i> ‘mouse’ | ʼtɕi wɔ | ʼtɕu wɔ |

Table 15 shows that the Py-series exhibits regular sound correspondences with prepalatals in both Changxu and Lianghekou. At present, we have not found any exceptional sound correspondences.

From Tables 13-15, we see that the LT C-series regularly corresponds to the denti-postalveolar series in the Changxu dialect, and the other two LT series to the prepalatal series. In the Lianghekou dialect, all examples correspond to the prepalatal series. Based on the description of the phonetic variants in Table 8, we may conclude that the free variants of the denti-postalveolars, postalveolars, and prepalatals all correspond to the LT C-, Ky-, and Py-series; however, the palatal variant only corresponds to the LT Ky-series (See Examples 44, 45, 66, and 67).

The results above suggest that the prepalatal series in the Lianghekou dialect is in the process of merging the sounds corresponding to three LT series into a single (phonemic) articulatory position. Table 16 summarises the related sound correspondences with phonetic variants in square brackets.

Table 16: Summary of the sound correspondences with LT C, Ky, and Py-series.

| Literary Tibetan | Changxu | Lianghekou |
|------------------|-----------------------------|-------------------------|
| C-series | denti-postalveolar [DP, PA] | prepalatal [DP, PA, PP] |
| Py-series | prepalatal [PP] | prepalatal [DP, PA, PP] |
| Ky-series | prepalatal [PP] | prepalatal [PP, P] |

For reference, let us consider the case of *fricatives*. For the tripartite (aspirated, voiceless, and voiced) fricatives, the Changxu dialect has denti-alveolar and denti-postalveolar series, whereas the Lianghekou dialect has denti-alveolar and prepalatal series. In both dialects, the denti-alveolar series corresponds to the LT S-series (all the combinations including *s* and *z* as a main initial), and the other series corresponds to the LT SH-series (all the combinations including *sh* and *zh*), as shown in Table 17.

Table 17: Sound correspondences of LT S and SH-series.

| No. | Literary Tibetan | Changxu | Lianghekou |
|------|-------------------------|------------------------|--------------------|
| (72) | <i>sa</i> ‘earth’ | ṽs ^h ɔ | ʼs ^h ɔ |
| (73) | <i>zan</i> ‘food’ | ʼzɛ | ʼzɛ |
| (74) | <i>sha</i> ‘meat’ | ṽʂ ^h ɔ | ʼɕ ^h ɔ |
| (75) | <i>shing</i> ‘firewood’ | ṽʂ ^h ɿ [ʰɿ] | ʼɕ ^h jẽ |
| (76) | <i>zhing</i> ‘field’ | ʼzẽ | ʰzĩ |

Table 17 shows that the LT SH-series corresponds to the dental-apical fricatives, with postalveolar variants in Changxu and prepalatal fricatives in Lianghekou; this is parallel with the correspondence of denti-postalveolar affricates with the LT C-series. This relationship is noteworthy since the corresponding sounds of the LT C- and SH-series often share a place of articulation.

In this context, it is also worth examining the sound correspondences with LT *ny*. According to the hypothetical phonetic values of LT provided by sKal-bzang ʼGyur-med and sKal-bzang dByangs-can (2004:379-390), the C-series and SH-series, as well as *ny*, correspond to prepalatal sounds. Paying attention to the consonantal system of the two varieties of Changxu and Lianghekou (see Tables 1 and 2), we find prepalatal nasals corresponding to LT *ny* and *my*, as in Table 18:

Table 18: Sound correspondences of LT *ny* and *my*.

| No. | Literary Tibetan | Changxu | Lianghekou |
|------|--------------------------|-----------------------|----------------------|
| (77) | <i>nya</i> ‘fish’ | ʼŋɔ | ʼŋɔ |
| (78) | <i>bcu gnyis</i> ‘12’ | ʰtʂe ^h ŋi: | ʰtʂu ^h ŋi |
| (79) | <i>smyug ma</i> ‘bamboo’ | ṽŋo: mɔ | ṽŋo: mɔ |

Due to the paucity of our lexical data, we did not find many examples of morphemes meeting the conditions. Among them, we did not observe prepalatal nasals to have other variants than the prepalatal articulation even in Example (79), unlike the situation of (37) with a similar phonemic condition, which has three variants: denti-postalveolar, postalveolar, and prepalatal. Hence, the nasal series does not show the sound correspondences of the obstruent series.

To sum up, we find a regular sound correspondence between the LT forms and various affricate sounds. The Lianghekou dialect possesses only two affricate series including five affricate variants. Synchronically, prepalatal phonemes have two patterns for how variants appear, with denti-postalveolar, postalveolar, and palatal sounds and with prepalatal and palatal sounds. Diachronically, we find that they have different relationships with the

LT forms (see Table 16). Through the analysis and discussion above, we conclude that the Lianghekou dialect is in the process of merging the reflexes of three LT series into a single affricate series showing large phonetic variation. In addition, the sound correspondences of the LT C-series are similar to those of the LT SH-series in place of articulation, and the Changxu dialect has dental(-postalveolar) fricatives in parallel with denti-alveolar affricates.

4 Conclusion

This article described the affricate sounds attested in two dialects of Jintang Tibetan and explored the sound correspondences between the dialects. The Changxu dialect has a tripartite affricate series consisting of denti-alveolars, denti-postalveolars, and prepalatals, whereas the Lianghekou dialect has a bipartite affricate series consisting of denti-alveolars and prepalatals. The last of these, however, includes five allophones and free variants of the prepalatal affricate phonemes, namely denti-alveolar, denti-postalveolar, postalveolar, prepalatal, and palatal. Through an analysis of the sound correspondences of these sounds with LT forms, we conclude that some of the phonetic variation in the Lianghekou dialect originated from differences in LT forms in an ongoing process of merger as prepalatals.

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金湯チベット語（四川省康定市）における破擦音系列

李 春梅

鈴木 博之

要旨

本稿では、中国四川省甘孜州康定市金湯地区で話されるカムチベット語の方言2種（三合郷昌須方言と捧塔郷兩河口方言）における破擦音の音声記述を行い、その異音ならびに音声学的変異の関係を明らかにする。昌須方言には歯-歯茎、歯-後部歯茎、前部硬口蓋破擦音の3種が、兩河口方言には歯-歯茎、前部硬口蓋破擦音の2種が音韻体系上対立を形成する。しかし兩河口方言には、少なくとも5種の変異音、すなわち歯-歯茎、歯-後部歯茎、後部歯茎、前部硬口蓋、硬口蓋における破擦音が認められる。

本稿は、2種の方言それぞれの音韻と音声実現の概要を示し、それを踏まえて両者の音韻対応を明らかにする。次に、両者の破擦音系列がチベット文語形式とどのような対応関係を見せるかを明らかにする。この手続きを通して、昌須方言が破擦音系列については兩河口方言よりも古態的な特徴をもつと結論づけられる。

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