

Directional prefixes in Tangut

——Outline, types, and some remarks——*

ARAKAWA Shintaro

*Research Institute for Languages and Cultures of Asia and Africa,
Tokyo University of Foreign Studies*

Summary

The language of Tangut was spoken during the Xixia (Tangut) dynasty (A.D. 1038–1227) in the northwestern part of China. The Tangut script was established for the language by the emperor (A.D. 1036). Although the language and script of Tangut are now extinct, the many documents written in the Tangut script enable us to reconstruct the phonology and grammar. Tangut belongs to the Tibeto-Burman language group (Tangut-Qiang). The grammar has unique features that are not found in either Old Tibetan or Old Burman. One of these is the “directional prefixes.” Six or seven morphemes function as prefixes. Previous works have discussed the change in the function of the prefixes from “directional” to “aspect (perfective).” Some minor Tibeto-Burman languages have similar syllables or functions to Tangut. In this article, we present an outline of the prefixes and a description of each prefix with sample sentences, along with some remarks on the prefix (derivation, double prefix, and so on).

In section 1, we introduce an outline of the language (basic information and phonology). Section 2 presents verb phrases and prefixes in Tangut. In section 3, the directional prefixes are described with sample sentences. Some remarks are provided in the final section.

Key words: Tangut, verb phrase, prefix, directional prefix, perfective

關鍵詞：西夏語、動詞句、前綴、趨向前綴、完了態

*This study benefited from the financial assistance of the research program, Grant-in-Aid for Scientific Research (B) of the Japan Society for the Promotion of Sciences in 2016–2018: Aspects of Tibeto-Burman Languages through Analysis of the Directional Prefixes.

1. Introduction

1.1 Xixia and Tangut

The Xixia (Tangut) dynasty occupied a dominant position in the northwestern part of China (A.D. 1038–1227). The Tangut script was established for the language by the emperor (A.D. 1036). Although the language and script of Tangut are now extinct, the many documents written in the Tangut script enable us to reconstruct the phonology and grammar. In addition to many Buddhist texts, Tangut documents have broad contents including the translations of Chinese classics, law codes, treaties, poems, rhyme dictionaries, and so on. When the dynasty ended, however, the Tangut language and scripts were used up until the 16th century.

In the 20th century, the scripts were decoded by some scholars in Japan, Russia, and China.¹



Map The Realm of Ancient Tangut

1.2 Tangut language

Tangut belongs to the Tibeto-Burman language family (hereinafter, TB), and is the most northwestern of the TB languages. It should be noted that the Tangut people did not originally live in the region but in the south. According to historical records, they originally lived in areas in southwest China, such as northern Sichuan and Qinghai. Therefore, it is reasonable to say that the characteristics of their language were similar to those of other languages in northern Sichuan. Although Tangut seems to be close to Rgyalrongic, there is no confirmed language that is a direct descendant of Tangut.

¹ See Nishida 1989b and Gong 2003 for the Tangut language, and see Nishida 2001 for the Tangut script.

In modern linguistics, the Tangut syllable is analyzed as in the classical Chinese phonology.²

$$C(G1)(G2)V(C)/T$$

C = Initial, (G1)(G2)V(C) = Rhyme, and T = Tone

The round brackets () mean the additional segments. The G1 and G2 slots can be filled by the glides /j and w/. The final V(C) (-an, -ur, etc.) are the vowel features. Tangut phonology describes two tones: the “level” tone and the “rising” tone. Tangut scripts for these can be translated as 平声 *pingsheng* and 上声 *shangsheng* respectively).³

One character in the Tangut script represents one syllable and one word (or one morpheme). The script is derived from square-style Chinese characters. There are more than 6,000 characters.

In terms of linguistic typology, Tangut has an SOV (Subject-Object-Verb) order for the sentence and a “Demonstrative-Noun-Adjective” order for the noun phrase. Tangut has non-obligatory case marking.

2. Verb Phrase and Prefix in Tangut

2.1 Structure of verb phrase

Grammatically, the Tangut sentence requires only a verb stem in the verb phrase. Certain verbal forms have directional prefixes, indicating the direction of motion with motion verbs, but there are lexicalized perfective aspect markers with other verbs. The verb also has a demonstrative prefix and person agreement suffixes. The verb phrase can be complicated in some cases. A maximum scheme for the slots in the verbal syntagma in my analysis is as follows.

² Some reconstructed forms of Tangut have been presented and invented by modern linguists, namely, Nishida 1964, 1981–83, 2012, Sofronov 1968, Li 1986, Gong 1994, 2003, Arakawa 2014b, and others. Generally, their views on the Tangut initials agree substantially. However, they do not agree on several points concerning Tangut rhymes: the reconstruction of main vowels, the kinds of cardinal vowels, tense/lax of vowels, short/long of vowels, nasal-final, grouping of rhymes, and so on. See the Appendix for my reconstruction.

³ There is no guarantee that they are the same as Chinese 平声 *pingsheng* and 上声 *shangsheng*. Based on the study of phonetic transcription with Tibetan letters, the Tangut level and rising tones can be considered as the “high level” and the “low rising” (Arakawa 1999).

Table 1 Structure of the Tangut verb phrase (ideal)

{PrefA - PrefB- PrefC}- Verb stem -{PrefA - PrefB- PrefC}-AV -Pronominal Suf -Particle
Prefix A: Prefix series 1 and 2, and prefixes for Interrogative
Prefix B: Negative or Prohibitive
Prefix C: Demonstrative
{ } means “prohibition of co-occurrence”

- 1) So-called “Prefix series 1”: six types, indicative of the “direction of action” or “perfective”
- 2) So-called “Prefix series 2”: six types, with an “optative” meaning
- 3) Negative (𐰽¹mi:-, 𐰽²me:-, and 𐰽¹ml:-) or prohibitive (𐰽¹ti:-)⁴
- 4) Interrogative (the same form as one of the “Prefix1” 𐰽¹a?:-)
- 5) Demonstrative pronominal 𐰽¹chI:-: occurring with negative or interrogative

Here, however, we do not refer to the prefixes for the interrogative, negative, prohibitive, and demonstrative, nor do we refer to auxiliary verbs, particles, and prefixes added to auxiliary verbs. We use the simplified structure, “Prefix-Verb-Suffix.”

Tangut has unique linguistic features, which are not found in either Old Tibetan or Old Burmese, for example: the unique set of verb-prefixes originated from “directional markers” and the “agreement” between personal pronouns and personal suffixes.

The following is an example in which there is “agreement” between the independent pronouns and the agreement suffixes.

(1)	𐰽	𐰽	𐰽	𐰽	𐰽	𐰽
	² nga	² syu	¹ thon	¹ hwan	¹ ma:'	² ryor
	1sg	srotaāpanna		result		get

‘I got the result of srotaāpanna’ (VP, Arakawa 2014b: 234)

2.2 Directional prefixes in Tangut

The great scholar of Tangut grammar, the late Dr. Ksenia Kepping, contributed to the study of directional prefixes (Kepping 1968, 1971, 1979, 1982, 1983, 1985, 1994ab, etc.). Nishida (1989b), Lin (1987, 1993, 1994), and Arakawa (2012, 2014a, 2017) continued to study such matters. Based on this previous works, we present the directional prefix, as follows.

The Tangut language has a variety of verb-prefixes with different functions. The prefixes

⁴Concerning the negation/prohibition/interrogative sentences of Tangut, see Arakawa 2012.

are grouped into two series with similar consonants. The first series indicates the direction (or motion), or perfective, and the second series represents an “optative” meaning. The first series is usually called “Prefix series 1” (hereinafter, “Pref1”) and the second, “Prefix series 2” (hereinafter, “Pref2”). According to Nishida,⁵ Pref1 originally functioned as a directional marker and then developed into an aspect marker expressing perfect aspect. Some of the Pref1 have the pronunciation and functions that are similar to other TB languages.

Pref2 has the same initial consonants as Pref1, but all Pref2 have the same vowel (which I reconstruct as “-e”). It functions as an optative. Nishida suggested that Pref2 derived from Pref1.

Table 2 shows the set of Pref1 and 2 from Nishida 1989a: 419 and correspondences in the related Lavrung (Khroskyabs) language. The last pair shown in this table is questionable.

Table 2 The set of Pref1 and 2 and the correspondence of Lavrung (Khroskyabs)

the set of Pref1 and 2 from Nishida 1989a			Lavrung (Khroskyabs) ⁶	
Direction	Pref 1	Pref 2	Direction	
upward	𐰇 𐰃 ¹ a?- (1A)	𐰇 𐰃 ¹ e:- (2E)	upward	a-
downward	𐰇 𐰃 ¹ na:- (1N)	𐰇 𐰃 ² ne:- (2N)	downward	nɛ-
to here	𐰇 𐰃 ¹ kl:- (1K)	𐰇 𐰃 ¹ ke:- (2K)	to river source	kɛ-
over there	𐰇 𐰃 ² wI:- (1W)	𐰇 𐰃 ² we:- (2W)	lower, near	və-
inward	𐰇 𐰃 ² da:- (1Da)	𐰇 𐰃 ² de:- (2D)	No correspondence	
outward	𐰇 𐰃 ² rI:- (1R)	𐰇 𐰃 ² ryeqr'- (2R)	no direction	rə-

The prefix 𐰇 𐰃²dI:- is irregular. Each scholar has a different view concerning this prefix. According to some scholars, and in my opinion,⁷ one “irregular” prefix, namely 𐰇 𐰃²dI:-, belongs to Pref1 (1Db).

Table 3 presents the correspondence of some scholars’ views on the direction indicated by these prefixes.

⁵See Nishida (1989a: 418) on the Tangut prefixes and see Nishida (1989b: 806–807) on the topic of other TB languages.

⁶From Table 10 in Shirai (2011: 52).

⁷Kepping 1985, Gong 2003, and Arakawa 2012. In Nishida (1989a: 420r), it is regarded as an “optative” marker, which is out of the set.

Table 3 The correlation of the scholar's view

Nishida 1989		Kepping 1994b		Gong 2003	
1A-2E	upward	1A-2E	upward	1A-2E	upward
1N-2N	downward	1N-2N	downward	1N-2N	downward
1K-2K	here	1K-2K	here, inside	1K-2K	here, inside
1W-2W	there	1W-2W	there, outside	1W-2W	there, outside
1Da-2D	inside	1Db-2D	towards the speaker	1Db-2D	toward the speaker
—	—	1Da	away from the speaker	1Da-2D	away from the speaker
1R-2R	outside	1R-2R	(direction not found)	1R-2R	(direction not found)

Nishida (1989a: 4201) supposed that Pref2 was derived from Pref1. Table 4 shows the schema.

Table 4 The derivation of the verb prefixes (Nishida's hypothesis)

Structure	Function
Pref1 + Verb Stem	> Directional marker > Aspect marker (perfect)
Pref2 (<Pref1 + 'e:) + Verb Stem	> Optative marker

Here, we introduce an example sentence that includes the function indicating the direction of the motion.⁸

- (2) 穉 繡 𠵼 蕤
²wi ¹kha ¹kI: ¹shI:
 castle CM P1 go

'(He) went inside the castle' (SL, Arakawa 2014a: 20)

According to Nishida, the prefix 𠵼 ¹kI:- indicates "to here (to the speaker)." In fact, it represents the "perfective" of the motion generally. Although it indicates the direction, this is a secondary function. In common sentences as below, the prefix 𠵼 ¹kI:- indicates not direction but perfectiveness.

⁸Hereinafter, we emphasize Pref1 and Pref2 by frame, underline verb stems and double-underline pronouns and pronominal suffixes.

- (3) 𗇑 𗇒 𗇓 𗇔 𗇕 𗇖
- ²jyan ¹chyu ¹e: ¹kI: ¹gyu ²dza:r
- people CM P1 relieve

‘He liberated the people into nirvāṇa’ (VP, Arakawa 2014b: 224)

3. Directional Prefixes in Tangut

Here, we introduce examples of the various prefixes of the PrefI series. Following the presentation of example sentences, we examine how the prefix in question works, from the viewpoint of the “direction” in previous studies. Briefly put, the function of PrefI is not to indicate direction but to indicate perfectiveness. The main example sentences were collected from Volume 4 of *Lotus Sutra* (SP4), which the author recently investigated.

3.1 Prefix 𗇗 'a?

We find the following examples in the text.

- (4) 𗇘 𗇙 𗇚 𗇛 𗇜 𗇝 𗇞 𗇟 𗇠
- ²me: ²de: ²ri:r ¹ne:' ²lyenq ²rI:r ¹ge:' ²dzu' ²ti:q
- Neg have yet get heart enjoy P1 jump sit place
- 𗇡 𗇢 𗇣 𗇤 𗇥 𗇦
- ¹a? ¹wor ¹tha ²yu ²rI:r ²shi:
- P1 stand up Buddha front P1 go

‘(He) obtained an unprecedented experience and became pure in mind and joyful. He immediately rose from his seat, and went into the presence of the Buddha,’ (SP4, Arakawa 2018b: 84)

- (5) 縫 擘 糝 繡 簪 漿 煨 爨 嘸
¹phon ²u ¹na: ¹chyu ¹wi: ²lyɑ ²dzwo: ¹mI: ¹nwI
 cloth CM P1 have do drunk man Neg know

𦉳 薇 後 𦉳
¹a? ²mi ²ti:q ¹no"
 P1 sleep lie down later

‘(He) sews a priceless jewel into the inside of his friend’s garment and, giving it to him, leaves. But the man who was drunk and asleep is totally unaware of this. After sleeping...’ (SP4, Arakawa 2018b: 108)

- (6) 窺 睨 蒞 窺 𦉳 𦉳
¹tha: ¹ne ¹wi:q ²ri:r ¹a? ²bir ²nI:
 Dem parents relatives CM P1 meet scold

‘Seeing the friend, he scolded:’ (SP4, Arakawa 2018b: 109)

- (7) 誦 鞞 循 緘 鞞 禰 禰 鞞 緘
²nga ¹nI: ¹e: ¹dzyu ²dze:’ ²ngo:r ²ngo:r ²senq ¹ne:’
 1sg pl CM guide all wisdom mind

𦉳 𦉳 𦉳 𦉳
¹a? ¹sho ¹phi: ²ni:
 P1 raise make Spl

‘(He) guided us to obtain a prediction of highest, complete enlightenment.’ (SP4, Arakawa 2018b: 110)

- (8) 誦 鞞 𦉳 𦉳 𦉳 𦉳 𦉳 緘 𦉳 緘
²nga ¹nI: ¹ti:q ¹onq ¹a? ²swu ¹i: ¹ne:’ ¹tsI: ²dyen
 1sg pl wish peaceful P1 fill people mind also feel at peace

‘Our vows would be fulfilled and our wishes also realized!’ (SP4, Arakawa 2018b: 118)

- (9) 𪚩 𪚪 𪚫 𪚬 𪚭 𪚮 𪚯 𪚰 𪚱 𪚲
- | | | | | | | | | | |
|--------------------|-------------------|-----------------|-----------------|-----------------|-------------------|-------------------|-------------------|------------------|-------------------|
| ¹ dzeu: | ¹ ro:r | ¹ a? | ² to | ¹ ku | ² zyIr | ¹ chyu | ² ti:q | ¹ kha | ² dwer |
| earth | dry | P1 | appear | soon | water | exist | place | far | know |

‘Yet, he sees only dry earth and thus realizes that water is still far away.’ (SP4, Arakawa 2018b: 152–153)

We may posit that the prefix indicates “motion upward.” Certainly, it co-occurs with verbs such as “to go upward, to raise, to happen,” etc. On the other hand, other verbs without any upward meaning, such as “to meet, to sleep” also appear in some cases with this prefix. Below, we describe the difference between the prefix 𪚫 ¹a? and the prefix 𪚬 ¹na:-.

3.2 Prefix 𪚬¹na:

We find the following examples in the text.

- (10) 𪚳 𪚴 𪚵 𪚶 𪚷 𪚸 𪚹 𪚺 𪚻 𪚼 𪚽
- | | | | | | | | | | |
|--------------------|------------------|-----------------|-------------------|------------------|-----------------|------------------|------------------|------------------|-----------------|
| ² dzwo: | ² gI: | ¹ ne | ¹ wi:q | ¹ ni: | ² do | ² da: | ² lya | ¹ na: | ² mi |
| man | one | parents | relatives | house | place | P1 | get drunk | P1 | sleep |

‘There was a man who came to the house of a close friend and went to sleep after becoming intoxicated with wine.’ (SP4, Arakawa 2018b: 108)

- (11) 𪚾 𪚿 𪚽 𪚾 𪚿 𪚽 𪚾 𪚿 𪚽
- | | | | | | | | | |
|-------------------|------------------|---------------------|-----------------|-------------------|----------------|------------------|-------------------|------------------|
| ¹ tha: | ² lya | ² myeqr' | ¹ e: | ¹ phon | ² u | ¹ na: | ¹ chyu | ¹ wi: |
| Dem | drunker | | CM | cloth | CM | P1 | have | do |

‘(He) saw (a priceless jewel) inside of his friend’s garment.’ (SP4, Arakawa 2018b: 108)

- (12) 飛 隨 隨 衆 箱 窺 穢 穢
 1'man 1'thon 1'lo 1'fa:q 2'dwi:q' 2'nyeqr' 1'na: 2'li
 Māndārava flower earth surface P1 cover
- 慨 衆 穢 衆 穢 衆 穢 穢 穢 穢
 1'no" 1'zi:q' 2'rir 2'shI: 2'wi 2'ngu 2'tha: 1'chya: 1'na: 2'a:
 later treasure koṭis of jeweled trees CM Dem CM P1 cover

‘Māndārava and great māndārava flowers rained down from the sky, scattering over (the Buddhas who were seated on lion thrones) under “immeasurable” hundreds of thousands of myriads of koṭis of jeweled trees.’ (SP4, Arakawa 2018b: 176)

- (13) 穢 穢 穢 穢 穢 衆 衆 衆
 2'thI: 2'syu 2'me:' 2'me:' 1'soq 1'tuq 2'tha 1'tuq
 Dem like low low three thousands big thousands
- 穢 穢 穢 衆 穢 穢
 1'ryur 2'kyeq 2'u 1'kI: 1'na: 2'swu
 world CM P1 P1 fill
- ‘Filling the air throughout “immeasurable” hundreds of thousands of myriads of koṭis of lands.’ (SP4, Arakawa 2018b: 177)

- (14) 穢 衆 衆 箱 窺 穢 穢
 1'mI 1'zi:q' 1'fa:q 2'dwi:q' 2'nyeqr' 1'na: 1'kaq
 heaven treasure flower earth surface P1 spread
- ‘Heavenly jeweled flowers were scattered on the earth.’ (SP4, Arakawa 2018b: 180, 182)

- (15) 穢 絆 絆 穢 穢 穢 穢 穢
 1'ryur 1'tha 1'myor 1'denq 2'to 2'zi: 1'na: 2'swu
 every Buddha Tathāgata all P1 fill
- ‘All Buddha and Tathāgata were in perfect harmony.’ (SP4, Arakawa 2018b: 183)

We may posit that the prefix indicates “motion downward,” as there is a tendency for the prefix to co-occur with verbs such as “to spread, to cover, to go down,” etc. On the other hand, there are also verbs such as s “to fill up, to sleep,” without a sense of downward, that also co-occur with this prefix in some cases. There are minimal pairs that contrast with the prefixes 𪚩 'a?- and 𪚪 'na:-, as both occur with such verbs as “to fill up” and “to sleep.” The latter pair is:

(5)	𪚩	𪚪	𪚫	𪚬	𪚭	𪚮	𪚯	𪚰	𪚱
	¹ phon	² u	¹ na:	¹ chyu	¹ wi:	² lyɑ	² dzwo:	¹ mI:	¹ nwI
	cloth	CM	P1	have	do	drunk	man	Neg	know
	𪚲	𪚳	𪚴	𪚵					
	¹ a?	² mi	² ti:q	¹ no"					
	P1	sleep	lie down	later					

‘(He) sews a priceless jewel into the inside of his friend’s garment and, giving it to him, leaves. But the man who was drunk and asleep is totally unaware of this. After sleeping...’ (SP4, Arakawa 2018b: 108)

(10)	𪚯	𪚰	𪚱	𪚲	𪚳	𪚴	𪚵	𪚶	𪚷	𪚸
	² dzwo:	² gI:	¹ ne	¹ wi:q	¹ ni:	² do	² da:	² lyɑ	¹ na:	² mi
	man	one	parents	relatives	house	place	P1	get drunk	P1	sleep

‘There was a man who came to the house of a close friend and went to sleep after becoming intoxicated with wine.’ (SP4, Arakawa 2018b: 108)

However, we do not find any clear reason for the difference between the two prefixes on the basis of such limited evidence but simply draw attention to these interesting examples.

3.3 Prefix 𪚹 'kI:-

We find the following examples in the text.

(16)	𪚹	𪚺	𪚻	𪚼	𪚽	𪚾	𪚿	𪚿	𪚿
	¹ mI:	¹ pyuq	¹ a?	¹ sin	¹ khi:	[?] kya?	¹ kI:	² rar	¹ zenq
	Neg	measure	Asamkhyeya			kalpa	P1	pass	time

‘After incalculable kalpas have passed,’ (SP4, Arakawa 2018b: 90)

- (17) 繇 綬 𦉳 𦉳
²seu ²kyeq ¹kI: ²lon ¹lenq
 small desire P1 laziness

‘(Who) desires inferior teaching and is not diligent.’ (SP4, Arakawa 2018b: 96)

- (18) 循 鞅 繼 焮 翳 窳 黷
¹cyir ²yu ¹yi ²ngu ²ne:’ ¹phan ¹e:
 expedient power CM nirvāṇa aspect

𦉳 黷 菴
¹kI: ²ne’ ²ni:
 P1 indicate Spl

‘(He) showed you the marks of nirvāṇa through skillful means.’ (SP4, Arakawa 2018b: 111)

- (19) 繡 暉 玦 𦉳 黷
¹phon ²u ²ni:q ¹kI: ²ne’
 cloth CM jewel P1 indicate

‘(He) had a priceless jewel sewn to the inside of his garment.’ (SP4, Arakawa 2018b: 114)

- (20) 𦉳 喟 綬 𦉳 黷
¹mI: ¹pyuq ¹lo: ¹kI: ¹ri:r
 Neg measure fortune P1 get

(Because he explained this sutra,) he attained immeasurable happiness. (SP4, Arakawa 2018b: 146)

- (21) 漚 𦉳 𦉳 鞅
²zyIr ¹kI: ¹ne ²dwer
 water P1 near know

‘Now he is sure that water must be near.’ (SP4, Arakawa 2018b: 153)

- (22) 𪚩 𪚪 𪚫 𪚬 𪚭 𪚮 𪚯 𪚰 𪚱
- | | | | | | | | | |
|--------------------|--------------------|-------------------|-------------------|-------------------|--------------------|-----------------|------------------|-------------------|
| ¹ ldyIr | ² dzyen | ² phyu | ¹ khyu | ² bi:' | ¹ phyon | ¹ e: | ¹ bi: | ¹ sweu |
| four | corner | top | bottom | hair | white | face | light | bright |
-
- | | | | | | | |
|------------------|------------------|-------------------|------------------|-------------------|------------------|------------------|
| 𪚲 | 𪚳 | 𪚴 | 𪚵 | 𪚶 | 𪚷 | 𪚸 |
| ¹ kI: | ² nI: | ¹ twuq | ² zi: | ¹ shi: | ² wI: | ² syu |
| P1 | reach | place | all | former | P1 | like |

‘The Buddha emitted a ray of light from the tuft of white hair between his eyebrows that completely illuminated all worlds, in the same way that all of these Buddha worlds are visible now.’ (SP4, Arakawa 2018b: 174)

- (23) 𪚹 𪚺 𪚻 𪚼 𪚽 𪚾 𪚿 𪚿 𪚿 𪚿 𪚿
- | | | | | | | | | | |
|-------------------|------------------|-----------------|------------------|------------------|------------------|------------------|--------------------|------------------|-------------------|
| ¹ ryur | ¹ tha | ² to | ² zi: | ¹ kI: | ¹ me: | ¹ a:r | ² ryeqr | ² wI: | ² dzu' |
| every | Buddha | all | | P1 | gather | eight | direction | P1 | sit |
- ‘All the Buddhas came until all were assembled, sitting in the eight directions.’ (SP4, Arakawa 2018b: 183)

Although some previous research has suggested that the prefix indicates “motion to here (to the speaker),” we did not find clear evidence for this directional meaning in these sources. The prefix tends to occur with the verbs “to gather” and “to reach” (but not always “to here (to the speaker)”). The last example is an imperative sentence in the context. This example makes clear that the prefix does not function as a marker of the perfective.

3.4 Prefix 𪚿²wI:

We find the following examples in the text.

- (24) 𪚿 𪚿 𪚿 𪚿 𪚿 𪚿 𪚿 𪚿 𪚿 𪚿
- | | | | | | | | | | |
|-----------------|---------------------|-----------------|---------------------|------------------|------------------|-------------------|------------------|-------------------|------------------|
| ² do | ¹ tshweu | ¹ a? | ² nyeqr' | ² wI: | ¹ a:r | ¹ pyuq | ¹ la' | ¹ bu:' | ¹ u:' |
| worship | | one | face | P1 | stand | holy | face | respect | |

‘With rapt attention and with palms pressed together they bowed in veneration, and, gazing at the Bhagavat’s face,’ (SP4, Arakawa 2018b: 84)

- (25) 翫 翫 叡 緇 𠄎 𠄎 𠄎 𠄎 𠄎
 1'e: 1'e: 2'senq 2'seu 2'ri:r 1'byu 2'tha 1'u:
 self self know small get by great change
- 𠄎 𠄎 𠄎
 2'wI: 1'se 2'ni:
 P1 think Spl

'Yet we were satisfied with little wisdom, instead of great wisdom.' (SP4, Arakawa 2018b: 108)

- (26) 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎
 2'war 1'ri:r 2'wI: 2'lhe? 1'u: 1'se
 Property get P1 satisfy change think

'He was satisfied with little money, thinking it was enough.' (SP4, Arakawa 2018b: 109)

- (27) 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎
 1'lo 1'heu 1'lo 1'ti:q 2'naq 2'ri:r 2'leu 1'a?
 Rāhula wish word CM same one
- 𠄎 𠄎 𠄎
 2'nyeqr' 2'wI: 1'a:r
 face P1 stand

'All having the same wish as (Ānanda and) Rāhula, and stood to one side.' (SP4, Arakawa 2018b: 118)

- (28) 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎
 1'ku 1'o 1'ne: 2'wI: 2'dyen 2'zyIr 1'kI: 1'ne 2'dwer
 namely berry mind P1 seize water P1 near know

'His mind became calm, and he was sure that water must be near.' (SP4, Arakawa 2018b: 153)

- (29) 筵 鞍 翫 辭 翫 登 戩 嘒
²bI ²du: ¹nga ²gu ²wI: ²dyen ²le: ¹no'
tower air in P1 seize look later

‘(He) saw the great jeweled stupa hovering in the air.’ (SP4, Arakawa 2018b: 167)

- (30) 糶 鞞 鞞 鞞 豸 豸 𠂔
¹a? ²ryeqr ²wI: ¹di:’ ²lyuq ¹tsI: ¹me:
one direction P1 cut body also gather

𠂔 鞞 鞞
¹ldenq ²me: ¹jwa:
come Neg finish

‘In this way the seats were filled throughout the thousand millionfold world, but still there was no end even to the emanations of Śākyamuni Buddha arriving from merely one direction.’ (SP4, Arakawa 2018b: 178)

- (31) 𠂔 𠂔 𠂔 𠂔 鞞 𠂔 𠂔 鞞 鞞 𠂔
¹ryur ¹tha ²to ²zi: ¹kI: ¹me: ¹a:r ²ryeqr ²wI: ²dzu'
every Buddha all P1 gather eight direction P1 sit

‘All the Buddhas came until all were assembled, sitting in the eight directions.’ (SP4, Arakawa 2018b: 183)

Although some previous research has suggested that the prefix that is a counterpart of 鞞 ¹kI:- indicating “the motion over there (from the speaker),” we cannot certify the direction clearly because, other than the verb “to go,” the verbs that co-occur with this prefix do not indicate direction. The verbs tending to co-occur with this prefix are “to take a rest, to stand” (not always “over there (from the speaker)”).

3.5 Prefix 𪛗²da:-

We find the following examples in the text.

- (32) 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
- | | | | | | | |
|--------------------|------------------|-----------------|-------------------|------------------|-----------------|------------------|
| ² dzwo: | ² gI: | ¹ ne | ¹ wi:q | ¹ ni: | ² do | ² da: |
| man | one | parents | relatives | house | place | P1 |

𪛗 𪛗 𪛗

² lya	¹ na:	² mi
get drunk	P1	sleep

‘There was a man who came to the house of a close friend and went to sleep after becoming intoxicated with wine.’ (SP4, Arakawa 2018b: 108)

- (33) 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
- | | | | | | | | |
|------------------|------------------|-------------------|--------------------|------------------|-----------------|------------------|-----------------|
| ² ni: | ¹ se: | ¹ tha: | ¹ zi:q' | ² da: | ² zo | ² na: | ¹ ku |
| 2sg | now | Dem | treasure | P1 | sell | S2 | soon |

‘Now you, sell this jewel...’ (SP4, Arakawa 2018b: 110)

- (34) 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
- | | | | | | | |
|-------------------|------------------|------------------|--------------------|------------------|------------------|------------------|
| ¹ tha: | ¹ no" | ² da: | ² mi:q' | ¹ mI: | ¹ nwI | ¹ mi: |
| Dem | later | P1 | forget | Neg | know | Neg |

𪛗 𪛗 𪛗 𪛗 𪛗 𪛗

² senq	¹ a?	¹ lo	¹ han	¹ ca:	² ri:r
kow	arhat			way	get

‘Nevertheless, we forgot, we did not know or understand. We attained the path of the arhats.’ (SP4, Arakawa 2018b: 110)

- (35) 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
- | | | | | | | | | | |
|------------------|--------------------|-------------------|----------------|-------------------|------------------|------------------|-----------------|------------------|-------------------|
| ² luq | ² dzwo: | ¹ phon | ² u | ¹ chyu | ² ni: | ² ni: | ¹ e: | ² da: | ² rI:r |
| poor | man | cloth | CM | exist | secretly | self | P1 | go | away |

‘The wealthy friend made the poor this gift without saying anything and went away.’ (SP4, Arakawa 2018b: 114)

- (36) 彫 徭 𪛗 𪛘 𪛙
²zɪr ²lyenq ²da: ¹ti:q ²syu
 dew sweet P1 eat like

‘The poor man, seeing this jewel, rejoices greatly and with this rich treasure he enjoys.’ (SP4, Arakawa 2018b: 134)

- (37) 𪛚 𪛛 𪛜 𪛝 𪛞 𪛟 𪛠 𪛡
¹tha: ¹ryur ¹tha ²do ²tha ¹ti:q ²da: ¹shyen
 Dem every Buddha place great wish P1 make

‘They achieved their great wishes under all the Buddhas.’ (SP4, Arakawa 2018b: 137)

- (38) 𪛢 𪛣 𪛤 𪛥 𪛦
¹gi: ¹se ²lhe? ²da: ²phi:
 pure land P1 abandon

‘Abandoning their prosperous lands...’ (SP4, Arakawa 2018b: 144)

- (39) 𪛧 𪛨 𪛩 𪛪
²dzwo: ²gɪ: ²da: ²paq
 man one P1 dry

‘There was a thirsty man...’ (SP4, Arakawa 2018b: 152)

- (40) 𪛫 𪛬 𪛭 𪛮 𪛯 𪛰 𪛱
¹tha ¹leu ²bi:’ ¹phyon ¹bi: ²da: ²wenq
 Buddha one hair white light P1 dispatch

‘The Buddha emitted a ray of light from the tuft of white hair (between his eyebrows).’ (SP4, Arakawa 2018b: 173)

- (41) 𪛲 𪛳 𪛴 𪛵 𪛶 𪛷
¹tha: ²da: ¹vi:q’ ¹khwa ²lhe? ¹onq
 Dem P1 change travel lands

‘The land which was transformed (to be pure)...’ (SP4, Arakawa 2018b: 178)

Though some scholars have suggested that the prefix indicates “motion inward (to the source of the river),” we cannot certify the direction clearly based on this material. The prefix seems to co-occur with “negative” verbs⁹ such as “to get drunk, to forget, to abandon.” In this material there are various verbs that co-occur with this prefix, including “to achieve, to dispatch, to eat.” This prefix is revisited in Section 4.

3.6 Prefix 𪛗²rI:r

We find the following examples in the text.

- (42) 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
²dzu' ²ti:q ¹a? ¹wor ¹tha ²yu ²rI:r ²shi:
 sit place P1 arise Buddha front P1 go

‘Arising from their seats they went before the Buddha...’ (SP4, Arakawa 2018b: 84, 117)

- (43) 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
¹tha: ²dzwo: ¹myor ¹ldenq ²rI:r ²wenq
 Dem man Tathāgata P1 dispatch
- 𪛗 𪛗 𪛗 𪛗
¹myor ¹ldenq ²rI:r ¹phi:
 Tathāgata P1 dispatch

‘They should be acknowledged as the ambassadors of the Tathāgata. They have been dispatched by the Tathāgata.’ (SP4, Arakawa 2018b: 140)

- (44) 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
¹ryur ¹tha ¹ryur ¹pyuq ²to ²zi: ¹cyuq ²wyeqr ²no:
 every Buddha all guard ancient
- 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
²a ²rI:r ¹ldenq ¹jyu ¹tshe:' ²me: ²de:
 CM P1 come obviously say Neg have yet

‘All the Buddha and Bhagavat guarded everything and have never taught from the past.’ (SP4, Arakawa 2018b: 148)

⁹See the tendency of the co-occurred verbs in Arakawa (2012: 63).

- (45) 𪛗 𪛘 𪛙 𪛚 𪛛 𪛜 𪛝 𪛞 𪛟 𪛠
- ²I:r ¹cyu ²rI:r ¹wi: ²me:' ²me:' ¹dzeu: ²tsi: ²le:
- work matter P1 do low low earth wet look
- 𪛡 𪛢 𪛣 𪛤
- ¹cyor ²do ²nI: ¹shI:
- mud place reach go

‘He does not cease his efforts until he turns up moist earth and gradually reaches mud.’ (SP4, Arakawa 2018b: 153)

- (46) 𪛥 𪛦 𪛧 𪛨 𪛩 𪛪 𪛫 𪛬
- ¹tha: ¹tha ²jyan ²tse: ¹ca: ²rI:r ¹jenq ²zyonq
- Dem Buddha bodhisattva path P1 practice time

‘When this Buddha was practicing the Bodhisattva path,’ (SP4, Arakawa 2018b: 169)

- (47) 𪛭 𪛮 𪛯 𪛰 𪛱 𪛲 𪛳 𪛴 𪛵
- ¹tha: ²swI: ²ni:' ¹tha ²thI: ¹zi:'q' ²bi ²du: ²phyi
- Dem who what Buddha Dem treasure tower open
- 𪛶 𪛷 𪛸 𪛹 𪛺
- ²kyeq ¹II: ²rI:r ¹I: ²na:
- want P P1 say S2

‘The Buddha So-and-so wishes you to open this jeweled stupa.’ (SP4, Arakawa 2018b: 184)

- (48) 鋒 嘖 循 斂 殫 繼 穢 穢 鞞
- ¹myor ¹ldenq ¹e: ²mi' ²myeqr' ¹yi ¹byu ²nga ¹nI:
Tathāgata CM god-power cause 1sg pl
- 循 穢 穢 穢 穢 穢 穢 穢 穢
- ¹e: ¹che: ²zi: ¹nga ²gu ²rI:r ¹ny'e:' ¹phi: ²ni:
CM man all air in P1 exist make Spl

‘We entreat you to use your transcendent powers so that we may be in the air together with you.’ (SP4, Arakawa 2018b: 188)

- (49) 繼 玆 玆 玆 玆 玆 玆 玆
- ¹se: ¹tha ²yu ²ri:r ¹ti:q ²rI:r ¹tshe:' ²ni:
now Buddha front wish P1 tell Spl

‘Now, in front of Buddha, they declare their wish.’ (SP4, Arakawa 2018b: 192)

Some previous research has suggested that this prefix is the counterpart of 穢 ²da:- and indicates “motion outward (away from the source of the river).” We cannot certify the outward direction clearly, although verbs such as “to go, to come, to dispatch,” etc. do co-occur with this prefix. Note that in example (49) the sentence is not perfective, but the context requires an imperative interpretation. This prefix is revisited in Section 5.

4. On the “Directional” Prefix 穢 ²da:-

4.1 Previous view on the prefix (穢) and other possibilities

We will consider the prefix 穢 ²da:-¹⁰ in this section. Researchers have different views concerning this prefix. In the dictionary by Li (Li 2008: 691),

趨向助詞。通常祇跟特定的動詞相結合、表示離開說話的方向

(Directional particle. Usually, it combines only with a particular verb and represents the direction away from the speaker)

¹⁰According to Tangut rhyme dictionaries such as *Tongyin* 同音, this prefix does not have homonyms. Moreover, because there are no glyphs for the other characters, except for the upper part (𠂇), it is impossible to know the significance of the characters from the glyphs.

He described as translocative (“away from the speaker”). This is probably a reference to previous studies, such as Gong 2003, but I disagree with the use cases.¹¹

According to previous studies by the author and other data, this prefix is considered to have no paired prefix (e.g., 𪚩). I do not reject the idea that it originally indicated a specific direction, but I agree that the language record does not reveal any direction. If the prefix indicates “direction,” I suspect it is psychological (“bad,” “far,” or “irreversible”), rather than geographical.

It might be reasonable to think of it as a “losing prefix,” as Dr. Kipping did. It can be paraphrased as a prefix that suggests an emotional and psychological. This prefix does often precede verbs that have unfortunate consequences, such as “die,” “kill,” and “lose.”

(50)	𪚩	𪚪	𪚫	𪚬	𪚭	𪚮	𪚯	𪚰
	¹ menq	¹ tshI:	² gI:	¹ dyu	¹ shwi:	² 'aq	¹ gwyI'	² wi
	girl	little	one	exist	age	ten	nine	become
	𪚱	𪚲	𪚳	𪚴	𪚵			
	¹ ra:r	² ngwo	² da:	² si:	¹ sI:			
	disease		P1	die				

‘One girl, 19 years old, died of disease.’ (JZ, Arakawa 2014b: 413)

On the other hand, there are some co-occurrences of such verbs as “finish,” “ask,” “become,” “send,” and “eat,” which can result in not being unhappy.

(51)	𪚶	𪚷	𪚸	𪚹	𪚺	𪚻	𪚼	𪚽
	² mI:r	² do	² wI:	² lo	¹ ti:q	² thi:	² da:	¹ jwa:
	root	place	P1	return	food	eat	P1	finish

‘(Buddha) returned to his original place and finished eating.’ (VP, Arakawa 2014b: 220)

(52)	𪚾	𪚿	𪚻	𪚼	𪚽..	𪚾	𪚿	𪚻
	¹ mI:	¹ pyuq	¹ jo:n	¹ ci:q'	² ror ...	² be:'	² da:	² rI:r
	Neg	measure	time	around		walk	P1	go away

‘(He) went around many times, ... and then walked away.’ (AV77, Arakawa 2011: 189)

¹¹For example, although there are nine examples in the dictionary, only one example of what seems to be a “translocative” example (“I lost my beloved son”) can be identified.

However, for example, the act of eating is “unidirectional.” It can be said to be an “irrevocable,” “not restored to its original state” act. The prefix seems to have a close relation with an irrevocable act that cannot be undone.

4.2 Notable usage of the prefix

Next, we will discuss the significant use of this prefix. This prefix precedes the verb “change into a state,” whether it is about “getting better” or “getting worse.”

- (53) 隳 豸 𠄎 𠄎
²lhe? ²dzyu ²da: ²wi
king P1 become

‘(He) became a king.’ (Li 2008: 691)

- (54) 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎 𠄎
²jyan ²tse: ²ngo:r ²ngo:r [?]ji? ¹ti:q ¹byu ²da: ¹shyen ²eu:
Bodhisattva all vow CM P1 attain

‘(He) attained by all the vows of Bodhisattva’ (AV77, Arakawa 2011: 162–163)

- (55) 𠄎 𠄎 ... 𠄎 𠄎 𠄎 𠄎
²myu ²mur... ²non ²le: ²gwI: ²zon ²ngwu
common wicked view hold CM

- 𠄎 𠄎 𠄎 𠄎
¹wiq [?]le? ²da: ²wi
foolish P1 become

‘The man became foolish by holding on to his wicked view.’ (PH, Arakawa 2006: 104)

Sample sentences (54) and (55) are not meant to be bad. These verbs can also be interpreted as referring to “change and not return” actions rather than “going in the wrong direction.”

4.3 Assumption concerning the prefix (𠄎)

As with other directional prefixes, it is difficult to explain the function of this prefix simply by saying that it has shifted from “the function of indicating the geographical direction” to “the function of indicating the perfective.” I do not currently assume multiple origins for this prefix. As a directional prefix, it is not “either direction,” but a “far away” direction. In

other words, psychologically, it might be considered as “can’t come back from the direction after going.”

5. Some Hypotheses on “Non” Directional Prefix 𪚩²rI:r

5.1 Structure of the shape (𪚩)

As the Tangut rhyme dictionary *Wen-hai* 文海 unfortunately lacks information on the character of the prefix 𪚩, its formation cannot be determined based on the records of the time. The character can be divided into the left part (𪚩) and the other part (𪚩). The left part 𪚩 (Li1153) alone means “leather.” However, many derived characters with this part do not have the meaning of “skin,” and the meaning as a radical character is not clear. On the other hand, there are 14 types¹² that have the component in question on the right side (beside 𪚩).

K3876-0 𪚩²u: 2.4 “sovereign,” K3877-0 𪚩¹bI 1.27 “name of a Tangut ancestor,” K3878-0 𪚩²u: 2.4 “surname,” K3881-0 𪚩²mi 2.7 “dust,” K3882-0 𪚩²go:n 2.49 “to be stuporous,” K3883-0 𪚩¹khwI 1.27 “coma, stupor,” K3884-0 𪚩¹phi: 1.11 “to make, force, order, cause,” K3885-0 𪚩²khwuq 2.51 “to bleach,” K3886-0 𪚩²leu 2.38 “small, scent, reputation,” K3888-0 𪚩¹phi 1.11 “intention, conscious, mental, intellect,” K3889-0 𪚩¹syI 1.28 “to send,” K3891-0 𪚩¹co 1.51 “direct, show, instruct,” K3892-0 𪚩¹ti:q 1.67 “give medicine (a drink, feed),” K3893-0 𪚩²sa 2.14 “report”

It is difficult to find a common meaning among these (“will, a person with a strong will”?). In conclusion, it is also difficult to derive the meaning of the character 𪚩 from the shapes.

5.2 Syllable of the prefix

In the Tangut dictionary *Tongyin* 同音, we verified the pair of Pref1 and Pref2,

𪚩𪚩

However, there was no further information on the meaning of this character. On the other hand, in a group of characters having the same syllable (²rI:r), there was one character (word) of interest.

¹²From Kychanov 2006: 553–556. Here, we call Kychanov’s Tangut code number with “K.” The following characters are not treated in this discussion because they are merely derived characters: K3879-0 𪚩²u: 2.4 “name of a tree,” K3880-0 𪚩¹lo:n 1.56 “Long, dragon (龍焱 *Lungzhou* 龍州- name of district),” K3887-0 𪚩²ryen 2.37 “row, layer, sphere of heaven.”

In *Tongyin* Old version

𪚩, 𪚪, 𪚫, 𪚬, 𪚭, 𪚮

In *Tongyin* New version

𪚩, 𪚪, 𪚫, 𪚬, 𪚭, 𪚮, 𪚯, 𪚰, 𪚱, 𪚲, 𪚳, 𪚴, 𪚵, 𪚶, 𪚷, 𪚸, 𪚹, 𪚺, 𪚻, 𪚼, 𪚽, 𪚾, 𪚿, 𪚿

The first character (𪚩 Li2511), which precedes the character in question, means “to go out, to arise.”¹³ We will mention it again in 5.4.

5.3 Description of the prefix in previous works

In modern Tangut dictionaries, the description of the prefix is limited and insufficient, for example,

Li 0795 (from Li 2008: 135–136) “an adverb. 1) 所; 多次性和持續性, 2) 乃, 3) 表示零方向.”

Although “multiplicity” and “continuity” are remarkable information, it cannot be said that the example sentence proves it.

Dr. Kepping (Kepping 1982, 1985, 1994, etc.) came up with some ideas concerning this prefix. One interesting element is “repetitiveness” (Kepping 1985: 184). It is thought that this prefix represents the “iteration” or “many times” of the action. Looking closely at her example sentences, however, there are many cases in which the adverb “many times” or “further” co-occurs. In other words, it can be said that “iteration” or “many times” is expressed not by the prefix but by adverbs. See the sample sentences bellow.

(56)	𪚩	𪚪	𪚫	𪚬	𪚭	𪚮	𪚯	𪚰
	¹ tha:	² sha:	² so	¹ e:	¹ kI:	¹ onq	¹ shwI:	¹ shwI:
	Dem	<i>Chanchen</i>		CM	P1	encircle	many	times
	𪚩	𪚪	𪚫	𪚬				
	² wi	² a	² rI:r	² ni:'				
	castle	CM	P1	attack				

‘(He) made *Chanchen* besiege and attack the castle many times’ (Kepping 1985: 183–184)

¹³ Others are 3895 𪚩 “fruit,” 0472 𪚪 “widow,” 5211 𪚫 “thunderclap,” 4394 𪚬 “trousseau,” 4396 𪚭 “central room,” 1453 𪚮 “direction,” and 4814 𪚯 “a kind of container to cook.”

(57)	𗇑	𗇒	𗇓	𗇔	𗇕	𗇖	𗇗
	¹ theu	¹ kan	² thI:	² naq	¹ mi:	² ni:	¹ pi:q
	<i>Taokan</i>		Dem	word	Neg	hear	discuss
	𗇘	<u>𗇙</u>	<u>𗇚</u>	𗇛	𗇜		
	¹ jwI:	² i:q	² i:q	² rI:r	² I:		
	each other	repeatedly		P1	say		

‘*Taokan* didn’t hear these words, but added more arguments.’ (Kepping 1985: 184)

In example sentences (56) and (57), the adverbs with double underlined parts stand for “many times” or “repeatedly,” meaning “multiple actions.”

5.4 Verbs that co-occur with this prefix

Arakawa 2012 examined all the verbs¹⁴ co-occurring with the prefix 𗇛 ²rI:r found in the Tangut “*Tiansheng Code*.” In addition to my previous research on the Buddhist texts, the following is a summary of the tendency of the verb that co-occurs with this prefix.

- 1) “do,” “make”
- 2) “go,” “come”
- 3) “to preach,” “to reach”

The verbs that follow the prefix 𗇛 ²rI:r tend to be “go/come, do, make,” etc. In particular, it is important to note a tendency to co-occur with the verbs “go and come” (See the samples (42, 44)). However, when the prefix is added to the verbs “go” and “come,” it is difficult to indicate the direction to which the prefix refers. On the other hand, can we assume that the prefix is not directional and was originally part of verbs such as “go”? Here, we recall the information in Section 4.2. There may be a correlation between A 𗇛 ²rI:r and B 𗇛 ²rI:r. The author assumes the “confusion” of A and B, which have different shapes but the same syllable. It may be suspected that the direction-indicator prefix 𗇛 ²rI:r and the forward morpheme 𗇛 ²rI:r in the complex verb are actually inherently different.

𗇛 𗇛	² rI:r ² shi:	←	original form?	𗇛 𗇛	² rI:r ² shi:
𗇛 𗇛	² rI:r ¹ ldenq	←	original form?	𗇛 𗇛	² rI:r ¹ ldenq

¹⁴There are 23 kinds of verbs that can follow the prefix (Arakawa 2012: 62).

5.5 Re-analysis of the “direction”

As in the previous study, I had no good idea about the direction of this prefix, but I thought that it was not limited to single direction if it meant “Direction.” For example, the expression is as follows.

(58)	薩	羈	菝	糝	羈	羈	羈
	² thI:	² ldwIr	² ryeqr	¹ lha	² rI:r	² nI:	¹ ldyIr
	Dem	Sutra		CM	P1	reach	four
	羈	羈	羈	羈			
	² gwi:	² do	² nI:	¹ tshe:'			
	phrase	place	pl	preach			

“preach the contents or four-syllable gathas in the Sutra...” (VP, Arakawa 2014b: 241)

In Buddhist sources, the word 羈羈 is translated from Classical Chinese 乃至 (“or, from... to..., between...and...”). It consists of a prefix (Pref1) and a verb “to reach.” If it is directly translated as the perfective form, it is “came to, reached to.” Though it is easy to think of this prefix as simply a “perfective” indicator, the question is why this prefix 羈 was chosen from among the six prefixes. Was this prefix used for this verb owing to its original function? The complex word can also be re-analyzed by assuming that the prefix indicates not “one direction” but “all directions” or “many directions.” In other words, from the meaning of “reach all the way,” it is assumed that the expression “or” was used.

We will also test the function of the prefix that precedes verbs such as “preach, tell.”

(59)	羈	羈	羈	羈	羈
	¹ myor	¹ ldenq	² rI:r	¹ tshe:'	¹ tsyer
	Tathāgata		P1	tell	dharma

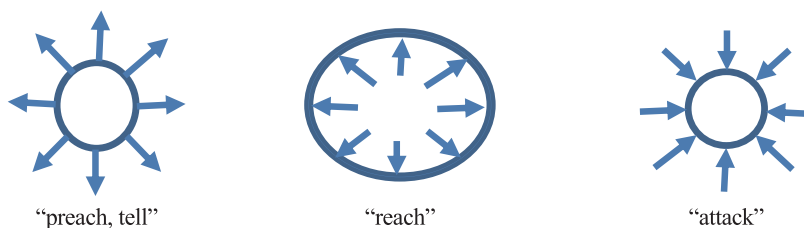
“Dharma, Tathāgata preached” (VP, Arakawa 2014b: 151, 231)

In this context, Tathāgata preaches not in one direction but in many directions, that is, to many people. According to this notion, the prefix preceding the verb “attack,” for example, may imply “attack in multiple directions.” We look at Dr. Kepping’s example sentence again.

(56)	纒	蕞	纒	循	纒	纒	纒	纒
	¹ tha:	² sha:	² so	¹ e:	¹ kI:	¹ onq	¹ shwI:	¹ shwI:
	Dem	<i>Chanchen</i>	CM	P1	encircle	many	times	
	纒	纒	纒	纒				
	² wi	² a	² rI:r	² ni:'				
	castle	CM	P1	attack				

‘(He) made *Chanchen* besiege and attack the castle many times’

It is not impossible here to re-analyze that the castle was attacked from all directions.



Scheme The image of the direction of the verbs with the prefix 纒 ²rI:r. The prefix originally had the function of “in multiple directions” but it gradually became used for general actions such as “do, make” and eventually it represented merely the perfective.

Based on the research by the presenter, the prefix precedes the verbs,

- 1) “do,” “make”
- 2) “go,” “come”
- 3) “to preach,” “to reach”

and other verbs. Of these, 3) can be explained by assuming that “movement in multiple direction, not one.” The presenter suggests the following hypothesis of the development of the functionality of the prefix:

Multidirectional → No directional (with lost direction) → Aspect prefix “perfective”

6. Some Remarks on Directional Prefixes

6.1 Prefix cluster

In the recent studies, we examined the existence of a “prefix cluster” in some verb phrases in Tangut. In the following samples,¹⁵ two elements (negative and demonstrative pronoun markers) are inserted between Pref1/2 and the verb stem.

(60)	𐞗	𐞗	𐞗	𐞗	𐞗	𐞗	𐞗	
	¹ te:	² ny'i?	¹ tswyuq	² myeq'2	² rI:r	¹ mI:	¹ chI:	² wenq
	if	crime	commit	who	P1	Neg	Dem	dispatch

‘If someone would commit a crime, never dispatch him...’ (TS Ch. 9, Arakawa 2012: 64, HM8_201A18)

(61)	𐞗	𐞗	𐞗	𐞗	𐞗	𐞗	𐞗
	² ldwi:q'	¹ onq	² 'u	¹ 'e:	¹ mI:	¹ chI:	¹ je:
	land	circle	in	P2	Neg	Dem	go

‘In the area, (someone) does not hope to go there,’ (TS Ch. 13, Arakawa 2012: 65, HM8_283B18)

In the cases above, as many as three prefixes (Pref1/2, Neg, and Dem) precede the verb stem. Though the verb structure seems complicated, each prefix (Pref1 in 60 and Pref 2 in 61) is independent as a function. The word order of the prefixes needs to be observed continuously.

6.2 Double (directional) prefix

In addition to the single prefixes noted above, we observed the phenomenon of double prefixation, in which two Pref1s co-occur.¹⁶

¹⁵ Arakawa (2012: 64–65).

¹⁶ This phenomenon was also pointed out in Arakawa 2017.

- (62) 𗇉 𗇊 𗇋 𗇌 𗇍 𗇎 𗇏 𗇐
- ²thI: ²syu ²me:' ²me:' ¹soq ¹tuq ²tha ¹tuq
Dem like low low three thousands big thousands
- 𗇑 𗇒 𗇓 𗇔 𗇕 𗇖
- ¹ryur ²kyeq ²u ¹kI: ¹na: ²swu
world CM P1 P1 fill

‘The sahā world was immediately purified;’ (SP4, Arakawa 2018b: 177)

- (63) 𗇗 𗇘 𗇙 𗇚 𗇛 𗇜 𗇝 𗇞
- ²syen ¹wI ¹ryur ¹pyuq ²wI: ¹kI: ¹gyu ²dza:r
holy load Bhagavat P1 P1 distinguish

‘The holy Bhagavat entered parinirvāṇa.’ (SP4, Arakawa 2018b: 190)

If Pref1 indicates the direction of motion, it would be an illogical to have such double prefixes. A possible, tentative solution is that once a particular “Pref1 + verb” is lexicalized, an additional Pref1 with a productive motion meaning can be added to the complex. In any case, these examples merit further attention.

In some texts, we observed the quite irregular cluster of prefixes, according to the previous schema. The sequence in question is: **Pref1/2 - Pref1/2 - Verb stem** (hereinafter, the “double prefix” structure). Nishida collected such unique samples.

- (64) 𗇟 𗇠 𗇡 𗇢
- ¹ne:' ¹kI: ²de: ¹dyu
mind P1? P2? own

‘(He) wants to have (it) in (his) heart.’ (Nishida 2012: 210)

In Table 1, 𗇛 ¹kI: and 𗇡 ²de: are Pref1 and Pref2, respectively. How can we analyze the sequence Pref1-Pref2? Logically, the following four types are assumed: Type A: [Pref1-Pref1-Verb], Type B: [Pref1-Pref2-Verb], Type C: [Pref2-Pref1-Verb], and Type D: [Pref2-Pref2-Verb]. We can examine all the types. See the following samples.

Type A: [Pref1-Pref1-Verb]

- (65) 羸 繻 𦉳 𦉴 𦉵 𦉶
- | | | | | | |
|-------------------|------------------|------------------|------------------|------------------|------------------|
| ² kya? | ² seu | ¹ kl: | ² wI: | ² rar | ² de: |
| kalpa | small | P1 | P1 | undergo | though |

‘Though a little kalpa underwent,’ (Nishida 2012: 276)

Type B: [Pref1-Pref2-Verb]

- (66) 𦉷 𦉸 𦉹 𦉺 𦉻
- | | | | | |
|------------------|------------------|------------------|-------------------|------------------|
| ² ni: | ² da: | ² de: | ¹ shI: | ² na: |
| 2sg | P1 | P2 | go | S2 |

‘You, go away (anywhere).’ (Nishida 2012: 275)

Type C: [Pref2-Pref1-Verb]

- (67) 𦉼 𦉽 𦉿 𦊀 𦊁 𦊂 𦊃 𦊄 𦊅
- | | | | | | | | | |
|-------------------|------------------|------------------|---------------------|--------------------|-------------------|---------------------|------------------|------------------|
| ¹ tha: | ² ni: | ¹ 'e: | ¹ ny'e:' | ¹ thyen | ² ti:q | ² ryeq'2 | ² wI: | ¹ wi: |
| that | P1 | CM | live | | place | P2 | P1 | make |

‘Their living place, made (it)...’ (TS Ch. 12, Arakawa 2012: 65, HM8_267B13)

Type D: [Pref2-Pref2-Verb]

- (68) 𦊆 𦊇 𦊈 𦊉 𦊊 𦊋 𦊌 𦊍
- | | | | | | | | |
|-----------------|------------------|------------------|------------------|-------------------|---------------------|------------------|------------------|
| ² wa | ¹ dyu | ¹ byu | [?] ji? | ² wi:q | ² ryeq'2 | ¹ ke: | ¹ wi: |
| what | own | follow | do | can | P2 | P2 | do, make |

‘According to what (he) has, a person capable will be done (???).’ (TS Ch. 10, Arakawa 2012: 65, HM8_225B17)

It is difficult to deduce some principles from a few samples. However, from the viewpoint of the form,

- 1) the same prefixes do not co-occur (such as 𦉳𦉳), and
- 2) the prefixes that have the same “direction” are of rare co-occurrence (such as 𦉷 𦉸 in (66)).

In cases such as Type A and B, the prefix 𦉳 ¹kl:¹⁷ appears frequently. In fact, the ele-

¹⁷The general meanings of 𦉳 ¹kl: in previous work are in Li’s code 1326.

ment 𐰇 ¹kI: has some functions. Though its function is unclear in some cases, except for its usage as a prefix, the function is divided into two;

A) as the case marker (especially, object marker)?

(69) 𐰇 𐰇

¹ld:q' ¹kI:

what X

‘What is ... (idiomatic)’ (Li 1997, 2008: code 4435)

We can re-analyze the meaning of the sentences, if the element 𐰇 ¹kI: is considered not as a prefix but as a case marker (object marking).

(70) 𐰇 𐰇 𐰇 𐰇 𐰇 (Nishida 2012: 209)

¹dzi: ²daq ¹kI: ²de: ¹nwI

fault X want know

Noun CM Pref2 Verb (grammatical category)

‘(He) wanted to know the fault.’ → ‘(He) wants to know the fault.’

(71) 𐰇 𐰇 𐰇 𐰇 𐰇 𐰇 (Nishida 2012: 210)

¹ngwI ²kyeq ²ryeq2 ¹kI: ²we: ³lhe?

five desire X want receive

Noun Phrase CM Pref2 Verb (grammatical category)

‘(He) wanted to receive the five desires.’ → ‘(He) wants to receive the five desires.’

The syntactic construction of the sentences is:

Previous view: Object - [Pref1 - Pref2 - Verb]_{VP}

Tentative view: [Object - Case marker]_{NP} - [Pref2 - Verb]_{VP}

The brackets [] mean syntactic union (= phrase).

In my previous work (Arakawa 2011), I pointed out three examples of “double prefixes” (𐰇 ¹kI: ²wI:). If we consider the 𐰇 ¹kI: not as a prefix but as a “case marker,” the sentences are re-analyzed rationally. For example, in 63), 𐰇 𐰇 ²ngo:r ²ngo:r is the object and it is marked by the object marker 𐰇 ¹kI:.

- (72) 禰 禰 𪛗 𪛗 𪛗...
²ngo:r ²ngo:r ¹kI: ²wI: ²ka...
 everything CM P1 leave

‘(He) alienated everything...’ (AV77, Arakawa 2011: 206)

In fact, the Nishida’s samples of the double-prefixes which include 𪛗 ¹kI: can be re-analyzed.

- (73) 𪛗 𪛗 𪛗 𪛗
¹ne:’ ¹kI: ²de: ¹dyu
 mind CM P2 own

‘(He) wants to have (it) in (his) heart.’ (Nishida 2012: 210)

As is well-known, the previous studies did not regard the 𪛗 ¹kI: as a case marker. The author suggests that the usage of the element 𪛗 might reflect colloquial expressions in Tangut.

Jacques (2014: 271–272) also mentioned the phenomenon of double prefixation. The following example of his approximates the sequence (𪛗 𪛗 ²wI: ¹wi:) in (67).

- 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗 𪛗
¹tshu ²tsha ¹e: ²lhi: ²wI:r ²rI:r ²wI: ¹wi: ¹kuq
 Cao Cao CM declaration of war P1 P1 make then

‘(Yuan Shao) declared war against Cao Cao and then...’ (Leilin 05.18A.6)

He regarded this sequence as a sound change 𪛗 𪛗 ¹wi: ¹wi: → 𪛗 𪛗 ²wI: ¹wi:, rather than as a double prefix; that is, it is considered to be a transcription after a particular vowel (i → I) has changed. Although there are few examples, it is a valuable idea for solving the problem.

6.3 Verbs following the prefixes

In the Tangut *Tiansheng* Code, different verbs are identified. The total number of types is given below.¹⁸

¹⁸ See the appendix (the list of the verbs following the prefixes) in Arakawa 2012.

Table 5 The number of types of verbs following the prefixes

	Pref1		Pref2		irregular	
1A	52		2E	43		
1N	20		2N	19		
1K	88		2K	62		
1W	68		2W	76		
1Da	74		2D	59	1Db	7
1R	23		2R	30		

The directions of the movement or of the action expressed by the verbs are:

1A: raise, promote, finish...

1N: subtract, demote, set...

1K: belong to, indicate, dispatch, drop...

1W: go out, send, go over, stop...

1Da: lose, throw away, give way, declare, damage...

1R: do, make, go/come...

2E: raise, promote, finish, prepare, fight...

2N: fall, believe, set...

2K: inform, pay, reach, gather, fall into, dispatch...

2W: draw back, repay, receive, take (off), send...

2D: give, kill, do, get, take, lose, have, go...

2R: do, live, tell, go/come...

1Db: steal, get illegally...

Below, we will discuss the prefixes from the point of view of their meaning. A verb very rarely requires several prefixes. However, some verbs demand particular prefixes. Because a trace of the “direction of the movement” might exist in the meaning of a verb, the verb requires prefixes with the same meaning from the series of Pref1/2, whose initial consonants are the same. See the examples.

𗵑 'a?- 1A - 𗵑 'e:- 2E

𗵑𗵑 : 𗵑𗵑 “arise, raise”

𗵑 'kI:- 1K - 𗵑 'ke:- 2K

𗵑𗵑 : 𗵑𗵑 “hit”

𗵑 ²wI:- 1W - 𗵑 ²we:- 2W

𗵑𗵑 : 𗵑𗵑 “take (away)”

𪛗²rI:r- 1R - 𪛗²ryeq'2- 2R
 𪛗𪛗 : 𪛗𪛗 “do”

Prefix 𪛗²dI:- 1Db is followed by verbs with a close meaning, for example, “steal, capture, rob...” i.e., to get something illegally or forcibly. See the examples in the Code:

(74) 𪛗𪛗 𪛗 𪛗
 how P1? steal

‘How (he) stole...’ (TS Ch. 3, Arakawa 2012: 63, HM8_095A15)

(75) 𪛗 𪛗 𪛗
 what P1? take

‘What (he) took...’ (TS Ch. 8, Arakawa 2012: 63, HM8_181Br1)

The verbs following prefixes 1Da and 1Db seem to show “complementary distribution,” according to our observations of the examples in the Code. The verbs following 1Da never follow 1Db, while the verbs following 1Db never follow 1Da. On the other hand, it is interesting that the verbs following 2D follow both 1Da and 1Db. Therefore, 1Db resembles 1Da in distribution; that is to say, 1Db is similar to Pref1.

In this study we omitted and did not consider the cases in which idiomatic verbs of more than one syllable were used (such as e.g., the verb 𪛗𪛗, to “judge”):

(76) 𪛗 𪛗 𪛗 𪛗 𪛗𪛗
 crime two rank P1 judge

‘Having judged 2nd rank crime...’ (TS Ch. 13, Arakawa 2012: 65, HM8_277Br7)

Though such cases are in the minority, they require further consideration.

7. Conclusion

Although there is a so-called “directional prefix” in Tangut, the function to indicate “perfective of action” is more dominant than “direction of action” in actual example sentences. There are not many examples of the sentence being in perfective voice and the direction of action being clearly indicated or traces remaining. 1A and 1N are considered to indicate “upward movement” and “downward movement,” respectively. While 1K and 1W are sometimes considered to be “cislocative” and “translocative,” respectively, it is often not possible to clearly determine the direction they indicate; therefore, it is advisable to be wary of certification. 1Da, 1Db, and 1R present many more issues to be considered, such

as whether they should show a specific direction (real direction) or a single direction.

Although we presented several hypotheses in section 6, we did not test them in many examples.

In Tibeto-Burman, especially Rgyalrongic, some of the minor languages have similar prefixes, pronunciations, and usage; therefore, it is meaningful to compare them. Nevertheless, the direction of action should be identified cautiously from the actual example sentences.

In addition, we should also be careful about the Tangut scripts used for the prefixes in question. As the script is an ideographic character (logogram), it is often recognized that “the same characters have the same pronunciation and meaning.” However, although the directional prefix 𑖑 'a?- and the interrogative prefix 𑖑 'a?- have the same pronunciation, they are thought to have different origins. We should not rule out the possibility that other prefixes may have the same character and pronunciation but may have different origins.

Abbreviations

CM	case marker	Pref1, 2 (P1, 2)	prefix series 1, 2
Dem	demonstrative (pronoun)	Suf (S)	suffix
Neg	negation	V	verb
P	particle	1sg	first person singular
Pl	plural (morpheme)	2sg	second person singular

Abbreviations of Sources

AV77:	<i>Avatamsaka Sūtra</i> vol. 77 from Arakawa 2011
JZ:	<i>Jingangjingzuan</i> (金剛經纂) from Arakawa 2014b
PH:	<i>Prajñāpāramitā-Hṛdaya Sūtra</i> from Arakawa 2006
SL:	<i>Shengliyihai</i> (聖立義海) from Arakawa 2014a
SP4:	<i>Saddharma Puṇḍarīka Sūtra</i> vol. 4 from Arakawa 2018b
TS:	<i>Tiansheng Code</i> from Arakawa 2012
VP:	<i>Vajracchedikā-prajñāpāramitā</i> from Arakawa 2014b

References

[European Languages]

Arakawa, Shintaro (荒川慎太郎)

- 2012 On the Tangut Verb Prefixes in ‘Tiansheng Code’. *Тангуты в Центральной Азии: Сборник статей в честь 80-летия профессора Е. И. Кычанова*. Москва, Издательская фирма «Восточная литература»: 58–71.

- 2014a On the Tangut verb phrase in *The Sea of Meaning, Established by the Saints*. *Central Asiatic Journal* 57: 15–25.
- 2017 Re-analysis of the “double-prefix” in the Tangut verb phrase. 『西夏学輯刊』 第一輯：55–61.
- Gong, Hwang-Cherng (龔 煌城)
- 1994 A hypothesis of three grades and vowel length distinction in Tangut. *Journal of Asian and African Studies*. Nos. 46–47: 305–314.
- 2003 Tangut. In G. Thurgood and R. J. LaPolla (eds.) *The Sino-Tibetan languages*. London: Routledge: 602–620.
- Jacques, Guillaume
- 2014 *Esquisse de phonologie et de morphologie historique du tangoute*. Global Oriental.
- Kepping, K. B. (Кепинг, К. Б.)
- 1968 Категория вида в тангутском языке. *Народы Азии и Африки*. Вып. 3: 134–139.
- 1971 A category of aspect in Tangut. (trans. with comments E. Grinstead). *Acta Orientalia* XXXIII: 283–294.
- 1979 *Сунь цзы в тангутском переводе*. Москва, Наука.
- 1982 Deictic motion verbs in Tangut. (trans. by K. Rumsey and S. DeLancy). *Linguistics of the Tibeto-Burman Area* 6.2: 77–82.
- 1983 *Лес категорий — утраченная китайская лэйшу в тангутском переводе*. Москва, Наука.
- 1985 *Тангутский язык. Морфология*. Москва, Наука.
- 1994a The conjugation of the Tangut verb. *Bulletin of the School of Oriental and African Studies* vol. LVII. Part 2: 339–346.
- 1994b The category of directedness of action in Tangut. *St. Petersburg Journal of Oriental Studies* 5: 267–291.
- Кычанов, Е. И. (составитель), Аракава С. (со-составитель)
- 2006 *Словарь тангутского (Си Ся) языка: Тангутско-русско-англо-китайский словарь*, Kyoto: Faculty of Letters, Kyoto University.
- Sofronov, M. V. (Софронов, М. В.)
- 1968 *Грамматика тангутского языка. В 2 кн.* Москва: Наука.

[Japanese]

- 荒川慎太郎 (Arakawa, Shintaro)
- 1999 夏蔵対音資料からみた西夏語の声調. 『言語学研究』 第17–18号：27–44.
- 2006 ロシア所蔵西夏語訳『般若心経註』の研究. 白井聡子・庄垣内正弘(編)『中央アジア古文書の言語学的・文献学的研究』Contribution to the Studies of Eurasian Languages Series 10 京都大学文学部言語学研究室：95–156 (+図版8).
- 2011 プリンストン大学所蔵西夏文華嚴経卷七十七訳注. 『アジア・アフリカ言語文化研究』 81: 147–305.
- 2014b 『西夏文金剛經の研究』 京都：松香堂.
- 2018a 西夏語の双数接尾辞について. 林徹他(編)『ユーラシア諸言語の多様性と動態』ユーラシア言語研究コンソーシアム：69–83.
- 2018b 『プリンストン大学図書館所蔵西夏文妙法蓮華經一写真版及びテキストの研究』 東京：東洋哲学研究所.
- 西田龍雄 (Nishida, Tatsuo)
- 1964 『西夏語の研究—西夏語の再構成と西夏文字の解説』 I, 座右宝刊行会.
- 1966 『西夏語の研究—西夏語の再構成と西夏文字の解説』 II, 座右宝刊行会.
- 1981 西夏語韻図『五音切韻』の研究 (上) 『京都大学文学部研究紀要』 20: 91–147.
- 1982 西夏語韻図『五音切韻』の研究 (中) 『京都大学文学部研究紀要』 21: 1–100.

- 1983 西夏語韻図『五音切韻』の研究(下)『京都大学文学部研究紀要』22: 1–187.
- 1989a 西夏語. 亀井孝他(編)『言語学大辞典 第2巻 世界言語編(中)』408–429. 東京:三省堂.
- 1989b チベット・ビルマ語派. 亀井孝他(編)『言語学大辞典 第2巻 世界言語編(中)』791–822. 東京:三省堂.
- 2001 西夏文字. 河野六郎他(編)『言語学大辞典 別巻 世界文字辞典』537–547. 東京:三省堂.
- 2004 西夏語文法新探. 林英津他(編)《漢藏語研究—龔煌城先生七秩壽慶論文集》353–381. 台北:中央研究院語言學研究所.
- 2005a 『ロシア科学アカデミー東洋学研究所サントペテルブルク支部所蔵西夏文「妙法蓮華經」写真版(鳩摩羅什訳対照)』東京:創価学会.
- 2005b 西夏語研究と法華經I『東洋学術研究』44-1: 236–208.
- 2005c 西夏語研究と法華經II『東洋学術研究』44-2: 216–192.
- 2006a 西夏語研究と法華經III『東洋学術研究』45-1: 272–232.
- 2006b 西夏語研究と法華經IV『東洋学術研究』45-2: 247–208.
- 2012 『西夏語研究新論』京都:松香堂.

白井聡子 (Shirai, Satoko)

- 2011 『川西民族走廊の言語特徴に関する基礎的報告—ダバ語との対照を中心に—』(研究報告書)名古屋:名古屋工業大学.

[Chinese]

李 範文 (Li, Fanwen) 等

- 1986 《同音研究》銀川:寧夏人民出版社.
- 1997 《夏漢字典》北京:中国社会科学出版社(2008增補修正本).

林 英津 (Lin, Yingchin)

- 1987 孫子兵法西夏訳本中所見動詞詞頭の語法功能.《中央研究院歷史語言研究所集刊》58.2: 381–445.
- 1993 西夏語具有空間意義的語詞.《中央研究院歷史語言研究所集刊》62: 677–716.
- 1994 《夏訳《孫子兵法》研究》上下. 中央研究院歷史語言研究所單刊之二十八, 台北:中央研究院歷史語言研究所.

麻 晓芳 (Ma, Xiaofang)

- 2020 西夏語動詞的命令式.《語言研究》40.2: 120–127.

[Photo Materials]

俄羅斯科学院・中国社会科学院・上海古籍出版社(編)

- 1996–2021 《俄藏黑水城文獻》1–30+. 上海:上海古籍出版社.

We use the Tangut font set from KONJAKU MOJIKYO (今昔文字鏡).

Appendix: phonology (grouping and transcription) of Tangut

1. Tones

Level tone (平声): 1 Rising tone (上声): 2 (unidentified: ?, 平声?: 1?, 上声?: 2?)

2. Initials

	Tangut	Chinese	points and manners	phonemes
1	𗉑𗉑𗉑	重唇音類	bilabial plosive	p, ph, b, m
2	𗉑𗉑𗉑	輕唇音類	bilabial approximant	w (v)
3	𗉑𗉑𗉑	舌頭音類	alveolar	t, th, d, n
4	𗉑𗉑𗉑	舌上音類	alveo-palatal	t', t'h, d', n'
5	𗉑𗉑	牙音類	velar	k, kh, g, ŋ
6	𗉑𗉑𗉑	齒頭音類	alveolar affricative	ts, tsh, dz, s
7	𗉑𗉑𗉑	正齒音類	post-alveolar affricative	tś, tśh, dź, ś
8	𗉑𗉑	喉音類	glottal	? (ʻ), h(x), fi (ɣ)
9	𗉑𗉑𗉑	流風音類	liquid	l, l (lh), r, ź

3. Rhymes

Tangut 105 Rhymes: group and transcription

	Circle1			Circle2			Circle3		
1	R. 1	1.1=2.1	u	R. 61	1.58=2.51	uq	R. 80	1.75=2.69	ur
2a	R. 2	1.2=2.2	yu	R. 62	1.59=2.52	yuq	R. 81	1.76=2.70	yur
2b	R. 3	1.3=2.3	yu						
3	R. 4	1.4=2.4	u:						
1	R. 5	1.5=2.5	u'						
2	R. 6	1.6	yu'						
3	R. 7	1.7=2.6	u:'						
1	R. 8	1.8=2.7	i				R. 82	1.77=2.71	ir
2	R. 9	1.9=2.8	yi	R. 63	1.60=2.53	yeq	R. 83	1.78	yir
3a	R. 10	1.10=2.9	i:						
3b	R. 11	1.11=2.10	i:				R. 84	1.79=2.72	i:r
1	R. 12	1.12=2.11	i'						
2	R. 13	1.13	yi'						
3	R. 14	1.14=2.12	i:'						

1	R. 15	1.15=2.13	in	R. 64	1.61=2.54	enq			
2	R. 16	1.16	yin	R. 65	1.62=2.55	yenq			
1	R. 17	1.17=2.14	a	R. 66	1.63=2.56	aq	R. 85	1.80=2.73	ar
2	R. 18	1.18=2.15	ya				R. 86	1.81	yar
3a	R. 19	1.19=2.16	a:	R. 67	1.64=2.57	a:q	R. 87	1.82=2.74	a:r
3b	R. 20	1.20=2.17	a:						
4	R. 21	1.21=2.18	ya:						
1	R. 22	1.22=2.19	a'				R. 88	1.83	ar'
2	R. 23	2.20	ya'				R. 89	2.75	yar'
3	R. 24	1.23=2.21	a:'						
1	R. 25	1.24=2.22	an						
2	R. 26	1.25=2.23	yan						
3	R. 27	1.26=2.24	a:n						
1	R. 28	1.27=2.25	I	R. 68	1.65=2.58	iq	R. 90	1.84=2.76	Ir
2	R. 29	1.28=2.26	yI	R. 69	1.66=2.59	yiq	R. 91	1.85	yIr
3a	R. 30	1.29=2.27	I:	R. 70	1.67=2.60	i:q	R. 92	1.86=2.77	I:r
3b	R. 31	1.30=2.28	I:						
1	R. 32	1.31	I'	R. 71	1.68	iq'			
2	R. 33	1.32=2.29	yI'						
3				R. 72	1.69=2.61	i:q'			
1	R. 34	1.33=2.30	e				R. 93	1.87=2.78	er
2	R. 35	1.34=2.31	ye				R. 94	1.88=2.79	yer
3a	R. 36	1.35=2.32	e:						
3b	R. 37	1.36=2.33	e:						
1	R. 38	1.37=2.34	e'						
2	R. 39	1.38	ye'						
3a	R. 40	1.39=2.35	e:'						
3b	R. 41	1.40	e:'						
1	R. 42	1.41=2.36	en						
2	R. 43	1.42=2.37	yen						
1	R. 44	1.43=2.38	eu						
2	R. 45	1.44=2.39	yeu						
3a	R. 46	1.45=2.40	eu:						
3b	R. 47	1.46	eu:						
1	R. 48	2.41	eu'						
2	R. 49	1.47	yeu'						
1a	R. 50	1.48	o	R. 73	1.70=2.62	oq	R. 95	1.89=2.80	or

1b	R. 51	1.49=2.42	o				
2	R. 52	1.50=2.43	yo			R. 96	1.90=2.81 yor
3	R. 53	1.51=2.44	o			R. 97	1.91=2.82 o:r
1	R. 54	1.52=2.45	o'				
2	R. 55	1.53=2.46	yo'				
1	R. 56	1.54=2.47	on	R. 74	1.71=2.63	onq	
2	R. 57	1.55=2.48	yon	R. 75	1.72=2.64	yonq	
3	R. 58	1.56=2.49	o:n				
1	R. 59	1.57	o''				
2	R. 60	2.50	yo''				
1						R. 98	2.83 wor
2						R. 99	2.84 ywor
1				R. 76	2.65	eqr	
2				R. 77	1.73=2.66	yeqr	
1				R. 78	2.67	eqr'	
2				R. 79	1.74=2.68	yeqr'	
				R.100	1.92=2.85	yIr	
				R.101	1.93=2.86	yer2	
				R.102	1.94	woq2	
R.103	1.95	ya:n					
R.104	1.96	un					
R.105	1.97	ua					