

Directional prefixes in Wobzi Khroskyabs

LAI Yunfan

Max Planck Institute for Evolutionary Anthropology

Summary

A considerable number of languages in the Burmo-Qiangic branch (Sino-Tibetan family) exhibit a series of prefixes indicating the direction of the action denoted by the verb. These prefixes are called “orientation prefixes” or “directional prefixes” (the latter term is selected in this chapter). More often than not, apart from indicating spatial or geographical directions, directional prefixes also possess verbal inflectional properties such as tense, aspect, modality, and evidentiality (TAME). Khroskyabs, a West Rgyalrongic language belonging to the Burmo-Qiangic branch and spoken in Western Sichuan, China, is no exception regarding this category of prefixes. Khroskyabs dialects usually exhibit six to eight directional prefixes that indicate vertical directions (upward or downward), fluvial directions (upstream or downstream), directions related to the mountains (dark side or sunny side of the mountain), and directions related to the bank of a river (left or right bank). Khroskyabs directional prefixes are assigned to verbs in order to mark TAME properties. For some of the inflectional categories, such as the perfective aspect and the imperative modality, the directional prefix assigned is purely lexical and cannot be predicted through the semantics of the verb. In this chapter, I focus on the directional prefixes in the variety of Wobzi, describing their phonology and morphology as well as their major spatial and inflectional functions. After the description, the case of Wobzi is compared to other Khroskyabs varieties such as Guanyinqiao, Siyuewu, ‘Brongrdzong, and ‘Jorogs followed by a cross-Rgyalrongic comparison with other West Gyalrongic (such as Horpa-Stau varieties like Khang.gsar and G.yu.rong) and Rgyalrong languages (such as Japhug and Tshobdun). It is observed that most Rgyalrongic languages share a portion of directional prefixes that are formally similar to each other and that are undoubtedly cognates. However, the semantics and usages of these prefixes must have undergone independent evolutionary processes and pathways, which leads to the fact that they differ drastically in terms of functions.

Key words: Rgyalrongic languages, Khroskyabs, Wobzi, Rgyalrongic, directional prefixes

关键词：嘉绒语组、绰斯甲语、俄热话、形态句法、趋向前缀

1. Introduction

Khroskyabs is a Rgyalrongic language spoken in Rngaba Prefecture, Sichuan, China (see Figure 1). It is a polysynthetic language with a rich phonology and morphology (Lai 2017). This paper focuses on the directional prefixes in the Wobzi dialect of Khroskyabs, which is spoken by around 350 people in the hamlet of *ʌagú*, in Township Ere (俄熱鄉), Jinchuan County (金川縣).

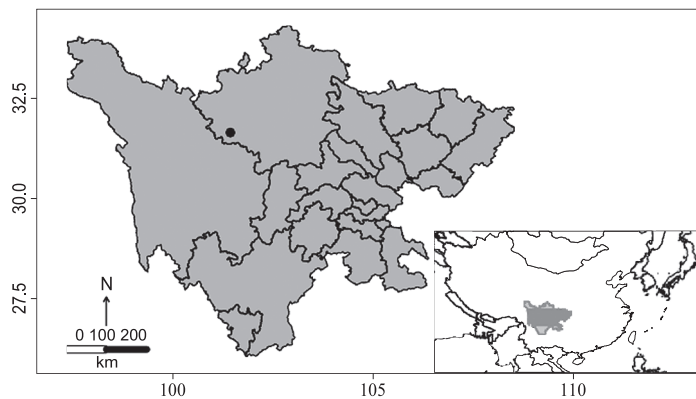


Figure 1 Location of Khroskyabs in Sichuan, China

2. Verbal template

Verbs in Wobzi Khroskyabs have a templatic morphology that is overwhelmingly prefixing. There are 11 prefixal slots and two suffixal slots, including both inflectional and derivational affixes. The affix order in this template is fixed and cannot be changed; every affix stays in its own slot. See Table 1 for an illustration of the verbal template.

Table 1 Verbal template of Wobzi Khroskyabs

-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0	1	2
		<i>u-</i>	<i>mə-</i>						<i>s-</i>				
<i>sâ_a-</i>	<i>æ-</i> , <i>næ-</i> , etc.	<i>â-</i>	<i>tə-</i>	<i>zâ-</i>	<i>ɸ-</i>	<i>N-</i>	<i>v-</i>	<i>z-</i>	<i>ɸjæ̂-</i>	Noun	Verb	<i>-ŋ, -j, -n</i>	<i>-Ca/u</i>
<i>sâ_b-</i>			<i>çə-</i>										
Inflection					Derivation					Stem		Inflection	REDUP

Prefixes:

- 1 Incorporation
- 2 Reflexive *ɸjæ̂-*
- 3 Causative *s-*, Causative *z-*
- 4 Causative *v-*
- 5 Autobenefactive *N-*
- 6 Intransitive-reciprocal *ɸ-*
- 7 Conditionnal *zâ-*
- 8 Negative *mə-/ma-/ma-*, negative irrealis *tə-*, interrogative *çə-*
- 9 Inverse *u-*, irrealis *â-*
- 10 Directional-TAME *æ-, næ-, kə-, nə-, læ- və-, rə-*
- 11 Progressive *sâ_a-*, superlative *sâ_b-*

Suffixes:

- 1 Personal suffixes *-ŋ, -j, -n*
- 2 Reduplication

3. Directional prefixes

There are seven directional prefixes in Wobzi. They occupy position –10 in the verbal template (Table 2).

Table 2 Directional prefixes in Wobzi

Prefixes	Directions
<i>æ-</i>	upwards (vertical)
<i>næ-</i>	downwards (vertical)
<i>kə-</i>	upstream
<i>nə-</i>	downstream
<i>læ-</i>	towards the left bank, or a higher altitude
<i>və-</i>	towards the right bank, or a lower altitude
<i>rə-</i>	neutral

These morphemes are called “directional prefixes” according to their function. They are considered “primary” by the academic tradition of this domain (this probably also reflects their origin) in order to indicate the direction toward which the event denoted by a verb takes place. Directional prefixes are not only used for this spatial function. Indeed, directional prefixes play a very important role in verbal inflections in Wobzi, and they combine with different stems of verbs and other affixes to affect the conjugation for tense-aspect-modality (TAM) in most cases.

3.1 Morphophonology

In the presence of the inverse prefix *u-* or the irrealis *â-*, Wobzi directional prefixes lose their original vowels and merge with the two latter prefixes. See (1) for examples with the directional prefixes *æ-* and *næ-*:

- (1) a. *næ-*
næ-â- → *n-â-*
næ-u- → *n-u-*
- b. *æ-*
æ-â- → *â-*
æ-u- → *u-*

Because the prefixes merge in this way, the distinction between *nə-* and *næ-* is neutralized when *u-* ‘INV’ and *â-* ‘IRR’ are present because both have *n-u-* or *n-a-* as surface forms. Combined with the interrogative *ə-*, the directional prefixes take the tone of the latter, which drops after the merger:

- (2) a. *næ-*
næ-ə- → *nâ-*
- b. *æ-*
æ-ə- → *â-*

3.2 Spatial functions

When the base verb denotes spatial displacement—for example, a motion verb or a conveyance verb like *kʰâ* ‘give’ or *tʰé* ‘bring’—the addition of a directional prefix indicates the direction in which the action of the verb proceeds. We have already seen all Wobzi directional prefixes in Table 2. In this section, we will describe their spatial functions.

Figure 2 shows Thugschen, a typical village in the area where Khroskyabs is spoken. The village is located between two mountain ranges and is separated in the middle by a river.



Figure 2 Thugschen (March 2014)

In Figure 2, the stream runs toward the reader. We can thus call the bank on the left side of the photo the right bank (*vuyâr* in Wobzi Khroskyabs) and the bank on the right side of the photo the left bank (or *luyâr*). If we are describing a verb's action happening in the direction of *vuyâr*, we use the prefix *və-* on the verb. If we are describing a verb's action happening in the direction of *luyâr*, we use the prefix *læ-* on the verb. The prefix *læ-* is also used when describing movement in the direction of higher altitude and *və-* is used to describe movement to a lower altitude when one is not sure of the river reference.

In addition, if we proceed in the same direction as the stream (downstream), we use *nə-*, and if we proceed in the opposite direction, we use *kə-*. On the vertical plane, we use *æ-* if the action proceeds upwards and *næ-* if the action proceeds downward. We can also use the prefix *rə-* to indicate an unknown or undefined direction. See Figure 3 below for a better visualization of how these directional prefixes work.

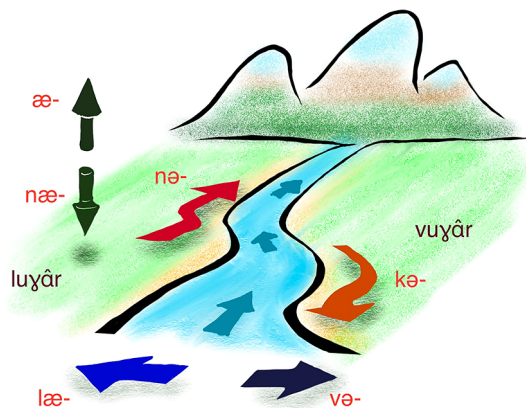


Figure 3 Spatial functions of directional prefixes

Thus, to express motion toward a mountain, we can generally use *æ-* (upward) because it helps us describe the difference in altitude between the ground and the top of the mountain:

- (3) $p^h\acute{a} = t^h\acute{a}$ $\acute{x}\text{-}v\text{-}\acute{o}\eta$
 mountain=LOC NPST:up-go₁-1SG
 ‘I go in the mountain.’

Alternatively, if one moves towards the Autonomous Region of Tibet, *æ-* is used because its altitude is significantly elevated:

- (4) $\acute{l}\acute{a}sa$ $\acute{x}\text{-}\zeta\acute{x}\text{-}n$
 Tibet IMP:up-go₃-2
 ‘Go to Tibet!’

Likewise, when moving toward Chengdu or Han regions of China, the altitude is significantly lower than that of the Khroskyabs region. So, we use the prefix *næ-*, for ‘down’:

- (5) $\langle Ch\acute{e}nd\acute{u} \rangle$ $n\acute{x}\text{-}v\text{-}\acute{o}\eta$
 Chengdu NPST:down-go₁-1SG
 ‘I go to Chengdu.’

Furthermore, villagers often use *kə-* ‘upstream’ and *nə-* ‘downstream’ to describe movement within the Khroskyabs and Rgyalrong regions, because villages are typically built on the banks of rivers:

- (6) a. $mb\acute{x}erk^h\acute{x}\acute{e}m$ $n\acute{x}\text{-}v\acute{x}\text{-}n = t\zeta^h\acute{x}\eta$
 ‘Barkhams NPST:downstream-go₁-2=Q
 ‘Do you go to ‘Barkhams?’ (asked from Wobzi)’
- b. $p^h\acute{o}s\acute{e}$ $k\acute{x}\text{-}v\text{-}\acute{o}\eta$
 Phosul NPST:upstream-go₁-1SG
 ‘I go to Phosul. (asked from Wobzi)’

The prefix *kə-* can denote a centripetal meaning, i.e., an action directed towards the deictic center:

- (7) *kə-vjî-n*
 IMP:upstream-come₃-2
 ‘Come (to me)!’

A sequence of two identical verbs with one prefixed with *kə-* and the other prefixed with *nə-* means that the denoted action is moving in all directions. This *kə-*verb *nə-*verb construction is often treated as an action noun, which requires a light verb *vî* ‘do’ to become a predicate:

- (8) *mârgo* *kə-vê* *nə-vê* *kə-jmbjâm*
 sky NPST-go₁ NPST:downstream-go₁ NPST:upstream-fly₁
- nə-jmbjâm* *n-u-vî = si*
 NPST:downstream-fly₁ PST-INV-do₂=IFR
- ‘He flew here and there in the sky.’

This construction can be conjugated, however, as a predicate:

- (9) *ŋô* *kə-v-ôŋ* *nə-v-ôŋ*
 1SG NPST:upstream-go₁-1SG NPST:downstream-go₁-1SG
- ‘I go everywhere.’

Thus the pair of directional prefixes *læ-* and *və-*, although literally indicating direction toward a higher and a lower altitude, respectively, can take on expanded meanings through use. We will address a few other instances of these expanded meanings here. For instance, the prefix *læ-* ‘toward a high altitude’ is also employed when an action is directed from an ordinary person to a respected person, such as an elderly person, a guest, a great monk, or a reincarnated monk:

- (10) a. *bayváy* *bótpa = ji = yə* *çaxpə~çpa* *mbrærka~rku*
 Tibetan.liquor Tibetan=PL=ERG friend~CAT relative~CAT
- rə-tô = ska* *l-u-stî = spi* *rây* *ŋé*
 NPST-come₁=NMLZ:time NPST:high-INV-put₁=NMLZ:P.IRR one be₁

‘Tibetan liquor is what Tibetans offer to friends and relatives when they come.’

- b. $k^h\hat{e}d\grave{a}er = t\grave{a}$ < $M\acute{a}ozh\grave{u}x\acute{i}$ > = k^he $l\grave{a}e-k^h\hat{a}-n$
kha.btags Chairman.Mao=DAT IMP:high-give₁-2

‘Give the *kha.btags* scarf to Chairman Mao.’

These same prefixes are also used to describe rises and falls in the prices of goods:

- (11) a. $c\hat{a}$ $ts^h\hat{o}\eta k^h\hat{a}\eta = g\grave{o}$ $ft\zeta al\acute{a} = ji$ $g\acute{u}\eta = t\grave{a}$ $l\grave{a}e-ɲc^h\acute{e}$
 DEM shop=LOC thing=GEN price=DEF NPST:high-become.big₁

$k\hat{a}$ $n\grave{a}-bj\acute{o}m = si$
 too IPFV.PST-be.quick₂=IFR

‘The price of items in this store was growing too fast.’

- b. $k^hasl\acute{i}$ $p^h\acute{a}ɣ\acute{c}\acute{i}$ $g\acute{u}\eta$ $v\grave{a}-c\hat{a}c\grave{a}$
 next.month pork price NPST:low-move₁

‘Next month, the price of pork will fall.’

The last directional prefix, $r\grave{a}-$, can be used when the direction of a verb is not determined:

- (12) a. $\eta\hat{a}la$ $r\grave{a}-v\hat{a}_a-n$
 where NPST:NEUTRAL-go₁-2

‘Where are you going?’

- b. < $w\grave{a}igu\acute{o}r\acute{e}n$ > $r\acute{a}y$ $r\grave{a}-t\hat{o}$
 foreigner one NPST:NEUTRAL-come₁

‘A foreigner will come.’

3.3 TAM functions

The directional prefixes not only indicate the direction of the action, but also participate in the formation of the TAM categories in Wobzi Khroskyabs. They can be used in combination with the different stems of the verb to mark the non-past, the past (for dynamic verbs) the past imperfective, and the perfective (for stative verbs):

- (13) a. Non-past

janjú rə-dz-âŋ
 potato NPST-eat₁-1SG

‘I eat/will eat potatoes.’

- b. Past imperfective

câ sæp^hô = tə næ-lŋâ = pa rə-ŋæ
 DEM tree=DEF IPFV.PST-be.small₂=NMLZ NPST-be₁

‘The tree was small.’

- c. Perfective

dzî = spi æ-mî = si
 eat₁=NMLZ:P.IRR PFV-NON.EXIST₂=IFR

‘The food disappeared.’

In combination with other inflectional affixes, the directional prefixes can mark different modalities. For example:

- (14) a. Jussive

sæp^hô~p^hu n-â-ɣbay
 tree~CAT IPFV-IRR-be.many₁

‘May there be many trees.’

- b. Interrogative

nî bótɣa ê-ŋæ
 2SG Tibetan Q-be₁

‘Are you Tibetan?’

3.4 Compatibility with verbs

If the directional prefixes for other TAM categories are rather homogeneous, the directional prefix assigned for **perfective** (for stative verbs) and **past** (for dynamic verbs) is purely

lexical and arbitrary vis-à-vis the verb and thus cannot be predicted. Sun (2003: 496) and Jacques (2008: 281) have also noted the arbitrary selection of directional prefixes.

In general, the most common directional prefixes that function as TAM markers are *æ-* ‘up’, *næ-* ‘down’, *kə-* ‘upstream’, *nə-* ‘downstream’, and *rə-* ‘undefined direction’. The prefixes *læ-* ‘toward a high altitude’ and *və-* ‘toward a low altitude’ are less common, and are used when the corresponding direction is also needed. Table 3 lists some examples of compatibility.

Table 3 Compatibility of directional prefixes - verbs (past)

Prefixes	Verbs	Gloss
<i>æ-</i>	<i>dzî</i>	eat
	<i>nsrí</i>	consult
	<i>nt^hæ̂tsəm</i>	be shocked
	<i>nvlâ</i>	dig
<i>næ-</i>	<i>ndzé</i>	learn
	<i>ntɕonî</i>	dance
	<i>ɲjú</i>	lose
	<i>nscêre</i>	live (a life)
<i>kə-</i>	<i>p^hám</i>	cover
	<i>p^hráy</i>	attach
	<i>ræ̂</i>	write
	<i>rdá</i>	knock
<i>nə-</i>	<i>rê</i>	existential verb
	<i>ryæ̂ryæ̂</i>	ask, discuss
	<i>lmâ</i>	forget
	<i>χsôŋ</i>	say.HON
<i>læ-</i>	<i>t^hæ̂</i>	take care (of somebody)
	<i>tɕ^hâ</i>	press
<i>və-</i>	<i>nqláy</i>	swallow
	<i>ɛlələ</i>	choke

Thus, for example, for the verb *dzî* ‘to eat’, the past form necessarily bears the prefix *æ-*, and none of the other directional prefixes is acceptable in a normal context:

- (15) a. $\text{\textit{\ae}t\text{\textit{\delta}} = \gamma\text{\textit{\delta}}}$ $\text{\textit{z}am\text{\textit{\hat{a}}}}$ $\text{\textit{u-dz\text{\textit{i}}}}$
 3SG=ERG meal PST.INV-eat₂
- ‘He ate the meal.’
- b. $\text{\textit{\ae}t\text{\textit{\delta}} = \gamma\text{\textit{\delta}}}$ $\text{\textit{z}am\text{\textit{\hat{a}}}}$ $\text{\textit{*n/l/k/v-u-dz\text{\textit{i}}}}$
 3SG=ERG meal PST.INV-eat₂

We could translate *n/l/k/vu- dzí* ‘pst-inv-eat’ as “eating something from one end to the other.” Although this is a possible and correct form, it is a seldom used form.

Only four verbs do not carry a directional prefix in the past in Wobzi Khroskyabs: *vdé* ‘see’, *smé* ‘hear’, *v\text{\textit{\delta}}* ‘come’, and *vj\text{\textit{\hat{t}}}* ‘come’:

- (16) a. $\text{\textit{t\text{\textit{\varsigma}}a\text{\textit{\varsigma}}\text{\textit{\hat{t}}} = \gamma\text{\textit{\delta}}}$ $\text{\textit{\textit{t}am\text{\textit{\hat{u}}}}$ $\text{\textit{vd\text{\textit{e}}}}$
 Bkrashis=ERG Lhamo see₂
- ‘Bkrashis saw Lhamo.’
- b. $\text{\textit{t\text{\textit{\varsigma}}a\text{\textit{\varsigma}}\text{\textit{\hat{t}}} = \gamma\text{\textit{\delta}}}$ $\text{\textit{\textit{t}am\text{\textit{\hat{u}}}}$ $\text{\textit{sm\text{\textit{e}}}}$
 Bkrashis=ERG Lhamo hear₂
- ‘Bkrashis heard Lhamo.’
- c. $\text{\textit{t\text{\textit{\varsigma}}a\text{\textit{\varsigma}}\text{\textit{\hat{t}}}}$ $\text{\textit{\eta g\text{\textit{\delta}}\text{\textit{\eta}}\text{\textit{\delta}}i} = g\text{\textit{\ae}}}$ $\text{\textit{vj\text{\textit{i}}/v\text{\textit{\delta}}_b} = s\text{\textit{i}}}$
 Bkrashis 1PL=COM come₂=IFR
- ‘Bkrashis came to our home.’

It is notable that the cognate of *vdé* ‘to see’ in Khang.gsar stau, *vd\text{\textit{e}}*, has the same irregularity.

3.5 Comparative study

A considerable number of languages spoken in western Sichuan have directional prefixes that function in a similar way to those in Wobzi Khroskyabs. Some works published on directional prefixes include Shirai (2009) on nDrapa (spoken in Dkar.mdzes Prefecture), Lín and Luóěrwǔ (2003) on the variety of Dazang found in Japhug, Lin (2002) on Situ, and Gao and Rao’s (2017) manuscript on Menya, spoken in Dkar.mdzes.

Because these languages share this feature, some specialists group these languages in the same linguistic branch, called “Qiangic”. For example, Sun (2001: 169) states:

The fact that Qiangic languages use prefixes to express the category of orientation is an important feature of this branch.¹

3.5.1 Orientation systems

However, not all languages with a system of directional prefixes share the same system of spatial orientation. LaPolla (2003: 30) summarizes three main orientation systems observed in the languages of this region. Here, we have added compass directions as a fourth orientation system, as attested in Rgyalrongic languages:

- (17) 1. Relative reference: up, down; inward, outward; to the speaker, away from the speaker.
 2. Fluvial reference: upstream, downstream
 3. Reference to a mountain: towards the mountain, away from the mountain
 4. Compass reference: east, west, north, south

Although Wobzi directional prefixes use relative and fluvial reference, not all Rgyalrongic languages, even within varieties of Khroskyabs, adopt the same orientation systems. To discuss this further, we will first introduce the directional prefix systems found in three other varieties of Khroskyabs: Guanyinqiao (personal investigation 2010), Siyuewu (personal investigation 2015–2016), and 'Jorogs (Yin 2007). We will then explore directional prefixes in Japhug (Jacques 2004), and Tshobdun (Sun 2007), which are both Rgyalrong languages. Finally, we will explore directional prefixes in both Stau of Khang.gsar (Jacques et al. 2017), and G.yurong Stau (personal investigation 2014).

The system of Guanyinqiao Khroskyabs is similar to that of Wobzi. There are, however, some differences in the pronunciation of some prefixes (Table 4):

Table 4 Directional prefixes in Guanyinqiao Khroskyabs

Prefixes	Directions
<i>a-</i>	upwards (vertical)
<i>na-</i>	downwards (vertical)
<i>ka-</i>	upstream
<i>nə-</i>	downstream
<i>la-</i>	toward the side of a higher mountain
<i>və-</i>	toward the side of a lower mountain
<i>rə-</i>	neutral

¹“羌语支语言用前缀的方式表达趋向范畴是这个语支的一个重要特征。”

Use of the pair *la-* ‘toward the side of the higher mountain’ and *və-* ‘toward the side of the lower mountain’, however, requires some precision, as they are used differently depending on the shore the speaker is on. This phenomenon is illustrated in Figure 4.

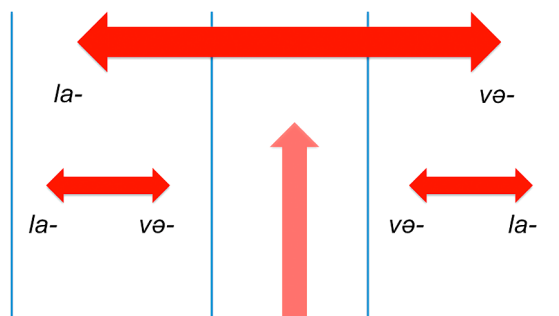


Figure 4 Use of *la-* and *və-* in Guanyinqiao Khroskyabs

When verbs refer to the whole river, the directional prefixes in Guanyinqiao are used in the same way as those in Wobzi. However, when we analyze the use of directional prefixes referring to each bank, we can see the use of this pair of prefixes on one bank and the mirror image on the other. In fact, the mountain on the left bank (*la-*), where the region’s most famous Buddhist monastery is located, is higher than that on the right bank (*və-*). Furthermore, on either bank the prefix *la-* always indicates a direction toward the mountain of the corresponding bank, and *və-* a direction toward the river.

In Siyuewu Khroskyabs, we can see a striking difference in the use of directional prefixes (Table 5):

Table 5 Directional prefixes in Siyuewu Khroskyabs

Prefixes	Directions
<i>o-</i>	upwards (vertical)
<i>næ-</i>	downwards (vertical)
<i>kə-</i>	to the dark side of the mountain
<i>nə-</i>	to the sunny side of the mountain
<i>læ-</i>	upstream
<i>və-</i>	downstream
<i>rə-</i>	neutral
<i>æ-</i>	neutral

Table 5 shows that in Siyuewu, unlike Wobzi and Guanyinqiao, *kə-* and *nə-* do not indicate the direction of the water’s flow (i.e., upstream/downstream). Instead, they indicate

direction with reference to the mountain—specifically, the dark and sunny sides of the mountain. We also see that the pair *læ-* and *və-* indicate the upstream and downstream directions. In addition, we can see the inclusion of the neutral direction prefix *æ-*, which is only found on motion verbs and cannot be combined with the irrealis with *a-* ‘IRR’:

- (18) $\eta\hat{x}$ < *Chéndū* > $\hat{x}\text{-}v\text{-}\hat{o}\eta$
 1SG Chengdu NPST:neutral-go₁-1SG

‘I go to Chengdu.’

According to Yin (2007: 129), ’Jorogs Khroskyabs has six directional prefixes (Table 6):

Table 6 Directional prefixes in ’Jorogs Khroskyabs

Prefixes	Directions
<i>o-</i>	upwards (vertical)
<i>na-</i>	downwards (vertical)
<i>ko-</i>	toward the east
<i>ni-</i>	toward the west
<i>la-</i>	upstream
<i>vo-</i>	downstream

Here, we see that directional prefixes in ’Jorogs adopt the compass references *ko-* ‘toward the east’ and *ni-* ‘to the west’, and that these do not directly correspond to Wobzi *kə-* ‘towards upstream’ and *nə-* ‘downstream’, or to Siyuewu *kə-* ‘toward the dark side’ and *nə-* ‘toward the sunny side’. The pair *la-* and *vo-*, which indicate upstream and downstream directions in ’Jorogs, correspond more closely to Siyuewu *læ-* ‘upstream’ and *və-* ‘downstream’ and Wobzi *læ-* ‘toward left bank, higher altitude’ and *və-* ‘toward right bank, lower altitude’.

Rgyalrong languages such as Japhug and Tshobdun share roughly the same directional prefix system. As we can see in Table 7, they distinguish between three systems of reference: the vertical relative (up, down), the fluvial (upstream and downstream), and compass directions (east, west):

Table 7 Directional prefixes in Rgyalrong languages

Japhug	Tshobdun	Directions
<i>tɣ-</i>	<i>tə-</i>	upwards (vertical)
<i>puu-</i>	<i>nə-</i>	downwards (vertical)
<i>kɣ-</i>	<i>kə-</i>	towards the east
<i>nuu-</i>	<i>nə-</i>	towards the west
<i>lɣ-</i>	<i>lə-</i>	upstream
<i>t^huu-</i>	<i>t^hə-</i>	downstream
<i>jɣ-</i>		neutral

The directional prefixes of these two languages are in most cases related and share the same directional functions, except that Japhug *puu-* ‘down’ has recently been grammaticalized as *u-pa* ‘low’ (cognate of Wobzi = *vi* ‘at the bottom of’).

The two varieties of Horpa-Stau that are known to scholars also have direction-related prefixes, as we can see in Table 8:

Table 8 Directional prefixes in Horpa-Stau varieties

Khang.gsar	G.yu.rong	Directions
<i>rə-</i>	<i>ə-</i>	upwards (vertical)
<i>nə-</i>	<i>nə-</i>	downwards (vertical)
<i>kə-</i>	<i>gə-</i>	toward the north
<i>ɣə-</i>	<i>ɣə-</i>	toward the south
<i>tə-</i>	<i>də-</i>	neutral

Unlike the compass-related directional prefixes included in the two Rgyalrong languages described above, those in Horpa-Stau languages run north and south. To our knowledge, there is no river reference in Horpa-Stau languages.

3.5.2 Inflectional categories of directional prefixes

In most Rgyalrongic languages described here, directional prefixes serve not only to indicate the direction of the action described by the verb, but also TAM properties. In Japhug, the directional prefixes are divided into four series distinguished by a vowel change (or accompanied by a conditioned consonant change), and each series indicates one or more different TAM properties:

- (19) Use of four sets of directional prefixes in Japhug
1. Series 1: perfective of 1ST and 2ND persons; imperative
 2. Series 2: imperfective; past indirect mediative (2ND person)
 3. Series 3: perfective 3RD person
 4. Series 4: past indirect mediative (3RD person)

The shapes of the different series of directional prefixes are shown in Table 9:

Table 9 Japhug directional prefix series (Jacques 2004: 359)

	up	down	upstream	downstream	east	west	neutral
Series 1	<i>tx-</i>	<i>pu-</i>	<i>lx-</i>	<i>t^hu-</i>	<i>kx-</i>	<i>nu-</i>	<i>jx-</i>
Series 2	<i>tu-</i>	<i>pju-</i>	<i>lu-</i>	<i>c^hu-</i>	<i>ku-</i>	<i>u-</i>	<i>ju-</i>
Series 3	<i>ta-</i>	<i>pa-</i>	<i>la-</i>	<i>t^ha-</i>	<i>ka-</i>	<i>nu-</i>	<i>ja-</i>
Series 4	<i>to-</i>	<i>pjx/pjo-</i>	<i>lo-</i>	<i>c^hx/c^ho-</i>	<i>ko-</i>	<i>jx-/jo-</i>	<i>jo-</i>

This series analysis is adopted by many Rgyalrongic languages, even by speakers of 'Brongdzong Khroskyabs (Sun 2000: 183), who use two series of directional prefixes (Table 10):

Table 10 Series of directional prefixes in 'Brongdzong Khroskyabs

	up	down	dark side	sunny side	downstream	upstream
Series 1 (default)	<i>ɬ-</i>	<i>nɬ-</i>	<i>kɬ-</i>	<i>nə-</i>	<i>və-</i>	<i>lɬ-</i>
Series 2 (inverse)	<i>ə-</i>	<i>nə-</i>	<i>kə-</i>	<i>nə-</i>	<i>və-</i>	<i>lə-</i>

The Siyuewu khroskyabs system can also be analyzed in series (Table 11):

Table 11 Directional prefix series in Siyuewu Khroskyabs

	neutral 1	neutral 2	up	down	dark side	sunny side	downstream	upstream
Series 1 (default)	<i>æ-</i>	<i>rə-</i>	<i>o-</i>	<i>næ-</i>	<i>kə-</i>	<i>nə-</i>	<i>və-</i>	<i>læ-</i>
Series 2 (inverse)		<i>ru-</i>	<i>a-</i>	<i>na-</i>	<i>ku-</i>	<i>nu-</i>	<i>vu-</i>	<i>la-</i>
Series 3 (irrealis)		<i>râ-</i>	<i>â-</i>	<i>nâ-</i>	<i>kâ-</i>	<i>nâ-</i>	<i>vâ-</i>	<i>lâ-</i>

Nevertheless, we do not choose to adopt a serial interpretation of Wobzi directional prefixes that have merged with the inverse *u-* or the irrealis *ā-* because the prefix *u-* at least can exist alone without the intervention of a directional prefix.

Various varieties of Stau also present two series of directional prefixes—one default and the other interrogative/irrealis (Tables 12 and 13):

Table 12 Directional prefix series in Khang.gsar Stau

	up	down	north	south	neutral
Series 1 (default)	<i>rə-</i>	<i>nə-</i>	<i>kə-</i>	<i>ɣə-</i>	<i>tə-</i>
Series 2 (IRR/Q)	<i>rí-</i>	<i>ní-</i>	<i>kí-</i>	<i>ɣí-</i>	<i>tí-</i>

Table 13 Directional prefix series in G.yu.rong Stau

	up	down	north	south	neutral
Series 1 (default)	<i>ə-</i>	<i>nə-</i>	<i>gə-</i>	<i>ɣə-</i>	<i>də-</i>
Series 2 (IRR/Q)	<i>í-</i>	<i>ní-</i>	<i>gí-</i>	<i>ɣí-</i>	<i>dí-</i>

3.5.3 Summary

In summary, Rgyalrongic languages have directional prefixes, and these prefixes have developed in various ways in each language or dialect. Khroskyabs and G.yu.rong Stau have preserved the form of directional prefixes without the initial consonant *æ-*, *o-*, *ə-*, etc., and Rgyalrong and Khang.gsar Stau have forms in *tV-* or *rV-*, which are probably cognates, because the correspondence between Japhug *t-* :: Khang.gsar *rə-* is regular, for example, Japhug *tx-* ‘one’ :: khang.gsar *ru* ‘one’, but innovated from locative names denoting ‘high’ (Japhug *uu-tal* ‘surface’). Downward directions in these languages are usually indicated by the directional prefix *nV-*, except in Japhug, which uses *pu-*, newly innovated from *pa* ‘down’.

The pair of directional prefixes in *lV-* and *vV-* indicate upstream and downstream directions, respectively, in most cases. This is true except in Wobzi and Guanyinqiao, where the cognates of these two prefixes indicate direction toward the right and left bank of the river, to a higher or lower altitude, or toward or away from the mountain. All the directional implications of this pair are related to altitude, so it seems to us that *lV-* and *vV-* originally indicated the difference in altitude and developed differently in each dialect.

Wobzi and Guanyinqiao use *kV-* and *nə-* to refer to upstream and downstream directions. These prefixes’ cognates in other languages are ‘eastward’ and ‘westward’. In Siyewu Khroskyabs, they mean ‘toward the dark side of the mountain’ and ‘toward the sunny side of the mountain’. In these dialects, *kV-* can also indicate a centripetal direction. In Stau, the cognate of *kə-* indicates ‘north’ and *ɣə-* indicates ‘south’. These may be related to *vV-* in Khroskyabs, or may be an innovation. The centripetal meaning should be original for *kV-*, and its opposite meaning, indicated by *nə-*, can originally have indicated a centrifugal

direction with a downward trend, as it shares the same consonant as *næ-*.

The prefix for the undefined direction, *rə-* in Khroskyabs dialects, should be related to the Stau *tə-* or *də-*, with a lenition normally found in Khroskyabs. We compare the directional systems prefixed in Rgyalrongic languages in Table 14 below, with different background colors to indicate cognates.

Table 14 Comparison of directional prefixes in Rgyalrongic

	Khroskyabs				Stau-Horpa		Rgyalrong	
	Wobzi	Guanyinqiao	Siyuewu	'Jorogs	G.yu.rong	Khang.gsar	Japhug	Tshobdun
up	<i>æ-</i>	<i>a-</i>	<i>o-</i>	<i>o-</i>	<i>ə-</i>	<i>rə-</i>	<i>ɿ-</i>	<i>tə-</i>
down	<i>n-</i>	<i>na-</i>	<i>n-</i>	<i>na-</i>	<i>nə-</i>	<i>nə-</i>	<i>pu-</i>	<i>nb-</i>
upstream	<i>kə-</i>	<i>ka-</i>	<i>kə-</i> (dark side)	<i>kə-</i> (east)	<i>gə-</i> (north)	<i>kə-</i> (north)	<i>kɿ-</i> (east)	<i>kə-</i> (east)
downstream	<i>nə-</i>	<i>nə-</i>	<i>nə-</i> (sunny side)	<i>ni-</i> (west)			<i>nu-</i> (west)	<i>nə-</i> (west)
higher altitude	<i>læ-</i>	<i>la-</i>	<i>læ-</i>	<i>la-</i>			<i>lɿ-</i>	<i>lɿ-</i>
lower altitude	<i>və-</i>	<i>və-</i>	<i>və-</i>	<i>vo-</i>	<i>ɣə-</i> (south)	<i>ɣə-</i> (south)	<i>thu-</i>	<i>thə-</i>
undefined	<i>rə-</i>	<i>rə-</i>	<i>rə-</i>		<i>də-</i>	<i>tə-</i>	<i>ɟ-</i>	
undefined (2)			<i>æ-</i>					

Abbreviations

CAT	categorical	INV	inverse
COM	comitative	IPFV	imperfective
DAT	dative	IRR	irrealis
DEF	definite	LOC	locative
DEM	demonstrative	NMLZ	nominalizer
ERG	ergative	NPST	non-past
GEN	genitive	PFV	perfective
HON	honorific	PL	plural
IFR	inferential	Q	interrogative
IMP	imperative	SG	singular

References

[European Languages]

- Jacques, Guillaume (向柏霖)
 2004 Phonologie et morphologie du japhug (Rgyalrong). Doctoral Dissertation. Paris: Université Paris VII - Denis Diderot.
- Jacques, Guillaume (向柏霖) & Lai, Yunfan (赖云帆) & Antonov, Anton & Nima, Lobsang
 2017 Stau (Ergong, Horpa). In Thurgood, Graham & LaPolla, Randy (eds.), *The Sino-Tibetan Languages*. 597–613. 2nd edn. Abingdon and New York: Routledge.
- Lai, Yunfan (赖云帆)
 2017 Grammaire du khroskyabs de wobzi. Paris: Université Paris 3 - Sorbonne Nouvelle dissertation.
- LaPolla, Randy
 2003 An overview of Sino-Tibetan morphosyntax. In Thurgood, Graham & LaPolla, Randy J. (eds.), *The Sino-Tibetan Languages*. 22–42. London & New York: Routledge.

Lin, You-Jing (林幼菁)

- 2002 A dimension missed: East and west in situ rgyalrong orientation marking. *Language and Linguistics* 3: 27–42.

Shirai, Satoko (白井聡子)

- 2009 Directional Prefixes in nDrapa and Neighboring Languages: An Areal Feature of Western Sichuan. *Senri Ethnological Studies* 75: 7–20.

Sun, Jackson T.-S. (孫天心)

- 2000 Parallelisms in the Verb Morphology of Sidaba rGyalrong and Lavrung in rGyalrongic. *Language and Linguistics* 1.1: 161–190.
- 2003 Caodeng rGyalrong. In Thurgood, Graham & LaPolla, Randy (eds.), *The Sino-Tibetan languages*. 490–502. London: Routledge.
- 2007 The irrealis category in rGyalrong. *Language & Linguistics* 8.3: 797–819.

[Chinese]

高扬、饶敏 (Gao, Yang & Rao, Min)

- 2017 木雅语的趋向前缀. 《中央民族大学学报: 哲学社会科学版》2017.6: 158–167页.

向柏霖 (Jacques, Guillaume)

- 2008 《嘉絨語研究》北京: 民族出版社.

林幼菁、罗尔武 (Lín, Yòujīng & Luóěrwù)

- 2003 茶堡嘉戎语大藏话的趋向前缀及动词词干变化. 《民族语文》2003.4: 19–29.

孙宏开 (Sun, Hongkai)

- 2001 論藏緬語族中的羌語支語言. *Language and Linguistics* 2.1: 157–181.

尹蔚彬 (Yin, Weibin)

- 2007 《业隆拉坞戎语研究》北京: 民族出版社.