

Indefinite direction and associated motion prefixes in the Brag-bar dialect of Situ Rgyalrong

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Summary

Rgyalrong languages possess a set of directional prefixes and a set of associated motion prefixes, which can normally be distinguished from each other. The directional and associated motion prefixes occur in different slots in the verbal template and have different functions. The directional prefixes, related to spatial orientations, serve as the path satellite of a motion event, whereas the associated motion prefixes relate a motion co-event to a non-motion verb. In addition, they both have non-spatial functions. While the directional prefixes are known as the main sources of the TAME markers in all Rgyalrong languages, the associated motion prefixes are reported to have non-spatial functions only in some varieties.

The Brag-bar dialect of Situ Rgyalrong is attested with an unusual homophony between the indefinite directional prefix and the translocative (associated motion) prefix. Moreover, the translocative prefix in Brag-bar interacts with inferential past and obtains a non-spatial reading of *perfect-cum-continuative*, which is not yet reported in Rgyalrongic studies. Based on the description of the indefinite directional and translocative prefixes in Brag-bar, the present study attempts to clarify the different functions assumed by the two prefixes and to propose both semantic and morphological criteria to distinguish between them.

Key words: Brag-bar dialect of Situ Rgyalrong, indefinite directional prefix, translocative prefix, motion event, spatial/non-spatial function

关键词：四土嘉绒语白湾话、不定向趋向前缀、离己前缀、位移事件、空间/非空间功能

1. Introduction

Rgyalrong languages, like other Qiangic languages (Sun 1981; LaPolla 2003, 2017; Shirai 2009), possess a set of directional prefixes related to local geographic dimensions. These languages are one of the rare branches in Sino-Tibetan that have devoted associated motion (AM) markers (Jacques et al., to appear). The directional and AM prefixes serve not only to encode motion events, but also to mark the tense-aspect-modality-evidentiality (TAME).

Although previous studies discussed in detail the directional prefixes encoding specified geographic dimensions (e.g. upstream/downstream, east/west, etc.) (Nagano 1983: 53–69; Sun 2000: 180–185; Jacques 2008: 243–258; Prins 2016: 407–414; Lin 2002, 2017), the orientationally unspecified indefinite directional prefix is only briefly mentioned (Nagano 1983: 71–73; Jacques 2008: 246; Lin 2016: 32; Prins 2016: 421–423). In addition, the translocative (AM) prefixes are also reported to have non-spatial functions in some varieties (Jacques 2008: 295–297), which is an under-reported phenomenon.

The Brag-bar dialect of Situ Rgyalrong is attested with an unusual homophony between the indefinite directional prefix ɕɛ- and the translocative (AM) prefix ɕɛ- , leading to ambiguities in terms of interpretation. The present paper attempts to clarify the different functions assumed by the two prefixes and to propose both semantic and morphological criteria to distinguish between them.

After a brief presentation on the direction and AM in general and in Rgyalrong languages in Section 2, I show the position of the directional and AM prefixes in the Brag-bar verbal template in Section 3. Sections 4 and 5 illustrate how the directional and AM systems function in Brag-bar. In Section 6, I explain in detail both the spatial and non-spatial functions related to the translocative prefix ɕɛ- . In Section 7, I discuss the indefinite directional prefix ɕɛ- , proposing both morphological and semantic criteria to distinguish it from the translocative prefix ɕɛ- . Finally, a brief comparative perspective in Rgyalrong languages is included in Section 8.

Brag-bar distinguishes 43 consonants (Table 1) and eight vowels (Table 2). This allows many complex consonant clusters, such as ɕkr- , rŋg- , ɕtɕ- , and sr- . The most complex consonant cluster found in my corpus is pɕtw- , as in the ideophone pɕtɕ.pɕtwat ‘pull suddenly and forcefully (as in a tug-of-war)’.

Table 1 Consonant inventory of Brag-bar

	Labial	Alveolar	Retroflex	Alveolo-palatal	Palatal	Velar
Voiceless Stop	p	t			c	k
Voiceless aspirated top	ph	th			ch	kh
Voiced Stop	b	d			ʃ	g
Prenasalized stop	mb	nd			ɲʃ	ŋg
Voiceless affricate		ts	tʂ	tɕ		
Voiceless aspirated affricate		tsh	tʂh	tɕh		
Voiced affricate		dz	dʂ	dʒ		
Prenasalized affricate		ndz	ndʂ	ndʒ		
Voiceless fricative		s		ɕ		x
Voiced fricative	v	z		ʒ		
Nasal	m	n			ɲ	ŋ
Trill		r				
Approximant	w	l / ɭ			j	

Table 2 Vowel inventory of Brag-bar

	Front	Central	Back
Close	i		u
Close-mid	e (iə)	ə	o
Open-mid	iɛ	ɐ	
Open		a	

Brag-bar also has a tonal system showing a binary contrast between a high-level tone and a falling tone, transcribed as $\acute{\sigma}$ and $\hat{\sigma}$, respectively. The final syllable is accented by default and receives either a high-level tone or a falling tone. Tonal contrasts are neutralized when a non-final syllable receives the accent (transcribed as $\sigma\dots\acute{\sigma}$). In particular morphological processes, initial accent can be introduced by accented prefixes, such as the inferential prefix $\acute{\sigma}$ -, and the sensory prefix $n\acute{a}$ -. For a detailed description of tone and accent in Brag-bar, see Zhang (2020: 90–105).

2. Background information

2.1 Associated motion and direction

The associated motion, first described in indigenous Australian languages (Koch 1984; Wilkins 1991), is a grammatical category specifying that the event denoted by the verb is associated with a motion as its co-event. According to the definition proposed by Guillaume (2016), the defining criteria of the associated motion concern two aspects. First, the associated motion is expressed by grammatical markers, such as verbal affixes and clitics. Therefore, expression of a motion co-event by verbal lexemes, such as in multi-verb constructions, is excluded. Second, the associated movement marker must be the element introducing the semantic component of motion.

The associated motion can be illustrated by the AM verbal suffixes in Cavineña (Tacanan). As shown in (1), the *satellite* ‘-ti’ associates a translocative motion with the verb root and simultaneously encodes the deictic path indicating that the motion is away from the deictic center.

- (1) Associated motion suffix in Cavineña (Guillaume 2006: 434)

Tudya	= ekwana	ba	-ti	-kaware	takure
then	=1PL	to.see	-GO.TEMP	PASS.REV	chicken
		V_{root}	motion		
			deictic path		

‘Then we went to see our chickens...’

The associated motion must be distinguished from the direction (or orientation in Rgyalrongic litteration, see for example Sun 2000 etc.), whose markers specify the path of a motion or the site occupied by the *figure* in the case of localization (Guillaume 2006: 420). Therefore, a major difference between the directional and the associated motion is that, in most cases, directionals only encode path information and are not the element that introduces the semantics of motion.

In English, the directional system can be exemplified by the path satellites. As shown in (2), the path satellite ‘up into’ encodes the path of the motion, which is denoted by the main verb ‘to go’.

- (2) Path satellite in English (Guillaume 2006: 434)

<i>The child</i>	<i>goes</i>	<i>up into</i>	<i>his room</i>
	V_{root}	path	
	motion		

The associated motion remained as an unknown category for a long time until this category was identified in a number of languages from different linguistic families on different continents: the indigenous languages of the Americas (Guillaume 2016; Rose 2015; Vuillermet 2012) and some African languages from the Niger-Congo, Nilotic, and Afro-Asiatic phylum (Belkadi 2015; Voisin 2013). Recently, this category was reported in Sino-Tibetan (Genetti et al. 2020; Jacques et al. to appear; Lamarre 2020; Lamarre et al. Manuscript), as well as in other language families in Asia, such as the Tungusic languages (Stoyanova 2016; Alonso de la Fuente and Jacques 2018).

2.2 Directional and associated motion in Rgyalrong languages

The Rgyalrong languages are spoken in the Western Sichuan Province of China. They belong to the Burmo-Qiangic branch of the Sino-Tibetan family and form the Rgyalrongic sub-group together with Khroskyabs, Horpa-Stau, and Tangut (Sun 2000: 167; Jacques 2004: 5–7; Lai et al. 2020). The Rgyalrongic group stands out from most Sino-Tibetan languages for their conservative phonology and complex verbal morphology.

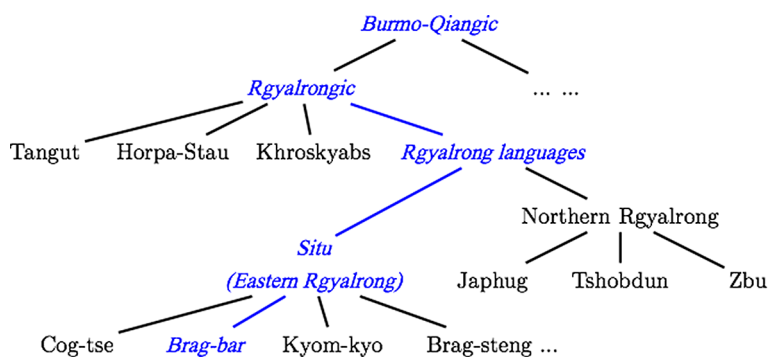


Figure 1 Stammbaum

In Sino-Tibetan, AM was first described in Japhug Rgyalrong (Jacques 2013). Later, this category was described in other Rgyalrong languages¹ (Prins 2016: 497–500; Zhang 2016: 202–204; Lin 2017: 75–76; Gong 2018: 202–204).

Compared to the complex AM systems found in some Australian (Wilkins 1991) or Amazonian languages (Guillaume 2016), Rgyalrong languages possess relatively simple AM systems comprising only a translocative prefix and a cislocative prefix. However, these languages are of particular interest for studies on motion events for two reasons.

First, Rgyalrong languages possess both directionals and AM markers and are the rare Sino-Tibetan languages that have devoted AM markers (Jacques et al. 2018). In the verbal

¹ The AM prefixes were labeled as ‘viewpoint’ markers in Prins (2016: 497–500).

templates, the AM and the directional prefixes occupy different slots and are normally unambiguous. As shown in (3), in Japhug, the AM prefix ζ - co-exists with the directional prefix $t\gamma$ - in the same form and assume different functions.

(3) AM and directional prefixes in Japhug (Jacques 2013: 210)

ζ -	$t\gamma$ -	ru -	t -	a
TRANSLOC	AOR:UP	bring	PST	1SG
motion deictic path	orientational path	V_{root}		

‘I went up to bring (it).’

Second, both the directionals and the AM markers involve *non-spatial* functions. Although the directional prefixes are well known as the main source of TAME markers, the non-spatial functions of the AM prefixes are insufficiently studied in Rgyalrong languages.

The present paper focuses on the Brag-bar dialect of Situ Rgyalrong, in which an innovative homophony between the translocative prefix (AM) and the indefinite directional prefix blurs the demarcation between the directional system and the AM system. The discussion focuses on three aspects: (i) the *spatial* and *non-spatial* functions assumed by the translocative (AM) prefix $\zeta\var�$ -, (ii) the indefinite directional prefix $\zeta\var�$ - and how to distinguish it from the translocative prefix $\zeta\var�$ -, and (iii) a brief comparison on the two prefixes in Rgyalrong languages.

3. Overview of Brag-bar verbal morphology

Like other Rgyalrongic languages, Brag-bar Situ has SOV basic word order and exhibits templatic morphology, showing a strong tendency of prefixation. Table 3 illustrates the inflectional verbal morphology of Brag-bar.

Verbal inflections in Brag-bar are reflected in two aspects: affixation and verb stem alternations (Zhang 2018). Inflectional affixes can be divided into two domains, i.e., the TAME and person indexation affixes. Person is reflected by personal affixes (Zhang 2019: 131–135). The TAME marking relies on stem alternations and directional prefixes, and, in some cases, can also involve the AM prefixes. Details of the TAME marking are provided in Section 4.

Table 3 Brag-bar verbal template (Zhang 2018: 298)

TAME					Person			Person	TAME
1	2	3	4	5	6	7	8	9	10
mə-	wo-, etc.	o-	ɕɛ-	ó-	tə-	kə-	Σ	-ŋ, etc.	-s
ma-	ná-		jɛ-			o-			
						o-			
Q	directionals	IRR	TRANSLOC	IFR	2	3NS.INTR	Verb stem (I, II, I', II')	Personal suffixes	PST
NEG	SENS		CISLOC			3NS.TR INV			

As illustrated in Table 3, both directional and AM prefixes belong to the TAME domain, with the directional prefixes preceding the AM markers.²

(4) DIRECTIONAL-AM-[PERSON-[Σ]-PERSON]-TAM

Note that the inferential prefix ó- (slot 5) merges with the immediately preceding prefix. In (5), the inferential ó- merges with the preceding translocative prefix ɕɛ- and forms ɕó-:

- (5) [ŋá ŋə-ka-ndziê wo-spâ swêj
 1SG 1SG.POSS-PTCP:P-to.eat 3SG.POSS-material highland.barley
 nə ta-sték ɲo tə]OBJECT [nə-ɕó-tə-mphar]VERB
 and bean PL DET PFV-TRANSLOC.IFR-2-to.sellI

‘You have gone to sell the highland barley and beans that I eat.’

4. Directional prefixes in Brag-bar

In this section, I first present the directional system of Brag-bar in Section 4.1. Then, in Section 4.2, I show the *spatial* and *non-spatial* functions of the directional prefixes.

²In Northern Ryalrong languages, AM markers occur before the directional prefixes (AM-DIRECTIONAL-[PERSON-[Σ]-PERSON]), as shown in example (3).

4.1 Directional prefixes in Brag-bar

The directional prefixes in Rgyalrong languages were previously described according to geographic dimensions, such as *vertical* (up vs. down), *riverine* (upstream vs. downstream), and *solar* (east vs. west) (Sun 2000: 180; Lin 2002; Jacques 2008: 242–245).³ Apart from the six directional prefixes encoding specified orientation oppositions, most Rgyalrong languages have an indefinite directional jV- encoding an unspecified orientation.

The directional system in Brag-bar is peculiar, because this system only distinguishes two pairs of orientationally specified directional prefixes, as shown in Table 4.⁴

Table 4 Directional prefixes in Brag-bar

Dimension		Prefix
Attitudinal	Up	rɛ-
	Down	na-
Riverine	Upstream	wo-
	Downstream	nə-
Indefinite directional		ɕɛ-, ∅

In addition, the indefinite directional prefix ɕɛ- in Brag-bar is not cognate with the jV- prefix found in other Rgyalrong languages (Jacques 2008: 248; Lin 2016: 32; Prins 2016: 421–423). A detailed account of the indefinite directional ɕɛ- will be provided in Sections 7 and 8.

4.2 Spatial and non-spatial functions of directional prefixes

Similar to other Rgyalrongic languages (Jacques 2008: 242–258; Lin 2016: 29–36, 2017: 76–78; Prins 2016: 407–429; Lai 2017: 305–321), the directional prefixes in Brag-bar have dual functions: (i) the *spatial* function as the *path satellite* and (ii) the *non-spatial* function as TAME markers.

Except for factual non-past, TAME categories in Brag-bar, as in all Situ dialects (Lin 2003; Prins 2016: 424–500), are expressed by combining a particular directional prefix (slot 2) and a verb stem (slot 8) (*cf.* Table 3). Inferential and irrealis are based on the perfective, past imperfective, and imperative forms. In these cases, the verb is marked by a

³Although cognate directional prefixes are found in different varieties, they can involve different semantic structures in different dialects. Dimensions such as *towards the river/mountain* are also mentioned in some Situ dialects (Lin 1993: 161; Prins 2016: 407–424).

⁴The reduction of directional prefixes in Brag-bar is due to historical reasons. There are two sound changes in Brag-bar, the *t- > r- lenition (as in Brag-bar kərɪk and Cogtse kəték ‘one’) and the *o > ɛ- vowel change (as in Brag-bar stɔŋtsɛ ‘thousand’ and Cogtse stɔŋtsô ‘thousand’). Therefore, the directional prefix rɛ- in Brag-bar might have two sources, *to- (to- ‘upwards’ in Cogtse and in Kyom-kyo) and *ro- (ro- ‘upstream’ in Cogtse, and ro- ‘towards the mountain’ in Kyom-kyo) in Proto-Situ. For a detailed discussion, see Zhang (2020: 462–506).

directional prefix, combined with other prefixes, as well as a particular stem. The TAME marking in Brag-bar is summarized in Table 5.

Table 5 Tense-aspect-modality-evidentiality (TAME) functions of the directional prefixes in Brag-bar

		Directional prefix	Other prefix	Stem
Non-past	Factual			I/I'
	Imperative	wɔ-, nɛ-, rɛ-, na-, ɕɛ-		I/I'
	Irrealis	wɔ-, nɛ-, rɛ-, na-, ɕɛ-	o-	I/I'
	Sensory	ná-		I/I'
	Egophoric	u-		II/II'
Past	Perfective	wɔ-, nɛ-, rɛ-, na-, ɕɛ-		II/II'
	Inferential Perfective	wɔ-, nɛ-, rɛ-, na-, ɕɛ-	ó-	I/I'
	Past Imperfective	na-		II/II'
	Inferential imperfective	na-	ó-	I/I'

Several TAME categories (sensory, egophoric, and past imperfective) select particular directional prefixes, whereas in perfective (inferential perfective) and imperative (irrealis), a verb can select one of the five directional prefixes as its perfective or imperative marker. The choice of a particular directional prefix depends on the *orientability* of the verb.

Orientable verbs are defined from a morphological point of view and include verbs that are compatible with all directional prefixes (Jacques, Manuscript),⁵ such as *motion verbs*, like ka-tɕhê ‘to go’ and ka-bzê ‘to come’, *manipulation verbs*, like ka-tsễm ‘to take’, ka-tɕák ‘to push’, as well as verbs denoting a *fictive* motion (Talmy 2000), like ka-natsó ‘to look (for)’ and tɛ-psî ka-lát ‘to whistle’.

For *orientable* verbs, the directional prefix has both *spatial* and TAME functions. In perfective and imperative, an *orientable* verb selects a particular directional prefix depending on the direction of the motion or action, which serves as the TAME marker and the *path satellite*. For example, in (6), the motion verb ka-tɕhê ‘to go’ can combine with different directional prefixes depending on the exact direction of the motion and serves as the imperative marker.

⁵This concept is similar to what Shirai (2009) described as ‘deictic’ and ‘fixed’ connections in nDrapa. The difference is that *orientability* does not emphasize the number of directional prefixes that verbs can combine with, but whether verbs have the possibility to combine with different directional prefixes based on actual spatial orientations, the directional prefixes are not lexicalized to the verb. Some *orientable* verbs, due to the semantic restrictions, can not combined with all directional prefixes, for example ka-rwák ‘to cross the mountain’ can never occur with rɛ- ‘UP’. However, there are also non-*orientable* verbs that are possible to have two lexicalized directional prefixes associated with different meanings. For example, the verb ka-wiét ‘to wear’ has two lexicalized directional prefixes. When denoting ‘to put on clothes or a hat’, it selects the prefix rɛ- ‘UP’. When denoting ‘to put on a pair of trousers or shoes’, this verb selects the prefix na- ‘DOWN’. For a detailed discussion see Zhang (2020: 372–396).

(6) ka-tçhê ‘to go’, *orientable*

- a. a-tiɛ = stô rɛ-tçhê-n
 PROX-up=upwards IMP:UP-to.go₁-2SG
 ‘Go upwards.’
- b. a-vê = no na-tçhê-n
 PROX-down=downwards IMP:DOWN-to.go₁-2SG
 ‘Go downwards.’
- c. a-wu = skû wo-tçhê-n
 PROX-upstream=upstream IMP:UPSTR-to.go₁-2SG
 ‘Go upstream.’
- d. a-ni = nî nɛ-tçhê-n
 PROX-downstream=downstream IMP:DOWNSTR-to.go₁-2SG
 ‘Go downstream.’

Non-orientable verbs in Brag-bar include all verbs having lexicalized directional prefix(es) in the imperative and perfective. With *non-orientable* verbs, the directional prefix serves as the pure perfective or imperative marker, whereas the *spatial* function can be either transparent or abstract.

For instance, in (7), the verb ka-ndziê ‘to eat’ lexically selects the prefix rɛ- ‘UP’. However, when occurring in the imperative or perfective, this prefix only marks the perfective or imperative values, whereas the spatial value is abstract.

(7) ka-ndziê ‘to eat’, rɛ- ‘UP’

- a. Perfective
- ɲá rɛ-ndzá-ɲ
 1SG PFV-to.eat₁₁-1SG
 ‘I ate it.’
- b. Imperative
- nɛɟê rɛ-ndziê-n
 2SG IMP-to.eat₁-2SG
 ‘Eat it.’

For *non-orientable* verbs, such as *ka-rwás* ‘to get up’, the *spatial* function of the lexicalized directional prefix *rɛ-* ‘UP’ is still transparent, because the verb normally involves an upward action.

(8) *ka-rwás* ‘to get up’, *rɛ-* ‘UP’

a. *nəʃð rɛ-rwás*
2SG IMP-to.get.up_I

‘Get up!’

b. *nəʃð mə-rɛ-tə-rwiêš*
2SG Q-PFV-2-to.get.up_{II}

‘Did you get up?’

5. Associated motion system in Brag-bar

The AM system in Brag-bar consists of two prefixes, the translocative prefix *ɕɛ-* and the cislocative prefix *ʃɛ-*, presenting a two-way deictic contrast, as in other Rgyalrong languages (Jacques 2013: 200–201; Prins 2016: 461–464; Lin 2017: 73–74; Gong 2018: 202–204).

The two prefixes present morpho-phonologically opaque features. When occurring after the directional prefixes, the AM markers can dissimilate the *a* or *ɛ* vocalism of the preceding directional prefix to *ə*. As shown in (9), the directional prefixes *rɛ-* ‘UP’ and *na-* ‘DOWN’ are phonetically realized as [rə-] and [nə-] before AM markers. Thus, the contrast between *nə-* ‘DOWNSTR’ and *na-* ‘DOWN’ is neutralized before AM prefixes.

(9) *rɛ-ɕɛ/ʃɛ-* → *rə.ɕɛ/ʃɛ-*
na-ɕɛ/ʃɛ- → *nə.ɕɛ/ʃɛ-*
nə-ɕɛ/ʃɛ- → *nə.ɕɛ/ʃɛ-*
wɔ-ɕɛ/ʃɛ- → [wɔ.ɕɛ/ʃɛ-]

5.1 Spatial and non-spatial functions of the AM prefixes

The basic *spatial* function of the AM markers in Brag-bar is to associate a motion co-event. Based on the framework of Guillaume (2016), Table 6 presents the basic semantic parameters of the AM prefixes in Brag-bar.

Two examples are proposed in (10), in which the verbs are in the 2SG imperative forms. The prefixes *ɕɛ-* and *ʃɛ-* associate, respectively, a translocative and a cislocative motion to the verb root. The associated motion precedes the action denoted by the verb root and can generally be translated as ‘go/come to do’ or ‘go/come and do’, depending of the presence

Table 6 Basic semantic parameters of the AM prefixes in Brag-bar

Parameter \ Prefix	<i>ɕɕ-</i>	<i>ʃɕ-</i>
Temporal relation	Motion prior to action	
Deixis	Tranlocative	Cislocative
Grammatical function of the moving entity	S/A	

or absence of purpose encoding. In most cases, the motion is undertaken by the S/A argument of the verb.⁶

(10) a. Translocative *ɕɕ-*

nəjə̌ rə-ɕɕ-tû-n
 2SG IMP:UP-TRANSLOC-to.open_i-2SG

‘(You) go up to open (the door).’

b. Cislocative *ʃɕ-*

mbarkhâm-j rə-ʃɕ-nî-n
 Barkam-LOC IMP:UP-CISLOC-to.remain_i-2SG

‘(You) come up to live at Barkam.’

Associated motion prefixes in Brag-bar also involve non-spatial functions. Brag-bar, like other Situ dialects (Lin 2003: 268–269; Prins 2016: 461–464), uses the cislocative prefix to mark the prospective aspect, as shown in (11).

(11) Prospective

wɔ-ʃɕ-rjîs
 PFV-PROS-be.dark_{ii}

‘It’s almost dark.’

However, variations are found with the *non-spatial* use of the translocative prefixes in Rgyalrong languages. For example, in Japhug (Northern Rgyalrong), the translocative prefix can also express the apprehensive (Jacques 2008: 295–297), whereas this usage is absent in other Rgyalrong languages. In Brag-bar, the translocative prefix *ɕɕ-* allows a

⁶The P in causative construction can also be identified as the moving entity [for details, see Jacques et al. 2021].

perfect-cum-continuative reading with inferential, a phenomenon not yet reported elsewhere.

6. Translocative prefix ɕe-

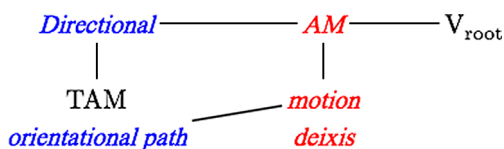
The translocative prefix ɕe- in Brag-bar has three functions. First, its basic *spatial* function is to associate a translocative motion (in Section 6.1). Second, the interpretation of the prefix ɕe- is correlated with the *orientability* and *volitionality* of the verb, and the prefix ɕe- associates a centrifugal direction or location with *motion verbs* and *non-volitional verbs* (in Section 6.2). Third, the translocative prefix ɕe- also allows a non-spatial reading of *perfect-cum-continuative* in inferential (in Section 6.3).

6.1 Translocative motion

Following Guillaume’s (2016) definition, an associated motion marker should be a particular morpheme associating a *translocational* motion to the main verb. The term *translocational* means that an object’s basic location shifts from one point to another in space (Talmy [1985] 2007: 79–80).

In Brag-bar, the prefix ɕe- is often used to associate a translocative motion, as shown in previous examples (10a). Moreover, the prefixation of ɕe- can modify the *orientability* of the verb root. That is to say, it is possible for ɕe- prefixed verbs to take different directional prefixes, specifying the orientational path of the translocative motion introduced by this prefix, as illustrated in Schema (12).

(12) Translocative prefix ɕe-



For instance, the verb *ka-wiét* ‘to put on (clothes)’ is a *non-orientable* verb and lexicalizes directional rɛ- ‘UP’ in the perfective and imperative, as shown in (13).

(13) *ka-wiét* ‘to put on (clothes)’, rɛ- ‘UP’

a. Imperative

lowoɕáj	rɛ-wiét
Tibetan.garment	IMP-to.wear _i

‘Wear Tibetan garment.’

b. Perfective

ηά lowoɕáŋ rɐ-wiét-ŋ
 1SG Tibetan.garment PFV-to.wear_{II}-1SG

‘I have worn Tibetan garment.’

The prefixation of *ɕɐ-* modifies the *orientability* of the verb. The *ɕɐ-* prefixed verb is compatible with different directional prefixes in perfective and imperative, assuming both spatial and TAME functions. The example in (14) lists four imperative forms of the *ɕɐ-* prefixed verb, in which the directional prefixes encode the exact geographic direction of the translocative motion.

(14) a. nəʒə nə-ʒém-j lowoɕáŋ
 2SG 2SG.POSS-house-LOC Tibetan.garment

rə-ɕɐ-wiét
 IMP:UP-TRANSLOC-to.wear_I

‘Go (upwards) your home and wear Tibetan garment (The house is located upwards from the current location).’

b. nəʒə nə-ʒém-j lowoɕáŋ
 2SG 2SG.POSS-house-LOC Tibetan.garment

nə-ɕɐ-wiét
 IMP:DOWN-TRANSLOC-to.wear_I

‘Go (upwards) your home and wear Tibetan garment (The house is located downwards from the current location).’

c. nəʒə nə-ʒém-j lowoɕáŋ
 2SG 2SG.POSS-house-LOC Tibetan.garment

wo-ɕɐ-wiét
 IMP:UPSTR-TRANSLOC-to.wear_I

‘Go (upstream) your home and wear Tibetan garment (The house is located upstream from the current location).’

d. nəjə̌ nə-jém-j lowoɕáj
 2SG 2SG.POSS-house-LOC Tibetan.garment

nə-ɕɛ-wiét
 IMP:DOWNSTR-TRANSLOC-to.wear_I

‘Go (downstream) your home and wear Tibetan garment (The house is located downstream from the current location).’

6.2 Associated direction

The interpretation of the prefix ɕɛ- is also correlated by the verb root’s semantics. With some *orientable* verbs, the function of the prefix ɕɛ- is not to associate a translocative motion, but to relate a *centrifugal* direction to the main event.

In Brag-bar, the prefix ɕɛ- is also compatible with *orientable* verbs.⁷ A similar situation was also reported by Japhug (Jacques 2013; Jacques et al. 2021).

In example (15), the translocative prefix ɕɛ- is added to the *orientable* verb kə-məndə̌ ‘to arrive’. Since the semantic of *motion* is expressed by the verb root, the prefix ɕɛ- in example (15) only indicates the deictic direction of the motion. The directional prefix nə- here assumes a dual function, marking the perfectivity and encoding the downstream or downward path of the motion denoted by the verb root.⁸

(15) kə-məndə̌ ‘to arrive’, *orientable*

nə-ɕɛ-məndə-j		tɕɛnə		
PFV:DOWNSTR/DOWN-TRANSLOC-to.arrive _{II} -1PL		then		
ɲa-kú	kə	proŋá	tɕhivə̌r	ɲo
1SG.POSS-maternal.uncle	ERG	wild.boar	boiled.water	PL
na-liét				
PFV:DOWN-to.release _{II}				

‘We arrived there, then my uncle put the boiled water on the wild boar.’

The prefix ɕɛ- is also found to be with the suppletive translocative verb ka-tɕhê ‘to go’ (I tɕhê ~ II thár). In (16), the prefix ɕɛ- can be regarded as a redundant indicator of the centrifugal direction.

⁷ The cislocative prefix jə-, when prefixed on motion verbs, tends to have a prospective interpretation.

⁸ Before the AM prefixes, the contrast between the directional prefixes nə- and na- is neutralized in the surface form, and both are realized as nə-.

6.3.1 With non-volitional verbs

With *non-volitional* verbs, the prefixation of ɕɕ- is often interpreted as a marker of the *centrifugal location*, indicating that a particular event takes place somewhere away from the deictic center. In this case, the motion co-event introduced by the prefix ɕɕ- is backgrounded (Wilkins 1991: 251; Cresseils 2018) and can be interpreted as ‘do while being away’.

This can be exemplified by the *non-volitional* verb ka-ptɕhət ‘to lose’. In example (18), the ɕɕ- prefixed form nə-ɕɕ-ptɕhət-ŋ involves a non-volitional reading and should be interpreted as ‘I have lost it there (somewhere away from the deictic center)’, rather than ‘I went to lose it’.

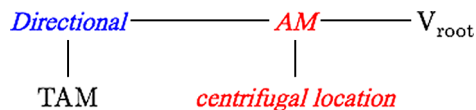
(18) ka-ptɕhət ‘to lose’, nə- ‘DOWNSTR’

ŋa-ʃû	ró-me,	
1SG.POSS-key	PFV.IFR-do.not.exist ₁	
kətə-kə-ndó-j	nə-narére-ŋ	rɛ,
everywhere-PTCP:S/A-exist-LOC	PFV-to.search _{II} -1SG	LINK:but
ma-na-mətê-ŋ,	nə-ɕɕ-ptɕhət-ŋ	mó-mak
NEG-PFV-to.see _{II} -1SG	PFV-TRANSLOC-lose _{II} -1SG	Q-not.to.be ₁
ze		
PART:echo		

‘My key was lost, I’ve looked for it everywhere, but I did not find it, I lost it, didn’t I?’

In (18), the ɕɕ- prefixed form still takes the verb’s default directional prefix nə- as the perfective marker. The directional prefix here does not provide any path information. Schema (19) is proposed to account for the function of associated location marker ɕɕ- .

(19) Associated location



6.3.2 Progressive

In (20), the copular kə-ŋɛs ‘be’ is past imperfective and depicts a *progressive* state in the past. The prefixation of the translocative ɕɕ- in this example associates a *centrifugal location* with the state and should be interpreted as ‘over there’.

(20) kə-ŋêš ‘be’

ŋə-mô	wo-wû	tshandás	tə	mənaŋoreŋə
1SG.POSS-mother	3sg.poss-grandfather	deceased	DET	TOP
kə-najé-s	ŋa-psô-j			
PTCP:S/A-to.wait-NMLZ	3PL.POSS-together-LOC			
nə-ɕe-kə-ŋôš	nǒ-ŋes			
PFV-TRANSLOC-nmlz-to.be _{II}	PFV.IFR-to.be _I			

‘My mother’s grandfather was there, together with those who were waiting for (the leopard).’

In example (21), the translocative prefix ɕe- is added to an egophoric verb involving a present *progressive* situation. The prefix ɕe- relates to the event denoted by the verb *centrifugal location*, serving as the backgrounded spatial reference. Therefore, thê wo-ɕe-vá-u should be interpreted as ‘What she is doing there’.

(21) ka-viê ‘to do’

sanam-scét	mdzorgê-j	<qiuji>-j	slepôn
Bsodnams-Skyed	Mdzod.dge-LOC	<qiuji>-LOC	teacher
ŋêš.	thê	wo-ɕe-vá-u	ɕo
be _I .FAC.3SG	what	EGO.DUB-TRANSLOC-to.do _{II} -3SG	all
na-sósɕe-ŋ			
SENS-to.think _I -1SG			

‘Bsodnams.skyed is a teacher at <Qiuji> School at Mdzod.dge. I am thinking all the time what is she doing there.’

6.4 Perfect-cum-continuative

In Brag-bar, the inferential is based on stem I of the verb, to which are added the inferential prefix ó- (slot 5) and the directional prefix (slot 2) marking perfectivity or imperfectivity (*cf.* Table 3). The inferential prefix ó- merges with the preceding prefix, which can be the directional prefix (slot 2) or the associated motion prefix (slot 4). The merging of the inferential prefix ó- and directional prefixes rɛ- ‘UP’ and na- ‘DOWN’ form a new rising tone in initial position, noted as rǒ-, nǒ- (Zhang 2020: 98–100).

The inferential prefix in Brag-bar, as in Japhug (Jacques 2019), can be particularly used when the speaker observes the result of an action as direct evidence. For example, in (22), the speaker observes the fact that the ground now is wet, based upon which the speaker

infers that it had rained before. The completion of the event of raining happened in the past, whereas the result of the event, the wet ground, remains as a present state. In this case, the speaker only sees the result with his own eyes, based upon which the speaker infers the event already accomplished in the past. This usage of inferential in Rgyalrong languages is comparable to the pattern *V-bzhag* of *inferential perfect* in Lhasa Tibetan (Tournadre and Dorje 2003: 164).

- (22) **təmû** **nǒ-lat**
rain PFV.IFR-to.release_i

‘It rained (I see the wet ground).’

The *inferential perfect* in Brag-bar is often, though not obligatorily, accompanied by the presence of the translocative prefix **ɕə-**, the two prefix forms a. For example, in (23), the speaker describes the appearance of a personage while looking at his photograph. The translocative prefix **ɕə-** and the inferential prefix **ó-** appear in contiguity, merge into **ɕó-**, and express a resultative state of the action *ka-wiét* ‘to put on (clothes)’, which continues at the reference time, i.e., the moment of utterance. Thus we borrow the term from *perfect-cum-continuative* from Bourdin (2006) to describe this function of the prefix **ɕə-** in Brag-bar. Thus, by locating the action at a temporal reference point in the past, this prefix emphasizes the resultative state of the accomplished action.

- (23) **ka-wiét** ‘to put on (clothes)’, **rə-** ‘UP’

jaŋzâ	rə	rə-ɕó-wiét,	ta-rkâr	ɕəstêt	rə
hat	one	PFV-TRANSLOC.IFR-to.put.on.(clothes) _i ,	white	shirt	one

rə-ɕó-wiét
PFV-TRANSLOC.IFR-to.put.on.(clothes)_i,

‘He wears a hat, he wears a white shirt.’

The *perfect-cum-continuative* reading of **ɕə-** in (23) can be traced back to its basic semantic parameters (*cf.* Table 6), the AM prefixes in Brag-bar presuppose a motion away from the deictic center and prior to the main action. A possible interpretation of example (23) would be that the personage first put on a hat and white shirt at another place (both physical distance and temporal anteriority), before I saw (the result) the hat and shirt on him. The grammaticalization pathway in (24) could account for the non-spatial use of the prefix **ɕə-**.

- (24) Translocative motion prior to main action > spatial distance of the reference point > Temporal/fictive distance

7. Indefinite directional prefix ɕɐ-

As mentioned in Section 4.1, the indefinite directional prefix in Brag-bar is ɕɐ- ,¹⁰ which is not cognate with the prefixes in other Rgyalrong languages (jV-). The homophony between the indefinite directional and the translocative prefixes in Brag-bar can sometimes lead to ambiguities.

In this section, I first present unambiguous cases in which the indefinite directional prefix ɕɐ- is added to the motion verbs in Section 7.1. In Section 7.2, I propose a possible explanation of ambiguous cases with *non-motion* verbs, in which the prefix ɕɐ- is polysemous.

7.1 With motion verbs

Indefinite directional prefixes in Rgyalrong languages are most frequently found with *motion verbs*¹¹ (Nagano 1983: 71–73; Lin 2016: 32; Prins 2016: 421–423; Jacques Manuscript).

In Brag-bar, indefinite orientation marking is limited to four basic deictic motion verbs, ‘to go’, ‘to take (away)’, ‘to come’, and ‘to bring’. For example, in (25) and (26), the indefinite directional ɕɐ- is found with the verbs ka-tɕhê ‘to go’ and ka-vzê ‘to come’:

- (25) Translocative verb ka-tɕhê ‘to go’, *orientable*

jirpâ-j	tə-rmî	nó-mɛ-n	
village-LOC	POSS.INDEF-people	SENS-do.not.exist-3PL	
lojâ	kətɕé	ɕɐ-ká-thar	ze?
PART:uncertain	where	PFV:INDEF-3NS.INTR.PST-to.goII	PART

‘It seems that there is nobody in the village. Where did they go?’

¹⁰ Similar to the case reported by Zbu (Gong 2018: 139–166), the non-specified indefinite orientation in Brag-bar can also be marked by \emptyset , which is not discussed in the present paper.

¹¹ In Japhug, the indefinite directional prefix has a larger distribution and can combine with other *orientable* verbs (Jacques, Manuscript).

(26) Cislocative verb *ka-bzê* ‘to come’, *orientable*

majnə	khajdû	wo-ŋgú-j	jaspâ	na-ní-s
then	hole	3SG.POSS-inside-LOC	a.while	IPFV.PST-to.stay _{II} -PST
tɕənə	khajdə-mdô-j	tɕhât	rə	ɕɕ-ká-vi
then	hole-border-LOC	goat	one	PFV:INDEF-NMLZ-to.come _{II} .3sg
tɕənə...				
then...				

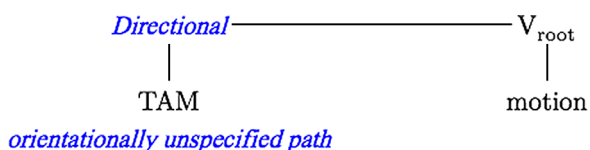
‘After he (the fox) had stayed for a while inside the whole, at the edge of the hole came a goat...’

In (25), the translocative verb *ka-tɕhê* ‘to go’ selects its stem II *thár*, the indefinite directional prefix occupies the slot for the perfective marker, and this prefix expresses an unspecified path with an unknown goal.

Similarly, in (26), the 3SG perfective form of the cislocative verb *ka-bzê* ‘to come’ is marked by the indefinite directional prefix *ɕɕ-*, combined with its stem II *ví*. Note that the indefinite directional *ɕɕ-* does not involve any deixis encoding. Otherwise, *ɕɕ-* would not be compatible with the cislocative verb. The indefinite directional prefix *ɕɕ-* in (26) encodes an unspecified path with an unknown source.

In these unambiguous cases, the indefinite directional prefix *ɕɕ-* can be distinguished from the translocative prefix *ɕɕ-* by the following criteria.

First, the indefinite directional prefix *ɕɕ-* and the translocative (AM) prefix *ɕɕ-* occur in different slots in the verbal template. The indefinite directional prefix *ɕɕ-* occupies the directional slot (slot 2 in Table 3) and cannot be preceded by any other directional prefixes, whereas the translocative prefix *ɕɕ-* occurs in slot 4 and can be preceded by a directional prefix other than *ɕɕ-* (as in 16). Therefore, like the other directional prefixes, the dual function of the indefinite directional prefix *ɕɕ-* in Brag-bar can be schematized in (27):

(27) Indefinite directional prefix *ɕɕ-*

Second, the two prefixes are semantically different. The indefinite directional *ɕɕ-* does not involve any deixis encoding and is compatible with both translocative and cislocative verbs, as in (25) and (26). On the contrary, the translocative prefix is semantically incom-

patible with cislocative motion. In Brag-bar, the translocative prefix ɕɛ- can co-occur with cislocative verbs only when it involves the *perfect-cum-continuative* reading (cf. Section 6.4). In Japhug, $*\text{ɕɯ-}\gamma\text{i}$ (TRANSLOC-come) is not grammatical (Jacques et al. 2021).

7.2 With non-motion verbs

In Brag-bar, there are cases where the prefix ɕɛ- occurs in the directional slot (slot 2) with *non-motion* verbs. For instance, in (28), the prefix ɕɛ- is added to the verb *ka-ramié* ‘to labor’ (default directional rɛ- ‘UP’) and is not preceded by any other directional prefixes.

(28) *ka-ramié* ‘to labour’, rɛ- ‘UP’

$\text{m}\text{ə}\text{n}\text{ê}$	$\text{t}\text{ə}$	$\text{n}\text{ə-}\text{k}\acute{\text{o}}\text{-}\text{t}\text{h}\text{ar-}\text{ɲ}$	$\text{n}\acute{\text{o}}\text{-}\text{ɲ}\text{ɛs}$	$\text{r}\text{o}\text{ŋs}\acute{\text{a}}$
3PL	DET	PFV.DOWN-NMLZ-to.go _{II} -3PL	IFR-be _I	again
$\text{ɕ}\text{ɛ-}\text{k}\text{ə-}\text{r}\text{a}\text{m}\text{i}\acute{\text{e}}\text{-}\text{ɲ}$				$\text{n}\acute{\text{o}}\text{-}\text{ɲ}\text{ɛs}$
PFV:INDEF.TRANSLOC-NMLZ-to.labor _{II} -3PL				IFR-be _I

‘They came down (from the mountain). Again they went (respectively) to work (at their places).’

The prefix ɕɛ- in (28) is polysemous. On the one hand, this prefix adds the semantic component of motion to the verb root, as the AM marker. On the other hand, this prefix occurs at the initial position of the perfective verb, where we normally expect a directional prefix. In addition, the prefix ɕɛ- encodes a distributive path.

A possible explanation for this polysemy is illustrated by Figure 2. First, the prefixation of the translocative ɕɛ- creates an *orientable* verb $*\text{ɕɛ-ka-ramié}$ ‘to go to work’, which has the possibility of being combined with different directional prefixes, including the indefinite directional ɕɛ- .

Second, the derived orientable verb selects the indefinite directional prefix ɕɛ- in the case of an unspecified goal, such as the distributive path in (28). The verb is conjugated for the 3PL and takes the 3PL suffix -ɲ , and we would have $*\text{ɕɛ-ɕɛ-ramié-ɲ}$ as the underlying form.

1. TRANSLOC prefixation	* $\zeta\text{p-}$		ka-ramié
	TRANSLOC		INF-to.labor
	motion, deixis		V _{root}
2. INDEFdirectional prefixation	* $\zeta\text{p-}$	$\zeta\text{p-}$	kə-ramiɛ-ŋ
	PFV:INDEF	TRANSLOC	NMLZ-to.labor _{II} -3PL
	TAM, path	motion, deixis	V _{root}
3. Haplogical rule	$\zeta\text{p-}$		kə-ramiɛ-ŋ
	TAM, path, motion, deixis		V _{root}

Figure 2 Polysemous use of the prefix $\zeta\text{p-}$ with non-motion verbs

Third, by the haplogical rule, there is only one prefix $\zeta\text{p-}$ realized in the surface form $\zeta\text{p-ramiɛ-ŋ}$. Note that the haplogical rule plays an important role in Brag-bar verbal morphology. For example, when the clausal nominalizer $kə-$ and 2→1 prefix $ko-$ (merger of * $kə-o-$) (Zhang 2019: 134–135) occur in the same verbal form, only one prefix $kə-$ can be realized on the surface. As shown in example (29), the nominalized 2→1 form of the verb *ka-mbī* ‘to give’ should underlyingly be * $no-ko-ko-mbâ-ŋ$ ¹² (PFV.INV-2→1.INV.NMLZ.INV-to.give_{II}-1SG). However, in the surface form, the verb is realized as $no-ko-mbâ-ŋ$ under the haplogical rule.

(29) $nəj\hat{a}$ $tə-m\eta\acute{o}k$ $no-ko-mbâ-ŋ$ $tə$
 2sg POSS.INDEF-bread PFV.INV-2→1.INV.NMLZ-to.give_{II}-1SG DET

(* $no-ko-ko-mbâ-ŋ$)
 ‘The bread that you gave me.’

8. Comparative data

Inside Rgyalrong languages, the relationship between the indefinite orientation and the translocative motion varies according to dialect.

Table 7 Translocative and indefinite directional prefixes in Rgyalrong languages

	Indefinite directional	Translocative	verb ‘to go’
Brag-bar	$\zeta\text{p-}$	$\zeta\text{p-}$	tçhê
Cogtse	jə-	jə-	tʃ ^h ê
Kyom-kyo	ji-	ʃi-	tʃ ^h i
Japhug	jV-	çw-; ç-; z-; z-	çe
Zbu	∅	çə-	xwé

¹²The inverse prefix *o-* has the left spreading property (Zhang 2019).

The languages listed in Table 7 can be divided into two groups. The first group includes languages in which the indefinite orientation (jV-) and the translocative AM (ɕV-, ʃV-) are formally distinguished, as in Kyom-kyo (Situ) (Prins 2016: 412–423, 497–500) and Japhug (Northern Rgyalrong) (Jacques 2008: 258–259, 297–298). In Zbu (Northern Rgyalrong), the indefinite orientation is marked by Ø (Gong: 2018, 139, 166), which is also distinguished from the translocative prefix ɕə- (Gong 2018: 139, 166).

Brag-bar (Situ) and Cogtse (Situ) (Lin 2016, 2017) form another group, in which the indefinite directional and the translocative prefixes are homophonous. However, the two dialects have different forms. The Brag-bar ɕə- prefix is related to the translocative prefixes (ɕV-, ʃV-) of varieties in the first group, whereas the Cogtse jə- prefix corresponds to their indefinite directional prefixes (jV-).

In Cogtse, as in Brag-bar (*cf.* Section 7), the interpretation of the prefix jə- is also sensitive to the verb's semantics. With motion verbs, as in (30), the prefix jə- is interpreted as the indefinite directional, marking the perfectivity and encoding an unspecified path (Lin 2016, 32).

(30) Indefinite directional prefix jə-

- a. jə-kə-t^həl-ntʃ nə-ŋos
 PFV-NMLZ-to.go_{II}-3DU SENS-be_I

‘They went away.’ (Lin 2016: 231)

- b. no tʃi t^həpsɔk jə-tə-pi-n
 2SG here how PFV-2-to.come_{II}-2SG

to-ka-tsis

PFV:UP-NMLZ:PL-to.say_{II}

‘He said, how did you come here?’ (Lin 2016: 168)

With *non-motion* verbs, as in (31), the prefix j(ə)- is interpreted as the translocative AM marker. Similar to the case of Brag-bar, the Cogtse indefinite directional jə- and the translocative prefix j(ə)- occur in different slots in the verbal template, and the translocative prefix j(ə)- can be preceded by other directional prefixes.

(31) Translocative prefix j(ə)-

atô = j	ro-tʰê-n	mtʃʰotmû
upstream=LOC	IMP:UPSTR-to.go, 2SG	butter.lamp

ro-j-warmek
IMP:UPSTR-TRANSLOC-extinguish₁

‘Go upstream, go and extinguish the butter lamp.’ (Lin 2016: 163)

Therefore, if we posit two distinct categories for the Proto-Rgyalrong, the indefinite orientation, and the translocative AM, then the homophony between them found in Brag-bar and Cogtse can be explained by parallel innovations. Brag-bar has lost the cognate indefinite directional prefix *jV-, and the translocative prefix ɕɛ- has been generalized to cover the functions of *jV-. However, in Cogtse the indefinite directional prefix j(V)- could possibly have spread to the translocative AM slot.

At this stage, it is premature to attempt to explain the motivation behind the innovative changes in Brag-bar and Cogtse, but at least this suggests that the indefinite orientation could be historically unstable and is easy to merge with other categories.

9. Conclusion

The present paper provides a description of the *spatial* and *non-spatial* functions of two homophonous prefixes in Brag-bar Situ: the indefinite directional prefix and the translocative (AM) prefix.

The present paper documents an unreported *non-spatial* function of the translocative prefix ɕɛ- in Brag-bar. In *inferential perfect*, the translocative prefix allows a non-spatial *reading of perfect-cum-continuative*. By relating the temporal anteriority a distance from the deictic center to the action encoded by the main verb, the prefix emphasizes the resultative state of this action in *inferential perfect*. While the grammaticalization of GO > past is rarely attested (Heine and Kuteva 2002), the grammaticalization from *translocative* > *perfect-cum-continuative* in Brag-bar might be attributed to two aspects, the *motion-before-action* temporal relation encoded by translocative prefix ɕɛ-, and the metaphorical use of *spatial distance* > *non-spatial/temporal distance*.

It also proposes morphological and semantic criteria by which to distinguish the indefinite directional form the translocative prefix. The polysemous use of the prefix ɕɛ- found with non-motion verbs shows that the demarcation between the directional and AM systems has been blurred in Brag-bar. In addition, although the grammaticalization of associated motion prefixes in Rgyalrong languages is relatively recent (Jacques 2013: 207–211; Zhang 2020: 606–614) and is later than that of directional prefixes, the evolution of translocative prefix

to the non-specified directional in Brag-bar shows that the associated motion markers can be a new source of directional prefixes.

Abbreviations

Glosses follow the Leipzig rules, to which the following are added:

I	stem I	FAC	factual
II	stem II	EGO	egophoric
I'	stem I'	IFR	inferential
II'	stem II'	INV	inverse
AUTOBEN	autobenefactive	PROX	proximal
AOR	aorist	SENS	sensory
CISLOC	cislocative	TAME	tense-aspect-modality-evidentiality
DIS	distal	TRANSLOC	translocative
DOWN	downwards	UP	upwards
DOWNSTR	downstream	UPSTR	upstream

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