Directional Prefixes in nDrapa and Neighboring Languages : An Areal Feature of Western Sichuan

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1. Introduction

The nDrapa language[1] (Qiangic, Tibeto-Burman) is spoken in the Ganzi Tibetan Autonomous Prefecture, Sichuan, China. The area where nDrapa is spoken is part of a multi-ethnic area called the West Sichuan Ethnic Corridor (WSEC), where many Tibeto-Burman minor languages are spoken. Although these languages share some typological characteristics, the genetic relationships among them have not been proved satisfactorily. I will discuss one of the common characteristics of this area, namely, directional prefixes.

1.1 Previous Studies on Directional Prefixes
There are a number of previous studies on the directional prefixes in the WSEC languages:

Wen (1943) introduces the directional prefixes of rGyalrong and Qiang. Nagano (1984b) and Lin (2002) describe the directional prefixes of rCog-rtse (Zhuokeji) rGyalrong, while Lin You-jing and Luo Erwu (2003) describes those of Dazang rGyalrong. Further, Sun Hongkai (1981) and Huang Chenglong (1997) describe the directional prefixes of Mawo Qiang and Yadu (Ronghong) Qiang, respectively. Song Lingli (2006) describes the directional prefixes of Ersu. Moreover, Huang Bufan (1991a: 297–307, 2003: 248–256) surveys the directional prefixes of the Qiangic languages, while Huang Bufan (1994) surveys the direction-marking systems of the Tibeto-Burman languages spoken in China.

   Although there are several differing opinions on the genetic relationships among the WSEC languages, it is a common view that whatever the case, the so-called Qiangic group of languages, which are spoken in the WSEC area, possess a system of directional prefixes.

> "Languages of this [Qiangic] group characteristically have a set of 5–10 directional prefixes on the verb, marking action up, down, up-river, down-river, inward, outward, towards the speaker, away from the speaker, and sometimes towards the mountain, away from the mountain, although the actual forms of the systems in different languages do not all correspond in any clear way". (LaPolla 2003b: 30)

> "A defining grammatical characteristic of the Qiangic languages is their elaborate systems of "directional prefixes", preposed to verbs to indicate the real or figurative direction of the verbal event." (Matisoff 2003: 89).

   Several explanations have been attempted regarding the origin of this areal feature (directional prefixes). Huang Bufan (1994: 151) regards orientation pronouns as the origin of directional prefixes.[2] Nagano (1984b: 43) assumes that the directional prefixes in rGyalrong and Qiang originate from the motion verbs of Proto Tibeto-Burman (PTB).[3] On the other hand, LaPolla (1994) claims that the developed direction-marking system found in many of the Tibeto-Burman languages is an example of "drift."

1.2 Verbal Affixes in nDrapa

Among the WSEC languages, the verb morphology of nDrapa is rather simple. The system of pronominalized person markers is a common feature of several WSEC languages; however, nDrapa does not have such a system. Instead, nDrapa has a conjunct/disjunct pattern that is marked by a suffix. Two prefixes and two suffixes can be added to the verb stem (VS) of the main predicate of a declarative sentence, as illustrated in (1a). However, in the auxiliary construction, a negative prefix and a disjunct suffix are added to the auxiliary if necessary, and a directional prefix and causative suffix are added to the verb stem, as illustrated in (1b). Multiple affixing patterns, like (1a), are exemplified in (2), where the directional prefix *ɲʌ-*, the negative prefix *mʌ-*, and the disjunct suffix *-a* are attached to the verb stem *ʁɕʌ* 'be left.'

(1) a. (Dɪʀ-) (Nᴇɢ-) VS (-Cᴀᴜѕ) (-Dɪѕᴊ) (=Pᴀʀᴛɪᴄʟᴇ^n)

  b. (Dɪʀ-) VS (-Cᴀᴜѕ) (Nᴇɢ-) AUX (-Dɪѕᴊ) (=Pᴀʀᴛɪᴄʟᴇ^n)

(2) ´ɴdoʜdi = aɴtɕhi   ⁻**ŋʌ-mʌ-ʜɕʌ-a**.

  oven.ash=except   DIR~out~-NEG-be.left-DISJ.PFT

  '(Everything in the rich person's house was taken away, and)
  nothing but the oven ash was left.' [FT]

2. General Information on Directional Prefixes in nDrapa

2.1 List of Directional Prefixes

The nDrapa language has five directional prefixes: (1) ʌ- 'upward,' (2) *a*- 'downward,' (3) *kʌ*- 'upriver/inward,' (4) *ŋʌ*- 'downriver/outward,' and (5) *tʌ*- 'neutral.'[4] The deictic meanings of the directional prefixes are illustrated in Figure 1.

The directional prefixes with the vowel /ʌ/ show regressive rounding assimilation, that is, the vowel /ʌ/ in a directional prefix changes into /o/ if the verb stem has a rounded vowel in the first syllable.

Furthermore, as shown in Table 1, there exists a set of location/orientation pronouns in nDrapa. However, unlike some Qiangic languages such as Qiang and rGyalrong (Huang Bufan 1994: 151), the form of location pronouns does seem to share a common origin with the form of the prefixes.

2.2 Use of Directional Prefixes as Aspect/mood Markers

The directional prefixes of nDrapa are, in principle, obligatory in the perfective and the imperative but optional in the imperfective, as seen in (3)–(5). That is, the directional prefix cannot be omitted in (4) and (5), but the directional prefix in (3a), as seen in (3b), can be ommited.[5] In the imperative, if the verb stem is monosyllabic and its original vowel is a close non-back single vowel (/i, ɨ, e/), the vowel is altered to /u/. At the same time, as seen in (5), the vowel /ʌ/ of the directional prefix is rounded by regressive assimilation.

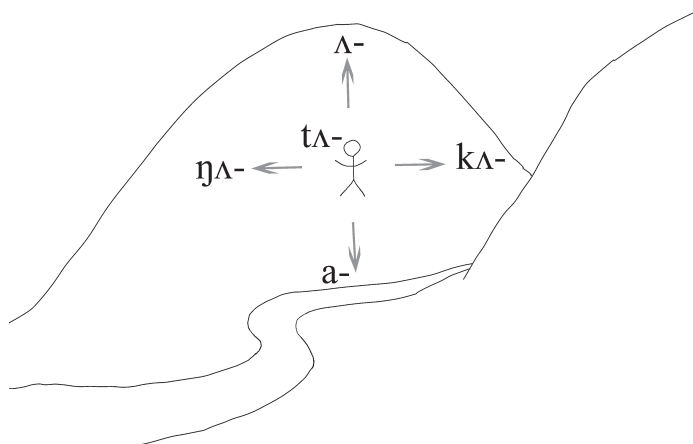**Figure 1** Directional Prefixes in nDrapa

Table 1 Location/Orientation Pronouns in nDrapa

Location/Orientation Pronoun		Directional Prefix	
¯roŋo	over there (upper place)	ʌ-	upward
´mɛnʌŋo	over there (lower place)	a-	downward
´ɕoŋo	over there (upriver)	kʌ-	upriver/inward
´ɳoŋo	over there (downriver)	ŋʌ-	downriver/outward
¯ŋokho	over there (neutral)	tʌ-	neutral
(cf-1.) ¯ŋoro	he/she/it		
(cf-2.) ´tɯrʌ	it (anaphoric)		

(3) a. ¯ŋa   ¯Nkhuta   ¯ʌ-Ntɕhi   ´ʈʌ.   'I am looking up at the sky.'
          1SG   sky   DIR_UP-look   IPF

     b. ¯ŋa   ¯Nkhuta   ¯Ntɕhi=ʈʌ.   'I am looking up at the sky.'
          1SG   sky   look=IPF

(4)   ¯ŋa   ¯Nkhuta   ¯ʌ-Ntɕhi   ´Hʈe.   'I looked up at the sky.'
          1SG   sky   DIR_UP-look   PST

(5)   ¯no   ¯Nkhuta   `o-Ntɕhu.   'Look up at the sky!'
          2SG   sky   DIR_UP-look.IMPR

In addition, the nDrapa language does not have a proper perfective affix that can displace the directional prefix.[6] Consequently, every verb stem is connected with at least one of the directional prefixes, even if the verb does not have any directional implications (§3.2).

3. The Connection with Verb Stems

3.1 The Deictic Connection

Some verb stems, as exemplified in Table 2, can be connected to all of the five directional prefixes. The verbs thus formed can convey meaning in terms of the direction of movement, which is signified by the prefix. In this paper, this type of verb is termed a "directional verb."

As seen in Table 3, some verbs such as 'look,' 'obstruct' and 'wear (headwear or leg-wear)' can be affixed with limited members of the directional prefixes.

Some verbs such as 'look' and 'obstruct' are affixed arbitrarily with one of the directional prefixes. In other words, the neutral direction is not marked with the prefix tʌ- in the case of these verbs, and another directional prefix may be used. The neutral direction of ¯Ntɕhi 'look' is marked with the inward directional prefix kʌ-, and ¯tshe- 'obstruct,' with the outward directional prefix ŋʌ-. However, deictic connections with the other directional prefixes are also possible.

Table 2 Deictic Pattern

	ʌ- 'go/come'	ˉʜli '(breezes) blow'	ˊʜpoˊlɛ 'run'	ˀthike 'push'
ʌ-: UP	ˋʌ-ji	ˉʌ-ʜli	ˉtɛ-ʜpo ˊʌ-lɛ	ˊʌ-ˀthike
a-: DOWN	ˊa-ji	ˊa-ʜli	ˉtɛ-ʜpo ˊa-lɛ	ˊa-ˀthike
kʌ-: IN	ˊkʌ-ji	ˉkʌ-ʜli	ˉtɛ-ʜpo ˉkʌ-lɛ	ˊkʌ-ˀthike
ŋʌ-: OUT	ˊŋʌ-ji	ˉŋʌ-ʜli	ˉtɛ-ʜpo ˊŋʌ-lɛ	ˊŋʌ-ˀthike
tʌ-: NEUT	ˊtʌ-ji	ˉtʌ-ʜli	ˉtɛ-ʜpo ˉtʌ-lɛ	ˊtʌ-ˀthike

Table 3 Limited Connection

	ˉɴtɕhi 'look'	ˉtshe 'obstruct'	ʜɟa 'wear (headwear/legwear)'
ʌ-	ˉʌ-ɴtɕhi 'look up'	ˉʌ-tshe 'obstruct upward'	ˉʌ-ʜɟa 'wear (shoes/trousers)'
a-	ˊa-ɴtɕhi 'look down'	ˊa-tshe 'obstruct downward'	ˊa-ʜɟa 'wear (a hat)'
kʌ-	ˉkʌ-ɴtɕhi 'look/regard'	ˉkʌ-tshe 'obstruct upriverward'	
ŋʌ-		ˉŋʌ-tshe 'obstruct downriver-ward or direction-freely'	
tʌ-			

3.2 Fixed Connections

As exmplified in Table 4, the large majority of verbs are affixed by only one of the five directional prefixes. Some of these connections, such as 'stand' with upward direction, 'float up' with upward, 'eat' with inward, and 'excrete' with outward, seem compositional. Moreover, we can find some metaphorical connections, such as 'burn' with upward direction, which appears to be similar to 'burn up' in English.

However, many of the connections seem to be too arbitrary to be explained. For example, it seems hard to explain why 'rest' is affixed with upward direction. Moreover, some sets of verbs that have similar meanings are affixed with different directional prefixes: for example, 'bite' with upward direction, but 'gnaw' with downward direction.

Metaphoric choice of a directional prefix is also arbitrary to some extent. In nDrapa, verbs that imply a change of state can be derived from adjective stems by attaching a directional prefix. In many cases of this pattern, the directional prefix is considered to be chosen depending on a metaphoric direction. For example, ˉʌ-tɕi 'become big, grow' consists of the upward directional prefix and the adjective stem that means 'big,' while ˉkʌ-ʜdze 'slim down' consists of the inward directional prefix and 'slim.' However, in some cases, different directional prefixes are found among dialects. For example, in the Mätro dialect, 'slim down' involves the inward directional prefix, as we have just seen, but in another dialect, the downward directional prefix is used. This fact suggests the arbitrariness of the choice of a directional prefix.

Table 4 Fixed Connections between a Directional Prefix and Verb Stem

ʌ- UP	ˉo-ɴphʉ 'float up', ˉʌ-ɴdʑi 'sit', ˉʌ-ɴtɕi 'stand', ˉʌ-ʔsi '(sth) burn', ˉʌ-tsi 'burn (sth)', ˉʌ-ʔci 'wear (clothes)', ˉʌ-ve 'dig', ˉʌ-ɴdʑʌ 'ride (a horse)', ˉʌ-ɴtei 'breathe in', ˉʌ-ɴdze 'bite', ˉʌ-ɴphe 'vomit', ˉʌ-zei 'hold', ˉʌ-ɴtsha 'grasp', ˉʌ-rara 'scratch', ˉʌ-ɴɲi 'rest'
a- DOWN	´a-ɴtho 'step on', ´a-ɴɖi 'walk', ´a-me 'close sth', ´a-ɕeʔtɕu 'get angry', ´a-ɕo 'peel sth', ´a-ɴpho 'lose (a match)', ´a-ɴkala 'gnaw', ´a-ʔtshɛ 'spit up', a-ɴphukɛ 'cry', ´a-ɴdɛ 'bark', ´a-l̩o 'read aloud', ´a-eje 'say', ´a-ɴjiɴji 'talk', ´a-xu 'make hot', ´a-ra 'resemble'
kʌ- IN	ˉkʌ-ʔtsi 'eat', ˉkʌ-thei 'drink', ˉkʌ-tʌ 'hit', ˉkʌ-hta 'touch', ˉko-ʈo 'sew', ˉko-ɴco 'tie sth', ˉkʌ-ɴnɛ 'burn (sth)', ˉkʌ-ɴphei 'be frozen', ˉkʌ-ɴteire 'become cloudy', ˉkʌ-ɴmi 'sleep', ˉkʌ-ɴɕi 'buy', ˉko-ɴtso 'teach', ´kʌ-ɴpi 'put', ˉkʌ-ɴsʌ 'hide', ˉkʌ-ɴmei 'ripen'
ŋʌ- OUT	ˉŋʌ-ʜci 'give birth', ˉŋʌ-le 'excrete', ˉŋʌ-ɕi 'have diarrhea', ˉŋʌ-the '(big wind) blow', ˉŋʌ-tɕhi '(rain) stop', ˉŋo-ʜbo 'bloom', ˉŋʌ-n̩i 'listen', ˉŋʌ-ʔʈha 'untie', ˉŋʌ-ɴkʌ 'knock', ˉŋʌ-l̩ʉ 'save (a life)', ˉŋʌ-ɴmɛɴme 'think', ˉŋʌ-n̩a 'starve', ˉŋʌ-ʜɕʌ 'remain'
tʌ- NEUT	ˉtʌ-ɴdze 'fly', ˉtʌ-ɴji 'lie', ˉtʌ-ʔʈaʔʈa 'wipe', ˉtʌ-khe 'give', ˉtʌ-ɴce 'sell', ˉtʌ-ʜtsi 'feed', ˉtʌ-ɴɖa '(sky) clear up', ˉtʌ-ɕʌ 'die', ˉto-ʔtu 'win', ˉtʌ-ʜsi 'know', ˉto-ʜmo 'forget', ˉto-ʜto 'be scared', ˉto-po 'exist', ˉtʌ-ʜdi 'expect'

3.3 Distinctions Apart from Direction

Some verb stems can be affixed with more than one directional prefix, independent of the deictic directional meaning. In fact, in such cases, different directional prefixes are used to distinguish a certain manner of action. Examples found in my past fieldwork are listed in (6)–(10).

(6) ʌ-(o-) UP vs. a- DOWN
    a. 'wash'   ˉʌ-ɴtɕhʌ (pan/bowl); ´a-ɴtɕhʌ (hand/body/bowl)
    b. 'open'   ˉo-ʔchu 'open (a door/lid)'; ´a-ʔchu 'make a hole'
(7) ʌ-(o-) UP vs. a- DOWN vs. kʌ-(ko-) IN
    a. 'boil'   ˉʌ-ʜca (water/tea); ´a-ʜca (meat/vegetable); ˉkʌ-ʜca (milk)
    b. 'face'   ˉo-ʜdʉ 'fight (a war)'; ´a-ʜdʉʜdʉ 'quarrel'; ˉko-ʜdʉ 'encounter'
(8) a- DOWN vs. ŋʌ-(ŋo-) OUT [drastic]
    a. 'fall and stop'   ´a-ʔti (rain); ˉŋʌ-ʔti(heavy shower) cf. ˉŋʌ-the '(big wind) blow'
    b. 'melt'   ´a-ji (snow); ˉŋʌ-ji (sugar into liquid)
(9) ŋʌ- OUT vs. ʌ- NEUT
    'borrow/lend'   ˉŋʌ-ɴthwi 'borrow'; ˉtʌ-ɴthwi 'lend'
(10) No distinction but different prefixes
    a. 'wait'   ˉŋo-ʜdo/ˉko-ʜdo
    b. 'pull and extend' ´ŋʌ-ʜʈɛʜʈɛ/´tʌ-ʜʈɛʜʈɛ

In these cases, the implications of the directional prefixes are opaque. In the pattern where different directional prefixes are used in the same sense, as seen in (10), perhaps we can assume the confusion of dialects as the origin. However, at the same time, we can identify some of the tendencies of the implications in these cases. For example, the outward directional prefix ŋʌ- appears to imply a drastic image, as seen in (8a): The downward directional prefix is used to express a normal rainfall, but ŋʌ- is used to express a heavy shower. This is in

keeping with the fact that the verb stem ‾*the* '(big wind) blow' can be connected only with *ɲʌ-*, although various directional prefixes can be added to ‾*Hli* '(breezes) blow,' as seen in Table 2.

4. Directional Prefixes in the WSEC Languages

4.1 The System of Directional Prefixes in Tibeto-Burman

Interestingly, all the languages spoken in the WSEC area possess a set of directional prefixes,[7] with the exception of the three major languages: Chinese, Tibetan, and Lolo. In Figure 2, the languages that have directional prefixes are highlighted using a dotted frame.

The Tibeto-Burman languages spoken outside this area rarely have prefixes as direction markers. That is, although the other Tibeto-Burman languages may have the same notion of direction, the morphology is different. Exceptions are found in the Chin group of languages. For example, according to Kavitskaya (1997: 176–178) and Peterson (2003: 414–415), Lai has a system of directional prefixes.

The Baima (Pema) language, which is spoken in the eastern-most area of WSEC, also has directional prefixes (Sun Hongkai 2007: 87–92). Since Baima is supposed to belong to
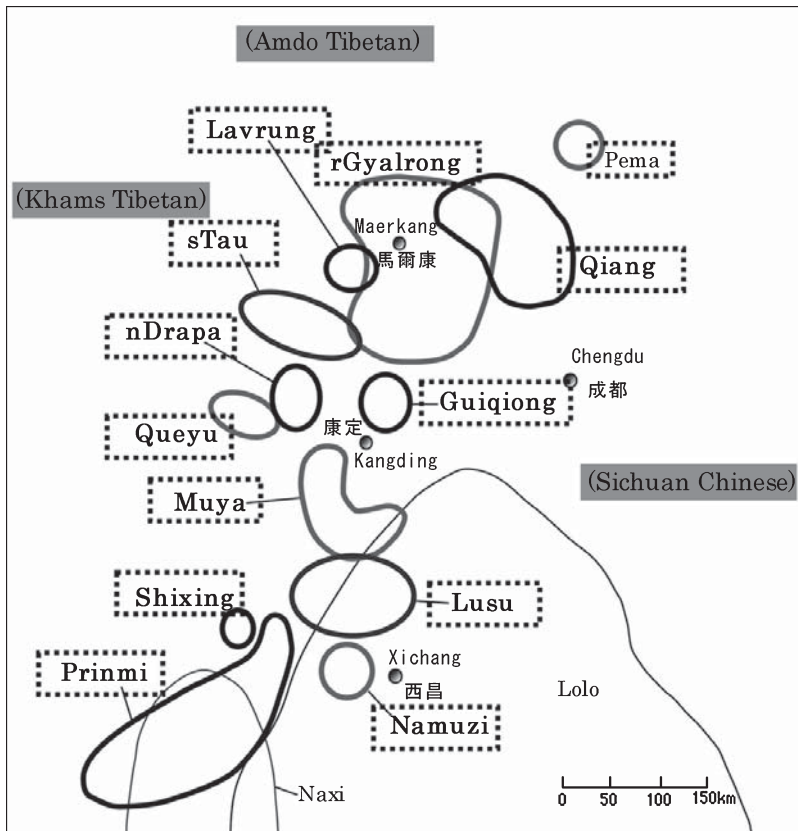

Figure 2 Distribution of the System of Directional Prefixes among the West Sichuan Area Languages

the Tibetic group, the Baima language and Qiangic group are unlikely to have so close a relationship that they share the same directionality category inherited from the proto-language. This fact suggests contact-induced changes.

4.2 Directional Prefixes and the Function of Marking Aspect/mood

4.2.1 Directional prefixes in the WSEC languages
Most of the WSEC languages, such as Qiang, Prinmi, sTau, Namuzi, Lusu, and Lavrung, show the same phenomena of aspect as nDrapa. That is, the directional prefixes are optional in the imperfective but obligatory in the perfective. In addition, they have no proper perfective prefix. Moreover, the directional prefixes are also obligatory in the imperative in most of the WSEC languages: Qiang, Prinmi, sTau, Lusu, Lavrung, and Queyu, but not in Namuzi.

Here I survey different behaviors found in the directional prefixes of the WSEC languages.

In Muya, the directional prefixes are completely independent of the aspect and mood category. According to the description provided by Huang Bufan (1991c: 114–121), a directional prefix is obligatorily prefixed to every verb stem—including non-directional verbs such as "eat" and "write"—regardless of the tense/aspect, as shown in (11). Therefore, the language shows arbitrary connections between verb stems and directional prefixes—for example, the verb "eat" is found with the downriver direction, "hit" with upward, etc.

(11) a. ʁ³³tsi⁵³   ɣə⁵³ndə³³   k'ə⁵⁵-ri⁵⁵-pi³³   tʂ'y⁵⁵tʂy⁵³   ni³³.
       3SG.ERG   letter   DIR_NEUT-write-IPF.3   right.now   SFP   (Huang Bufan 1991c: 120)
       'He is writing a letter now.'

   b. ʁ³³tsi⁵³   ɣə⁵³ndə³³   tʁ³³-zæ⁵³   k'u³³-ri⁵⁵   rɑ³³.
       3SG.ERG   letter   one-NC   DIR_NEUT-write.3   SFP   (Huang Bufan 1991c: 120)
       'He wrote a letter.'

As shown in (12b), rCog-rtse rGyalrong possesses a perfect prefix in addition to directional prefixes. Although the perfect prefix "may frequently be replaced by a directional marker," a number of verbs such as 'cut,' 'wipe,' and 'take' conventionally require the perfect prefix (Nagano 1984a: 26–27). In the imperative as well as in the perfective, either a perfect prefix or a directional prefix is required (Nagano 1984a: 24–25).

(12) a. nga   ding   ko.   'I am going to give (it).'
         1SG   give.1SG   AUX:S   (Nagano 1984a: 26 [1])
     b. nga   nə-ding   ko.   'I have given (it).'
         1SG   PFT-give.1SG   AUX:S   (Nagano 1984a: 26 [2])
     c. sytə-ki   wu-rni-tə   re-dinny.[8)]   'Please give (me) that red one.'
         this-of   red-NMLZ   DIR_BACK-give.2PL   (Nagano 1984a: 37 [45])

The system of Queyu (Wang Tianxi 1991) is similar to rGyalrong. It possesses proper perfective prefixes *ku-* and *ta-*. On the other hand, the Queyu verbs obligatorily involve a directional prefix in the imperative mood.

In Shixing (Huang Bufan and Renzeng-Wangmu 1991c), verbs in the perfective require no prefix, except for some adjectives and intransitive verbs. "The main function of the verbal directional prefixes in Shixing is direction-marking, in contrast with the one in other Qiangic languages, perfective-marking."（史兴语动词趋向前缀的作用仍以表趋向为主，不象羌语支其他语言那样其功能以表已行体为主。）(Huang Bufan and Renzeng-Wangmu 1991c: 186). In Shixing, directional prefixes are not added to verbs in the imperative mood, either.

The system of Guiqiong (Sun Hongkai 1983: 111–125) and Pema is similar to Shixing.

4.2.2 Directional prefixes in other languages

Next, I will provide some examples from two other languages: Tangut, which is an extinct language that is supposed to have a genetic relationship with the Qiangic languages, and Lai, which is spoken in an area that lies far from the WSEC area—Northwestern Burma.

Tangut (Xixia)

The Tangut language was spoken until the 13th or 14th century in an area that lies to the north of the WSEC area. According to Kepping (1982: 77–78) and Li Fanwen (1999: 92–103), Tangut also possesses directional prefixes. Moreover, the arbitrary connection with verb stems and obligatory affixation in the past aspect is observed: "A part of the grammatical functions of its directional prefixes had already shifted to marking the past aspect" (其趋向词头的语法功能已经部分地转移到表示已行体) (Li Fanwen 1999: 101). Examples of arbitrary connections in the past aspect are given in Table 5; these are based on the examples provided in Li Fanwen (1999: 101–103).

This demonstrates that the typology of the directional prefixes in Tangut is similar to the one in nDrapa.

Lai

The Lai language (Chin) also possesses a set of preverbal directional markers. According to Kavitskaya (1997: 176–178) and Peterson (2003: 414–415), some of the directional markers function as certain aspect markers, as shown in Table 6.

Although the use of preverbal directional markers as aspect markers appears to be the same as in nDrapa, the system is obviously different. In the WSEC languages, including nDrapa, each directional prefix has an equal aspect value, whereas in Lai, the aspect values differ among prefixes.

Table 5 Arbitrary Connections of Prefixes and Stems in Tangut

Directional Prefix		Verb Stem		
ʔa- (a-)	upward	*dǐur* 'compete'	*bəi* 'encounter'	*ba w e* 'run out'
na- (na-)	downward	*lhuo* 'add'	*thu* 'locate'	*ŋu* '(birds) sing'
ki- (kɪ-)	inward	*pǐu* 'burn'	*yǐã* 'surrender'	*zã* 'hold'
wi- (viə-)	outward	*ni* 'listen'	*lhǐə* 'accept'	*bǐɔu* 'view'
di- (ndɪ-)	hitherward	*yǐu* 'request'	*zǐɛ* 'make'	*dzu* 'sit'
da- (tha-)	away	*dʑǐəu* 'starve'	*khǐa* 'know'	*pha wɪe* 'break'
rer- (riə-)	neutral	*wǐuo* 'do'	*tǐuo* 'originate'	*ɕǐo* 'lead'

Table 6   The Directional Prefixes in Lai

	Direcion	Tense and Aspect
rak-	toward a deictic center	past
va-	away from a deictic center	
hey-	toward a deictic center and directed over a shorter distance	
von-	in the immediate vicinity	suddenly
ruŋ-	downwards toward the speaker	
huŋ-	upwards toward the speaker	continuative (restricted lexically)
vuŋ-	downwards away from the speaker	

5. Conclusion

5.1 Common Characteristics of the WSEC Languages

In this paper, I described the system of directional prefixes in nDrapa, and then surveyed the characteristics of directional prefixes in the WSEC languages, contrasting them with those observed in other languages.

I conclude that the majority of the WSEC languages share the following characteristics with respect to the system of directional prefixes. Characteristic (i) is the most shared and (iv) is the least shared.

(i) Each language possesses a set of directional prefixes.
(ii) The directional prefixes show arbitrary connection with the majority of verb stems.
(iii) Directional prefixes are obligatory in the perfective.
(iv) Directional prefixes are obligatory in the imperative mood.

5.2 Supplementary Remarks on the Development of Directional Prefixes in the WSEC Languages

In section 4.2.1, I surveyed the extended functions of the directional prefixes in the WSEC languages. The most primitive system is found in Shixing, Guiqiong, and Pema, where the only function of the directional prefixes is direction marking. It is natural that the Pema language is in an early stage, because Pema is considered to belong to a different subgroup (Tibetic) as compared to the other WSEC languages (Qiang). Therefore, Pema may have borrowed the system of directional prefixes from other WSEC languages. From another viewpoint, this fact is consistent with the premise that the original function of directional prefixes is direction-marking itself.

On the other hand, I conclude that among the WSEC languages, Muya is in the most advanced stage, because the fossilization of the directional prefixes has progressed the most in this language.

The following question then arises: what about the rGyalrong system that has a proper perfective prefix or the nDrapa system that lacks the same? It may be considered that the function of directional prefixes has merged with that of perfective prefixes. As a result, the

perfective prefixes have been abandoned in nDrapa and other languages.

Abbreviations

1	first person	2	second person	3	third person
AUX	auxiliary	DIR	directional prefix	DISJ	disjunct suffix
ERG	ergative	IMPR	imperative	IPF	imperfective
NC	noun classifier	NEG	negative	NMLZ	nominalizer
PFT	perfective	PL	plural	PST	past
S	statement	SFP	sentence-final particle	SG	singular

Notes

1) The following are the phonemes of Mätro nDrapa: consonants /ph, th, ṭh, ch, kh; p, t, ṭ, c, k; b, d, ḍ, ɟ, g; tsh, tɕh; ts, tɕ; dz, dʑ; m, n, ɳ, ŋ; m̥, n̥, ɳ̊, ŋ̊; sh, ɕh; f, s, ɕ, x; v, z, ʑ, ɣ, w, j; l, r; l̥, r̥/; special mora phonemes /N, H, ʔ/; and vowels /i, ɨ, ʉ, u, e, ɵ, o, ɛ, ə, ʌ, a; ei/. Furthermore, nDrapa has a word-tone system consisting of three tonemes: /ꜜ/ (high-falling), /ˉ/ (high-level), and /ˊ/ (low-rising). In this paper, the tones are labeled at the initial position of the tone bearing unit (phonological word). This paper uses an "equal to" sign (=) to indicate the formation of a phonological word.

2) "In the Tibeto-Burman languages which have the category of directionality, the directional prefixes originate from orientation pronouns and the directional affixes originate from the verbs that have a directional implication." "藏缅语族中有趋向范畴的语言，其趋向前缀大多源于方位名词，趋向后缀大多来源于有趋向含义的动词。" (Huang Bufan 1994: 151)

3) "At least in these two languages (So-mang rGyalrong and Mawo Qiang), it is more natural to assume the construction: 'Directional Prefix + Adverbial Marker = (Location) Adverb.'" "I consider that directional prefixes originate from the motion verbs of PTB.'" 「少なくともこの2言語（ギャロン語ソマン方言と羌語麻窩方言）においては、『方向接辞＋副詞マーク＝（場所）副詞』という構成を考える方が自然である。」 「方向接辞はもともとPTB段階でのmotion verbから来ているとの考えを捨て去ることができない。」 (Nagano 1984: 43)

4) In the glosses of examples, the directional prefixes are accompanied by a subscript to indicate the direction they imply: (1) UP, (2) DOWN, (3) IN, (4) OUT, and (5) NEUT.

5) There are exceptions: a few verbs, such as ʌ-Nɳi 'take a rest,' always involve directional prefixes even in the imperfective. On the other hand, directional prefixes are never attached to a few verbs, such as ʔɛ 'put,' regardless of whether they are in the perfective or the imperative.

6) Instead, nDrapa has auxiliaries to express tense or aspect. A directional prefix is obligatory if the predicate involves a perfect, experiential, or past auxiliary.

7) For further information on the WSEC languages, I consulted the following references: Sun Hongkai (2007) for Pema; LaPolla (2003a) for Qiang; Nagano (1984a) for rGyalrong; Huang Bufan (2007) for Lavrung; Sun Hongkai (1983) for Guiqiong; Huang Bufan (1991b) for sTau; Wang Tianxi (1991) for Queyu; Huang Bufan (1991c) for Muya; Huang Bufan and Renzeng-Wangmu (1991a) for Lusu; Huang Bufan and Renzeng-Wangmu (1991b) for Namuzi; Huang Bufan and Renzeng-Wangmu (1991c) for Shixing; and Lu Shaozun (2001) for Prinmi.

8) "In this situation, the speaker is talking at a shop to the vendor, behind whom the merchandise is

displayed, and the speaker asks him to take the red one behind him for the speaker." (Nagano 1984a: 37)

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