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**An analysis of the aspect-marking function
of the directional prefixes in nDrapa**
(ダパ語における方向接辞のアスペクト表示機能)

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An analysis of the aspect-marking function of directional prefixes in nDrapa

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1. Introduction

1.1. Aim of this paper

The nDrapa language (扎壩/Zhaba) has a set of verbal prefixes to mark the direction of movement, which are called directional prefixes. They also have the function of indicating the imperative mood and several aspects involving both the perfective and a part of the imperfective.

In this paper, I will describe the aspect-marking use of the directional prefixes and analyze it from the viewpoint of grammaticalization. The following part of Section 1 contains the profile of the nDrapa language and a survey of previous studies. Section 2 provides basic information on the directional prefixes. Section 3 describes the aspect-marking use of the directional prefixes in nDrapa. A discussion and conclusion are given in Section 4.

1.2. Profile of the nDrapa language

The nDrapa language is one of the languages spoken in an ethnolinguistic area called the Western Sichuan Ethnic Corridor. The languages in this area share several areal features, including a set of directional prefixes (Sun Hongkai 1983, Nishida 1993, Shirai 2009).

Genealogically, nDrapa is classified into the Qiangic group of the Tangut-Qiang branch of the Tibeto-Burman subfamily (Matisoff 2003). Approximately 8,000 people speak this language in the Daofu and Yajiang Counties of Sichuan, China (Huang Bufan 1991b and Gong Qunhu 2007). The language is divided into two dialects: the northern dialect group and southern dialect. This paper is concerned with one of the northern dialects: the Mätro dialect.

The phonemes of nDrapa are as follows: (i) consonants /ph [p^h], th [t^h], tʰ [t^h], ch [c^h], kh [k^h]; p, t, ṭ, c, k; b, d, ḍ, j, g; tsh [ts^h], tɛh, [tɛ^h]; ts, tɛ; dz, dz; m, n, ŋ, ŋ; m̄ [m̄m], n̄ [n̄n], ŋ̄ [ŋ̄n], ŋ̄ [ŋ̄ŋ]; fh [f^h], sh [s^h], ch [ɕ^h]; f, s, ɕ, x, h; v, z, ẓ, ʎ, fi; w, j; l, r [r]; ʎ [ʎ], r̄ [r̄]; (ii) vowels /i, i, u, u, e [ɪ], ɐ, o, ɛ, ʌ, ə, a, ei/; and (iii) word tones: 1 (high-level), 2 (high-falling), 3 (low-rising) and 4 (low-rising-falling). Affixes (marked with a hyphen) and clitics (marked with an equal sign) do not have their own tone¹ and become a part of a phonological word with their host.

The word classes include nouns, pronouns, numerals, verbs, adjectives, adverbs, copulas, auxiliaries, classifiers, and particles. Among these, verb, adjective, copula, and auxiliary form a “verbal” group: verbal affixes can be attached to this group of words. Moreover, among the word classes, auxiliaries, classifiers, and particles are dependent words. For example, an auxiliary appears after a verb and is often encliticized (i.e., it loses its own tone and becomes a part of the phonological word with the verb root) after a single-syllable verb.

The basic constituent order is SOV. Grammatical relations are indicated with case markers, and the case markers are enclitics. The case system is basically nominative-accusative.

nDrapa employs both prefixes and suffixes. The affixes that can be attached to the verb predicate in the plain mood² are as follows:

- (1) a. (DIR-) (NEG-) STEM (-Egophoricity & Aspect)
 b. (DIR-) STEM (NEG-) AUX (-Egophoricity & Aspect)

A predicate in the plain mood (i.e., declarative and interrogative) inflects for the patterns A/B or the egophoric/non-egophoric pattern to indicate whether the pragmatic pivot is involved in the event (Shirai 2006, 2007, Tournadre 2008). A pragmatic pivot is either of (i) the speaker of the declarative sentence, (ii) the hearer of the interrogative sentence, (iii) the information source of a hearsay sentence. Pattern A, or egophoric, is chosen if the pragmatic pivot is involved in the event as the actor, recipient, or controller. Pattern B, or non-egophoric, is chosen otherwise. Pattern A is marked by the absence of an affix (or a “zero” morpheme) in the “Egophoricity & Aspect” slot. Pattern B is marked with an aspectual suffix *-ɛ* ‘B.IPFV’ or *-a* ‘B.PFV’ in this slot.

In a predicate without an auxiliary, a directional prefix, negative prefix and aspect suffix can be attached to the verb stem, as shown in (1a). In a predicate with an auxiliary,

¹ There are exceptions like the downward directional prefix *a-*, which has tonal specification as “low initial” (Section 2).

² The affixation differs in the imperative mood.

a negative prefix and aspectual suffix are attached to the AUX, but a directional prefix remains on the verb stem, as in (1b).

1.3. Previous studies

There are a few descriptive studies of the nDrapa language: Huang (1990, 1991b) and Liu et al. (2005: 244-277) conducted a grammatical survey of the Zhatuo and Hongding dialects respectively, which belong to the Northern dialect group, as well as the Mätro dialect, which the present paper is mainly concerned with. Gong (2007) is a descriptive study of the Southern dialect. Shirai (2006) also includes a grammatical sketch of the Mätro dialect.

Huang (1991b: 81) briefly points out characteristics of the nDrapa directional prefixes: “The directional prefixes do not only indicate the direction of the movement but also do function as markers of mood and aspect”; “An adjective root plus directional prefix may construct a spontaneous verb.”³ Moreover, she has also conducted a comparative study of the directional prefixes in the Tangut-Qiang branch of languages (Huang 1991a/2003, 1994). Shirai (2009) describes the functions of the nDrapa directional prefixes and compares them with those of languages in the Western Sichuan Ethnic Corridor area. Shirai (2010) conducts a discussion on the correlation between the directional prefixes and case markers of origin and goal in nDrapa.

However, a detailed research on the aspect-marking function of the directional prefixes has not been conducted so far.

2. Forms and basic functions of the directional prefixes in nDrapa

nDrapa has five directional prefixes: *ɬ*- ‘upward (UP),’ *a*- ‘downward (DWN),’ *kɬ*- ‘upriverward/inward (INW),’ *ɲɬ*- ‘downriverward/outward (OUT),’ and *tɬ*- ‘unspecified/neutral (NTL).’ The distinction of direction is closely associated with the nDrapa landscape: steep slopes rising from either riverbank in the deep valleys (DWN) up to the high mountain ridges (UP), a range of lofty mountains upriverward (INW), and an open basin downriverward (OUT).

The vowel *ɬ* can be assimilated into the vowel of the following verb root and may alternate with *i* or *o*. Directional prefixes except for *a*- ‘DWN’ do not have a proper tone. Their tonal value depends on the tone of the following root. The tonal value of *a*- ‘DWN’ is always low in the initial position. Thus, the phonological word with *a*- ‘DWN’ has Tone 3 (low-rising) or Tone 4 (low-rising-falling) (See Section 1.2).

Directional prefixes may indicate the direction of movement with movement verbs

³ The original: “趨向前綴的語法作用，除表示動作的趨向以外，還兼表體與式範疇”；“形容詞詞根加趨向前綴可構成自動動詞”

such as *ji3* ‘go/come’ and *htsehtse1* ‘carry.’ For example, *ʌ-htsehtse1*, *a-htsehtse3*, *kʌ-htsehtse1*, *ŋʌ-htsehtse1*, and *tʌ-htsehtse1* respectively mean ‘carry something upward/downward/upriverward/downriverward/to various directions or direction-freely.’ Example (2) shows a case where directional prefixes indicate various directions in one scene of a folk tale. The verb root is *təho1* ‘go.’ The verb *to-təho1* ‘NTL-go’ in the first sentence indicates that people moved to various directions to look for the grain. In the second sentence, the verb contains the prefix *o-* (*ʌ-*) ‘UP,’ because the inside room of a temple (*hgembe1 khʌpi1*) is located upstairs. The verb *a-təho3* ‘DWN-go’ in the last sentence indicates that the subject went down from there.

- (2) *johpu-re1 nopi3 fidu3 to-təho-a1 re3.*
 servant-PL outside look.for NTL-go-B.PFV NFC
akhu3htembal jo3 hsi=sal, hgembe1 khʌpi1 o-təho-a1 re3.
 PSN self know=ADM temple inside UP-go-B.PFV NFC
xo3 ŋorol akhu3htembal hgehbu=ʃol a-təho-a3 re3.
 now 3SG PSN rich.person=place DWN-go-B.PFV NFC

(When a millionaire stayed at a temple one night, the grain which he brought for trade disappeared.) ‘The servants went outside (into various directions) to look for it. Aku-Temba knows (the place, because he planned this trick) by himself, (so) he went up inside the temple. And now, he, Aku-Temba, went down to the place where the millionaire was.’

Since the direction of movement is indicated by a directional prefix, the case markers for origin and goal of movement are not fully developed. Particularly, nDrapa has no proper case particle to mark the origin (such as ablative) (Shirai 2010: 304-305).

Verbs that do not imply movement may also have a directional prefix, such as *ko-fido1* ‘INW-wait,’ since a directional prefix is required in the imperative mood and certain aspects, including the perfective (See Section 3 for details). Thus, most of the non-movement verb roots show a one-to-one combination with a directional prefix, and this combination is apparently almost arbitrary. Shirai (2009: Table 4) provides a list of such combinations. (3) below provides additional data.

- (3) UP: *o-fido1* ‘twist (a rope),’ *o-ttu1* ‘build,’ *o-tu1* ‘(flowers) wither’;
 DWN: *a-ju3* ‘irrigate,’ *a-nqe3* ‘separate,’ *a-ŋire* ‘get injured,’ *a-ziza* ‘chant (a sutra)’;
 INW: *kʌ-fida3* ‘cut off,’ *kʌ-fja3* ‘stay overnight,’ *ko-hteuhkal* ‘chant (a sutra),’
ko-hto1 ‘remember,’ *ko-tu1* ‘water (a flower)’;

OUT: $\eta\Delta$ -*ndei2* ‘hit (someone)’;

NTL: $t\Delta$ -*hdi1* ‘think,’ $t\Delta$ -*hkwi1* ‘make someone drink,’ $t\Delta$ -*htsi1* ‘feed,’
 to -*hdzu3* ‘leave (something),’ to -*kol* ‘call,’ $t\Delta$ -*tthe1* ‘cut off,’
 $t\Delta$ -*hte1* ‘hand sth. over.’

3. Aspect and Directional prefixes

The behavior of directional prefixes is linked not only with the deictic direction but also with certain aspectual phenomena.

First, a directional prefix is obligatory in the perfective and imperative (e.g., (4) and (5) respectively; Shirai 2009: (4), (5)⁴). In (4), the upward directional prefix indicates the perfective aspect (and also the upward movement of the view). In (5), the verb stem inflects for the imperative, but a directional prefix is also required to form an imperative predicate. nDrapa has no alternative prefix that properly indicates the perfective or the imperative, and thus verbs should have one of the directional prefixes in the perfective and imperative.⁵

(4) $\eta\Delta$ 1 η khuta1 { Δ -ntchi1 hje3 / *ntchi=hje1}.

1SG sky UP-look PST.1 look=PST.1

‘I looked (up) at the sky.’

(5) no 1 η khuta1 { o -ntehu2 / *ntehu2}.

2SG sky UP-look.IMP / look.IMP

‘Look (up) at the sky!’

Example (6) shows that even an existential verb has a directional prefix in a perfective predicate,⁶ typically in folk tales.

(6) nda = ni 3 $wal\Delta$ hte= la 3 $l\epsilon$ m ϵ 3 $ndzi$ ~ $ndzi$ = ji 1

long.ago=TOP PSN=DAT monk wonder.working~NMLZ=CLF

to - po - a 1 $r\epsilon$ 3.

NTL-exist₁-B.PFV NTFC

⁴ The gloss and phonological transcription is adjusted to the present paper.

⁵ There are exceptions. The following group of words cannot be connected with directional prefixes even in the perfective, though they may have other verbal affixes: (i) perception verbs (involitional) such as $t\epsilon$ 2/ to 2 ‘see (Pattern B/Pattern A),’ $\eta\theta$ 2/ $\eta\theta$ 2 ‘hear (Pattern B/Pattern A),’ and $\epsilon\theta$ 3 ‘get acquainted’; (ii) $\nu\Delta$ 1/ $\nu\theta$ 1 ‘(one of the words for) come (Pattern B/Pattern A)’; copulas that include wa 3 ‘COP₁,’ tee 3 ‘COP₂,’ $t\epsilon$ 3 ‘COP₃,’ $r\epsilon$ 3 ‘COP₄’; auxiliaries that include $t\Delta$ 3 ‘IPFV,’ hce 3/ hje 3 ‘PST (non first person/first person),’ wu 2 ‘PFV,’ etc.

⁶ $-a$ + $r\epsilon$ 3 (‘-B.PFV’ + NTFC) in (6) indicates the discontinuity between the utterance time and reference time. Its reference time is typically the remote past.

‘Long ago, there was a wonderful monk in the Walahte’s place.’

On the contrary, in many cases of imperfective sentences such as (7), both forms with and without a directional prefix are accepted almost equally (Shirai 2009: (3)).

- (7) *ŋa1 ŋkhuta1 {ʌ-ntɕhi1 tʌ3 / ntɕhi=tʌ1}*.
 1SG sky UP-look IPFV / look=IPFV
 ‘I am looking (up) at the sky.’ or ‘I am going to look (up) at the sky.’

However, this does not mean that a directional prefix appears freely in any case of the imperfective. For example, in (8), the form with a directional prefix is strongly preferred, and in (9), the form without it is preferred.

- (8) *ŋa1 (tɕutɕuu1) kjɛmʌ1 tʌ-thɛ3 tʌ3*.
 1SG immediately clothes NTL-put.off IPFV
 ‘I will put off the clothes (immediately).’
- (9) *ŋa1 tɕuu2 kjɛmʌ1 thɛ=tʌ1*.
 1SG now clothes put.off=IPFV
 ‘I am now putting off the clothes.’

Accordingly, I will examine the function of directional prefixes in the imperfective in Sections 3.1 and 3.2.

Second, when a directional prefix is attached to an adjective root, it becomes a change-of-state verb. Although such derivation is already mentioned in the preceding studies (Huang 1991b, Shirai 2009, and also LaPolla 2003 on Qiang), I will discuss the parallelism of such derivation and the aspectual function of directional prefixes in Section 3.3.

Some of the theoretical studies on aspect distinguish dimensions of aspect, for example, into Aspect₁: perfective, imperfective, progressive, etc.; Aspect₂: stative, dynamic, punctual, etc.; and Aspect₃: *begin, end*, etc. (Sasse 2002: 203-208, 228-230; Desclés and Guentchéva 2012: 126). In view of this, the issues mentioned above are deeply concerned with Aspect₂. In the study of Aspect₂, it is effective to employ the framework of Vendler (1957) and Dowty (1972): the classification of verbs, verb phrases or events into states, activities, accomplishments, and achievements; using the features [\pm punctual], [\pm durative], [\pm telic], and [\pm dynamic]. In particular, the feature of telicity—in other words, the existence of the endpoint—is significant in the discussion of the present paper.

3.1. Telicity and reference time

Examples (10)–(13) involve a verb root *ji3* ‘help’ and the imperfective auxiliary *tʌ3/t-ε3* (it changes into an enclitic =*tʌ*/*t-ε* after a single-syllable form of verb). The pragmatic time reference of *tʌ3/t-ε3* ‘IMPF’ is either the present (as in (10) and (11)) or the near future (as in (12) and (13)). In this case, a directional prefix does not seem to make a difference: both patterns (with a directional prefix :(10), (12); and without one: (11), (13)) are found in both cases of reference time.

- (10) *taci3 tɛuu2 tsheri=wu1 kʌ-ji2 t-ε3.*
 PSN now PSN=ACC INW-help IPFV-B.IPFV
 ‘Tashi is now helping Tseri.’
- (11) *taci3 tɛuu2 ηa=wu3 ji=tʌ3.*
 PSN now 1SG=ACC help=IPFV
 ‘Tashi is now helping me.’
- (12) *somuηi3 taci3 tsheri=wu1 kʌ-ji2 t-ε3.*
 tomorrow PSN PSN=ACC INW-help IPFV-B.IPFV
 ‘Tashi will help Tseri tomorrow.’
- (13) *somuηi3 ηa=rʌ3 pʌhʏʌ3 hgehgε=wu3 ji=t-ε3.*
 tomorrow 1SG=GEN child teacher=ACC help=IPFV-B.PFV
 ‘My child will help the teacher tomorrow.’

However, example (14), which has a directional prefix, may mean the near future but may not mean the present progressive, even if it does not involve a temporal adverb *rosa3* ‘soon.’ The present progressive reading is conveyed by a sentence without a directional prefix, for example, (15).

- (14) *ηoro1 (rosa3) kjemʌ1 ʌ-cci1 t-ε3.*
 3SG soon clothes=ACC UP-put.on IPFV-B.IPFV
 ‘He will put on (and wear) the clothes (soon).’
 (*He is putting on the clothes.)
- (15) *ηoro1 tɛuu2 kjemʌ1 cci=t-ε3.*
 3SG now clothes=ACC put.on=IPFV-B.IPFV
 ‘He is now putting on the clothes.’
- (16) *ηoro1 rosa3 kjemʌ1 cci=t-ε3.*
 3SG soon clothes=ACC put.on=IPFV-B.IPFV
 ‘He will put on (and wear) the clothes soon.’

Compare (7), (10), and (12) with (8) and (14). All of these five examples involve a directional prefix. The predicates of former three examples are [-telic] and those of the latter two are [+telic]. As these examples indicate, we can find a strong tendency as (17a, b). Moreover, (9) and (15) suggest a tendency as (17c), though (16) is apparently exceptional. The significant point here is that the observation in preceding studies (Shirai 2009: 9-10, Huang 1991b: 81-83) on the optionality of a directional prefix in the imperfective is appropriate only if the predicate is [-telic].

- (17) In a sentence with the imperfective auxiliary $t_{\Lambda 3}/t-\varepsilon 3$,
- (a) If the predicate is [-telic], a directional prefix may be associated either with the present progressive or the near future.
 - (b) If the predicate is [+telic], a directional prefix may not be associated with the present progressive but may be associated with the near future.
 - (c) If the predicate is [+telic] and without a directional prefix, it is more likely to mean the present progressive.

Examples (18)–(21) and (23) support the observation described in (17b, c), that is, a directional prefix is not simply “optional” in the imperfective but does have a function in a [+telic] predicate. Although (22) as well as (16) is exceptional, in the elicitation, the informant first said the sentence with a directional prefix and then accepted the sentence without the directional prefix that I made. This suggests the preference for the form with a directional prefix and supports the tendency described in (17b, c).

- (18) *ŋa1 rosa3 teore1 a-phe3 t_{Λ3}.*
 1SG soon gauze DWN-cover IPFV
 ‘I will cover it with gauze soon.’
- (19) *ŋa1 teuu2 teore1 phe=t_{Λ1}.*
 1SG now gauze cover=IPFV
 ‘I am now covering it with gauze.’
- (20) *ŋoro1 t_Λ-ε_{Λ1} t-ε₃.*
 3SG NTL-die IPFV-B.IPFV
 ‘He will die (soon).’
- (21) *ŋoro1 ε_Λ=t-ε₁.*
 3SG die=IPFV-B.IPFV
 ‘He is dying (now).’
- (22) *ŋa1 no=r_{Λ3} tonqo1 {a-t_he₃ t_{Λ3} / t_he=t_{Λ3}}.*
 1SG 2SG=GEN cup DWN-break IPFV / break=IPFV

- ‘I will break your cup.’
- (23) *pʌfjʌ3 tɛuu2 tɔndɔl tʈhɛ=t-ɛ3.*
 child now cup break=IPFV-B.IPFV
 ‘The child is breaking (many) cups now.’
 (*‘The child will break the cup.’)

Examples (21) and (23) are noteworthy. In many of the contexts, verbs *ɛʌl* ‘die’ and *tʈhɛ3* ‘break (a cup)’ are achievements, that is, [+punctual, -durative]. However, in (21), the process of change is dragged out and comes to mean the present progressive, and in (23), the interpretation as the repeated action conveys the present progressive. Both examples indicate the strong association of the present progressive meaning and a telic predicate without a directional prefix.

3.2. Telicity and Iterative

The iterative auxiliary *ndu3/ndu-ɛ3* ‘ITR,’ which is grammaticalized from the verb *ndu3* ‘can do,’ is another auxiliary used in the imperfective. It has various functions including the iterative (‘do sth. repeatedly/habitually’), probability (‘easily do sth.’), and apprehension (‘be threaten to do sth.’) (Shirai 2006: 135, Huang 1990: 79 “經常体”).

Interestingly, when this auxiliary is used with a [-telic] predicate, as in (24) and (25), the predicate lacks a directional prefix.

- (24) *ɲoro1 tʈʌ3 ɲonkhei1 pɛ~pɛ=ji3 tʈhɛ=ndu-ɛ1 mo3.*
 3SG liquor like.that much~NMLZ=CLF drink=ITR-B.IPFV CFM
 ‘He (habitually) drinks so much, doesn’t he?’
- (25) *ɲa=rə1 zʌntɛhi3 aɛwɯ3 lei3 mθ=ndu2.*
 1SG=GEN daughter sometimes bun make=ITR
 ‘My daughter sometimes makes buns.’

At the same time, the combination of a [+telic] predicate and *ndu3/ndu-ɛ3* ‘ITR’ tends to have a directional prefix.⁷ See (26)–(31).

- (26) *o-tʈʌ1 ndu3*
 DWN-wake.up ITR

⁷ Apparently, there is also a difference of meaning between [-telic] ((24), (25)) and [+telic] ((26)–(31)): the proper iterative and probability (‘easily do sth.’) or apprehension (‘be threaten to do sth.’) respectively. However, in these examples, this difference may come from other factors. I will not discuss this topic further here.

- ‘(e.g. an infant) be threaten to wake up / easily wakes’
 (27) *a-ɦjo3 ndu3*
 UP-lose ITR
 ‘(e.g. a key) be threaten to be lost / be easily lost’
 (28) *ko-htu1 ndu3*
 INW-be.infected ITR
 ‘be threaten to be infected (e.g. with flu) / be easily infected’
 (29) *ɦo-ntho1 ndu3*
 OUT-stop ITR
 ‘(e.g. a clock) be threaten to stop / easily stops’
 (30) *tA-nyal ndu3*
 NTR-change ITR
 ‘be threaten to change / easily changes’
 (31) *to-hpo1 ndu3*
 NTR-be.extinguished ITR
 ‘(fire) be threaten to go out / easily goes out’

Such difference of behavior suggests a significant association of directional prefixes and telicity.

3.3. Derivation of achievement verbs

As previous studies point out (Huang 1991b: 92, Shirai 2009: 11), a directional prefix may be attached to an adjective root to derive an achievement (or a change-of-state) verb, for example, (32)–(40). Note that the citation form of an adjective is a reduplicated form (reduplication also has a nominalizing function; see Shirai 2014).

- | | | |
|------|----------------------------------|--|
| (32) | <i>teiteil</i> ‘big’ | <i>ɿ-teil</i> ‘become big/grow up’ |
| (33) | <i>ɦiɦil</i> ‘red’ | <i>ɿ-ɦil</i> ‘(e.g. apple) become red’ |
| (34) | <i>ɦeɦel</i> ‘white’ | <i>ɿ-ɦel</i> ‘become white’ |
| (35) | <i>ɦuɦu3</i> ‘dry’ | <i>ɿ-ɦu3</i> ‘dry (v.i.)’ |
| (36) | <i>zozo3</i> ‘hot / sour’ | <i>ɿ-zo3</i> ‘become sour/become spicy/go rotten’ |
| (37) | <i>ɦdzeɦdze3</i> ‘(person) thin’ | <i>kɿ-ɦdze1</i> ‘(person) become thin’ |
| (38) | <i>ɦzuɦzu3</i> ‘poor’ | <i>ko-ɦzu2</i> ‘become poor’ |
| (39) | <i>ɦguɦgu3</i> ‘cold’ | <i>ɦo-ɦgu3</i> ‘(things) become cold’ ⁸ |

⁸ There is another verb that is probably derived from this adjective root: *o-ɦgu2* ‘(temperature) cold.’ However, *o-ɦgu2* is not an achievement verb but a state verb. The resulting state of the change has probably come to be reflected in the meaning of the verb.

- (40) *veveI* ‘cold’ *ηΛ-veI* ‘(things) become cold’ ;
 Λ-veI ‘(temperature) become cold’

The derivation from an adjective root to an achievement verb seems productive. Moreover, interestingly, some of such verbs have already lexicalized, for example, (32) *Λ-tɛiI* ‘grow up,’ (36) *Λ-zo3* ‘go rotten,’ and (41) below.

- (41) *hsohso3* ‘bright’ *o-hso3* ‘(a day) dawn (v.i.)’

The following example (42) is difficult to ascertain the direction of derivation: the adjective *hcahcal* ‘hot’ might have been formed from the verb stem *hcal* ‘boil.’ Moreover, (42) is different from the productive derivation in the point that the verb ‘boil’ is not an achievement but an accomplishment.

- (42) *hcahcal* ‘hot’ *Λ-hcal* ‘boil (water/tea)’;
 kΛ-hcal ‘boil (milk)’;
 a-hca3 ‘boil (meat/vegetable)’

In nDrapa, it is natural to think that such derivation from an adjective root to a change-of-state verb is a matter of Aspect₂, that is, the derivation from states to achievements, since adjective is counted as one of the verbal groups of word (Section 1.2).

Moreover, though there are not many, parallel examples of derivation from a state to a change of state are found:

- (43) *hsiI* ‘know’ *tΛ-hsiI* ‘(come to) understand’

hsiI ‘know’ is a state verb. No directional prefix is attached even in the past, as seen in the second sentence of example (2). Once a directional prefix *tΛ-* ‘NTL’ is attached to this verb root, it means ‘(come to) understand,’ a change of state.

- (44) *ηoro=rΛI* *hteakhal* *ηjε=toI* *lε3* *lε=hce3*.
 3PL=GEN luggage 1PL=place put leave=PST
 ‘His luggage is (put and kept) in our house.’

- (45) *a-lε3* *ndu3*
 DWN-tumble ITR
 ‘be threaten to tumble down / easily tumbles down’ (e.g. at a hollow)

The state verb *lɛ3* ‘put/leave’ in (44) never has a directional prefix in this meaning, even in the perfective. Moreover, there is an achievement verb that has the same form root: *a-lɛ3* ‘tumble down’ in (45). Although there is no clear evidence that *a-lɛ3* ‘tumble down’ is derived from *lɛ3* ‘put/leave,’ such pairs of verbs suggest a function of derivation that the directional prefixes (used to) have.

4. Discussion and Summary

In this paper, I described the aspectual functions of the nDrapa directional prefixes. As we have observed so far, in addition to the deictic directions of movement, the directional prefixes can be associated with the categories listed in (46):

- (46) a. Perfective
 b. Near future of a [+telic] predicate
 c. Iterative of a [+telic] predicate
 d. Derivation from states to achievements

Note that (46a) is obligatory but (46b, c) are tendencies. Moreover, (46d) is a derivational function, but the others are inflectional. In addition, it is worth noting that the difference of direction does not bring the difference of associated categories.⁹

The aspectual functions of the directional prefixes are all associated with the aspectual notion of “transitions” or “boundary crossings” (Tatevsov 2002: 330-332; Desclés and Guentchéva 2012).¹⁰ In (46e), a verb with a directional prefix implies a transition from state to state. In (46a), such a verb implies the transition to a state (crossing the boundary of end point). In (46b, c), though both transitions to a process (crossing the boundary of start point) and to a state may occur, transition into a state seems more significant, because of the telicity concerned here.

Taking the notion of “transition” into account, the aspectual functions of directional prefixes can be analyzed as a result of grammaticalization. That is, the original function of directional prefixes is to indicate the deictic direction of movement—or in other words, the transition between locations. In the process of grammaticalization, the function to indicate transition became free from the context of location and was

⁹ The difference of direction has brought a different type of change: a semantic shift. For example, *ɲɔ-* ‘OUT’ is drastic and *kɔ-* ‘INW’ is shrinking. However, this paper is not further concerned with this issue.

¹⁰ “[I]n the case of “entry into a state,” an event’s terminal (right) boundary is crossed, whereas with an “entry into a process,” the process’s initial (left) boundary is crossed[.]” (Desclés and Guentchéva 2012: 127)

associated with the categories listed in (46).

Recall that the imperative mood also requires a directional prefix (Section 3). From the viewpoint of grammaticalization, the imperative may also be associated with the notion of transition—it involves the inducement of transition either or both to a process and a state.

We can conclude that the directional prefixes in nDrapa came to have the functions to mark aspect and mood through grammaticalization. Note that this grammaticalization is not linked with the morphological reduction, though it is linked with the semantic bleaching: the form and the position of directional prefixes in the morpheme order have not changed (Section 1.2). Thus, something quite interesting is observed in nDrapa: the “same” prefix is used to indicate both the deictic directions of movement and aspectual transitions.

Most of the languages of the Western Sichuan Ethnic Corridor have more or less parallel characteristics—the directional prefixes tend to be associated with aspect/mood (Shirai 2009: 14-16). However, its extent is different: for example, in Qianxi Guiqiong, the aspectual functions of directional prefixes appear to be much more restricted (cf. Jiang 2015: 129-192). It would be an important future issue to re-examine this areal feature through detailed research into the stage of grammaticalization.

Abbreviations

1 - first person; 2 - second person; 3 - third person; ACC - accusative; ADM - admirative; AUX - auxiliary; B - Pattern B (non-egophoric); CFM - confirmative; CLF - classifier; COP - copula; DAT - dative-locative; DIR - directional prefix; DWN - downward directional prefix; GEN - genitive; INW - inward directional prefix; IPFV - imperfective; ITR - iterative; NEG - negative; NFC - neutral-factual particle; NMLZ - nominalizer; NTL - neutral directional prefix; OUT - outward directional prefix; PFV - perfective; PL - plural; PSN - person name; PST - past; SG - singular; TOP - topic; UP - upward directional prefix; v.i. - intransitive verb

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References

- Desclés, Jean-Pierre and Zlatka Guentchéva (2012) Universals and typology. In: Robert I. Binnik (ed.) *The Oxford handbook of tense and aspect*. pp. 123–154. New York: Oxford University Press.
- Dowty, David Roach (1972) Studies in the logic of verb aspect and time reference in English. Ph.D. Dissertation. University of Texas, Austin.
- Gong, Qunhu (2007) 《扎壩語研究》 [*Study of the Zhaba language*]. Beijing: Minzu Chubanshe.
- Huang, Bufan (1990) 〈扎壩語概況〉 [A survey of the Zhaba language]. *Zhongyang Minzu Xueyuan xuebao* 1990(4): 71–82.
- Huang, Bufan (1991a/2003) 〈羌語支〉 [The Qiangic branch]. In: Xueliang Ma (editor-in-chief) 《漢藏語概論》 [*An introduction to Sino-Tibetan languages*]. pp. 208–369. (2nd ed. 2003, pp. 176–307) Beijing: Minzu Chubanshe.
- Huang, Bufan (1991b) 〈扎壩語〉 [The Zhaba language]. In: Qingxia Dai, Bufan Huang, Ailan Fu, Renzeng-Wangmu, and Juhuang Liu, 《藏緬語十五種》 [*Fifteen Tibeto-Burman languages*], pp. 64–97. Beijing: Beijing Yanshan Chubanshe.
- Huang, Bufan (1994) 〈藏緬語動詞的趨向範疇〉 [The category of directionality in Tibeto-Burman verbs]. In: Xueliang Ma, Tan Hu, Qingxia Dai, Bufan Huang, and Ailan Fu (eds.) 《藏緬語新論》 [*Recent contributions to Tibeto-Burman studies*]. pp. 133–151. Beijing: Central Institute of Nationalities Press.
- Jiang, Li (2015) *A grammar of Guiqiong: A language of Sichuan*. Leiden/Boston: Brill.
- LaPolla, Randy J. (with Chenglong Huang) (2003) *A grammar of Qiang: with annotated texts and glossary*. Berlin/New York: Mouton de Gruyter.
- Liu, Yong, Min Feng, Benjia and Huiqiang Liu (2005) 《鮮水河畔的道孚藏族多元文化》 (藏族多元文化研究叢書) [*Multiculturalism of the Daofu Tibetan people on the Xianshui riverside (Tibetan Multicultural Studies Series)*]. Chengdu: Sichuan Minzu Chubanshe.
- Matisoff, James A. (2003) *Handbook of Proto-Tibeto-Burman: system and philosophy of Sino-Tibetan reconstruction*. Berkeley/Los Angeles/London: University of California Press.
- Nishida, Tatsuo (1993) 「川西走廊言語」 [Languages of the western Sichuan corridor]. In: Takashi Kamei, Rokuro Kono, Eiichi Chino (eds.) *Gengogaku daiziten Vol.5: A supplement and index of languages*. pp. 197–198. Tokyo: Sanseido.
- Sasse, Hans-Jürgen (2002) Recent activity in the theory of aspect: Accomplishments, achievements, or just non-progressive state? *Linguistic Typology* 6: 199-271.
- Shirai, Satoko (2006) 『ダバ語における視点表示システムの研究』 [*A Study on the Point-of-view System in nDrapa*]. Ph. D. Dissertation. Kyoto University.

- (Published in 2008 at the Kyoto University Dissertation Library & On-Demand Publishing. BookPark. <https://www.bookpark.ne.jp/kyoto/>)
- Shirai, Satoko (2007) Evidentials and evidential-like categories in nDrapa. *Linguistics of the Tibeto-Burman Area* 30(2): 125–150.
- Shirai, Satoko (2009) Directional prefixes in nDrapa and neighboring languages: An areal feature of Western Sichuan. In: Yasuhiko Nagano (ed.) *Issues in Tibeto-Burman historical linguistics*. Senri Ethnological Studies 75. pp. 7–20. Suita: National Museum of Ethnology.
- Shirai, Satoko (2010) 「ダバ語の「格」を表す形式」 [Case markers in nDrapa]. In: Hideo Sawada (ed.) *Grammatical phenomena of Tibeto-Burman languages 1: Case-marking and related matters*, pp. 287-310. Fuchu: Research Institute for Languages and Cultures of Asia and Africa, Tokyo University of Foreign Studies.
- Shirai, Satoko (2014) Reduplication as a process of nominalization in Tibeto-Burman. In: *Papers from the second international conference on Asian geolinguistics*. pp. 105–115. (<https://agsj.jimdo.com/picag-1-2-3/>)
- Sun, Hongkai (1983) 〈四川民族走廊地區的語言〉 [Languages of the ethnic corridor in western Sichuan]. In: Fengming Li (ed.) 《西南民族研究》 [*Southwest ethnic studies*], pp. 429–454. Chengdu: Sichuan Minzu Chubanshe. (Translated into English by Jackson Sun in *Linguistics of the Tibeto-Burman area* 13(1): 1–31, 1990.)
- Tatevsov, Sergej (2002) The parameter of actionality. *Linguistic typology* 6: 317-401.
- Tournadre, Nicholas (2008) Arguments against the concept of ‘conjunct/disjunct’ in Tibetan. In: Brigitte Huber, Marianne Volkart and Paul Widmer (eds.) *Chomolangma, Demawend und Kasbeck, Festschrift für Roland Bielmeier*, pp. 281–308. Halle: VGH Wissenschaftsverlag GmbH.
- Vendler, Zeno (1957) Verbs and times. *Philosophical review* 66: 143–160.

ダパ語における方向接辞のアスペクト表示機能

白井聡子

要旨

ダパ語 (nDrapa/Zhaba/扎壩) は、川西民族走廊地域 (中国四川省) で話されるチベット=ビルマ語派の言語である。この言語には、「方向接辞」と呼ばれる、移動や動作の直示的な方向を表す一連の動詞接頭辞がある。この接辞群は、さらに、命令法や完了アスペクトなどを表示する機能も持っている。本論文では、特に、アスペクト表示機能に焦点を当て、関連する現象を記述した上で、「遷移 (transition)」の表示という特徴に着目し、文法化の観点から分析を行う。

ダパ語の方向接辞が持つアスペクト表示機能については、先行研究においては、「完了で義務的に現れ、未完了で随意的になる」という簡単な説明がなされるのみであった。しかし、未完了アスペクトにおける方向接辞の出現を分析することにより、そこに、限界性 (telicity) との相関があることが明らかになった。未完了の助動詞 $t\mu 3/t-\epsilon 3$ を伴う述部は、[-telic] であれば、方向接辞の出現は随意的である。しかし、[+telic] の場合は方向接辞の出現に制限が見られる。[+telic] かつ現在進行相を表す述部においては、方向接辞は動詞に付加されない。また、[+telic] かつ確定的な未来に言及する述部においては、動詞に方向接辞が付加される傾向が見られる。さらに、習慣・蓋然性を表す助動詞 $ndu 3/ndu-\epsilon 3$ を伴う述部では、[-telic] の場合は動詞に方向接辞が付加されないが、[+telic] の場合は付加されるという強い傾向が見られる。このほか、アスペクトに関連する現象として、状態変化を表す動詞の派生がある。

これらの現象は、方向接辞が本来持つ、移動すなわち場所の遷移を表すという機能が抽象化され、状態の遷移を表すように文法化されたと分析することにより説明できる。完了アスペクトは動作や事態の終点を越える遷移であり、未完了アスペクトであっても [+telic] かつ非進行相の述部は終点を越える遷移を含意する。さらに、命令法で方向接辞が義務的となる現象についても、動作の始点を越える遷移を含意するという点で、一貫した説明が可能である。

この文法化は形態面の変化を伴わなかったため、方向とムード・アスペクトが同じ接辞で表示されるという、興味深い言語事実が観察される状況となっている。周辺言語と比較すると、方向接辞を持つ多くの言語が同様の文法化現象を見せる中で、ダパ語はかなり文法化の程度が進んでいることが分かる。