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Authors

DING, HONGDI
Ziwo, Lama Qiu-fuyuan

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Aspect marking in Niesu, a dialect of Nuosu in Sichuan, China

Hongdi Ding

School of Professional Education and Executive Development, The Hong Kong Polytechnic University

Lama Qiufuyuan Ziwo

College of Chinese Languages and Literature, Southwest Minzu University

ABSTRACT

This paper describes the aspect system of Niesu, an understudied Tibeto-Burman language, spoken in Sichuan, southwest China. Niesu is a dialect of Nuosu, both of which are members of the northern Yi language. By analyzing the data based on Suondi Niesu, it is found that Niesu expresses aspectual classes through verbal enclitics, TAM auxiliaries, and periphrastic constructions. Most of the Niesu aspectual expressions are grammaticalized from full verbs: the continuous aspects are grammaticalized from the existential verb, verb 'place, put' and posture verb 'sit', the change-of-state aspect from the verb 'come', the habitual aspect from the verb 'do', and the progressive aspect from the motion verb 'run' and posture verb 'lie'. The present study also addresses the interaction of the TAM markers.

KEYWORDS

Niesu, Aspect marking, Tibeto-Burman, Nuosu, Sichuan

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1 Introduction

Niesu (聂苏) is a member of the Nisoic (aka. Loloish) subgroup of the Niso-Burmese (i.e. Burmese-Lolo) language group of the Tibeto-Burman family (Lama 2012). It is spoken by about 670,000 people, who are officially recognized as Yi (彝族), residing in mountainous regions in Liangshan (literally ‘Cool Mountains’), Sichuan, southwest China. *Niesu* [nie³³ su³³]¹ is the autonym of the Niesu Yi people, with two meaning-bearing morphemes, namely nie³³ ‘black’ and su³³ ‘people’, which means ‘black people’. Two mutually intelligible varieties are classified as Niesu subdialects, i.e. Suondi and Adur (Lama 2012). The population of Suondi dialect is around 300,000 and that of Adur is about 360,000, estimated according to Chen et al. (1985), Gerner (2013) and the 2010 Population Census of Liangshan. Major Suondi-speaking regions are Dechang (德昌县), Huili (会理县), and Puge (普格县) within Liangshan, and Miyi (米易县) in the adjacent city of Panzhihua (攀枝花市); major Adur-speaking regions are Butuo (布拖县), Puge (普格县) and Ningnan (宁南县) in central-southern Liangshan.

Niesu is the southeastern dialect of Nuosu (Bradley 1997). Both Niesu and Nuosu are classified under Nuosu proper (Lama 2012) (see Figure 1). People using the autonym of *Nuosu* (also meaning ‘black people’) include Shynra, Yynuo, Qumusu, and Muhxisu speakers, whose population is estimated to be about 1.9 million (Bradley 2001). However, mutual intelligibility between Nuosu and Niesu is relatively low (Bradley 2001). Their differences are not just lexical (see Table 1 for the examples of lexical differences), but also phonological (Pan 2001, Matisoff 2006, Hajek 2006, Lama 2012) and grammatical (Mahai 2015, Ding 2018). What can be seen

¹ The first syllable of Niesu may have a different origin whose meaning is still uncertain. Lama (2012) attributes the morphemes *nie*, *nə*, *na*, and the forms alike in Nisoic autonyms to a very deep self-designation ni²¹, which has been used to contrast with *xə* ‘Han Chinese’ in Yi people’s old literature and in formal occasions today. Bradley (2005) indicates that the various traditional names of the Yi ethnics, mostly ni²¹ and some ni⁵⁵, are all related to each other and ultimately derived from the Tibeto-Burman etymon *d-ŋul ‘silver’. The one-syllable autonym of Nuosu and Niesu, including Shynra, Suondi and Adur, is also ni²¹. Based on a variety of congregate forms of autonyms from the Yi languages and dialects, such as Nuosu, Nasu, Sanie, Samei, Sani and Hani, Bradley (2005) uses the term Ngwi to refer to the Loloish subgroup.

from the data of the present study is that while there are only monophthongs in Nuosu, Niesu has developed four diphthongs (i.e. [ie] as in nie³³ ‘black’, [ui] as in k^hui³³ ‘mouth, entrance’, [ue] as in ŋgue³³ ‘tell a lie’, and [ua] as in k^hua⁵⁵ ‘happy’) (also see Lama 2012, Mahai 2015).

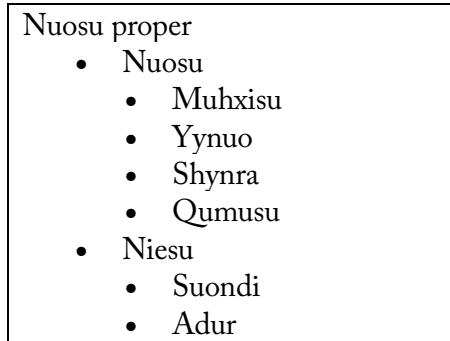


Figure 1. The internal dialectal structure of Nuosu proper

	Adur Niesu	Suondi Niesu	Shynra Nuosu
‘arrive’	te ^h i ³³	ei ³³	ei ³³
‘die’	ʂi ³³	ʂi ³³	ʂi ³³
‘dog’	tʂ ^h ɿ ³³	tʂ ^h ɿ ³³ / tʂ ^h ɿ ³³	k ^h u ³³
‘half’	tee ³³ p ^h ie ³³	tee ³³ p ^h ie ³³	tee ³³ p ^h a ³³
‘head’	o ³³ te ^h i ³³	o ³³ te ^h i ³³	i ³³ te ^h i ³³
‘mate’	bu ⁴⁴ dzu ³³	bo ⁴⁴ dzu ³³	bo ⁴⁴ dzu ³³
‘nose’	na ³³	na ³³	ŋa ³³
‘reciprocal’	dʒi ³³	dʒi ³³	ɕʒi ³³
‘second half of the month’	ʒi ³³	ʒi ³³	ʒi ³³
‘see’	ŋu ²¹	ŋu ²¹ / hu ²¹	hu ²¹
‘take’	ei ²¹	si ²¹	si ²¹
‘first half of the month’	die ³³	die ³³	dɔ ³³
‘waist’	dʒo ⁵⁵	dʒo ⁵⁵	dʒu ⁵⁵
autonym	nie ³³ su ³³	nie ³³ su ³³	no ³³ su ³³

Table 1. Examples of lexical differences between Niesu and Nuosu

While Nuosu is a relatively well-studied variety of Nuosu proper (Chen et al. 1985, Bradley 1990, Chen and Wu 1998, Lama 1998, Hu 2001, 2010, Gerner 2013), the current understanding of Niesu grammar is quite limited. Therefore, this study will contribute to the literature by describing the aspect system of Niesu and its grammaticalization.

According to Comrie (1976), Dahl (1985), and Smith (1997), aspect refers to the overt grammatical encoding of the internal temporal structure of a situation. It is realized in different languages through different means, namely lexically, morphologically and/or periphrastically. Niesu, a verb-final syllable-tone Tibeto-Burman language, is largely isolating, and its aspectual classes are expressed strictly analytically, by verbal enclitics, TAM auxiliaries, and periphrastic constructions. Tense is not a grammatical category in Niesu. The relation of the event time to some temporal reference point is expressed by lexical means, such as a²¹ŋu³³ ‘now’, a²¹ŋi⁵⁵ ‘the past’ and i²¹se²¹ʂi⁴⁴a³³hu⁴⁴ ‘the ancient past’. A feature of Niesu/Nuosu is to form its yes/no question by

reduplicating the last syllable of the verb or auxiliary; this occurs frequently with the TAM auxiliaries. Most of the aspectual classes described in this study are the result of verb grammaticalization. A feature is that they have experienced semantic bleaching. The lexical use of the verbs is different from their aspectual use.

The Niesu data presented in this paper is based on Suondi dialect, spoken in Dechang, central Liangshan. They were mainly extracted from folk stories of Niesu, collected in fieldwork, and some were elicited from Niesu native speakers. All of the data were confirmed by Niesu native speakers. Since Suondi dialect has more contact with Shynra Nuosu, both geographically and linguistically, it can also be seen from the present study that some aspectual classes of Suondi share the features of Nuosu and/or Niesu (see 3.1 and 3.5). Shared lexical examples are also highlighted in Table 1. Therefore, by describing the aspect of Suondi Niesu, we have the chance to observe the dialectal differences of both Nuosu and Niesu.

The aspect system of Niesu is summarized as below. They will be discussed in turn. Firstly, the imperfective, perfective and repetitive are directly encliticized on the verb. The second and by far the richest way of coding TAM is by means of auxiliaries. They occupy the position after the main-clause predicate. Most of the auxiliaries are derived diachronically from verbs, and are synchronically restricted in their function to the marking of TAM. Thirdly, two periphrastic duratives can express the semantic subtlety of ‘be busy doing’.

perfective	o ⁴⁴	enclitics	§2.1
imperfective	nu ³³	enclitics	§2.2
repetitive	sɿ ³³	enclitics	§2.3
experiential	ndzo ⁴⁴ (Adur: ŋo ⁴⁴)	auxiliary	§3.1
progressive	ku ⁴⁴	auxiliary	§3.2
	ko ³³ po ⁵⁵ nu ⁴⁴ ku ⁴⁴ (Adur: t ^h u ³³ i ⁵⁵ dzɿ ³³)	periphrastic	§5.1
continuous	dzɿ ³³	auxiliary	§3.3
	ta ³³	auxiliary	
	ŋi ³³ m ³³ ta ³³	periphrastic	§5.2
change-of-state	la ³³	auxiliary	§3.4
habitual	m ³³	auxiliary	§3.5
	ko ³³ ʂu ⁴⁴	auxiliary	§3.5
completive	dɔ ³³	auxiliary	§3.6
prospective	mo ³³	auxiliary	§3.7

Table 2. Aspect system of Niesu

2 Niesu aspectual clitics: the perfective o⁴⁴, imperfective nu⁴⁴ and repetitive sɿ³³

The reason why Niesu perfective o⁴⁴, imperfective nu⁴⁴ and repetitive sɿ³³ are discussed separately from the other aspectual classes is that they are enclitics without verbal origins, while the others are auxiliaries. A criterion of differentiating the aspectual clitics and the TAM auxiliaries is that the former cannot be negated or reduplicated for question, while the latter can. This criterion applies to most of the TAM auxiliaries, except mo³³ whose verbal status is determined by its position in clauses (see 3.7).

2.1 Perfective o⁴⁴

The perfective marker o⁴⁴ encliticizes to the final verb of the clause, denoting the completion of an action/event. Syntactically, it is like the other Yi branch languages, such as Lisu perfective o⁴⁴ and Lahu perfective o²¹ (Bradley 2017, Matisoff 2017). The reconstructed Proto-Loloish perfective form is *o¹ (Bradley 1979: 375).

- (1) ts^hɿ³³ vo³³ tie⁴⁴p^{hie}33ho³³ɕɿ³³ ei³³=o⁴⁴.
 3SG fly name arrive=PFV
 ‘He flew to the Dianchi lake (in Yunnan).’

According to Smith (1997), the aspectual meaning of an utterance results from the interaction of grammatical aspect and lexical aspect. If the lexical aspect of the verb constellation² renders an atelic situation, the Niesu clause-final o⁴⁴ can also convey the change of state, similar to the function of Lahu o²¹. To achieve this, the Niesu particle o⁴⁴ scopes over the whole clause. If the scope is reduced to the verb only, the perfective reading returns. After the change of scope, the lexical aspect of the verb constellation has experienced lexical aspectual category shift (also see 3.3), namely from punctual achievement dzi²¹ ‘fall’ to durative activity ma³³ha³³dzi²¹ ‘rain’. Therefore, the following sentence is ambiguous:

- (2) ma³³ha³³ dzi²¹ o⁴⁴.
 rain fall PFV/COS
 ‘It rained/it starts to rain.’

Mandarin Chinese *le* also has dual aspectual functions: a perfective marker and a change-of-state marker (Chen 2009, Xiao and McEneaney 2004). Due to the typological differences, Chinese *le* is VP-internal if it is a perfective marker, and clause-final when it expresses change-of-state. However, Niesu is verb-final; it is not distinguishable whether it is VP-internal or clause-final, such as (2). The ambiguity can often be eliminated with the context. A lexical way of removing the ambiguity is to employ the completive auxiliary dɔ³³ ‘finish’ to turn the lexical aspect of the predicate from an atelic event to a telic event, namely ma³³ha³³dzi²¹dɔ³³ (rain fall finish, ‘it rained’) (also see 3.6). After the use of dɔ³³ ‘finish’, only the perfective reading of o⁴⁴ can be associated with the utterance.

- (3) ma³³ha³³ dzi²¹ dɔ³³=o⁴⁴.
 rain fall finish=PFV
 ‘It rained.’

2.2 Imperfective nu⁴⁴

The Niesu imperfective nu⁴⁴ mainly expresses the continuous situation. It only encliticizes to the main verb of the clause. The continuous function is to convey the ongoing state of the host verb in relation to the other event at the time of the utterance. Therefore, nu⁴⁴ is always non-final

² Verb constellation refers to the verb of the clause and its arguments (Smith 1997). Lexical aspect or situation aspect is expressed by the constellation of a verb and its arguments. For example, while [John run] expresses an activity, [John run a mile] an accomplishment.

if it is used without other aspect marker (see 3.2). It can give rise to a discourse function suggesting a continuous flow of information, and another clause is thus needed for the completion of the utterance, such as (4) and (5). Without the final clause, the sentence is not completed.

- (4) sɿ³³zuu³³a⁴⁴bi³³ xo³³tʰi³³la³³ba³³ lie⁴⁴zɿ³³=nuu⁴⁴, tu²¹ la⁴⁴ a³³=to⁴⁴.
 name name press=IMPFV rise come NEG=can
 ‘Hotilabba was pressing Sysseabbi against the ground, and (Sysseabbi) could not rise.’

- (5) ts^h₁²¹ m³³ ts^h₁⁴⁴ tɛ^ho³³ ta³³, dzo³³.
 this do 3SG accompany NF EXT.GEN
 ‘(His father) lived with him (or the son) like this.’

tʰi⁵⁵, ya⁴⁴=nuu³³, dzo³³=nuu⁴⁴ dzo³³=nuu⁴⁴,
 DM behind=FRM EXT.GEN=IMPFV EXT.GEN=IMPFV
 ‘Well, later, (they) were living (together),’

a⁴⁴nie³³, a³³ɣɿ⁵⁵ tsɿ⁵⁵ ŋi³³ nuu²¹=a²¹=ŋu³³ ta³³,
 DM what do also effective=NEG=ST NF
 ‘(but) it did not work no matter what (they) did,....’

An intonation pause can be inserted after the imperfective nuu⁴⁴. It can also be followed by the non-final marker of Niesu, i.e. ta³³ in (6), as explicit divisibility from the following clause.

- (6) sɿ³³zuu³³a⁴⁴bi³³ xo³³tʰi³³la³³ba³³ lie⁴⁴zɿ³³=nuu⁴⁴ ta³³, tu²¹ la⁴⁴ a³³=to⁴⁴.
 name name press=IMPFV NF rise come NEG=can
 ‘Hotilabba was pressing Sysseabbi against the ground, and (Sysseabbi) could not rise.’

Hu (2019) indicates that perfective/imperfective also interacts with word order in Nuosu, namely AOV is used only for imperfectivity of Nuosu and OAV for perfectivity. However, our Niesu data do not confirm this generalization, such as (4). We also find in the Nuosu data of Gerner (2013) that perfectivity is fine with AOV. Moreover, OAV should be considered as a topic-comment articulation, rather than a syntactic structure. As long as any ambiguity can be eliminated by context or markedness is needed for pragmatic reasons (e.g. resultative), Niesu can make use of both syntactic structure and information structures to convey the messages.

2.3 Repetitive sɿ³³

The repetitive action in Niesu is expressed with enclitic sɿ³³. It cannot be used independently, such as to answer questions, without attaching to its host verb.

- (7) tʰ₁³³ a²¹=dzo³³ a²¹=ve³³,
 wind NEG=EXT.GEN NEG=blossom
 ‘It does not blossom without wind,’

h₁³³ dzo³³=ko³³=nu³³, ve³³,
 wind EXT.GEN=moment=FRM blossom
 ‘it blossoms when there is wind,’

ve⁴⁴=s₁³³ ts^hi⁴⁴=s₁³³ m³³,
 blossom=REP fall=REP do
 ‘flowers bloom and wither again and again,’

ve³³ lo⁴⁴, ts^hi⁴⁴=s₁³³ m³³.
 blossom CLNK fall=REP do
 ‘after the flowers bloom, they wither again.’

(A Niesu riddle)

(8) ts^hɿ³³ na⁴⁴=s₁³³ ta³³, zi³³ŋu³³ o⁴⁴.
 3SG ache=REP NF cry COS
 ‘He felt the ache again, and started crying.’

The repetitive s₁³³ is often used in the clitic group of verb=s₁³³=o⁴⁴ to express the realized events, see (9).

(9) ze³³te^hi²¹ ha²¹ŋi²¹ ma³³ ts^hɿ³³ ndze³³ ko³³ ku⁴⁴=s₁³³=o⁴⁴.
 hen:egg how:many CLF 3SG smash t/here add=REP=PFV
 ‘Once again, he smashed some eggs into the (magic pot).’

Due to the co-occurrence of the repetitive and perfective clitic, s₁³³=o⁴⁴ is often contracted as so⁴⁴. To negate the repetitive action, it is as well the main verb which hosts the negator.

(10) ze³³te^hi²¹ ts^hɿ³³ ndze³³ ko³³ a²¹=ku⁴⁴=so⁴⁴.
 hen:egg 3SG smash t/here NEG=add=REP.PFV
 ‘Once again, he did not smash the eggs into the (magic pot).’

Since s₁³³ also covers the meaning of ‘still, yet’, the sentence can only be questioned by using the interrogative marker da²¹ if the repetitive reading is preserved, see (11). To keep the repetitive reading, the sentence cannot be questioned by reduplicating the verb; otherwise, the meaning is altered. Compare (11) with (12).

(11) ze³³te^hi²¹ ts^hɿ³³ ndze³³ ko³³ ku⁴⁴=s₁³³=o⁴⁴ da²¹?
 hen:egg 3SG smash t/here add=REP=PFV Q
 ‘Did he again smash the eggs into the (magic pot)?’

(12) ze³³te^hi²¹ ts^hɿ³³ ndze³³ ko³³ ku⁴⁴~ku³³=s₁³³?
 hen:egg 3SG smash t/here add~add=still
 ‘Will he further smash the eggs into the (magic pot)?’

3 Niesu TAM auxiliaries

In the following sections, we will discuss Niesu TAM auxiliaries. The auxiliaries follow the main verb of the clause to express certain lexical aspect of the verb. They are also called as aspectivizers in van Driem (1993). Without the TAM auxiliaries, the main verb may encode other lexical aspects. The TAM auxiliaries can be negated and reduplicated for questions, except the prospective *mo*³³. Like the post-head deontic and epistemic modals in Niesu, TAM auxiliaries can be used solely without the head verbs as answers to polar questions, although the whole auxiliary construction, namely the main verb and the TAM auxiliary, can also be used as the answer. Almost all aspectual auxiliaries are grammaticalized from full verbs.

3.1 *Experiential ndzo*⁴⁴

Niesu experiential is not to mark the completion of an act/event, but the experience of (not) engaging, at least once, in an event. The Adur experiential variant *ŋo*⁴⁴ can also be used in Suondi. The Suondi *ndzo*⁴⁴ differs only in tone from Shynra Nuosu experiential *ndzo*²¹. The Niesu experiential is cognate with that in other Yi branch languages, such as Lahu *jo*³³, reconstructed as Proto-Loloish **njaw*³ (Bradley 1979: 374).

- (13) *ŋa*³³ *nie*³³*su*³³ *bu*³³*ma*³³ *zo*³³ *ndzo*⁴⁴.
1SG Niesu writing learn EXP
'I used to learn Niesu writing before.'
- (14) *ŋa*³³ *nie*³³*su*³³ *bu*³³*ma*³³ *zo*³³ *a*⁴⁴=*ndzo*⁴⁴.
1SG Niesu writing learn NEG=EXP
'I have never learned Niesu writing before.'
- (15) a. *nu*³³ *nie*³³*su*³³ *bu*³³*ma*³³ *zo*³³ *ndzo*⁴⁴~*ndzo*³³?
2SG Niesu writing learn EXP~EXP³.Q
'Have you learned Niesu writing before?'
- b. *ndzo*⁴⁴ *a*⁴⁴=*lo*²¹.
EXP ATT=ATT
'Yes, (I) have (learned it).'
- c. *a*²¹=*ndzo*⁴⁴.
NEG=EXP
'No, (I) have not (learned it).'

³ According to Lama (2012), there are four tones in Niesu: 55, 44, 33, and 21. Niesu tone 44 is seen largely in cases of tone sandhi and in particles. The duplication of the experiential *ndzo*⁴⁴~*ndzo*³³ manifests the most productive sandhi rule in Niesu, namely 33>44 / _ 33. However, exceptions can easily be found, such as *nie*³³*su*³³ 'the Niesu people, the Niesu language' and *ŋe*³³*dzi*³³ 'sun'. This sandhi pattern is also found in Nuosu (see Lama 1998 and Bradley 1990 for sandhi rules of Nuosu). There are other sandhi rules in Niesu, but less productive, such as 33>21 / _ 55 or 21 (*m*³³ 'horse' + *pa*⁵⁵ 'male' → *m*²¹*pa*⁵⁵ 'male horse', *zi*³³ 'water' + *mo*²¹ 'big' → *zi*²¹*mo*²¹ 'big river') and 21>44 / 33_ (*zi*³³ 'laugh' + *gu*²¹ 'play' → *zi*³³*gu*⁴⁴ 'play'). If some sandhi rules are only limitedly used in several cases, it should be considered as fossilization. Tone sandhi in Niesu will be discussed in another study.

To make the utterance more natural, using the experiential auxiliary, as well as other TAM auxiliaries, as the positive answer to the polar question is often followed by the attitudinal clitics or a clitic group. In (15)b, the experiential auxiliary *ndzo*⁴⁴ can be followed by the affirmative *a*⁴⁴ only or the persuasive *lɔ*²¹ as a further clitic. In (15)c, *a*²¹=*ndzo*⁴⁴ as the negative answer is colloquially natural by itself without the attitudinal clitics. The similar usage holds true for other TAM auxiliaries.

3.2 *Niesu progressive ku*⁴⁴

Niesu is a language which has grammaticalized both the progressive and the continuous, such as Mandarin preverbal progressive *zai* and postverbal continuous *zhe*, and Cantonese postverbal progressive *gan* and continuous *jyuh*.

The Niesu progressive *ku*⁴⁴ is also found in Nuosu. In Niesu, it co-occurs with the imperfective enclitic *nu*⁴⁴, see (16). *ku*⁴⁴ is duplicated to form alternative question, see (17), and can be negated, see (18). *ku*⁴⁴ can also be used as the shortest answer to yes/no questions, see (17)b and (17)c. But the verbal origin of *ku*⁴⁴ is not clear.

- (16) *ŋa*³³ *dza*⁴⁴ *dzu*³³=*nu*⁴⁴ *ku*⁴⁴.
 1SG food eat=IMPFV PROG
 ‘I am eating now.’

- (17) a. *nu*³³ *dza*⁴⁴ *dzu*³³=*nu*⁴⁴ *ku*⁴⁴~*ku*³³?
 2SG food eat=IMPFV PROG~PROG.Q
 ‘Are you eating now?’

- b. *ku*⁴⁴ *a*⁴⁴=*lɔ*²¹.
 PROG ATT=ATT
 ‘(Yes, I) am (eating).’

- c. *a*²¹=*ku*⁴⁴.
 NEG=PROG
 ‘(No, I) am not (eating).’

- (18) *ŋa*³³ *dza*⁴⁴ *dzu*³³=*nu*⁴⁴ *a*⁴⁴=*ku*⁴⁴.
 1SG food eat=IMPFV NEG=PROG
 ‘I am not eating now.’

3.3 *Niesu continuous auxiliary dzɿ*³³ and *ta*³³

Two continuous auxiliaries in Niesu indicate that the host verb is in an enduring state. Both *dzɿ*³³ and *ta*³³ can be used for atelic verbs, such as *hi*⁵⁵ ‘stand’ in (20) and (21). However, their difference is that while *ta*³³ can be used with telic verbs, such as verb of achievement *tsi*⁴⁴ ‘place inside’ in (19), based on Vendler (1967) and Smith’s (1997) classification of the lexical aspect, *dzɿ*³³ can only be used with atelic verbs, such as verb of state *i*⁵⁵ ‘lie’ in (19). Both *dzɿ*³³ and *ta*³³ can be negated and reduplicated for question. Similarly, they can be used solely without the head verbs as

answers to polar questions.

- (19) to⁵⁵ pa²¹nie²¹=ko³³ l₁³³, ga²¹mo²¹=ko³³ tsi⁴⁴ ta³³ lo⁴⁴,
stamp mud=side wrap road:big=side place inside CONT CLNK
bi⁵⁵la³³ a³³=to²¹ m³³ ko³³ i⁵⁵ dzɿ³³ ta³³,
exit:come NEG=can do t/here lie CONT NF
‘(The horse, the bull and all the big beasts) stamped on (the frog) into the mud, (who was) being stuck firmly in the road, and (the frog) could not come out, staying there,....’

- (20) ko³³ hi⁵⁵ dzɿ³³.
t/here stand CONT
‘(Someone is) standing there.’

- (21) ka³³ ts^hl²¹ m³³ ko³³ hi⁵⁵ ta⁴⁴ ta³³,
take this do t/here stand CONT NF
zi³³bo³³ bo³³ su⁴⁴ m³³.
tree auto.CLF resemble do
‘(The divine Abbi) let (Hotihlabba) keep standing there like this, as a tree.’

It is noted that the continuous marker ta³³ is homophonous with the non-final marker in Suondi Niesu. Therefore, if clause-final ta³³ is used with verb of compatible lexical aspect, it is hard to tell whether it is the continuous marker or non-final marker. A way of differentiation is that the non-final marker ta³³ cannot be followed by other particles while the continuous ta³³ can. In (21) and (22), the continuous ta³³ can be followed by the homophonous non-final marker ta³³ and the clause linker lo⁴⁴, respectively.

- (22) ts^hl³³ die³³ s₁³³bo³³ bo³³ o³³te^hi⁴⁴ hi⁵⁵ ta³³ lo⁴⁴,.....
3SG climb tree auto.CLF top stand CONT CLNK
‘After he/she climbed up to the tree and stood there,’

Another way of differentiation is to refer to the corresponding markers in Adur Niesu, where the continuous marker is tu³³ and the non-final marker ta³³. Consequently, the continuous ta³³ in (19), (21) and (22) can be replaced by Adur tu³³, while the non-final marker ta³³ cannot, for example:

- (23) Adur Niesu
ka³³ ts^hl²¹ m³³ t^hu³³ hi⁵⁵ tu⁴⁴ ta³³,
take this do t/here stand CONT NF
zi³³bo³³ bo³³ su⁴⁴ m³³.
tree auto.CLF resemble do
‘(The divine Abbi) let (Hotihlabba) keep standing there like this, as a tree.’

Moreover, verbs in Niesu are possible with lexical aspectual category shift, or Aspectual Category Shift (see Ross 2002). Regarding the aspectual marker ta^{33} , if the context determines that the lexical aspect of the verb constellation should not be durative but to describe a punctual change of state, namely shifting from non-achievement to achievement, such as $t\check{s}a^{33}$ ‘make eat’ and $k^h u^{33}$ ‘steal’, ta^{33} conveys the inceptive reading. The inceptive function does not exist with the other continuous auxiliary $dz\check{u}^{33}$ since it can only be used with durative atelic verbs. The corresponding inceptive reading can be conveyed by Adur tur^{33} . In (24) and (25), the inceptive ta^{33} can be replaced with Adur tur^{33} .

- (24) $t\check{s}a^{33}$ ‘make eat, feed’ shifting from activity to achievement
 $xu^{21}du^{33}$ $ndze^{44}pie^{33}$ $ts^h_1^{21}$ $a^{33}gu^{55}$ tie^{33} $ts^h_1^{44}$ $t\check{s}a^{33}$ ta^{33} .
 bone broken one bamboo basket hold 3SG.ACC make eat INC
 ‘(You) take one bamboo basket of broken bones and make him start eating (them).’

- (25) ku^{33} ‘steal’ shifting from activity to achievement
 $ts^h o^{44}$ ko^{44} $a^{44}=dzo^{33}$ $a^{44}nie^{33}$, $a^{44}le^{33}$ ma^{33} $t^h u^{21}=\eta i^{55}$ $k^h u^{33}$ ta^{33} .
 people t/here NEG=EXT.GEN after goat CLF 3PL=DU steal INC
 ‘After there was no one at home, they started stealing the goat.’

Niesu continuous $dz\check{u}^{33}$ is grammaticalized from the existential verb for locating on something, see (26). It is cognate with the Proto-Loloish continuous etymon, reconstructed as $*jya^2$, etymon 791 (Bradley 1979). Cross-linguistically, the phenomenon is well attested (Aikhenvald 2013, Kuteva et al. 2019, also see Robbeets and Cuyckens 2013). ‘Exist’ > durative is a common path of grammaticalization in languages of the world, e.g. Mandarin Chinese preverbal *zai*, Tariana (Amazonas, Brazil) and Piapoco (Colombia and Venezuela) (see Kuteva et al. 2019).

- (26) $bo^{33}=ko^{33}$ $l\check{o}^{21}ma^{55}$ ma^{33} ko^{44} $dz\check{u}^{33}$.
 hill=side⁴ stone CLF t/here EXT.ON
 ‘(There is) a stone on the hill.’

Regarding the origin of ta^{33} , as well as Adur tur^{33} , it is etymologically derived from the verb ‘put, place’, see (27) and (28), cognate with the Proto-Loloish $*\eta ta^2$ (Matisoff 1978). It is also cognate with other modern Loloish languages, such as Lisu da^{35} (Bradley 2017) and Lahu ta^{11} (Matisoff 1973, 2017). Typologically, similar path is found in Sinitic and other Tibeto-Burman languages. For example, modern postverbal Mandarin continuous *zhe* in classical Chinese is the verb ‘put, place, apply; wear’ (Unger 1989, cited Meisterernst 2014: 48, Pulleyblank 1991: 419).

⁴ The locational enclitic ko^{33} ‘side’ (or ‘里, 边’ in Chinese) is grammaticalized from the locational pronoun ko^{33} , see (20). In both Niesu (Suondi and Adur) and Nuosu, ko^{33} can be used a locational enclitic, e.g. $ha^{55}=ko^{33}$, ‘where (lit.: where=side)’, and has also developed into a temporal enclitic, e.g. $z\check{u}^{33}=ko^{44}$ ‘in the night without the moon (lit.: night without moon=moment)’. The path of grammaticalization is well-attested across-linguistically (Kuteva et al. 2019, Post 2011:280, Yap, Grunow-Härsta and Wrona 2011:11). In Suondi Niesu, it is also acceptable to use the Adur corresponding locational pronoun $t^h u^{33}$. However, in the periphrastic progressive construction $ko^{33}po^{55}nu^{44}ku^{44}$ (see 5.1), since the construction is fossilized, ko^{33} is not replaceable.

Both Lahu continuous ta^{11} and Zaiwa progressive dvo^{11} are derived from verb ‘put, place’ (Matisoff 1988: 597, Lustig 2010: 618).

(27) $ts^h o^{33}$ $ts^h \eta^{44}$ ma^{44} $ha^{21} \eta^{21}$ η^{21} $ta^{44}=s\eta^{33}?$
 person this CLF how:many day put=still
 ‘How many more days will the corpse be put on display?’

(28) $ndz\eta^{33}$ $ts^h \eta^{44}$ $lo^{33} k^h o^{33}$ die^{33} $a^{33} di^{55}$ ta^{33} .
 wine this bowl take there put
 ‘Put the bowl of wine over there.’

Moreover, Heine (1993) points out that an auxiliary has reached its ‘developmental end-point’ when the auxiliary can be used with its corresponding main verb, such as English *go* in ‘He is going to go to the cinema’. Niesu is not at such a stage. If the following Niesu sentence is understood as the glossing in (29), it is unacceptable.

(29) * $ndz\eta^{33}$ $ts^h \eta^{44}$ $lo^{33} k^h o^{33}$ die^{33} $a^{33} di^{55}$ ta^{44} ta^{33} .
 wine this CLF take there put CONT
 Intended meaning: ‘Put the bowl of wine over there.’

If the sentence is going to be grammatical, the interpretation is a question after the duplication:

(30) $ndz\eta^{33}$ $ts^h \eta^{44}$ $lo^{33} k^h o^{33}$ die^{33} $a^{33} di^{55}$ $ta^{44} \sim ta^{33}?$
 wine this CLF take there put~put.Q
 ‘Is the wine put over there?’

3.4 Niesu change-of-state (inceptive) la^{33}

While the perfective clitic o^{44} and the continuous auxiliary ta^{33} can convey a change of state due to the shift of lexical category of the main verb or verb constellation, la^{33} , grammaticalized from the verb ‘come’, is the specific TAM auxiliary for change-of-state in Niesu, see (31) and (33). If the phase of the action is focused, we can also term la^{33} as the inceptive auxiliary.

(31) $a^{44} le^{33}$ $ma^{44}=nu^{33}$, ko^{44} $s\eta^{33}$ la^{33} .
 goat CLF.DEF=TOP t/here shout COS
 ‘The goat started shouting there.’

(32) a. $a^{44} le^{33}$ $ma^{44}=nu^{33}$, ko^{44} $s\eta^{33}$ $la^{33} \sim la^{33}?$
 goat CLF.DEF=TOP t/here shout COS~COS
 ‘Did the goat start shouting there?’

b. la^{33} $a^{44}=lo^{21}$.
 COS ATT=ATT
 ‘(Yes, it) started (shouting).’

- c. a²¹=la³³.
 NEG=COS
 ‘(No, it did) not start (shouting).’

- (33) hi⁴⁴dzɔ³³ka³³ti³³ la³³ a⁴⁴nie³³,
 house:make stand:fire pit:install COS after

 la³³kui³³ zu³³ sɔ³³ di⁴⁴ ta³³,....
 name son three QUOT NF
 ‘(They) started building up the family, then, it was said that (there were)
 three sons named Lagui,....’

Grammaticalization of the verb ‘come’ into change-of-state marker is well attested in languages of the world, such as English *come*, Korean verb *o-*, Hani *la*⁵⁵, and many pidgin and creole languages (Long et al. 2012, Kuteva et al. 2019).

3.5 *Niesu habitual m³³ and ko³³su⁴⁴*

Following Heine and Kuteva (2004), habitual auxiliary denotes that an action/event happens habitually or usually, repeated on different occasions. The Niesu habitual auxiliary *m³³* can be negated and reduplicated for question.

- (34) ts^hɿ³³ ts^ho⁴⁴ ti³³ ndu²¹ m³³.
 3SG person only beat HAB
 ‘He often beats other people.’
- (35) ts^hɿ³³ ts^ho⁴⁴ ti³³ ndu²¹ a²¹=m³³.
 3SG person only beat NEG=HAB
 ‘He does not beat other people very often.’
- (36) a. ts^hɿ³³ ts^ho⁴⁴ ti³³ ndu²¹ m⁴⁴~m³³?
 3SG person only beat HAB~HAB.Q
 ‘Does he beat other people very often?’
- b. m³³ a⁴⁴=lo²¹.
 HAB ATT=ATT
 ‘(Yes, he) often (beats the other people).’
- c. a²¹=m³³.
 NEG=HAB
 ‘(No, he) does not often (beat the other people).’

The habitual *m³³* is derived from the verb ‘do’. Similar path of grammaticalization is found

in Irish English and Mayan languages (Lehmann 2015). As the generic verb ‘do’ in Adur is ts_1^{55} , see (37), and the Adur habitual remains m^{33} , presumably the Adur verb form ts_1^{55} is an innovation. Verb-to-do m^{33} in Niesu, as well as Nuosu, can also be an auxiliary introducing an adverbial or an adverbial clause, see (19) and (21). Verb-to-do serves the similar functions in many other Tibeto-Burman languages, e.g. Yongning Na (Michaud 2018: 64), Niuwozi Prinmi (Ding 2014: 240), Tshangla (Andvik 2017: 434) and Chantyal (Noonan and Hildebrandt 2017: 506).

- (37) Adur Niesu
 $a^{33}ts_1^{55}$ ts_1^{55} ηi^{33} $nu^{21}=a^{21}=\eta u^{33}$.
 what do also effective=NEG=ST
 ‘It did not work no matter what (they) did.’

In Suondi, the habitual auxiliary can also be used with another habitual auxiliary $ko^{33}\text{su}^{44}$, see (38). $ko^{33}\text{su}^{44}$ is only there to intensify the habitual meaning encoded by m^{33} . Without it, the habitual meaning is still clear.

- (38) $ts^h_1^{33}$ $ts^h_o^{44}$ ti^{33} ndu^{21} $ko^{33}\text{su}^{44}$ m^{33} .
 3SG person only beat HAB HAB
 ‘He often beats other people.’

The question is formed by reduplicating m^{33} as well.

- (39) $ts^h_1^{33}$ $ts^h_o^{44}$ ti^{33} ndu^{21} $ko^{33}\text{su}^{44}$ $m^{33}\sim m^{33}?$
 3SG person only beat HAB HAB HAB.Q
 ‘Does he often beat other people?’

It should be noted that $ko^{33}\text{su}^{44}$ exists in both Suondi Niesu and Shynra Nuosu, but not in Adur Niesu. There is no m^{33} as an aspectual marker of any kind in Shynra. $ko^{33}\text{su}^{44}$ is also used as the habitual auxiliary in Shynra Nuosu (Gerner 2013).

- (40) Nuosu (Gerner 2013: 535)
 $ts^h_1^{33}$ $du^{33}du^{33}$ m^{33} $vo^{33}ts^h_o^{33}=ko^{33}$ $a^{44}ti^{33}$ $ndze^{33}$ la^{33} $ko^{33}\text{su}^{44}$.
 3SG usual do mankind=NAGT only strike come HAB
 ‘(A long time ago, the thunder in the sky was very powerful.) It often came to strike mankind.’

Similar to Shynra Nuosu, Suondi Niesu can express habitual aspect with $ko^{33}\text{su}^{44}$ only without m^{33} . In this case, the habitual auxiliary can be negated and reduplicated for question in Suondi. Although the verbal origin of su^{44} is not yet clear, ko^{33} should be the locational pronoun, see (20). su^{44} can be used as the shortest answer to yes/no questions about frequency.

- (41) $ts^h_1^{33}$ $ts^h_o^{44}$ ti^{33} ndu^{21} $ko^{33}\text{su}^{44}$.
 3SG person only beat HAB
 ‘He often beats other people.’

(42) ts^hɿ³³ ts^ho⁴⁴ ti³³ ndu²¹ ko³³ʂu⁴⁴~ʂu³³?
 3SG person only beat HAB~ST.Q
 ‘Does he often beat other people?’

(43) ts^hɿ³³ ts^ho⁴⁴ ti³³ ndu²¹ ko³³=a²¹=ʂu⁴⁴
 3SG person only beat HAB=NEG=ST
 ‘He does not often beat other people now.’

3.6 *Niesu completive dɔ*³³

Although word meaning ‘finish’ is a well-attested source to be grammaticalized as perfective marker (Kuteva et al. 2019), dɔ³³ in Niesu is not yet grammaticalized and used with its standard lexical use. It can be negated and reduplicated for question. Since it is a full verb, it can be used as the sole answer to yes/no questions.

(44) ŋa³³ dza⁴⁴ dzu³³ dɔ³³=o⁴⁴.
 1SG food.ACC eat finish=PFV
 ‘I finished eating.’

(45) mo³³ɱ³³ dzi²¹ a²¹=dɔ³³.
 rain fall NEG=finish
 ‘It has not finished raining yet.’

(46) mo³³ɱ³³ dzi²¹ dɔ⁴⁴~dɔ³³?
 rain fall finish~finish.Q
 ‘Has it finished raining?’

3.7 *Prospective mo*³³

Niesu future actions are conveyed through volitive modality. In most cases, it co-occurs with the quotative marker di⁴⁴ and the progressive ku⁴⁴, namely mo³³di⁴⁴ and mo³³ku⁴⁴.

The prospective mo³³ in existing literature is often considered as part of an unsegmentable disyllabic modal auxiliary mo³³di⁴⁴, translated as ‘intend, plan, committed’ (e.g. Chen and Wu 1998, Gerner 2013). Such an analysis seems to be supported by the penultimate attachment of Niesu negator a²¹ as an endoclititic in (47) (also see Ding 2016: 122-123). Sentence (48) is the Nuosu data and the glossing is taken from Gerner (2013: 374).

(47) a. ŋi³³=a²¹=ʂɿ³³
 give in=NEG=ST
 ‘do not surrender’

b. e⁵⁵=a²¹=tsɿ³³
 small=NEG=ST
 ‘not small’

- (48) Analysis of mo³³di⁴⁴ as a disyllabic auxiliary in Nuosu (Gerner 2013: 374)
i²¹ŋi²¹ ts^ho²¹=ɣo⁴⁴ tɕ^ho⁵⁵ ndu²¹ mo³³-a²¹-di⁴⁴.
today 3PL=PL gun hit MOD.committed<NEG>
‘Today they are committed to shooting with the gun.’

However, our analysis shows that mo³³ is by itself a volitive modal, which can be segmented from the quotative di⁴⁴:

- (49) a⁴⁴dzi³³=nu³³, ɔ⁵⁵pa³³ ts^hɿ⁴⁴ ma⁴⁴ ɕi²¹ ndo³³ mo³³ di⁴⁴,
crow=TOP frog this CLF take drink VLT QUOT
lɔ²¹ma⁵⁵=ko³³ hi⁵⁵ dzɿ³³.
stone=side stand CONT
‘The crow wanted to eat the frog, standing on a rock.’

- (50) t^hu²¹=ŋi⁵⁵ ts^ho⁴⁴ k^hu³³ mo³³ di⁴⁴.
3PL=DU people.ACC steal VLT QUOT
‘The two of them would steal the others.’

- (51) ts^hɿ³³ ɕe²¹tɕa⁴⁴ die³³ mo³³ di⁴⁴ ta³³, bu³³ma³³ zo³³.
3SG county leader make VLT QUOT NF character learn
‘He/she wanted to become the county leader, and thus went to school.’

Since the above three sentences are narrator’s conjectures of the mental activities of the actors a⁴⁴dzi³³ ‘crow’, t^hu²¹=ŋi⁵⁵ ‘the two of them’ and ts^hɿ³³ ‘he/she’, the quotative di⁴⁴, grammaticalized from the full verb di²¹ ‘say’, is used to indicate the source of the reported information. If the information is the exact thinking of the speaker, namely first-person actor, who has full control over it, the quotative di⁴⁴ is deleted. Comparing the following sentences:

- (52) a. ŋa³³ ɕɿ²¹zo³³dze⁴⁴ts^hɔ³³ mo³³.
1SG wife:marry:bridge:make VLT
‘I will marry a wife.’
b. ŋa³³ ɕɿ²¹zo³³dze⁴⁴ts^hɔ³³ mo³³ di⁴⁴.
1SG wife:marry:bridge:make VLT QUOT
‘I intend to marry a wife.’

(52)a expresses an unwavering determination or conclusive arrangement of “getting married”, while (52)b is just an intention which can be hypothetical and may not be realized.

However, prospective mo³³ is different from other TAM auxiliaries of this section in that it cannot be negated or reduplicated for questions. Its being an auxiliary can still be told by its position with the main verbs, see (53).

(53) $\eta a^{33}=ko^{33}$ dzu^{33} mo^{33} ndo^{33} mo^{33} $di^{44}=su^{33}$
 1SG=NAGT eat VLT swallow VLT QUOT=NMLZ

th_u^{33} du^{33} vu^{33} li^{44} .
 3PL family enter go

‘(The evil spirits) who will eat and swallow me go to their family.’

When it co-occurs with quotative di^{44} , negator is placed before the quotative marker as a proclitic, see (54). Sentences such as (52)a without the quotative di^{44} are negated by cliticizing the negator to the main verb, see (55); in this case, volition is no longer compatible and is not needed. To form a question, it is the quotative which is reduplicated, see (56).

(54) $dzi^{44}m^{33}vu^{55}xo^{21}$ di^{44} ei^{21} $ma^{44}=nu^{33}$,
 name QUOT such CLF=TOP

$\xi l^{21}zo^{33}dze^{44}ts^h\textcircled{33}$ li^{33} mo^{33} $a^{21}=di^{44}$.
 wife:marry:bridge:make go VLT NEG=QUOT

‘It was said that there was such a person named Jjimuvuho;
 (he) would not marry a wife.’

(55) ηa^{33} $\xi l^{21}=a^{21}=zo^{33}dze^{44}=a^{21}=ts^h\textcircled{33}$.
 1SG wife marry=NEG=ST:make bridge=NEG=ST
 ‘I will not marry a wife.’

(56) a. nu^{33} $\xi l^{21}zo^{33}dze^{44}ts^h\textcircled{33}$ mo^{33} $di^{44}\sim di^{33}?$
 2SG wife:marry:bridge:make VLT QUOT~QUOT.Q
 ‘Will you marry a wife?’

b. di^{44} $a^{44}=lo^{21}$.
 QUOT ATT=ATT
 ‘(Yes, I) will.’

c. $a^{21}=di^{44}$.
 NEG=QUOT
 ‘(No, I) will not.’

Moreover, $mo^{33}ku^{44}$ is a combination of the volitive modality and the progressive auxiliary. Our Niesu consultants often translate it as a unit, meaning ‘plan, intend’. In fact, the literal meaning is ‘be in the process of wanting’. It is used to express future actions. While $mo^{33}ku^{44}$ can be used for both the animate and inanimate, $mo^{33}di^{44}$ is for the animate only since the quotative di^{44} marks that the proposition must be from the animate beings. $mo^{33}ku^{44}$ in (57) can be replaced with $mo^{33}di^{44}$, but not in (58).

- (57) ts^hɿ³³ ts^hɿ⁴⁴ ma³³=ko⁴⁴ ta³³ p^ho³³ mo³³ ku⁴⁴.
 3SG this CLF=side LOC run away VLT PROG
 ‘He was thinking of running away from this place.’
- (58) zi³³bo³³ dzi³³ve³³ mo³³ ku⁴⁴.
 tree fall:go VLT PROG
 ‘The tree will fall down.’

4 Interactions of the TAM markers

In previous sections, we have seen the interactions of the following TAME markers:

completive dɔ ³³	+	perfective o ⁴⁴	§2.1
repetitive sɿ ³³	+	perfective o ⁴⁴	§2.3
imperfective nu ⁴⁴	+	progressive ku ⁴⁴	§3.2
habitual ko ³³ su ⁴⁴	+	habitual m ³³	§3.5
prospective mo ³³	+	quotative di ⁴⁴	§3.7
		progressive ku ⁴⁴	

Further combinations are discussed here and schematized below according to the Niesu verb phrasal structure. The quotative di⁴⁴ can also be sentence-final to indicate that the whole sentence is a reported speech. Since Figure 2 is mainly to display the interaction of the TAM markers, the evidential di⁴⁴ being able to be at the sentence final is not shown. It should be noted that other than being an aspectual marker, o⁴⁴ can also be a sentence final attitudinal particle in Niesu, expressing diverse attitudes, such as exclamation and affirmation, and thus has little restriction as long as it is placed sentence-finally. Figure 2 has excluded the attitudinal functions of o⁴⁴ and displays its aspectual functions only, namely being perfective and change-of-state marker.

Each slot in Figure 2 is independent of the other, except a few co-occurrence restrictions. When the prospective mo³³ is used without di⁴⁴, it has a first-person restriction, see 3.7; without the first-person control, mo³³ must co-occur with di⁴⁴. To express the future actions of both the animate and inanimate, mo³³ must co-occur with the progressive ku⁴⁴. Moreover, the progressive ku⁴⁴ must occur with the imperfective nu⁴⁴ for ongoing events. Therefore, the slot boundaries between mo³³di⁴⁴, mo³³ku⁴⁴ and nu⁴⁴ku⁴⁴ are removed in Figure 2. Besides, mo³³di⁴⁴ and mo³³ku⁴⁴ have two possible positions, and the repetitive sɿ³³ has three. But they can only appear in one of the positions in a single Niesu clause. Therefore, they are placed differently in dotted and double-line cells. Sequences of combination not illustrated in Figure 2 are considered rare or unacceptable in Niesu.

	Encl	Aux	Aux	Aux	Aux	Encl	Aux	Aux	Encl	Encl
main verb		ndzo ⁴⁴ /ŋo ⁴⁴								
		do ³³								
		la ³³								
		dzɿ ³³								
		ta ³³								
	=nu ⁴⁴ ku ⁴⁴	ko ³³ ɣu ⁴⁴	m ³³	=sɿ ³³	mo ³³ di ⁴⁴ ku ⁴⁴	=sɿ ³³	=o ⁴⁴			
=sɿ ³³	mo ³³	di ⁴⁴ ku ⁴⁴								

*encl: enclitic; aux: auxiliary

Figure 2. The possible sequence of the TAM(E) markers

Since the experiential ndzo⁴⁴/ŋo⁴⁴ renders perfectivity, it is compatible with the perfective o⁴⁴. Similarly, the imperfectivity of the continuous and prospective aspects makes them compatible with the habitual:

(59) ts^hɿ³³ die³³ sɿ³³bo³³ bo³³ o³³te^hɿ⁴⁴ hi⁵⁵ ta³³ ko³³ɣu⁴⁴ m³³.
 3SG climb tree auto.CLF top stand CONT HAB HAB
 ‘He/she often climbed up to the tree and kept standing there.’

(60) ts^hɿ³³ ko³³ hi⁵⁵ dzɿ³³ ko³³ɣu⁴⁴ m³³.
 3SG t/here stand CONT HAB HAB
 ‘He/she often keeps standing (there).’

(61) ts^hɿ³³ t^hi⁵⁵ la³³ m³³ mo³³ ku⁴⁴.
 3SG here come HAB VLT PROG
 ‘He will often come here.’

It is normal for up to four or five TAM(E) markers to co-occur in one clause, such as (62) and (63).

(62) ts^hɿ³³ ɣɿ³³ la³³=sɿ³³ mo³³ di⁴⁴.
 3SG shout COS=REP VLT QUOT
 ‘He will start shouting again.’

(63) ts^hɿ³³ vo³³ts^ho³³=ko³³ a⁴⁴tɿ³³ ndze³³
 3SG mankind=NAGT only strike
 la³³ ko³³ɣu⁴⁴ m³³=sɿ³³ mo⁴⁴ di⁴⁴.
 come HAB HAB=REP VLT QUOT
 ‘He will often come to strike the mankind again.’

The maximal co-occurrence of the TAM(E) markers is elicited as below. It should be rare to find more than six TAM(E) markers in one clause.

- (64) ts^hɿ³³ ɲ³³ka⁵⁵=t^hu⁴⁴ ba²¹ka³³
 3SG name=family door front
- ɲi³³ dzɿ³³ ve³³ ɲ³³ mo³³ di⁴⁴ so⁴⁴.
 sit CONT go HAB VLT QUOT REP.PFV
 ‘Again, he would go to keep sitting at Muga’s house front in a usual way.’

5 Grammaticalized periphrastic aspectual constructions

Other than using clitics and auxiliaries for aspectual information, grammaticalized periphrastic means are also used to convey progressive and continuous by employing the motion verbs in Niesu. The periphrastic aspectual constructions denote certain semantic nuances beyond the basic aspectual functions.

5.1 The periphrastic progressive construction ko³³po⁵⁵nu⁴⁴ku⁴⁴ and t^hu³³i⁵⁵dzɿ³³

ko³³po⁵⁵nu⁴⁴ku⁴⁴ is used in Suondi Niesu only and t^hu³³i⁵⁵dzɿ³³ in Adur Niesu. The internal structure of the periphrastic progressive construction ko³³po⁵⁵nu⁴⁴ku⁴⁴ is as below. It is in line with the verb phrasal structure of Niesu. The progressive reading is from the progressive auxiliary ku⁴⁴. The negation and interrogative patterns are identical to the progressive expressed by ku⁴⁴.

[locational pronoun	verb=enclitic]	auxiliary
ko ³³	po ⁵⁵ =nu ⁴⁴	ku ⁴⁴
t/here	run=IMPFV	PROG
‘be busy doing’ (literally ‘be doing by running there’)		

- (65) ɲa³³ dza⁴⁴ dzu³³ ko³³po⁵⁵=nu⁴⁴ ku⁴⁴.
 1SG food.ACC eat t/here:run=IMPFV PROG
 ‘I am busy eating now.’
- (66) nu³³ dza⁴⁴ dzu³³ ko³³po⁵⁵=nu⁴⁴ ku⁴⁴~ku³³?
 2SG food.ACC eat t/here:run=IMPFV PROG~PROG.Q
 ‘Are you busy eating now?’
- (67) ɲa³³ dza⁴⁴ dzu³³ ko³³po⁵⁵=nu⁴⁴ a²¹=ku⁴⁴.
 1SG food.ACC eat t/here:run=IMPFV NEG=PROG
 ‘I am not busy eating now.’

What have been added to the basic progressive form ku⁴⁴ are a locational pronoun ko³³ and a verb po⁵⁵ ‘run’, encliticized by the imperfective nu⁴⁴. It is common in Niesu that the locational pronoun ko³³ is prepositioned to a verb to refer to a place that is salient in the context, translated as ‘place, there/here’, see (9) and (20).

The literal meaning of the verb po⁵⁵ ‘run’ in the periphrastic progressive construction has

been bleached. But its effect can be observed and reflected in the translation ‘be busy doing’. Compare sentence (16) with (65) for the nuance. A possible context for sentence (65) is that someone called during the eating, such as for help on the farmland; the speaker replied so since he/she might not want to be interrupted. Without *ku*⁴⁴ and *nu*⁴⁴*ku*⁴⁴, the sentence is not correct, suggesting that neither *ko*³³*po*⁵⁵*nu*⁴⁴ nor *ko*³³*po*⁵⁵ has the complete TAM function individually. The progressive meaning is encoded in *ku*⁴⁴ only.

(68) **ŋa*³³ *dza*⁴⁴ *dzu*³³ *ko*³³*po*⁵⁵=*nu*⁴⁴ .
 1SG food.ACC eat there:run=IMPFV

(69) **ŋa*³³ *dza*⁴⁴ *dzu*³³ *ko*³³*po*⁵⁵.
 1SG food.ACC eat there:run

Although the periphrastic progressive construction is not found in most Nuosu-speaking regions, it is still observed in some Nuosu varieties. The following examples are found in Puxiong, Yuexi, northern Liangshan.

- (70) Shynra Nuosu in Yuexi
- a. *ŋa*³³ *dza*⁴⁴ *dzu*³³ *ɖɔ*³³.
 1SG food.ACC eat PROG
 ‘I am eating now.’
- b. *ŋa*³³ *dza*⁴⁴ *dzu*³³ *ko*³³*po*⁵⁵*ɖɔ*³³.
 1SG food.ACC eat t/here:run:PROG
 ‘I am busy eating now.’

As a variant of the progressive *ndɔ*³³ in typical Shynra, *ɖɔ*³³, which loses the prenasalization in Yuexi dialect, is the basic progressive form, see (70)a. The periphrastic progressive construction can also be formed with the locational pronoun *ko*³³ and the verb *po*⁵⁵ ‘run’ in Yuexi Shynra, see (70)b. The nuance of the periphrastic progressives in Yuexi Shynra is identical to that in Suondi, namely ‘be busy doing’.

Grammaticalization of motion verbs as imperfective marker is another cross-linguistically well-attested phenomenon (see Heine and Kuteva 2004). According to Levinson and Wilkins (2006: 18), motion verbs signify “displacement of a figure in space along a trajectory” (e.g. *go*, *run*, *fall*, *take*). For example, Negerhollands Creole Dutch verb *loop*, *lo(o)* ‘go, run’ can be used a progressive marker (Stolz 1986):

(71) Negerhollands Creole Dutch (Stolz 1986: 179, cited in Heine and Kuteva 2004: 158)

am a ki e:n puši bo di hus lo was ši gesé:
 3SG PFV see a cat on DEF house PROG wash POSS face
 ‘He saw a cat that was cleaning its face on the house.’

More examples include Djinang *kiri-* ‘go’ and Yolngu *marrtji-* ‘go’ and ‘come’ as continuous aspect markers (Waters 1989, Austin 1998). Regarding the other Tibeto-Burman languages, no

aspectual grammaticalization with the motion verb *run* is found. However, two Loloish languages make use of the motion verb ‘go’ and ‘take’ as continuous markers, namely verb *qay* ‘go’ in Lahu⁵, such as *gã qəʔ ti qay ve* ‘have to keep replanting’ and *vəʔ qay* ‘keep wearing’(Matisoff 1988: 261, Matisoff 1973: 237), and verb *lé* ‘take (something)’ in Nusu, for example:

- (72) Nusu (Sun and Liu 1986: 64)
- | | | | | | | | |
|--------|-------|------|----|-----|-----------|---------|--------|
| uáɿ | bá | lé | ié | lè | teifè | ié | gà |
| basket | carry | CONT | go | and | make into | compost | go PRT |
- ‘Carrying the basket, (they) went to make the compost.’

In the above-mentioned grammaticalization, the motion verbs are directly used as the aspectual marker, such as the Lahu and Nusu examples. But *po*⁵⁵ ‘run’ in Suondi functions less directly, namely being compounded with the basic form *ku*⁴⁴. However, the motion verb *po*⁵⁵ ‘run’ is the main verb in the auxiliary construction, according to its phrasal structure.

While *ko*³³*po*⁵⁵*nu*⁴⁴*ku*⁴⁴ is not found in Adur Niesu, a similar construction, making use of the posture verb *i*⁵⁵ ‘sleep, lie’ to express the progressive, is found in Adur, namely *tʰu*³³*i*⁵⁵*dzɿ*³³ (*t*/here:lie:CONT). The internal structure is similar to Suondi *ko*³³*po*⁵⁵*nu*⁴⁴*ku*⁴⁴.

[locational pronoun	verb]	auxiliary
<i>tʰu</i> ³³	<i>i</i> ⁵⁵	<i>dzɿ</i> ³³
<i>t</i> /here	lie, sleep	CONT

‘be busy doing’ (literally ‘be doing by lying there’)

The Adur periphrastic progressive construction is grammaticalized without any implication of ‘lying down’. The grammaticalization also occurs to the main verb *i*⁵⁵ ‘sleep, lie’. The outcome is that although *dzɿ*³³ is the continuous (see 3.3), the construction does not remain to be a continuous, but a progressive, since it can be used with telic verb constellation, unlike *dzɿ*³³ which is used with atelic verbs only.

- (73) Adur Niesu
- | | | | | |
|-------------------------|--------------------------------------------------|-------------------------------------------------|-------------------------|----------------------------------------------------------------------------|
| <i>ŋa</i> ³³ | <i>nie</i> ³³ <i>su</i> ³³ | <i>bu</i> ³³ <i>ma</i> ³³ | <i>zo</i> ³³ | <i>tʰu</i> ³³ <i>i</i> ⁵⁵ <i>dzɿ</i> ³³ . |
| 1SG | Niesu | writing | learn | <i>t</i> /here:lie:CONT |
- ‘I am busy learning Niesu writing now.’

The semantic difference of the periphrastic progressive from the basic form in Adur is also similar to that in Suondi. Compare the following sentence with (73).

- (74) Adur Niesu
- | | | | | |
|-------------------------|--------------------------------------------------|-------------------------------------------------|---------------------------------------------------|---------------------------|
| <i>ŋa</i> ³³ | <i>nie</i> ³³ <i>su</i> ³³ | <i>bu</i> ³³ <i>ma</i> ³³ | <i>zo</i> ³³ = <i>nu</i> ⁴⁴ | <i>ku</i> ⁴⁴ . |
| 1SG | Niesu | writing | learn=IMPV | PROG |
- ‘I am learning Niesu writing now.’

⁵ According to one anonymous reviewer, the usual Lahu continuous marker is postverbal *te*^h*e*⁵³ which is derived from the verb ‘live/stay’; the verb *qay* or *qai*³³ ‘go’ cited here is a much less frequent alternative postverbal TAM marker with an ongoing directional motion meaning.

Function	Niesu aspect	Source (of grammaticalization)
perfective	o ⁴⁴	unknown
imperfective	nu ³³	unknown
prospective	mo ³³	volitive modality
experiential	ndzo ⁴⁴ /ŋo ⁴⁴	unknown
progressive	ku ⁴⁴	unknown
	ko ³³ po ⁵⁵ nu ⁴⁴ ku ⁴⁴ (Adur: t ^h u ³³ i ⁵⁵ dzɿ ³³)	motion verb 'run' (Adur: posture verb i ⁵⁵ 'lie')
continuous	dzɿ ³³ ta ³³ ŋi ³³ m ³³ ta ³³	existential verb verb 'place, put' posture verb 'sit'
change-of-state	la ³³	verb 'come'
habitual	m ³³ ko ³³ su ⁴⁴	verb 'do' unknown
completive	do ³³	finish

Table 3. Sources of Niesu aspect system

ABBREVIATIONS

1	first person	LOC	locative
2	second person	MOD	modal auxiliary
3	third person	NAGT	non-agentive
ACC	accusative case	NEG	negation
ATT	attitudinal clitic	NF	non-final marker
auto.CLF	auto-classifier	NMLZ	nominalizer
CLF	classifier	PFV	perfective
CLNK	clause linker	PL	plural
CONT	continuous	POSS	possessive
COS	change-of-state marker	PROG	progressive
DEF	definite	PROS	prospective
DM	discourse marker	PRT	particle
DU	dual	Q	question marker
EXP	experiential	QUOT	quotative
EXT.GEN	general existential	REP	repetitive
EXT.ON	existential for locating on something	SG	singular
FRM	frame-setter	ST	second part of the stem
HAB	habitual	TOP	topic marker
IMPFV	imperfective	VLT	volitive modality
INC	inceptive		

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REFERENCES

- Aikhenvald, Alexandra Y. 1997. *Areal typology and grammaticalization: The emergence of new verbal morphology in an obsolescent language*. Paper presented at the symposium On the Interface between Comparative Linguistics and Grammaticalization Theory: Languages of the Americas, Rice University, Houston, Texas. <https://doi.org/10.1075/tsl.43.02aik>
- Aikhenvald, Alexandra Y. 2013. "Areal diffusion and parallelism in drift Shared grammaticalization patterns". In Robbeets, Martine; and Cuyckens, Hubert (eds.), *Shared grammaticalization: With special focus on the Transeurasian languages*, 23-41. Amsterdam: John Benjamins. <https://doi.org/10.1075/slcs.132.07aik>
- Andvik, Erik. 2017. "Tshangla". In Graham Thurgood & Randy LaPolla (eds.), *The Sino-Tibetan Languages*, 418-435. London, New York: Routledge. <https://doi.org/10.4324/9781315399508>
- Austin, Peter. 1998. "Crow is sitting chasing them': Grammaticalisation and the verb 'to sit' in the Mantharta languages, Western Australia". In Siewierska, Anna; and Jae Jung Song (eds.), *Case, Typology, and Grammar. In Honor of Barry J. Blake*, 19-36. Amsterdam: John Benjamins. <https://doi.org/10.1075/tsl.38.05aus>
- Bradley, David. 1979. *Proto-Loloish*. London: Curzon Press.
- Bradley, David. 1990. "The status of the 44-tone in Nosu". *La Trobe Working Papers in Linguistics* 3: 125-137.
- Bradley, David. 1997. "Tibeto-Burman languages and classification". In David Bradley (ed.), *Tibeto-Burman languages of the Himalayas, papers in South East Asian linguistics*, 1-72. Canberra: Pacific Linguistics.
- Bradley, David. 2001. "Language policy for the Yi". In Harrell Stevan (ed.), *Perspectives on the Yi of Southwest China*, 195-214. Berkeley: University of California Press.
- Bradley, David. 2005. "Sanie and language loss in China". *International Journal of the Sociology of Language* 173: 161-178. <https://doi.org/10.1515/ijsl.2005.2005.173.159>
- Bradley, David. 2017. "Lisu". In Graham Thurgood; and Randy J. LaPolla (eds), *The Sino-Tibetan languages*, 902-917. New York: Routledge. <https://doi.org/10.4324/9781315399508>
- Bybee, Joan; Perkins, Revere; and Pagliuca, William. 1994. *The evolution of grammar: Tense, aspect, and modality in the languages of the world*. Chicago: University of Chicago Press.
- Chen, Chien-Chou. 2009. "Ambiguity of le in Chinese: the perfective as well as imperfective". *Journal of Chinese Linguistics* 37.1: 108-129. <http://ir.ndhu.edu.tw/handle/987654321/3728>

- Chen, Kang; and Wu Da. 1998. *Yiyu yufa (Grammar of Nuosu: Based on Shynra dialect)*. Beijing: Central Minzu University Press.
- Chen, Shilin; Bian Shiming; and Li Xiuqing. 1985. *Yiyu jianzhi (A concise survey of Nuosu)*. Beijing: Minzu Press.
- Comrie, Bernard. 1976. *Aspect*. Cambridge: Cambridge University Press.
- Dahl, Östen. 1985. *Tense and Aspect Systems*. Oxford: Blackwell.
- Ding, Hongdi. 2016. *Testing the Competence of First Language(s): A Cross-generational Study of Ethnic Nuosu in Liangshan, Sichuan*. PhD thesis, The University of Hong Kong.
- Ding, Hongdi. 2018. "A cross-dialectal analysis of Nuosu adjectival comparative construction". *Linguistics of Tibeto-Burma Area*, 41(1), 45-74. <https://doi.org/10.1075/ltba.16023.din>
- Ding, Sizhi. 2014. *A grammar of Prinmi: Based on the central dialect of northwest Yunnan, China*. Leiden: Brill.
- Gerner, Matthias. 2013. *Grammar of Nuosu*. Berlin: Mouton de Gruyter [MGL 64]. <https://doi.org/10.1515/9783110308679>
- Hajek, John. 2006. "On doubly articulated labial-velar stops and nasals in Tibeto-Burman". *Linguistics of the Tibeto-Burman Area*. 29 (2): 127-130.
- Heine, Bernd; and Kuteva, Tania. 2004. *World lexicon of grammaticalization*. Cambridge: Cambridge University Press.
- Heine, Berndt. 1993. *Auxiliaries: Cognitive forces and grammaticalization*. New York, Oxford: Oxford University Press.
- Hu, Suhua; and Jing, Zhao. 2019. "Ditransitive constructions and the other three-argument constructions in Nuosu Yi". *Language and Linguistics* 20 (3), 361 – 386.
- Hu, Suhua. 2001. "Yiyu dongci de timao fanchou (Grammatical aspect of Nuosu)". *Minzu Yuwen (Minority Languages of China)* 4:28-35.
- Hu, Suhua. 2010. "Yiyu nuosuhua de liandong jiegou (The serial verb constructions in Nuosu Yi language)". *Minzu Yuwen (Minority Languages of China)* 1: 23-30.
- Kuteva, Tania; Heine, Bernd; Hong, Bo; Long, Haiping; Narrog, Heiko; and Rhee, Seongha. 2019. *World Lexicon of Grammaticalization*. Cambridge: Cambridge University Press.
- Kuteva, Tania. 1999. "On 'sit'/'stand'/'lie' auxiliation". *Linguistics* 37.2: 191-213. <https://doi.org/10.1515/ling.37.2.191>
- Lama, Ziwo. 1998. *A phonetic and phonological analysis of the Yi (Lolo) language*. MA diss, The University of Texas.
- Lama, Ziwo. 2012. *Subgrouping of Nisoic (Yi) Languages: A Study from the Perspectives of Shared Innovation and Phylogenetic Estimation*. PhD thesis, The University of Texas.
- Lehmann, Christian. 2015. *Thoughts on grammaticalization (3rd edition)*. Berlin: Language Science Press.
- Levinson, Stephen; and Wilkins, David. 2006. "The background to the study of the language of space". In S. Levinson; and D. Wilkins (Eds.), *Grammars of space: Explorations in cognitive diversity*, 1-23. Cambridge: Cambridge University Press. <https://doi.org/10.1017/CBO9780511486753.002>

- Lichtenberk, Frantisek. 2002. "Posture verbs in Oceanic". In John Newman (ed.), *The linguistics of sitting, standing, and lying*, 269-314. Amsterdam/Philadelphia: John Benjamins. <https://doi.org/10.1075/tsl.51.12lic>
- Long, Haiping; Feng, Gu; and Xiaoping, Xiao (trans.), Bo, Hong; and Feng, Gu (annotating). 2012. *Translations of World Lexicon of Grammaticalization*. Beijing: Beijing World Publishing Corporation.
- Lustig, Anton. 2010. *A grammar and dictionary of Zaiwa*. Leiden: Brill.
- Mahai, Jibu. 2015. *Yiyu beibu fangyan Suondi tuyu yuyin he cihui yanjiu* (Phonetic and vocabulary research on Suodi Dialect of North Yi language). MA thesis, Jinan University.
- Matisoff, James A. 1973. *A grammar of Labu*. Berkeley: University of California Press.
- Matisoff, James A. 1978. *Mpi and Lolo-Burmese microlinguistics*. Monumenta Serindica (ILCAA, Tokyo) 4:1-36. Accessed via STEDT database <<http://stedt.berkeley.edu/search/>> on 2020-08-14.
- Matisoff, James A. 1988. *The dictionary of Labu*. Berkeley: University of California Press.
- Matisoff, James A. 2006. "Much Adu 阿都 about Something: Extrusional Labiovelars in a Northern Yi Patios". *Linguistics of the Tibeto-Burman Area* 29.1: 1-13.
- Matisoff, James A. 2017. "Lahu". In Graham Thurgood; and Randy J. LaPolla (eds), *The Sino-Tibetan languages*, 918-931. New York: Routledge.
- Meisterernst, Barbara. 2014. *Tense and aspect in Han period Chinese: A linguistic analysis of the 'Shiji'*. Berlin: De Gruyter. <https://doi.org/10.1515/9783110339543>
- Michaud, Alexis. 2018. *Na (Mosuo)-English-Chinese dictionary*. Retrieved from <https://halshs.archives-ouvertes.fr/halshs-01204638v3/document> (Accessed 2020-09-22)
- Newman, John (ed.). 2002. *The linguistics of sitting, standing, and lying*. Amsterdam-Philadelphia: John Benjamins Publishing.
- Noonan, Michael and Kristine, A. Hildebrandt. 2017. "Chantyal". In Graham Thurgood & Randy LaPolla (eds.), *The Sino-Tibetan Languages*, 494-515. London/New York: Routledge.
- Pan Zhengyun. 2001. Yiyu aduhua chunruan'e fufuyin shengmu bijiao yanjiu (A comparative study of labiovelar cluster initials in the Adu patois of the Yi language). *Minzu Yuwen (Minority Languages of China)*, 2: 17-22.
- Post, Mark W. 2011. "Nominalization and nominalization-based constructions in Galo". In Yap, Foong Ha, Grunow-Härsta, Karen, and Wrona, Janick, (eds.), *Nominalization in Asian Languages: diachronic and typological perspective*, pp. 255-287. Amsterdam: John Benjamins Publishing. <https://doi.org/10.1075/tsl.96.09pos>
- Pulleyblank, Edwin G. 1991. *Lexicon of reconstructed pronunciation in early Middle Chinese, late Middle Chinese, and early Mandarin*. Vancouver, BC: UBC Press.
- Robbeets, Martine and Cuyckens, Hubert (eds.). 2013. *Shared grammaticalization: With special focus on the Transeurasian languages*. Amsterdam: John Benjamins Publishing. <https://doi.org/10.1075/slcs.132>
- Ross, Claudia. 2002. "Aspectual category shift". *Journal of Chinese Linguistics*, 30(2), 343-369.
- Smith, Carlota S. 1997. *The Parameter of Aspect* (2nd edition). Dordrecht: Kluwer.
- Stolz, Thomas. 1986. *Gibt es das kreolische Sprachwandelmodell? Vergleichende Grammatik des Negerholländischen*. (Linguistik 46.) Frankfurt, Bern, and New York: Lang.

- Sun, Hongkai and Liu, Lu. 1986. *Nuzu yuyan jianzhi: Nusuyu (A concise grammar of Nusu)*. Beijing: Minzu Press.
- Traugott, Elizabeth Closs. 1978. "On the expression of spatio-temporal relations in language". In Greenberg, Joseph H. (ed.), *Universals of human language Volume 3: Word structure*, 369-400. Stanford: Stanford University Press.
- Unger, Ulrich. 1989. *Glossar des klassischen Chinesisch*. Wiesbaden: Harrassowitz.
- Van Driem, George. 1993. *A Grammar of Dumi*. Berlin: De Gruyter.
- Vendler, Zeno. 1967. *Linguistics in Philosophy*. NY: Cornell University Press.
- Waters, Bruce E. 1989. *Djinang and Djinba: A grammatical and historical perspective*. [Pacific Linguistics, Series C, 114]. Canberra: Department of Linguistics Research School of Pacific Studies, Australian National University.
- Xiao, Richard and McEnery, Tony. 2004. *Aspect in Mandarin Chinese: A corpus-based study*. Amsterdam: John Benjamins Publishing. <https://doi.org/10.1075/slcs.73>
- Yap, Foong Ha; Grunow-Härsta, Karen; and Wrona, Janick. 2011. "Introduction: Nominalization strategies in Asian languages". In Yap, Foong Ha; Grunow-Härsta, Karen; and Wrona, Janick (eds.), *Nominalization in Asian Languages: diachronic and typological perspective*, 1-57. Amsterdam: John Benjamins Publishing.

Hongdi Ding
dinghongdi@hotmail.com

Lama Qiufuyuan Ziwo
lamaziwo@163.com