

# Classifiers in nDrapa: Definition and Categorization

【Invited Article】

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**Abstract:** This study investigated nDrapa classifiers according to nominalization theory. First, based on Shibatani's (2021a) definition of classifiers, I defined nDrapa classifiers as a class of words that can follow a numeral to nominalize it and categorize the numeral-based nominalization. On one hand, the definition distinguishes classifiers and other categories of words; on the other hand, it allows us to examine various aspects of classifiers consistently. Next, in three semantic categories—[i] individual, [ii] collective, and [iii] mensural—I examined properties of frequently used classifiers. Characteristically, both the default individual classifier *ji* and the proper human classifier *zja* are used for the number of humans. This is probably a feature of the northern regions of the Qiangic language area. Possible etyma of the classifiers include borrowing and grammaticalization of content words, although detailed study of their historical development remains for future research. Finally, I examined the grammaticalization process in contrast with compounds and verbal nouns, which in previous studies were regarded as a type of classifier. I concluded that they are different constructions synchronically, but they shared common features of origin in the grammaticalization process.\*

**Key words:** classifiers, numeral-based nominalization, grammaticalization, nDrapa, Qiangic

## 1. Introduction

The nDrapa language (ISO 639-3 zhb; Glottocode: zhab1238) has numeral classifiers. In nDrapa, a classifier follows a numeral when the numeral forms a noun

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phrase (NP) or when it modifies the preceding noun/NP. For example, in (1),<sup>1</sup> *té=téú* ‘one=CLF’ is used as a NP, whereas *né=téú* ‘two=CLF’ modifies the preceding noun *gá:zjá* ‘comb.’ In these cases, adding the classifiers is obligatory. In other words, numerals in nDrapa require a classifier when they are used as a NP or a nominal modifier.<sup>2</sup> Indeed, these features are consistent with Shibatani’s (2019, 2021a) explanation of classifiers based on nominalization theory.<sup>3</sup>

- (1) *ŋá ndá gá:zjá né=téú to-pó. xé té=téú =jantchi ma-pó.*  
 1SG formerly comb two=CLF NTL-exist<sub>1</sub> now one=CLF any.more NEG-exist<sub>1</sub>  
 ‘I used to have two combs. Now I only have one.’

This study’s aim is to identify nDrapa classifiers and describe their properties. Based on nominalization theory (Shibatani 2019, 2021a), the present study assumes that the primary function of classifier is to nominalize numerals into forms used as NPs and then to classify the numeral-based nominalizations, with nominalization discussed in Section 2 and classification discussed in Section 3.

The study also attempts to distinguish classifier phrases from other constructions. For example, previous studies on nDrapa (Gong 2007: 74–75, Huang forthcoming: §5.1.3.4) regard a combination of the numeral ‘one’ and a verb stem, e.g., (2), as a type of classifier using a Chinese grammar term *dòngliàngcí* (literally ‘verb measure word’<sup>4</sup> but this study tentatively translates it as ‘adverbial classifiers’). In

<sup>1</sup> Abbreviations: 1 – first person; 2 – second person; 3 – third person; ACDT – accusative-dative; ASS – associative; CLF – classifier; COMP – comparative; COP – copula; DU – dual; FAC – factual ( $\approx$  allophoric); GEN – genitive; INW – inward directive; IPFV – imperfective; LOC – locative; LOG – logophoric pronoun; NEG – negative; NMLZ – nominalizer; NTL – neutral directive; OUT – outward directive; PFV – perfective; PL – plural; PST – past; Q – question; SG – singular; TOP – topic; UPW – upward directive; VN – verbal noun; – – affixation; = – clitic boundary; ~ – reduplication; + – compounding.

<sup>2</sup> A few exceptions are discussed in Section 2.1.

<sup>3</sup> From a functional viewpoint, Shibatani (2019: 18–19) defined nominalization as a metonymic process. He argued that “nominalization yields structures denoting substantive or entity concepts that are metonymically evoked by the nominalization structures themselves” and that “[a]s products, nominalizations are like nouns (hence the term ‘nominalization’) by virtue of their association with an *entity-concept* denotation, a property that provides a basis for the referential function of a noun phrase headed by such nominalizations.” Shibatani (2019: 139) also noted a feature typical of Thai classifiers (which is also common to nDrapa classifiers, as described in (1) of this paper): “[Thai numerals] need to be nominalized by a classifier in order to function as an entity-denoting nominal (as opposed to denoting numbers and numerals).” Moreover, Shibatani (2021a: 498) argued that the basic function of classifiers is *not* to classify the head nouns they modify but to nominalize the numerals, after which the classifier classifies the entity that the numeral-based nominalization denotes. An important foundation of this argument is that in many classifier languages, classifiers primarily occur in NP-use—that is, in structures without the modified head noun, as in the second clause of example (1).

<sup>4</sup> *dòng* denotes verbs; *liàngcí* denotes numeratives. Unlike the definition of verbal classifier in Aikhenvald (2000: 3), they are also connected with numerals. In this respect, they might

(2), *té* ‘one’ and the verb stem *htsí* ‘kick’ are tied together and followed by the light verb grammaticalized from ‘to hit.’ This paper excludes such phenomena from classifiers but discusses their grammaticalization process in Section 4.

- (2) *té*-*htsí*            *kA-tá*  
 one/VN-kick    INW-hit/do  
 ‘(I) have given a kick’

The paper is organized as follows. Section 1 introduces a linguistic profile of nDrapa and previous studies. Section 2 describes basic features of nDrapa classifiers and some related phenomena. Section 3 discusses the categorizing function of frequently used classifiers and their etyma. The issue of the “default” classifier is also discussed here. Section 4 discusses the grammaticalization process of classifiers and verbal nouns. Finally, Section 5 summarizes the discussion.

### 1.1. Language profile

The nDrapa language belongs to the Qiangic group of Tibeto-Burman languages of the Sino-Tibetan family. nDrapa is spoken along the Xianshuihe River (鮮水河), a subbranch of the Chang Jiang, in the Western Sichuan region of China (Figure 1). There is no written tradition. The language has an estimated 10,000 speakers (Gong 2007, Feng 2009, Huang forthcoming) in three dialect groups:

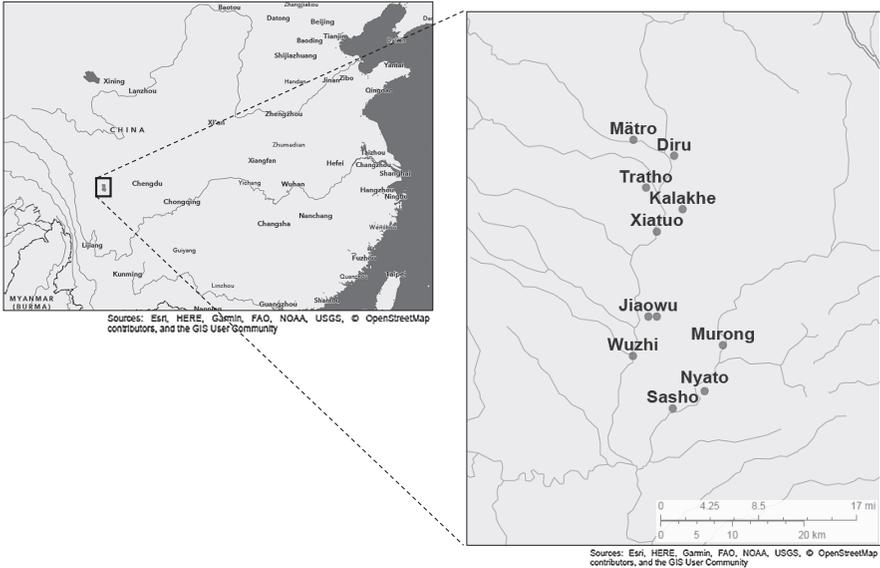


Figure 1 The area where nDrapa is spoken.

be regarded as numeral classifiers in Aikhenvald’s (2000, 2019) definition. However, they do not satisfy her definition of a numeral classifier, which is to categorize the head noun (Aikhenvald 2019: 9) because they do not modify a noun.

Southern, Central, and Northern. This study examines the northernmost variety of the Northern dialect group, spoken in the Mätro (Mazhong/麻中) village of Zhongni (仲尼) township, henceforth the ‘Mätro dialect.’ In addition, examples of the Tratho (Zhatuo/扎拖) dialect, also belonging to the Northern dialect group, supplement the typological discussion,<sup>5</sup> with the notation <Tratho> to their right. Unless otherwise noted, all of this paper’s examples were collected from the author’s fieldwork.

Phonemes in Mätro nDrapa include the following: consonants /ph [p<sup>h</sup>], th [t<sup>h</sup>], [ʰ], [h [ʰ], ch [c<sup>h</sup>], kh [k<sup>h</sup>]; p, t, ʈ, c, k; b, d, ɖ, j, g; tsh [ts<sup>h</sup>], tɕh, [tɕ<sup>h</sup>]; ts, tɕ; dz, dʒ; m, n, ŋ, ŋ; m̥ [m̥m], n̥ [n̥n], ŋ̥ [ŋ̥ŋ], ɲ̥ [ɲ̥ɲ]; fh [f<sup>h</sup>], sh [s<sup>h</sup>], ɕh [ɕ<sup>h</sup>]; f, s, ɕ, x, h; v, z, ʒ, ʧ, h; w, j; l, r [r~ɹ]; ʎ [ʎ], ʎ̥ [ʎ̥~ʎ̥]; vowels /i, i, ɨ, u, e [ɪ], ɐ, o, ɛ, ʌ, a; ei, ʌu/. Moreover, Mätro nDrapa has word tones in which a phonological word’s first two syllables have one of the following pitch patterns, while the third and further syllables are unstressed and have low pitch value (low-level pitch is left unmarked in phonemic transcription): (i) high-level (ó/óó), (ii) high-falling (ô/óσ [óô]), (iii) low-rising (ǒ/óó [óó]), and (iv) low-rising-falling<sup>6</sup> (ǒσ [ǒó]). Tones may vary, however, in accordance with post-lexical prosody that reflects certain contexts, including the information structure (Shirai 2019). Most affixes and clitics (including classifiers with a few exceptions) do not have a specific tone but do become part of the host’s phonological word.

The Mätro nDrapa native morphemes tend to be monosyllabic, and its morphology is mostly agglutinative, possibly employing both prefixes and suffixes. Case markers, that is, a group of postpositions, indicate grammatical relations, and the case system is basically nominative-accusative. The nominative has no overt marker; other case markers may also be omitted if grammatical relations are clear from the context (Shirai 2010).

The basic constituent order is subject-object-verb. Nouns can be modified by demonstratives, nouns, and nominalizations.<sup>7</sup> Nominalizations here include nominal-based (N-based) nominalizations (genitive phrases),<sup>8</sup> verbal-based (V-based)

<sup>5</sup> The author’s fieldwork on the Mätro dialect was mainly conducted before 2015. Currently, under the influence of the COVID-19 pandemic, the author is unable to conduct additional research on it due to the lack of effective remote communication with the informants. Therefore, additional fieldwork was conducted with a younger speaker of the Tratho dialect both in person and via WeChat. The speakers of Mätro and Tratho dialects have no problem in mutual intelligibility.

<sup>6</sup> In the Mätro dialect, the low-rising-falling tone is not attested in monosyllabic words.

<sup>7</sup> In nDrapa, from the perspective of nominalization theory, adnominal modifiers are either nominals or nominalizations because every type of adnominal modifier can also be used as a NP (Shirai 2020).

<sup>8</sup> N-based nominalization is defined and discussed in Shibatani (2019). For example, in nDrapa, the genitive phrase *ŋa=rá* {1SG=GEN} ‘my/mine’ denotes an entity evoked in relation to *ŋa* ‘1SG’ in accordance with the context, such as ‘my cup’ or ‘my family.’ This function parallels V-based nominalization, for example, *kí-ttsí-má(=rA)* {INW-eat-NMLZ(=GEN)}, a V-based nominalization that consists of *kí-ttsí* ‘to have eaten’ and a nominalizer (similar to

nominalizations (adnominal clauses), adjectives in reduplicated form, and classifier phrases. Moreover, the N-based nominalizer, or the genitive particle *rA*, may follow the NP as the NP-use marker (Shirai 2020). Noun modifiers may precede or follow the head noun depending on the type, as illustrated in Figure 2.

| Pre-head modifiers                       |                                 | Head noun | Post-head modifiers            |            | NP-use marker |
|--|---------------------------------|-----------|--------------------------------|------------|---------------|
| N-based nominalization/<br>Demonstrative | Noun/<br>V-based nominalization |           | Adjective in reduplicated form | Quantifier | <i>rA</i>     |

Figure 2 Basic order of noun modification.

Classifiers can form a quantifier phrase, which falls into the last slot. The same slot may be occupied by other quantification expressions—for example, *tsíkápe* ‘a little/a few’ in (3)—and number suffixes with either the dual suffix *-ne* or the plural suffix *-re*—for example, (4). Certain quantifiers may be followed by a classifier, such that *thápá* ‘half’ is followed by the default classifier *ji* in (5). Parallel to (5), and as discussed in Section 2.2, classifiers can directly follow nouns or nominalizations. Number suffixes do not co-occur with a classifier phrase. Number marking is not obligatory, as in (6), which lacks the plural marker.

- (3) ḡḡ tsíkápe  
gold little/few  
‘a small amount of gold’
- (4) jejó ɔohpá té=ji=rA pAḡjA-re  
Yeto village one=CLF=GEN child-PL  
‘the children of the whole Yeto village’ <BB>
- (5) jeśá thápá=ji=rA ḡóró=wu tAu-khé-a ré.  
wealth half=CLF=GEN 3SG=ACDT NTL.INV-give-PFV FAC  
‘The rich man gave him half of his wealth.’ <SM>
- (6) ḡóró hpó=ta shwí pe~pé tɔé.  
that grassland=upside person many~NMLZ exist<sub>6</sub>.FAC  
‘There are many people in that grassland.’

## 1.2. Previous studies

Numeral classifier is a subcategory of classifier that is traditionally defined as functioning to categorize to what its associated noun refers (Allan 1977, Aikhenvald 2000, 2019). Aikhenvald (2000: 2) defined numeral classifiers as morphemes that appear only next to a numeral or a quantifier to categorize the referent of a noun in terms of its animacy, shape, and other inherent properties. In her definition, nDrapa is classified as a multiple classifier language in which the same set

Japanese *tabe-ta(=no)* {eat-PST(=FORMAL.NOUN)}}, which denotes something evoked in relation to the completed act of eating, such as an apple (food) or a bowl (instrument). Therefore, both are termed nominalizations.

of forms for noun categorization devices may appear in several contexts, such as positions directly after nouns and after numerals (for details, see Section 2.2). In contrast, as part of his nominalization theory, Shibatani (2021a: 498) argued that the main function of classifier is *not* classifying the head nouns they modify but nominalizing numerals and classifying the entity denoted by the numeral-based nominalizations. In this theory, the formation of nDrapa classifier phrases is uniformly defined, with various usages (details in Section 2). To describe classifiers in nDrapa, this paper follows Shibatani's theory.

Regarding Tibeto-Burman (TB) numeral classifiers, Bradley (2005: 224) stated:

The classifiers are clearly secondary within TB as a whole, and their development and elaboration is also recent enough that nearly all classifiers lack the kind of direct widespread cognancy within S[outh]E[ast] TB that is usual for nominal, verbal, and other forms.

Moreover, he pointed out that in many cases a classifier's diachronic source is clear (Bradley 2005: 225–226), that is, most classifiers can be analyzed as grammaticalized from independent words such as nouns in each language (or language group), respectively, in Lolo-Burmese. Qiangic group languages, to which nDrapa belongs, are linked to Lolo-Burmese languages and are organized as a higher-order subgroup called Burmo-Qiangic in recent studies (Jacques and Michaud 2011: Appendix). In many cases, however, classifiers' etyma are difficult to ascertain (discussed in Section 3).

Dai and Jiang (2006) defined the developmental stages of the classifier systems in TB languages according to typological features' implicational tendencies. They noted that TB languages with the “noun + numeral + classifier” order and the echo type classifiers are at the most developed stage, and, according to their criteria, nDrapa's typological features correspond to the most developed stage. With the exception of rGyalrongish languages, Qiangic languages including nDrapa were regarded as having a relatively rich system of numeral classifiers (Huang 2003: 244). However, as Chirkova (2012: 143–146) has observed, the Qiangic group of languages has considerable differences in inventory size and usages of classifiers.

Previous descriptive grammars of other varieties of nDrapa have mentioned the classifier system: Huang (1990/2009: 75) on the Tratho dialect of the Northern dialect group, Gong (2007: 70–78) on the Wuzhi dialect, and Huang (forthcoming: §5.1.3) on the Sasho dialect, with the latter two belonging to the Southern dialect group. Gong (2007: 70–78) and Huang (forthcoming: §5.1.3) divided classifiers into two types: nominal and adverbial. Moreover, they included the phenomena parallel to (2)—that is, a combination of ‘one’ and a verb stem as a verbal-noun—into the adverbial classifiers (Gong 2007: 74–75, Huang forthcoming: 5.1.3.4). This is discussed in Section 4.

Shirai (2020: 103–104) partially analyzed numeral classifiers in Mätro nDrapa in the context of noun-modifying constructions. Referring to Shibatani's

(2019) theory, Shirai (2020) observed that every modifier, including quantifier phrases, is nominal or nominalized and can be used as a NP. However, the study did not mention the verbal-noun construction as in (2).

## 2. Definition and classification of nDrapa numeral classifiers

Typically, nDrapa classifiers are enclitics, which form a unified phonological word with the preceding morpheme. Based on Shibatani's (2021a: 498) generalization, this paper defines nDrapa classifiers as in (7).

(7) Classifiers in nDrapa:

A class of words that can follow a numeral to nominalize it and that classifies the entity denoted by the numeral-based nominalization

This definition means that a classifier is primarily a numeral-based nominalizer, in contrast to verbal-based nominalizers and nominal-based nominalizers (Shirai 2020), which cannot be directly attached to numerals. This paper terms the numeral-based nominalization formed by a classifier a “classifier phrase” for the sake of convenience. Classifier phrases may involve an additional enclitic such as *htei* ‘about’ that follows the classifier, e.g., *sɪntsɪtɪ=zja=htei* ‘about thirty (servants),’ as in (28).

### 2.1. Types and usages of numeral classifiers

Definition (7) implies that classifiers’ basic function is *not* to classify the head nouns they modify (see the difference between Shibatani [2021a: 498] and Aikhenvald [2019: 2] mentioned in Section 1.2). A classifier classifies the entity evoked by the numeral-based nominalization formed with the classifier. From this perspective as well, however, categorizing classifiers according to how they classify their targets would be useful. This study tentatively follows Mizuguchi (2004: 13) and categorizes nDrapa classifiers into three types from a semantic viewpoint: [i] individual, [ii] collective, and [iii] mensural. Individual classifiers evoke countable individuals, collective classifiers evoke units that contain more than one individual, and mensural classifiers evoke units of measure that organize the uncountable. Because these are semantic types, they follow the above definition syntactically but display different usage tendencies: (1) and (8) exemplify individual classifiers, (9) involves a collective classifier *tɕha* (for pairs), and (10) exemplifies the mensural classifier *tɕhó* (‘bowlful’). In terms of usage, (8)–(10) are examples of the modification use.

(8) khají ηó=hpá  
crow five=CLF  
‘five crows’

(9) pɬɬjá té=tɕhá  
child one=CLF  
‘twin children’ (Lit. ‘a pair of children’)

- (10) ηανά τέ=τῆό  
 soup one=CLF  
 ‘a bowlful of soup’ <BB><sup>9</sup>

This paper also discusses mensural classifiers and so-called “adverbial” classifiers, regarding them as having common nominalization processes and different usages or syntactic positions. In studies prior to nominalization theory (e.g., Matsumoto [1993] and Aikhenvald [2000, 2019]), if certain classifier phrases (e.g., “adverbial” classifiers) do not usually modify nouns, they were excluded from the discussion. Mensural classifiers were also often distinguished from typical “sortal” classifiers (Aikhenvald 2000, 2019). From a syntactic viewpoint, however, as Mizuguchi (2004: 13), Ebata (2019: 3), and Dai (2021: 75–77) suggest,<sup>10</sup> continuity exists between “sortal” classifiers with adnominal modification use and “adverbial”/mensural classifiers.

The variety of usages of classifier phrases parallels other types of nominalization, including NP-use, (adnominal) modification use, and adverbial (modification) use (Shibatani 2019: 52–69). Based on our data, nDrapa classifier phrases also have the following three usages: in (1), *té=tῆó* ‘one=CLF’ exemplifies NP-use; also in (1), *gAZjád né=tῆó* ‘two combs’ is an instance of (adnominal) modification use; and in (11), *séi=ndí* ‘three times’ demonstrates adverbial (modification) use. The phrase *séi=ndí* ‘three times’ in (11) does not modify any noun but functions as an adverbial phrase and categorizes the frequency of action. In previous studies in China, such a classifier is considered a typical adverbial classifier. From a nominalization theory viewpoint, this type of phrase is regarded as adverbial use of numeral-based nominalizations (classifier phrases). The classifier *ndí* first nominalizes the numeral *séi* ‘three’ in order to use it as a phrase in the clause. It also classifies the nominalization as a metonymy of countable events that involve the start point and the end point. Semantically, the classifier *ndí* is categorized as a [iii] mensural classifier.

- (11) ηόρό ηwípí séi=ndí ko-zó-a ré.  
 3SG front three=CLF INW-stick-PFV FAC  
 ‘(The arrow) stuck in (the ground) [in] front of him three times.’ <BB>

Words for metrological systems fall into either class of classifier or noun, as evinced when comparing examples (12) and (13). In (12), the smallest unit of

<sup>9</sup> Abbreviations in < > indicate types of example sources, among which elicitation of the Mätro dialect is not marked. Marked sources, except for <Tratho>, are titles of folktales told in the Mätro dialect: <AS> ‘Amulet Strap,’ <BB> ‘Bowl and Bracelet,’ <FK> ‘A Frog Kid,’ <LC> ‘Lake Castle,’ <SM> ‘A Soft-hearted Merchant,’ and <TG> ‘Two Goblins’; <Tratho> Tratho dialect.

<sup>10</sup> Dai (2021: 75–77) indicated metonymical properties of TB adverbial classifiers, which lack noun-modification use. This suggests that formation of adverbial classifiers is also a nominalization process. See Note 3, above, for the relationship between nominalization and metonymy.

denomination, *hdzi*, a hundredth of the currency, follows a numeral to form a classifier phrase, and the phrase *nɛ=hdzi* ‘two cents’ follows the noun *tajá*, ‘money,’ to modify it. This means that *hdzi* is a classifier, which is tentatively subclassified as [iii] mensural. In contrast, in (13), *tʰɨ*, which expresses the main unit of Chinese denomination, is followed by a classifier phrase that involves the default classifier *ji*. Thus, *tʰɨ* is a unit noun that can be modified by a classifier phrase. In this case, the quantifier phrase, which consists of the unit noun and the classifier phrase, modifies the head noun *tajá* ‘money.’

- (12) *tajá*      *nɛ=hdzi*  
 money    two=CLF  
 ‘two cents of money’
- (13) *tajá*      *tʰɨ*      *nɛ=ji*  
 money    yuan    two=CLF  
 ‘two yuans (元) of money’

The unit nouns include measuring words recently borrowed from Chinese, e.g., *kólí* ‘kilometer,’ a loan from Chinese *gōnglǐ* {公里}, in (14). These unit nouns are excluded from classifiers from a syntactic viewpoint.

- (14) *kólí*      *nɛzi+nɛ=ji*      *tɕa=ʈɛ*.  
 kilometer    seventy+two=CLF    exist<sub>4</sub>=IPFV.FAC  
 ‘There are seventy-two kilometers (between the two towns).’

## 2.2. Classifier phrase without a numeral

Definition (7) says “*can* follow a numeral” because, in nDrapa, the host of classifiers is not limited to basic numerals, but the interrogative quantifier may also be the host of classifiers. The interrogative quantifier *tɕhú*, ‘how many,’ is just paradigmatic with numerals. In (15), the classifier for humans, *zja*, is attached to *tɕhú* to form a NP that functions as an argument of the existential sentence. In (16), the phrase consists of the interrogative quantifier *tɕhú*, and the classifier *tɕɨ* modifies the preceding noun *zettú* ‘pillar.’

- (15) *nó*      *jé=ká*      *tɕhú=zjá*      *po-á*  
 2SG    house=inside    how.many=CLF    exist<sub>1</sub>-Q  
 ‘How many family members do you have?’ (Lit. How many are there in your home?)
- (16) *n̄wɛ=rá*    *lethá*      *zettú*    *tɕhú=tɕú*      *ɕjɛ*  
 2PL=GEN    cowshed    pillar    how.many=CLF    exist<sub>3</sub>.FAC  
 ‘How many pillars are there in your cowshed?’

Moreover, a classifier can directly follow a noun or an adjective-based nominalization, as in (17)–(18) and (19)–(20), respectively. However, a classifier never directly follows a demonstrative as in (21), an example from the Tratho dialect.

- (17)  $\text{ɛi}$        $\text{kemá=ɽɔ}$   
 iron clothes=CLF  
 ‘an iron dress’ <LC>
- (18)  $\eta\acute{a}=\acute{a}$        $\text{mú=ji}$        $\text{p}\check{\text{o}}$ .  
 1SG=LOC brother=CLF exist<sub>1</sub>  
 ‘I have one brother.’
- (19)  $\text{n}\check{\text{d}}\text{o}=\acute{a}$        $\text{na}\sim\text{ná}=\text{t}\check{\text{ɛ}}\text{u}$        $\text{t}\check{\text{ɛ}}\check{\text{ɛ}}$ .  
 horse=TOP black~NMLZ=CLF COP<sub>2</sub>.FAC  
 ‘The horse was a black one.’ <FK>
- (20)  $\text{koró}$        $\text{satsá}=\text{k}\lambda$        $\text{[h}\acute{a}\sim\text{[h}\acute{a}=\text{ji}1$        $\text{r}\check{\text{ɛ}}$ .  
 this place=inside pleasant~NMLZ=CLF COP<sub>4</sub>  
 ‘It is comfortable here.’ (Lit. ‘Inside of this place is a pleasant one.’)
- (21)  $\eta\acute{a}$        $\text{k}\acute{a}\text{r}\acute{a}$        $\text{*}(\text{t}\acute{\text{ɛ}}/\text{h}\acute{\text{d}}\check{\text{ɛ}})=\text{ji}=\text{r}\acute{a}$        $\text{ɛ}\check{\text{u}}$ .  
 1SG this one/four=CLF=GEN need  
 ‘I need this one/the four of these.’ <Tratho>

When a classifier directly follows a noun as in (17) and (18), it generally implies that the number is one. Example (18) was elicited as a translation from a Chinese sentence containing ‘one’: *Wǒ yǒu yíge xiōngdì* ‘I have one brother.’ This construction seems to have been formed by dropping the numeral *té* ‘one.’<sup>11</sup> However, *té* ‘one’ cannot be omitted if the classifier phrase is used as a NP, as in *té=tɛu* in (1). Thus, we can conclude that *té* ‘one’ can be omitted if the classifier phrase modifies the preceding noun and if the number is not the central focus.

When a classifier phrase with the numeral *té* ‘one’ follows a demonstrative, the numeral is never dropped, e.g., (21). In certain Na-Qiangic languages such as Northern Rma (LaPolla with Huang 2003: 59) and Namuyi (Nishida 2019: 145), demonstratives must be followed by a classifier or quantifier phrase that includes a classifier although this does not apply to other languages such as Prinmi, Lizu, and Shihing (or Shixing) (Chirkova 2012: 145), with nDrapa included as the latter type.

When a classifier directly follows a noun, it generally implies that the noun is unspecified. However, adding the NP-use marker *ra* ‘GEN’ (§1.1) after the classifier often implies specificity. In the following example (22) from a folktale, only the classifier *tɛu* is added to  $\eta\acute{a}$  *ηkhazí* ‘golden spoon’ when it is first introduced but appears with the genitive particle when the golden spoon is subsequently mentioned.

- (22)  $\text{ht}\check{\text{ɛ}}\text{alá}=\text{la}$        $\eta\acute{a}$        $\eta\text{khazí}=\text{t}\check{\text{ɛ}}\text{u}$        $\text{po}=\text{[t}\acute{\text{ɛ}}$ .  
 Chala=LOC gold      spoon=CLF      exist<sub>1</sub>=IPFV.FAC

<sup>11</sup> Pichetpan and Post (2021: 488–490) claim a parallel origin—that is, reduction of the numeral ‘one’—for the corresponding construction of Thai in which a classifier directly follows a noun without a numeral. They also state that the referential value (definite/indefinite/both) of such construction varies among languages. The referential value in Thai is indefinite (Pichetpan and Post 2021: 491–495), the same as in nDrapa.

theró-ne tsé=ne,  
 goblin-DU say=TOP  
 ḡá htɕalá=ʈo ḡá ḡkhazí=tɕu=rɔ ḡá+ji ɕu=mé.  
 1SG Chala=place gold spoon=CLF=GEN steal+go need=Q  
 ‘The Chalas (a family name) had a golden spoon. The two goblins said, ‘Do you need me to go and steal the golden spoon at the Chalas’ house?’ <TG>

### 3. Categorization

Categorization is a fundamental property of classifiers. In this section, we examine each numeral classifier in nDrapa, focusing on its categorizing function. Etymology is also discussed even though ascertaining from facts within a single language is difficult. For comparison, I refer to other Qiangic languages with classifiers. Figure 3 illustrates the geographical distribution of languages mentioned in this section.<sup>12</sup>

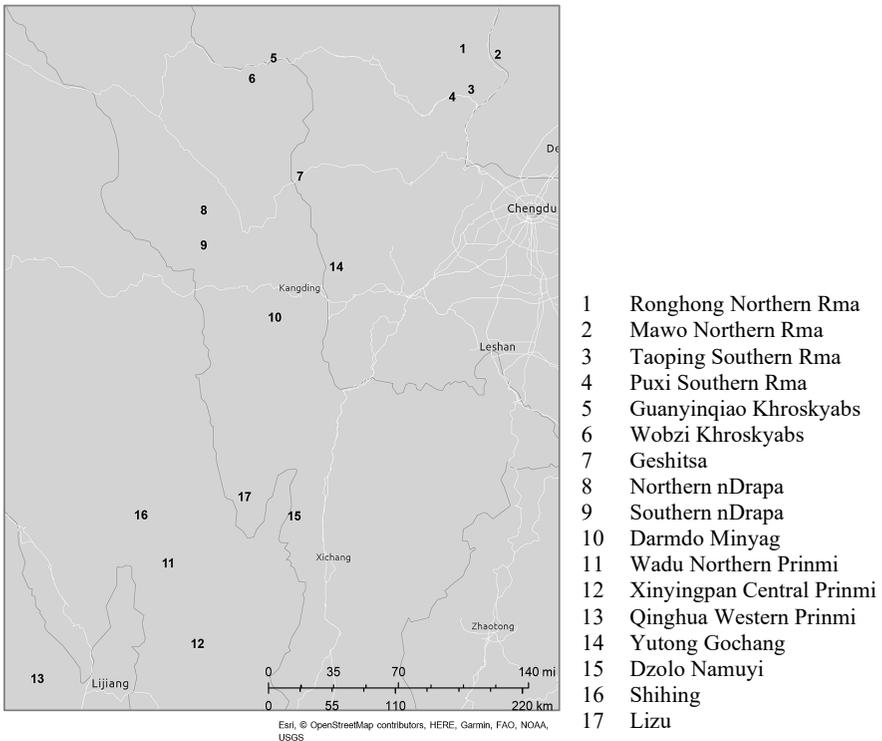


Figure 3 Geographical distribution of related languages.

<sup>12</sup> These languages are all included in the Qiangic branch of Matisoff’s (2015) classification. Jacques and Michaud (2011: Appendix) classifies all languages except Gochang as Na-Qiangic, with 1–13 belonging to the Qiangic subgroup.

### 3.1. The “default” classifier: *ji*

The most frequently and widely used classifier is *ji*. It is regarded as the default numeral classifier (Gong 2007, Shirai 2020, and Huang forthcoming). Although Huang (1990/2009: 75) described the function of *ji* as counting spherical or chunky things, based on my field data, I regard it as far more extended. Numeral-based nominalizations with *ji* are used for things in various categories: humans including human-like beings (e.g., deities and demons); certain kinds of animals such as cattle and frogs; objects such as bowls, dishes, baskets, books, potatoes, internal organs, umbrellas, rooms, corners of a room, buildings, grasslands, lakes, mountains, villages, countries, and clouds; and intangibles such as songs, situations, and problems. In many cases, including abstract things, *ji* is the only classifier choice. On one hand, if a proper classifier exists, as described in the next section, *ji* tends to be avoided, with some exceptions. For example, the classifier *tɕɰ* is strongly chosen for certain animals like horses and dogs, and so far, no examples using *ji* have been found. On the other hand, the most notable exception is humans: even though the proper classifier is *zja*, the default classifier *ji* is often used as well (see Section 3.2).

*ji* may also be used in combination with unit nouns as in (13) and quantifiers as in (5). Moreover, in my fieldwork, speakers of Northern nDrapa (including both the Mätro and Tratho dialects) added *ji* to numerals, as in (23) in elicitation.

- (23) tɛ=ji,      nɛ=ji,      séi=ji, ...  
           one=CLF   two=CLF   three=CLF  
           ‘one, two, three, ...’

These facts may seem to indicate that *ji* is not a classifier but a part of the independent form of numerals.<sup>13</sup> In other words, *ji* may appear to be too general as a classifier. However, numerals are used as NPs without classifiers in contexts where numeric values are compared, as in (24). This example suggests that if a numeral is not categorized, then a classifier is not used. Furthermore, large and round numbers, which are loans from Tibetan, may also be used without classifiers: please compare *hdzi* ‘hundred’ in (25) with *nɛ=ji* ‘two=CLF’ in (13). These examples prove that a numeral with *ji* is not an allomorph of the numeral itself but a combination of the numeral and a classifier. We conclude that *ji* is one of the individual classifiers that categorizes the nominalization into a metonymy of countable individuals.

- (24) ηǒ      hɛ=ma      xǒ      tɕí=tɕé.  
           five    four=COMP    more    big=IPFV.FAC

<sup>13</sup> According to Bradley (2005: 228), several Southeastern TB languages use certain forms of the numerals ‘one’ and ‘two’ exclusively for counting, and such forms have an anomalous final stop or creaky voice. Here I must explain that numerals plus *ji* in nDrapa are not allomorphs of numerals; rather, they are numeral-based nominalizations; otherwise, this would lead to the incorrect conclusion that numerals without classifiers are widely observed in nDrapa.

- ‘Five is bigger than four.’ <Tratho>  
 (25) ηα=ρά páopáo=κλ t̥hí fɪdzí tɕλ.  
 1SG=GEN bag=inside dollar hundred exist<sub>3</sub>  
 ‘There are one hundred yuans (元) in my bag.’ cf. (13)

The etymon of the classifier *ji* is unknown. Southern nDrapa dialects have a same-form suffix that forms nouns for persons: e.g., *so<sup>55</sup>ji<sup>55</sup>* ‘herdsman’ (Gong 2007: 37–39).<sup>14</sup>

### 3.2. Other individual classifiers

Typical individual classifiers other than *ji* are listed below:

- (26) a. *zja* (humans)  
 b. *tɕtt* (graspable/familiar)  
 c. *hpa* (papery/birds)  
 d. *the* (necklaces)  
 e. *ʃʌ* (clothes)  
 f. *ja* (immovable objects, facilities)  
 g. *pe* (containers)

Numeral-based nominalizations exclusively categorized for humans are formed by the classifier (26a) *zja*. Humans are also counted with the default classifier *ji*, as previously mentioned. Huang (forthcoming) mentions that forms corresponding to *zja* in the Southern dialects are honorific, though difference in politeness is not found in Northern dialects: compare (27) and (28).

- (27) jóhpú tɛ=ji  
 servant one=CLF  
 ‘one servant’  
 (28) jóhpú sɪntshí=zja=htei  
 servant thirty=CLF=about  
 ‘about thirty servants’ <BB>

In such examples as (29)–(30), numeral-based nominalizations with *zja*, the human-specific classifier, are interpreted as uniquely representing the number of people without any preceding noun. These examples suggest that the difference between *ji* and *zja* relates to the speaker’s and the hearer’s (auditor’s) economy (Zipf 1949: 20–21, Shibatani 2021b): *ji* is used as a result of unification of category, which contributes to the speaker’s economy, while *zja* reflects diversification, which contributes to the hearer’s economy. Synchronically, both forces coexist in antagonism. The classifiers other than *ji* and *zja* are never used for individual humans.

<sup>14</sup> However, the Northern nDrapa suffix with the same function does not correspond to this etymologically: *-pi* (e.g., *swépi* ‘herdsman’).

- (29) ndá      njé    jé=ká            ηó=zjá    tá-ná-a            rě.  
 formerly 1PL house=inside five=CLF NTL-exist<sub>2</sub>-PFV FAC  
 xé      séi=zjá            =antɕhi    ma-ná.  
 now three=CLF any.more NEG-exist<sub>2</sub>  
 ‘We used to have five (members) in our family. Now there are only three.’
- (30) té=zjá      té=zjá=la      lěi      né=ji      ně=ji      po=ɕé.  
 one=CLF one=CLF=LOC baozi two=CLF two=CLF exist<sub>1</sub>=IPFV.FAC  
 ‘There are two baozis for each person.’

It is significant that two classifiers are used for humans, and it appears to be an areal feature. Some Qiangic languages spoken in the northern regions also use both default and proper classifiers for humans: Ronghong Northern Rma (LaPolla with Huang 2003: 65–66), Mawo Northern Rma (Liu 1998), Taoping Southern Rma (Sun 1981), Puxi Southern Rma (C. Huang 2007), Guanyinqiao Khroskyabs (Huang 2009), Wobzi Khroskyabs (Lai 2017), and Geshitsa (Duorji 1998). Meanwhile, Darmdo Minyag (Dawa Drolma and Daudey 2021), Prinmi dialects (Lu 2001; Daudey 2014; Ding 2014), and Gochang (Song 2011) use only the proper human classifier.

The possible etymon of *zja*, a root for ‘child/son’ in Proto-Tibeto-Burman (PTB) \*tsa-n  $\times$  \*za-n (Matisoff 2015), is reflected in Northern nDrapa as *zɿ*, the root for ‘son’ found in compounds. Similar classifiers are found in other Qiangic languages: *zə*<sup>33</sup> in Darmdo Minyag (Dawa Drolma and Daudey 2021: 42), *ʂə* in Mawo Northern Rma (Liu 1998: 135–151), *tsə* in Wadu Northern Prinmi (Daudey 2014: 143), *tsɿ* in Xinyingpan Central Prinmi (Ding 2014: 93), and *tsə*<sup>55</sup> in Qinghua Western Prinmi (Lu 2001: 151–152). The Darmdo Minyag form is identical to the root for ‘child’ except for the tone. It is highly possible that these classifiers were grammaticalized from the word for ‘child.’ However, the sound change to the classifier *zja* in nDrapa is unexpected.

The second most widely used classifier is (26b) *tɕɕ*. My field data reflects its use with stones, spoons, cups, bottles, matches, hats, combs, pants, belts, bangles, letters, scissors, farming tools (e.g., hoes), bows, arrows, flutes, leg bones, legs, arms, pillars, chairs, desks, incense mounds, stupas, various kinds of animals (horses, monkeys, dogs, cats, rabbits, rats, fish, and snakes), and bags. Bags themselves are categorized by this classifier even though they may also be categorized as containers with (26g) *pɕ*. Although Huang (1990/2009: 75) analyzes *tɕɕ* as categorizing long objects, it is more extensive. I tentatively analyze that it has been extended from categorizing graspable objects, such as stones, to tools and small animals, and then further extended to various familiar objects, except for humans and intangibles. Examples including *tɕɕ* are (1) and (31). The etymon of *tɕɕ* is unknown.

- (31) shwí-ré=wu      já      né=tɕá      ɕí=ɕé  
 man-PL=ACDT hand two=CLF exist<sub>3</sub>=IPFV.FAC  
 ‘Men have two arms.’

Thin, papery things, such as boards, paintings, and newspapers, and birds,

including crows, pigeons, and chickens, are categorized using (26c) *hpa*. Among farming tools, only *εεεajá*, similar to a hoe but much wider and used for raking mud, is counted with either (26c) *hpa* or (26b) *tεε*. The root *hpa* is not used independently in nDrapa but is found in compounds such as *jahpá*, ‘palm’ (*já* ‘hand’). Classifiers similar to *hpa* are found in other Qiangic languages: *pa* in Yutong Gochang (Song 2011: 100), *pǎ* in Wadu Northern Prinmi (Daudey 2014: 143), and *pa* in Xinyingpan Central Prinmi (Ding 2014: 143). In Gochang and Prinmi, the corresponding root means ‘leaf’ (Song 2011: 100, Daudey 2014: 143), which can be traced back to PTB \*r-pak LEAF/LEAFLIKE PART/FLAT OBJECT (Matisoff 2015). In nDrapa, the lexeme for ‘leaf’ is replaced by the Tibetan loanword *lomá*.

In my field data, (26d) *the* is used only for necklaces. However, similar classifiers in Primi dialects are used for thin things such as ropes and pegs: *tí* in Wadu Northern Prinmi (Daudey 2014: 143) and *te<sup>H</sup>* in Xinyingpan Central Prinmi (Ding 2014: 93). These are regarded as cognates although further etyma are unknown.

(26e) *ɣtɿ* is used for clothes. (26f) *ja* is used for immovable objects or facilities such as markets. So far, their etyma are unknown.

Including (26g) *pe* for containers into individual classifiers may seem problematic. For example, in (32), it may appear to be mensural from the meaning of the whole sentence. However, the classifier phrase *nε=pé* ‘two=CLF’ follows a noun that indicates objects used as containers, *lópó* ‘sack,’ to indicate their number. At the same time, the classifier *pe* categorizes the phrase as a metonymy of containers. Thus, *pe* is an individual classifier. The classifier *pe* is paired with a container word, and the NP *lópó nε=pé* ‘two sacks full of’ expresses the amount of *shǔ* ‘wool.’ This construction is parallel to that of (13), where the unit noun for denomination *thí* ‘yuan’ for and a classifier phrase *né=ji* ‘two=CLF’ form a phrase to modify the head noun *tajá* ‘money.’

- (32) *shǔ lópó nε=pé*  
 wool sack two=CLF  
 ‘two sacks full of wool’ <TG>

The classifier *pe* is considered as a loanword of Chinese *bēi* {杯}. Strikingly similar classifiers are found in neighboring languages such as Yutong Gochang (*pe<sup>55</sup>*, Song 2011: 99) and Ronghong Northern Rma (*pe*, LaPolla with Huang 2003: 65–68). Note that other classifiers in these languages do not show such a close form, even though they might be cognates: e.g., the classifier for humans is *-tɿ* in Ronghong Northern Rma (LaPolla with Huang 2003: 65–68) and *pi* in Yutong Gochang (Song 2011: 99), to be compared with (26a) *zja*. Although Gong (2007: 71) mentions that the source of *pe* is a native verb root ‘to fill,’ which corresponds to the verb *á-pé* derived from the adjective root *pé* ‘many/much’ in Mätro nDrapa, the possibility of borrowing is more plausible based on the facts above.

### 3.3. Collective classifiers

nDrapa has a relatively wide variety of collective classifiers. Typical collective classifiers are listed below:

- (33) a. *zɿ* (pairs of clothing ornaments)  
 b. *tɛba* (pairs, such as twins)  
 c. *ŋɸi* (pairs, such as a mother and a son)  
 d. *kbe* (kinds of inanimate things)  
 e. *rɪmba* (kinds of animate beings)  
 f. *ŋo* (groups of people/cluster of animals)  
 g. *ccu* (households)

Classifiers in (33a)–(33c) categorize different types of pairs. (33a) *zɿ* is an example of the echo type, which has the exact same form as the corresponding noun. The root for ‘shoe’ is *zɿ*, which is preferred to form the disyllabic form *zɿtsɿ* but can be used independently, as in (34). The classifier *zɿ* has been further grammaticalized for other pairs of clothing ornaments, such as gloves and socks.

- (34)  $\eta\acute{a}$  *zɿ* / *zɿtsɿ*  $t\acute{e}=z\acute{a}$   $k\acute{i}-\text{c}\acute{c}\acute{i}$   $\eta\check{y}\acute{e}$ .  
 1SG shoe one=CLF INW-buy PST.1  
 ‘I bought a pair of shoes.’

The other two classifiers for pairs, (33b) *tɛba* and (33c) *ŋɸi*, are exemplified in (35) and (36). Although they appear to be distinguished through similarity and differentiation of evoked pairs of objects, further investigation is needed to clarify their functions because few examples have been observed. Dawa Drolma and Daudey (2021: 31) mention a set of classifiers similar in form to these and suggest that the classifier  $-t\acute{e}^b\acute{e}^{33}$ , which corresponds to nDrapa *tɛba*, is a Tibetan or rGyalrongic loan.<sup>15</sup> Furthermore, they suggest that  $-ndz\acute{e}^{55}$ , which corresponds to nDrapa *ŋɸi*, is a native form. Possible cognates of *ŋɸi* are also found in Prinmi dialects:  $t^bu$  in the Northern (Daudey 2014: 143),  $p^{bc}\acute{e}^F$  in the Central (Ding 2014: 93), and  $pz\acute{e}^{55}$  in the Western (Lu 2001).

- (35)  $p\acute{a}\eta\check{y}\acute{a}$   $t\acute{e}=t\acute{c}\acute{h}\acute{a}$   $\eta\acute{a}-\text{h}\acute{c}\acute{i}-\text{a}$ .  
 child one=CLF OUT-be.born-FAC.PFV  
 ‘A pair of twins were born.’
- (36)  $nda=\acute{n}\acute{e}$   $m\acute{o}nn\acute{e}\acute{i}=\eta\check{y}\acute{h}\acute{i}$   $t\acute{a}-n\acute{a}-\text{a}=\text{r}\acute{e}$ .  
 formerly=TOP siblings=CLF NTL-exist<sub>2</sub>-PFV=FAC  
 ‘Long ago, there were a sister and a brother (Lit. a pair of siblings).’ <BB>

Below are examples of (33d) *kbe*, (33e) *rɪmba*, and (33f) *ŋo*. The former two are apparent Tibetan loanwords: Written Tibetan *khyad* ‘difference’ and *rim-pa*

<sup>15</sup> The Classical Tibetan correspondent is the noun *cha* ‘part, the half, a pair’ (cf. Jäschke 1881: 150–151). Cognates in rGyalrongic languages include Wobzi Khroskyabs *tɛba* (Lai 2017: 179–181) and Geshitsa *fɸea* (Duoerji 1998: 87–97). Further discussion of this topic lies outside this paper’s scope.

‘series, grades,’ respectively. (33g) *ccu* is used for households. Its possible etymon is the native noun *ccú* ‘hole.’

- (37) ḡóró né=khé=r<sub>Λ</sub> á-fidzé lé.  
 that two=CLF=GEN UPW-mix put  
 ‘Mix up those two kinds (of candy).’
- (38) jóhpú séi=rím̄ba t<sub>Á</sub>-n<sub>Á</sub>-a ré.  
 servant three=CLF NTL-exist<sub>2</sub>-PFV FAC  
 ‘There were three ranks of servants.’ <BB>
- (39) ḡókhó v̄i t<sub>é</sub>=ḡ<sub>ó</sub> t<sub>é</sub>ú.  
 there jackal one=CLF exist<sub>6</sub>.FAC  
 ‘There is a pack of jackals over there.’

### 3.4. Mensural classifiers

Frequently used mensural classifiers are listed in (40). Classifier phrases with mensural classifiers for a time span or frequency often form adverbial phrases as discussed in Section 2.1. (11) and (41) below are such examples. Among these classifiers, at least (40a) *t<sub>é</sub>ho*, (40b) *hke*, (40f) *ḡ<sub>Λ</sub>*, and (40h) *wo* are derived from nouns or nominal stems: *nt<sub>é</sub>holó* ‘bowl,’ *hké* ‘sound, voice, language,’ *ḡ<sub>Λ</sub>* ‘day,’ and *wó* ‘year,’ respectively. Moreover, (40e) *ḡ<sub>ya</sub>* is apparently derived from the verb stem *ḡ<sub>ya</sub>* ‘spend the night.’ (40g) *ḡ<sub>i</sub>* can be traced back to PTB \*s/g-la MOON/MONTH (Matisoff 2015) although the cognate noun stem in nDrapa has a different vowel: the first syllable of *ḡ<sub>é</sub>h<sub>z</sub>á* ‘moon.’ Etyma of (40c) *mpha*, (40d) *ḡ<sub>d</sub>zi*, and (40i) *ḡ<sub>d</sub>i* are unknown.

- (40) a. *t<sub>é</sub>ho* (bowlful)  
 b. *hke* (voice, phrases)  
 c. *mpha* (about 500 grams weight = Ch. *jín* {ḡ<sub>Γ</sub>})  
 d. *ḡ<sub>d</sub>zi* (the smallest unit of money, see [8])  
 e. *ḡ<sub>ya</sub>* (nights)  
 f. *ḡ<sub>Λ</sub>* (days)  
 g. *ḡ<sub>i</sub>* (months)  
 h. *wo* (years)  
 i. *ḡ<sub>d</sub>i* (times of action/events)
- (41) nó ḡ<sub>jé</sub> jeká a-jí=ni, ḡ<sub>é</sub>=ḡ<sub>ya</sub>=hteí m<sub>ě</sub>.  
 2SG 1PL house DWN-go=then seven=CLF=about stay  
 ‘You will come to our house and stay for about seven nights.’ <LC>

### 4. Grammaticalization

As mentioned above, nDrapa has classifiers similar or identical to corresponding lexical words/stems. A typical example is *z<sub>í</sub>* ‘shoe’ and the classifier for pairs of clothing ornaments *z<sub>í</sub>*, as in (34). The classifier *z<sub>í</sub>* is also used for paired objects other than shoes, as in (42).

- (42) jálé/watsí té=zi  
 glove/sock one=CLF  
 ‘a pair of gloves/socks’ <Tratho>

Although the whole process of the nDrapa classifier system is difficult to clarify, it is almost certain that one of the processes was grammaticalization of content words from compounds consisting of a numeral and a content word. When speakers say the number of siblings, such compounds as *séimónnei* ‘three siblings’ (43) are used. Differences between classifiers such as *zi* ([34] and [42]) and the latter component of compounds are [i] extension, [ii] semantic bleaching (or desemanticization), and [iii] decategorization.<sup>16</sup> That is, [i] the classifier *zi* is used not only for shoes but also for other paired clothing; [ii] it evokes the notion of pair rather than of the shoe itself; and [iii] it is a constituent of a quantifier (for example, it falls into a different slot of the noun-modifying structure than nouns do, as illustrated in Figure 2). In contrast, *mónnei* (*mónnei* in [43]) consistently denotes ‘siblings,’ as in (36), and both *mónnei* ‘sibling’ and the compound *séimónnei* ‘three siblings’ are nouns.

- (43) ndá séi+mónnei tá-ná-a re.  
 old.days three+sibling NTL-exist<sub>2</sub>-PFV FAC  
 ‘Long ago, there were three siblings.’ <AS>

Now let us examine the numeral ‘one’ and verb stem sequence, as introduced in (2). It is followed by a light verb *tá/DIR-tá* ‘hit/do’ or *lé/DIR-lé* ‘put/do,’ as in (44)–(46), respectively. The morpheme *té*, which is glossed as the verbal-noun marker in (44)–(46), has a form identical to the numeral ‘one.’ However, other numerals do not come to this position. Moreover, the verb stems have not undergone significant semantic bleaching; they express nothing besides the original action.

- (44) té-htsí ká-tá =(2)  
 VN-kick INW-hit/do  
 ‘(I) have given a kick’
- (45) thɯ=rá névá té-hté tá ɕɯ-é.  
 LOG=GEN sister VN-pass hit/do need-FAC.IPFV  
 ‘I want you to give me my sister (who is your servant).’ <BB>
- (46) ḡá té-hpó tá-lé ḡge.  
 1SG VN-run/step NTL-put/do PST.1  
 ‘I ran.’

<sup>16</sup> I would like to thank an anonymous reviewer for suggestions regarding grammaticalization parameters. Kuteva et al. (2019: 3) listed “erosion” (or “phonetic reduction”) in addition to these three parameters for grammaticalization. In the classifier *zi*, a tonal alternation may be indicated, but here, this point is not discussed further since the noun *zi* ‘shoe’ itself is also expected to have a low tone when it becomes a compound’s second component.

Such construction has been excluded from previous studies of TB adverbial classifiers such as Dai (2021) but is included in previous studies on Southern nDrapa classifiers (Gong 2007: 74–75, Huang forthcoming: §5.1.3.4). Gong (2007) and Huang (forthcoming) analyze the parallel expression in Southern nDrapa as quantifying the number of actions (i.e., ‘do something once’). However, at least in Northern nDrapa, this is not quantification in a general sense because [i] no numerals other than *té* ‘one’ are attested and [ii] it is found in contexts that do not focus on times of action, e.g., (45) and (46). Note that the verb stem *hpó* in (46) means both ‘run’ and ‘take a step.’ The speaker used the form with *té-* as in (46) when she needed to translate ‘to run’ in elicitation. In contrast, the stem *hpó* is used without *té-* when it means ‘take a step,’ as in (47). In these cases, the construction with ‘one’ and a verb stem did not quantify the action but did play a role of semantic disambiguation.

- (47) ἡά ἦḷ ἰό-ḥṑ ḥḡ.  
 1SG foot NTL-run/step PST.1  
 ‘I made one step forward.’

I conclude that the *té* and verb stem sequence is not quantification at least synchronically but that *té* has been grammaticalized as the prefix that forms verbal nouns. Certain verbal nouns such as *té-hpó* ‘VN-run/step’ have been lexicalized.

Verbal nouns and classifier phrases are different constructions synchronically, but from a viewpoint of grammaticalization process, they would share a common features in the origin. The hypothesis is illustrated in Figure 4. The starting point would be nominal compounds like (43). On one hand, the latter component was grammaticalized into enclitics: classifiers. On the other hand, the former numeral component, in particular *té* ‘one’, was grammaticalized into the verbal-noun prefix. In any steps of these processes, the resulting constituent is nominal.

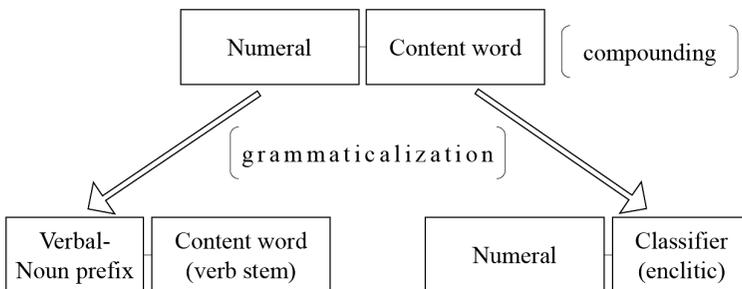


Figure 4 Grammaticalization of classifiers and the verbal-noun prefix.

## 5. Conclusion

This research attempted to define and clarify nDrapa classifiers, first defined based on nominalization theory. The definition allows a unifying approach to the vari-

ous aspects of nDrapa classifiers, including NP and adverbial uses. It also allows for classifier phrases to be distinguished from other constructions, including unit nouns and verbal nouns. Classifiers were sorted into three semantic categories: individual, collective, and mensural. Then I clarified properties of frequently used classifiers. I concluded that even the “default” classifier functions to categorize countable individuals. I also pointed out that nDrapa’s having double classifiers for humans, that is, the default classifier *ji* and the proper human classifier *zja*, is an areal feature. Also examined were possible etyma of classifiers, which included borrowing and grammaticalization of content words, although detailed study of their historical development remains for future research. Finally, the grammaticalization process was examined in contrast with compounds and verbal nouns. I concluded that they are different constructions synchronically, but they shared common feature of their origin in the process of grammaticalization.

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## 【要 旨】

### ダバ語の類別詞:定義と分類

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本論文ではまず体言化理論に基づいてダバ語の類別詞を「数詞に後続して体言化し、その数詞基盤体言化形式を範疇化しうる語類」と定義する。この定義により、類別詞と関連する現象との区別が明らかになるほか、類別詞が見せるさまざまな現象を統一的に記述できる。次に、意味論の分類を援用しつつ、注目すべきいくつかの類別詞についてその特性を検討する。汎用個別類別詞 *ji* と人間専用の類別詞 *zja* がいずれも人間に用いられるが、これはチャン諸語の中でも北部の言語に見られる地域特徴であると考えられる。類別詞の語源については、少なくとも借用語に由来するものと、固有内容語からの文法化が含まれることが確認できる。最後に、固有内容語から類別詞への文法化現象について、数詞を含む複合語および数詞「1」を用いた動名詞化と対比して検討した。これらは共時的には異なる構造であるが、文法化の元となる形式に共通性があると結論づけられる。