

# The art of losing specifiers: On the synchrony and diachrony of N(P)-fronting in Shizhu and Zunyi\*

Qiūshí Chén  
University of Connecticut

## 1 N(P)-fronting in Southwestern Mandarin

This paper investigates the DP-internal N(P)-fronting strategies in Shizhu and Zunyi, two understudied varieties of Southwestern Mandarin (SWM).<sup>1</sup> I then discuss what the synchronic analysis tells us about the mechanism of syntactic change in general. In both dialects, the basic nominal order is Num>CL>N, like most other Sinitic languages:<sup>2</sup>

- (1) a. sān-zī bī [Shizhu]                      b. sān-zī biē [Zunyi]  
three-CL pen                                      three-CL pen  
'three pens'                                        'three pens'

Interestingly, unlike other Sinitic languages, a noun in both dialects can be fronted to a DP-initial position (the NP/DP debate will be addressed later), resulting in a definite reading. (2) shows that N-(Num-)CLs may be used anaphorically, and (3) indicates that N-(Num-)CLs do not occur in dedicated indefinite positions (here, indefiniteness in the postverbal position is forced by locative inversion):

- (2) *Zhangsan bought a book and a pen<sub>i</sub> ...*  
a. ... bī (yī-)zī<sub>i</sub> hèn guí [Shizhu]  
pen one-CL very expensive  
'... the pen<sub>i</sub> is expensive'  
b. ... biē-zī<sub>i</sub> hèn guí [Zunyi]  
pen-CL very expensive  
'... the pen<sub>i</sub> is expensive'
- (3) a. ?? tāi=sáng zó=qì yànyuān (yī)-gó [Shizhu]  
stage=on sit=ASP actor one-CL  
intended: '??on the stage sits the actor'

\*I am grateful to Željko Bošković, Andrea Calabrese, Shèng Yìmín, and the participants of CLS 60 for helpful comments and suggestions. I also thank my Shizhu consultants for the data from their language. All errors are mine.

<sup>1</sup>Shizhu data in this study are from my fieldnotes; the Zunyi data are cited from descriptive works written in Chinese (Hú 1989, 2010; Yè 2021), with a few adjustments in transcription.

<sup>2</sup>The transcription systems for the two languages used in this paper are based on Pinyin, the romanized orthography for Putonghua (i.e., the official variety of Chinese; usually simply called Mandarin in the literature), with minor adjustments reflecting their slightly different phonology. The four tones in Shizhu and Zunyi are marked by diacritics:  $\bar{V}$ ,  $\hat{V}$ ,  $\check{V}$ ,  $\check{V}$ , which correspond to the 45/55, 313/21, 42/53, and 35/12 tones (in Chao tone letters) in Shizhu/Zunyi, respectively (there is a strict one-to-one correspondence between the tones of the two languages).

- b. ?? tâi=sáng zó=qì yànyuân-gó [Zunyi]  
stage=on sit=ASP actor-CL

More detailed descriptions of the usages of N-(Num-)CLs in Shizhu and Zunyi can be found in Chén & Shèng 2023 and Yè 2021, respectively. This paper will focus on their underlying structures. Section 2 argues that though they look similar, Shizhu N-(Num-)CLs and Zunyi N-CLs have very different structures underlyingly. In particular, (i) the definite N-(Num-)CL in Shizhu derives from NP-raising, while (ii) the Zunyi N-CL is a result of head movement of N; both operations take place to a position above NP, which I label simply as DP, for ease of exposition.

On the diachronic part, I will show in section 3 that there is independent evidence that Zunyi N-to-D is historically derived from NP-raising as one finds in Shizhu, i.e., there was a recent historical stage when Zunyi behaved exactly like Shizhu regarding NP-fronting, but the strategy has now become a case of head movement. It will be clear that the change in question does not involve a single syntactic element, as one may expect in ‘canonical’ cases of syntactic reanalysis, e.g., traditional Spec-to-head reanalysis. Syntactic reanalysis in this case targets the whole syntactic operation; that is, it is a change from phrasal to head movement. Assuming that a general tendency of syntactic change is the loss of specifiers (see Dadan 2019, Bošković 2021; e.g., traditional Spec-to-head reanalysis results in the loss of a specifier), this paper thus identifies another way, which has not been explored much in the literature, of losing a specifier diachronically. Section 4 concludes the paper; some further issues and open questions will be addressed.

## 2 Synchrony: Shizhu NP-raising vs. Zunyi N-to-D

This section examines a number of intriguing differences between Shizhu N-Num-CLs and Zunyi N-CLs (2.1). It will be demonstrated that these differences are captured systematically by the proposal that Shizhu N-Num-CLs involve fronting of the NP, while Zunyi N-CLs involve head movement of the noun (2.2). Subsection 2.3 discusses the structural differences between possessives and adjectives in SWM/Chinese, as a necessary component of a complete analysis of Shizhu N-(Num-)CLs and Zunyi N-CLs.

### 2.1 Data

First, as in (4), an overt numeral can only occur in Shizhu N-Num-CLs, but not in Zunyi N-CLs:<sup>3</sup>

<sup>3</sup>To express ‘the pens,’ one can use the plural classifier -xī in both dialects (in fact most SWM varieties allow (ib), though they lack N(P)-fronting in general):

- |     |    |                          |          |    |                          |         |
|-----|----|--------------------------|----------|----|--------------------------|---------|
| (i) | a. | bî (yî-)xī               | [Shizhu] | b. | biê (*yê-)xī             | [Zunyi] |
|     |    | pen one-CL <sub>PL</sub> |          |    | pen one-CL <sub>PL</sub> |         |
|     |    | ‘the pens’               |          |    |                          |         |

-xī behaves quite differently from other classifiers and will be put aside in this paper.

- (4) a. bī ∅-/yī-/liàng-zī [Shizhu]  
 pen e-/one-/some-CL  
 ‘the pen/pens’<sup>4</sup>
- b. biē (\*yê/\*liàng)-zī [Zunyi]  
 pen (\*one/\*two)-CL  
 ‘the pen’

Note, however, that even in Shizhu N-(Num-)CLs (4a), an overt numeral normally does not occur (in which case the interpretation is singular), though what is important to us is the fact that it can (in Zunyi N-CLs (4b) it strictly cannot). That is, on the surface, we observe definite N-CL constructions in most cases in both dialects.

Second, only in a Shizhu N-(Num-)CL (5a), but not in a Zunyi N-CL (5b), can an adjective occur. (5a) implies there is a unique white coat (there can be coats in other colors in the context):

- (5) a. bê=dī yīfū (yī-)jián [Shizhu]  
 white=DE coat (one-)CL  
 ‘the white coat’
- b. \*bâe=dī yīfê-jían [Zunyi]  
 white=DE coat-CL

Additionally, (6) in Shizhu refers to all the white coats in the contexts (again, there can be coats in other colors):

- (6) bê=dī yīfū (liàng-)jián [Shizhu]  
 white=DE coat some-CL  
 ‘the white coats’

Third, though in both Shizhu and Zunyi, a possessive can co-occur with N(P)-fronting, the constructions receive different interpretations in the two languages:

- (7) a. ngò=dī yīfū (yī-)jián<sub>i</sub> bì lǎ-jían yīfū<sub>j</sub> hào-kán [Shizhu]  
 1P=DE coat (one-)CL compare that-CL coat good-looking  
 ‘my coat<sub>i</sub> looks better than that coat<sub>j</sub>’
- b. # ngò=dī yīfê-jían<sub>i</sub> bì ā-jían yīfê<sub>j</sub> hào-kán [Zunyi]  
 1P=DE coat-CL compare that-CL coat good-looking  
 ‘#the coat<sub>i</sub>, which is mine, looks better than that coat<sub>j</sub>’

(7a) is natural: it implies that there is one unique coat that belongs to the speaker (there can be other coats in the context, as long as they are not the speaker’s); (7b), however, is infelicitous (there is nothing wrong with the possessed N-CL by itself). This is because the Zunyi N-CL with a DP-initial possessive *ngò=dī yīfê-jían* ‘my coat’ in (7b) only implies that (i) there is one unique coat in the context, and that

<sup>4</sup>The numeral *liàng* in Shizhu literally means ‘two’, but can only receive a paucal meaning ‘some’ in this construction (the ‘two/some’ polysemy of *liàng* and its cognates is well attested in Chinese; the paucal meaning is just obligatory in (4a)); see Chén 2022 for discussion of this irrelevant, but independently interesting issue.

(ii) the coat belongs to the speaker; in other words, the possessive receives a non-restrictive reading.

In terms of truth conditions, one observes that the distribution of the possessed N-(Num-)CL in the two dialects overlaps; Shizhu Poss-N-(Num-)CLs can be used in situations wherever Zunyi Poss-N-CLs can, but not vice versa. This is illustrated in table 1 (COATS and MYCOATS are sets, the latter being a subset of the former):

Language	Construction	COATS  =1	COATS  >1	COATS  >1
		MYCOATS  =1	MYCOATS  =1	MYCOATS  >1
Shizhu	'my coat (one)-CL'	✓	✓	✗
Zunyi	'my coat-CL'	✓	✗	✗

**Table 1:** Shizhu Poss-N-(Num-)CLs vs. Zunyi Poss-N-CLs

Table 2 summarizes the different patterns of Shizhu N-(Num-)CLs and Zunyi N-CLs examined in this subsection. The next subsection provides syntactic analyses of the two constructions, which capture all these differences directly.

Language	N-CL	N-Num-CL	Adj-N-CL	Poss-N-CL
Shizhu	✓	✓	✓	✓*
Zunyi	✓	✗	✗	✓*

Note: \* The two have semantic nuances (as shown in table 1).

**Table 2:** Shizhu N-(Num-)CLs vs. Zunyi N-CLs

## 2.2 Analysis

I will assume (8) to be the nominal structure shared by Sinitic languages, where (i) DP is always projected, and (ii) the numeral and the classifier are separate heads (c.f., Tang 1990, Y. Li 1999, X. Li & Bisang 2012, among others; c.f., fn. 6):

$$(8) \quad [_{DP} D [_{NumP} Numeral [_{CLP} Classifier [_{NP} Noun ]]]]$$

I argue that Shizhu *bî* (*yî-*)*zî* 'pen (one-)CL' and Zunyi *biê-zî* 'pen-CL' are derived in the following ways, respectively, where DP is projected by a null definite D head:

$$(9) \quad \text{a.} \quad [_{DP} [_{NP} bî ]_i [_{NumP} (yî-) [_{CLP} -zî [_{NP} bî ]_i ]]]$$

[NP-raising; for Shizhu (4a)]

$$\text{b.} \quad [_{DP} biê_i-zî [_{NumP} biê_i-zî [_{CLP} biê_i-zî [_{NP} biê_i ]]]]$$

[head movement of N; for Zunyi (4b)]

In Shizhu (9a), the NP moves to a position higher than NumP/CLP that is related to definiteness, labeled as SpecDP (see Simpson & Syed 2016 and Syed & Simpson 2017 for a similar account of definite NP-fronting in Bangla),<sup>5</sup> while in Zunyi (9b),

<sup>5</sup>Simpson & Syed (2016) also argue that NP in Bangla must move through SpecNumP (which they label as SpecQP) in order to reach SpecDP. I ignore this step in (9a) since nothing hinges on it for the current purposes; note however that there is evidence that the Shizhu NP does move across SpecNumP; see Chén 2022 for discussion.

(i) the noun moves to CL<sup>0</sup> and m-merges with the classifier, and then (ii) the N-CL cluster moves to Num<sup>0</sup> and to D<sup>0</sup>.<sup>6</sup>

We are now ready to capture the differences between Zunyi and Shizhu discussed in the last subsection. First (4), an overt numeral in Zunyi would block the head movement of N or the N-CL cluster (9b). The movement can neither (i) skip the numeral, due to the Head Movement Constraint, nor (ii) carry it: one would then expect N>CL>Num, which violates a PF constraint that (overt) numerals must be prefixal in Chinese (i.e., a numeral must form a prosodic constituent with a following classifier). The PF-well-formed N>Num>CL is also not derivable in Zunyi since the noun first merges with the classifier (the account would be more straightforward under a non-DP analysis, under which NumP may simply not be projected in N-CLs; see fn. 6). By contrast, in Shizhu (9a), nothing prevents the NP from undergoing phrasal movement to SpecDP.

Second (5), only NP-raising, rather than N-to-D, can carry an adjective. I assume here the adjective is NP-adjoined (see below); it can move with the noun only in (5a/10) but not in (5b):

(10) [DP [NP [AdjP *bê-dî*] *yîfû*]<sub>i</sub> [NumP (yî-) [CLP *jián* [NP [AdjP *bê-dî*] *yîfû*]<sub>i</sub> ]]]

Third (7), the contrast crucially shows that the uniqueness/exhaustivity presupposition induced by D is satisfied by the possessive *plus* the noun in Shizhu (7a), but only by the noun in Zunyi (7b). I argue that the possessive can be NP-adjoined, and raises together with the noun in (7a), as in (11a), while the pre-N-CL possessive can only be DP-adjoined in (7b), as in (11b), i.e., it is base-generated there (the underlined DPs satisfy the uniqueness presupposition):

(11) a. [DP [NP POSS-N ]<sub>i</sub> D<sup>0</sup> ... NP<sub>i</sub> ] [Shizhu]  
 b. [DP POSS- [DP N-CL-D<sup>0</sup> [NumP ... ]]] [Zunyi]

The contrast between (11a) and (11b) is unsurprising, given that adjuncts can be inserted acyclically (Lebeaux 1988, Chomsky 1993). Notice that an important structural difference between adjectives and possessives in Chinese is assumed here:

<sup>6</sup>Note that the second step (ii) is string-vacuous, and is in fact dispensable if the DP hypothesis is not adopted (c.f., Bošković 2008, 2012), in which case the Zunyi N-CL may simply be CLP:

(i) [CLP *biê-zî* [NP *biê* ]]

It needs to be pointed out that the Zunyi definite N-CL resembles definite bare classifier constructions (i.e., definite CL-NPs) well-attested in many other Sinitic languages, such as Cantonese and Wu (Cheng & Sybesma 1999, 2005, X. Li & Bisang 2012, Huang 2015, among others), with the N>CL order in Zunyi being the only surface difference:

(ii) *zek gau* [Cantonese]  
 CL dog  
 ‘the dog’

Whether D is projected in Sinitic bare classifier constructions like (ii), and whether (string-vacuous) CL-to-D movement is needed for definiteness are debated questions, as it is sometimes suggested, in accordance with a non-DP analysis, that the CLP alone can be argumental and definite in Chinese (see Cheng & Sybesma 1999, 2012, Wu & Bodo 2009, X. Li 2013 for different views). What is important to the current study is that N must move at least once in the Zunyi N-CL to derive the correct order; the exact landing site of the movement is an independent issue.

adjectives can only be adjoined to NP, while possessives are either NP- or DP-adjoined. The next subsection shows that there is strong independent evidence for this distinction.

### 2.3 Adjectives vs. possessives

Partee (2006) observes that possessives in Mandarin do not induce an exhaustivity presupposition (EP). Her data are from Putonghua/‘Standard’ Chinese, the only well-studied Mandarin variety, but the same holds for Shizhu and Zunyi, and in fact for SWM in general (the following transcriptions in this subsection reflect the phonology of Shizhu):

- (12) a. zāngsān=dī sān-jián máoyī  
 Zhangsan=DE three-CL sweater  
*lit.* ‘Zhangsan’s three sweaters’  
 b. sān-jián zāngsān=dī máoyī  
 three-CL Zhangsan=DE sweater  
 ‘three sweaters of Zhangsan’s’

As (12) shows, the possessive *zāngsān=dī* ‘Zhangsan’s’ can occur either before or after the numeral-classifier. Interestingly, neither (12a) nor (12b) implies that Zhangsan has exactly three sweaters. For (12b), this fact is unsurprising, as (12b) is simply indefinite; what is striking is the observation that although constructions like (12a) are often claimed to be definite (in Chinese, DPs with an initial possessive can be used freely in subject positions, where only definite elements are generally allowed; Chao 1968), (12a) can be used in contexts where Zhangsan has more than three sweaters. This makes (12a) very different from its literal English translation: *Zhangsan’s three sweaters* does induce EP, i.e., the number of Zhangsan’s sweaters has to be three in the context.

I take the above fact to mean that the possessive is an NP-adjunct in (12b) and a DP-adjunct in (12a), i.e., it is always an adjunct. By contrast, the Saxon genitive in English, which induces EP, is often argued to be located in SpecDP: [<sub>DP</sub> John’s [<sub>FP</sub> [<sub>NP</sub> book ]]]. The idea is illustrated in (13); I suggest that only the underlined part is responsible for definiteness and EP:<sup>7</sup>

- (13) [<sub>DP</sub> DP-adjunct [<sub>DP</sub> DP-Spec D<sup>0</sup> [ ... NP ]]]]

↑↑

*The domain where the DP gets interpreted as definite (and where EP is induced)*

<sup>7</sup>I have argued in the last subsection that in Shizhu Poss-N-(Num-)CLs, the initial possessive is generated NP-internally, and is fronted together with the noun. However, nothing seems to prevent a possessive from being base-generated as a DP-adjunct in Poss-N-(Num-)CLs in Shizhu (the same as how Poss-N-CLs are generated in Zunyi (11b), the only difference being in what way the noun is fronted). This means that Shizhu Poss-N-(Num-)CLs may in fact be structurally ambiguous. However, a base-generated DP-adjoined possessive in Poss-N-(Num-)CLs will give the same interpretation as that in Zunyi Poss-N-CLs, which we have seen is narrower than what an NP-internal possessive would give. See table 1. This means that we cannot find a context where a DP-adjoined possessive can be used whereas an NP-adjoined possessive cannot, teasing the two options apart in Shizhu. What is important for the current proposal is that an NP-adjoined possessive cannot occur in definite N-CLs in Zunyi.

Now, there are also two surface positions for adjectives in SWM:

- (14) a. hông=dî sãn-jián mâoyī  
red=DE three-CL sweater
- b. sãn-jián hông=dî mâoyī  
three-CL red=DE sweater  
'three red sweaters'

However, crucially, contrary to high possessives (12a), the high adjective in (14a) does induce EP: it implies that there are exactly three red sweaters in the context ((14b) is indefinite and thus has no such a presupposition). This suggests that adjectives in SWM cannot be DP-adjoined; they are always adjoined to NP. In (14a), the NP-adjoined adjective raises to SpecDP. That is, whenever an adjective occurs before the numeral-classifier, it must be a result of movement (to SpecDP):

- (15) [DP [<sub>AdjP</sub> hông=dî ]<sub>i</sub> [<sub>NumP</sub> sãn-jián [<sub>NP</sub> [<sub>AdjP</sub> hông=dî ]<sub>i</sub> mâoyī ]]]

The idea is further supported by the observation that the relative order of a low adjective and a low possessive is flexible (16), whereas the order of a high adjective and a high possessive is fixed: you always get Poss>Adj (17):

- (16) a. sãn-jián zāngsãn=dî hông=dî mâoyī [✓ Poss>Adj]  
three-CL Zhangsan=DE red=DE sweater
- b. ? sãn-jián hông=dî zāngsãn=dî mâoyī [✓ Adj>Poss]  
three-CL red=DE Zhangsan=DE sweater
- (17) a. zāngsãn=dî hông=dî sãn-jián mâoyī [✓ Poss>Adj]  
Zhangsan=DE red=DE three-CL sweater
- b. \*? hông=dî zāngsãn=dî sãn-jián mâoyī [✗ Adj>Poss]  
red=DE Zhangsan=DE three-CL sweater

(17b) is much worse than (16b). The pattern (16–17) is expected as (i) low adjectives and low possessives are both NP-adjuncts, whereas (ii) high adjectives and high possessives are DP-Specs and DP-adjuncts, respectively (high adjectives are generated low and they move into SpecDP, as shown in (15)). (17b) is ruled out because the adjunct>specifier order is fixed (13).

Note that the structural contrast between possessives and adjectives found in SWM is crystal clear, while it remains to be seen whether it also applies to Putonghua/'Standard' Chinese, where the pattern seems less clear, as there appear to be a lot of interspeaker variations.

To summarize, though they look similar, Shizhu N-(Num)-CLs and Zunyi N-CLs have quite different underlying structures. This section has argued that they show a contrast between phrasal movement and head movement.





If (optional) ellipsis of the noun occurs, (20a&b) would be exactly the same on the surface.

The question is what the motivation for the general-SWM-to-Shizhu change is. Notice that Shizhu seems to have a more symmetrical syntactic paradigm than general SWM, after the proposed (19a>b) change. The reason is the following. Suppose that the traditional structuralist grammar of Chinese is correct in that what we have labeled as AdjPs above are by themselves derived nominals, with the final =*dī* (it is cognate to =*de* in Putonghua/‘Standard’ Chinese, a particle that is well-discussed) being a nominalizer (Zhū 1982; note that traditional grammar simply labels them as *de*-phrases, possibly because the scholars fail to find a better name for them). As in (21), one could say that in ‘mainstream’ SWM, only derived nominals can be fronted, while ‘canonical’ NPs cannot; in Shizhu, however, such a gap in the paradigm is reduced by analogy, as a result of the (19a>b) reanalysis: both types of NPs can be fronted. I thus conclude that the general-SWM-to-Shizhu change involves *paradigm economization*.

- (21) AdjPs/derived NPs > Numerals > Classifiers > AdjPs/derived NPs  
 %‘canonical’ NPs > ‘canonical’ NPs

### 3.2 From Shizhu NP-fronting to Zunyi N-to-D

Since we have seen that there are good reasons to suggest that NP-raising in Shizhu is innovative compared to ‘mainstream’ SWM, it is equally reasonable to argue that N’s head movement in Zunyi must be a further development, as it seems to be more ‘deviant’ from the ‘original’ type. That is, Shizhu NP-(Num-)CLs and Zunyi N-CLs are not developed independently, but are genetically related: the Zunyi case is best viewed as historically derived from the Shizhu case, i.e., there was a recent stage when Zunyi behaved exactly like Shizhu in NP-fronting, but the strategy has now become a case of head movement.

It is worthwhile to mention that in Wuchuan, another SWM dialect geographically very close to Zunyi (the Wuchuan area is actually governed by the Zunyi prefectural city), also allows N(P)-fronting (Xiè 2012). In most N(P)-fronting cases described by Xiè (2012), there is no overt numeral, but when there is one, the numeral is invariably *yī* ‘one.’ Wuchuan Mandarin seems to demonstrate an intermediate stage between Shizhu and Zunyi, and thus supports the current proposal, although due to limited data, I am not able to make further comments on the nature of noun-fronting in Wuchuan.

In summary, the definite N-CL in Zunyi, as a case of head movement, is understood as the result of the following diachronic reanalysis:

- (22) *The Shizhu-to-Zunyi reanalysis*  
 [DP NP [<sub>NumP</sub> (Num) [<sub>CLP</sub> CL NP ]]] =>  
 [DP N-CL [<sub>NumP</sub> ~~N-CL~~ [<sub>CLP</sub> ~~N-CL~~ [<sub>NP</sub> N ]]]]

What is observed here, then, is a change from phrasal movement to head movement. To the best of my knowledge, this is not a type of syntactic change that has been well-reported in the literature.

### 3.3 Discussion: the diachronic loss of specifiers

We now discuss what the Shizhu-to-Zunyi change tells us about syntactic reanalysis in general. Notice first that a specifier (i.e., the fronted NP in SpecDP) is ‘lost’ after the change (22). In the literature, the loss of a specifier, as a frequently attested kind of diachronic change (Dadan 2019, Bošković 2021), is reported to be realized often in two ways. The first way of losing a specifier is Spec-to-head reanalysis: diachronically, the specifier of a projection tends to be reanalyzed as the head of that projection. Examples include the following:

Firstly, (one step of) Jespersen’s cycle arguably involves a negative element located in SpecNegP being reanalyzed as a Neg head (van Gelderen 2004, 2022):

(23) [<sub>NegP</sub> *ná* [<sub>Neg</sub> ∅ [<sub>VP</sub> ... ]]] (IE/Sanskrit) => [<sub>NegP</sub> *ne* [<sub>VP</sub> ... ]]] (Old English)

Secondly, as argued by Willis (2007), the C head *fe* in Welsh originates as a preverbal subject pronoun in SpecCP:

(24) [<sub>CP</sub> [<sub>DP</sub> *ef(e)*] [<sub>C</sub> [<sub>C</sub> *a+verb*] [<sub>TP</sub> ... ]]]] (Middle Welsh) =>  
[<sub>CP</sub> [<sub>C</sub> [<sub>C</sub> *fe+verb*] [<sub>TP</sub> ... ]]]] (Modern Welsh)

Note that Spec-to-head reanalysis is extremely common in the C-domain (for a list of examples, see Bošković 2021); a lot of C-elements, including English *how*, are historically derived from wh-words.

Thirdly, the Latin demonstrative *ILLE* generally found in SpecDP loses its first syllable and is interpreted as a D element in Romance (Giusti 2001):

(25) [<sub>DP</sub> (*IL*)*LE* [<sub>D</sub> ∅ ... ]]] (Latin) => [<sub>DP</sub> (*IL*)*LE*... ] (Romance)

Spec-to-head reanalysis is well-reported, and as shown above, is attested in various domains. The second way of losing a specifier is losing (phrasal) movement (Dadan 2019). Examples of this type include the historical loss of wh-movement in Chinese (Aldridge 2010) and Japanese (Watanabe 2002). Additionally, while Latin is actually a multiple wh-fronting language (Spevak 2010, Danckaert 2012:245–250), modern Romance fronts a single wh-element (in some, wh-in-situ also a possibility), with the exception of Romanian.

Now, the Shizhu-to-Zunyi change (22) is different from both types of change. What gets reanalyzed here is not a single syntactic element, but the entire operation. The fronted N(P) does not get reanalyzed by itself, because it is always a lexical category involved in movement. In other words, (22) by itself does not involve the reanalysis of a particular item from a Spec position to a head position; also, movement is not lost in the change. What is observed is a change from phrasal movement to head movement.

If syntactic reanalysis is subject to economy considerations (that is, a structure tends to be reanalyzed as a more economical one; van Gelderen 2004), the Shizhu-to-Zunyi change implies that (syntactic) head movement is more economical than phrasal movement. Notice that there is a possibility that (syntactic) head movement and phrasal movement are the same operation (c.f., Preminger 2019). The locality conditions on the two sorts of movement are complementary (Pesetsky & Torrego 2001): phrasal movement is strictly non-local (i.e., antilocality effects; Abels 2003)

and head movement is strictly local (i.e., HMC). Additionally, long head movement seems to involve clitics, which are ambiguous between heads and phrases. Exploring further the relation between head and phrasal movement, of course, lies outside the scope of the current paper, but at any rate, if this line of thought is on the right track, the motivation of the phrasal-to-head-movement change (22) can be viewed simply as follows, in terms of economy considerations. First, movement wants to be as short as possible. Second, head movement is preferred over phrasal movement because it carries fewer materials (Chomsky 1995). These suggestions are certainly inconclusive, and further investigation is needed. Importantly, if the phrasal-to-head-movement change is indeed well-motivated, one would expect to find more cases of this kind, and I leave this topic to future research.<sup>8</sup>

What can be concluded safely, however, is that the units of syntactic reanalysis can be an operation or an entire structure, not just a single linguistic element. Notice that even in canonical cases of Spec-to-head reanalysis, a specifier is dispreferred not because it is phrasal, but because it occurs in the *context* where it is viewed as a specifier. Typical Spec-to-head reanalysis in fact happens at the level of the entire structure as well. It can then be generalized that, reanalysis, as a mechanism, in general does not involve a single syntactic element, but the entire derivation. The reanalysis may nevertheless result in the change of a single element, but this is not a necessity; crucially, the entire structure always plays a role; an element may get changed only under particular contexts. This idea is by no means new (especially in a functionalist or a constructionist perspective), but is often ignored to some extent under a generative framework (though the idea is definitely compatible with it); I thus believe that it is worthwhile to emphasize it here.

#### 4 Loose ends

I have argued in this paper that though Shizhu and Zunyi, two closely related South-western Mandarin varieties, both have N(P)-fronting strategies for definiteness, the

<sup>8</sup>One potential candidate of this type of change is reported in Bošković 2001. The Q/focus marker *li* in Serbo-Croatian is a second-position clitic. As shown in (ia), its host can be a phonological word *novu* ‘new.’ However, (ib) suggests that *li* cannot follow an unambiguous phrasal material:

- (i) a. novu li kuću prodaje? [Serbo-Croatian]  
       new LI house sells  
       ‘is he selling the new house?’  
       b. \*novu kuću li prodaje?  
       new house LI sells

By contrast, *li* in Bulgarian can support a phrasal element freely:

- (ii) novata kūšta li prodade? [Bulgarian]  
       new-the house LI sold  
       ‘did he sell the new house’

Bošković (2001) argues that *li* is a defective C head in Serbo-Croatian, in that it cannot support a specifier; *novu* in (ia) undergoes head movement and is left-adjoined to *li*. In contrast, (ii) in Bulgarian involves phrasal movement into SpecCP (*li* being in C<sup>0</sup>). Bošković (2001) further shows that there is diachronic evidence that Bulgarian *li* reflects an earlier stage of Serbo-Croatian *li*. This means that *li* in Serbo-Croatian may involve a change from head movement to phrasal movement. See also Bošković 2021 for discussion.

underlying structures of the two are quite different. On the one hand, Shizhu NP-(Num-)CLs involve NP-raising; on the other hand, Zunyi N-CLs are a result of the head movement of N.

It was then proposed that Shizhu NP-raising and N's head movement in Zunyi are syntactic cognates, and that the Zunyi case is innovative in that it can be viewed as historically derived from NP-raising. Thus, besides (i) traditional Spec-to-head reanalysis and (ii) the loss of (phrasal) movement, this study has provided empirically another way of losing a specifier (which may be viewed as a general tendency) in the historical change of languages: phrasal movement gets reanalyzed as head movement. The study thus implies that syntactic reanalysis can apply to entire structures/operations, not just a single syntactic element. Furthermore, it was suggested that traditional Spec-to-head reanalysis and the loss of movement (or syntactic change in general) may also be understood in this 'top-down' view.

Before ending this short paper, I would like to introduce, quite briefly, a possible way proposed in the recent literature of understanding syntactic analysis, and make some tentative comments on how the current research may shed some additional light on that approach. Under the framework of Chomsky 2013, Dadan (2019) argues that head-complement relations are favored over Spec-head relations, the latter requiring an additional step for labeling (that is, while {H, YP} can be labeled directly (as H), labeling {XP, YP} causes more efforts). As a result, {XP, YP} structures may be reanalyzed as {H, YP} structures diachronically. See also van Gelderen 2022, where it is argued that Spec-to-head reanalysis involves structural economy: it happens because of labeling determinacy (for van Gelderen (2022), movement gets lost due to the Late Merge Principle, i.e., merge as late as possible, due to workspace determinacy; the approach is thus slightly different from Dadan's (2019) account).

However, for Dadan (2019), both head movement and phrasal movement are in fact dispreferred, since {X, Y} is just like {XP, YP} in that it requires an extra step for labeling (Dadan (2019) discusses Spec-to-head reanalysis and the loss of movement in general). Thus, it is not immediately clear if the labeling-based account can derive the phrasal-to-head-movement change proposed in this paper. At any rate, one generalization that needs to be explained is that all three types of change addressed in the paper, namely Spec-to-head reanalysis, the loss of movement, and from phrasal movement to head movement, involve the loss of specifiers. In this respect, nothing is really special regarding the third case. I will simply conclude that specifiers are dispreferred in general, and thus diachronically, they tend to undergo reanalysis. In other words, phrase-phrase relations, which involve the presence of specifiers, are dispreferred compared to head-head relations. While this is not easily accounted for in terms of labeling, this paper certainly does not imply that the labeling-based approach is incorrect. Perhaps, the phrasal-to-head-movement change is just independent of labeling considerations; I leave a proper explanation of the preference for future research.

## References

- Abels, K. 2003. *Successive cyclicity, anti-locality, and adposition stranding*. Storrs, CT: University of Connecticut dissertation.
- Aldridge, E. 2010. Clause-internal wh-movement in Archaic Chinese. *Journal of East Asian Linguistics* 19. 1–36.
- Bošković, Ž. 2001. *On the nature of the syntax-phonology interface: Cliticization and related phenomena*. Amsterdam: Elsevier Science.
- Bošković, Ž. 2008. What will you have, DP or NP? In *37th Proceedings of the North East Linguistic Society*, ed. by E. Elfner & M. Walkow, 101–114. BookSurge.
- Bošković, Ž. 2012. On NPs and clauses. In *Discourse and grammar: From sentence types to lexical categories*, ed. by G. Grewendorf & T. E. Zimmermann, 179–242. Boston/Berlin: De Gruyter Mouton.
- Bošković, Ž. 2021. Generalized asymmetry. In *Keynotes from the International Conference on Explanation and Prediction in Linguistics: Formalist and Functionalist Approaches*, ed. by P. Kosta & K. Schlund, 15–77. Frankfurt am Main: Peter Lang.
- Chao, Y.-R. 1968. *A grammar of spoken Chinese*. Berkeley/Los Angeles: University of California Press.
- Chén, Q. 2022. Bǐjiào shìyě xià de Shízhù fāngyán dìngzhǐ ‘míngshùliàng’ duǎnyǔ [The definite N-(NUM)-CL phrase in Shizhu dialect from a comparative perspective]. *Dāngdài Yǔyánxué [Contemporary Linguistics]* 24.2. 231–251.
- Chén, Q., & Y. Shèng. 2023. Chóngqìng Shízhù fāngyán biǎo dìngzhǐ ‘míngshùliàng’ jiégòu [The Noun-Num-Cl phrase as a definite construction: A case study of Shizhu Mandarin]. *Fāngyán [Dialect]* 4. 416–425.
- Cheng, L. L.-S., & R. Sybesma. 1999. Bare and not-so-bare nouns and the structure of NP. *Linguistic Inquiry* 30. 509–542.
- Cheng, L. L.-S., & R. Sybesma. 2005. Classifiers in four varieties of Chinese. In *The Oxford handbook of comparative syntax*, ed. by G. Cinque & R. S. Kayne, 259–292. Oxford: Oxford University Press.
- Cheng, L. L.-S., & R. Sybesma. 2012. Classifiers and DP. *Linguistic Inquiry* 43. 634–650.
- Chomsky, N. 1993. A minimalist program for linguistic theory. In *The view from Building 20*, ed. by K. Hale & S. J. Keyser, 1–52. Cambridge, MA: MIT Press.
- Chomsky, N. 1995. *The minimalist program*. Cambridge, MA: MIT Press.
- Chomsky, N. 2013. Problems of projection. *Lingua* 130. 33–49.
- Dadan, M. 2019. *Head labeling preference and language change*. Storrs, CT: University of Connecticut dissertation.
- Danckaert, L. 2012. *Latin embedded clauses: The left periphery*. Amsterdam: John Benjamins.
- Giusti, G. 2001. The birth of a functional category: From Latin ILLE to the Romance article and personal pronoun. In *Current studies in Italian syntax: Essays offered to Lorenzo Renzi*, ed. by C. Guglielmo & S. Giampaolo, 157–171. Leiden: Brill.
- Hú, G. 1989. Zūnyì fāngyán zhōng de ‘míng+liàng’ [The noun-classifier phrase in Zunyi]. *Zhongguo Yuwen [Studies of the Chinese Language]* 209.2. 124–125.
- Hú, G. 2010. *Zūnyì Fāngyán Yǔfǎ Yánjiū [Studies of Zunyi Grammar]*. Chengdu: Bashu Shushe.
- Huang, C.-T. J. 2015. On syntactic analyticity and parametric theory. In *Chinese syntax in a cross-linguistic perspective*, ed. by Y.-H. A. Li, A. Simpson, & W.-T. D. Tsai, 1–48. Oxford: Oxford University Press.
- Lebeaux, D. 1988. *Language acquisition and the form of the grammar*. University of Massachusetts, Amherst dissertation.
- Li, X. 2013. *Numeral classifiers in Chinese: The syntax-semantics interface*. Berlin/Boston: Walter de Gruyter.
- Li, X., & W. Bisang. 2012. Classifiers in Sinitic languages: From individuation to definiteness-marking. *Lingua* 122. 335–355.
- Li, Y.-H. A. 1999. Plurality in a classifier language. *Journal of East Asian Linguistics* 8. 75–99.
- Partee, B. 2006. A note on Mandarin possessives, demonstratives, and definiteness. In *Drawing the boundaries of meaning: Neo-Gricean studies in pragmatics and semantics in honor of Laurence R. Horn*, ed. by B. J. Birner & G. Ward, 263–280. Amsterdam: John Benjamins.

- Pesetsky, D., & E. Torrego. 2001. T-to-C movement: Causes and consequences. In *Ken Hale: A life in language*, ed. by M. Kenstowicz, 355–426. Cambridge, MA: MIT Press.
- Preminger, O. 2019. What the PCC tells us about ‘abstract’ agreement, head movement, and locality. *Glossa: a journal of general linguistics* 4(1). 1–42.
- Simpson, A., & S. Syed. 2016. Blocking effects of higher numerals in Bangla: A phase-based analysis. *Linguistic Inquiry* 47. 754–763.
- Spevak, O. 2010. *Constituent order in classical Latin prose*. Amsterdam: Benjamins.
- Syed, S., & A. Simpson. 2017. On the DP/NP status of nominal projections in Bangla: Consequences for the theory of phases. *Glossa: a journal of general linguistics* 2(1). 68. 1–24.
- Tang, C.-C. J. 1990. *Chinese phrase structure and the extended X'-theory*. Ithaca, NY: Cornell University dissertation.
- van Gelderen, E. 2004. *Grammaticalization as economy*. John Benjamins.
- van Gelderen, E. 2022. *Third factors in syntactic variation and change*. Cambridge University Press.
- Watanabe, A. 2002. Loss of overt wh-movement in Old Japanese. In *Syntactic effects of morphological change*, ed. by D. Lightfoot, 179–195. Oxford University Press.
- Willis, D. 2007. Specifier-to-head reanalyses in the complementizer domain: Evidence from Welsh. *Transactions of the Philological Society* 105. 432–80.
- Wu, Y., & A. Bodo. 2009. Classifiers≠determiners. *Linguistic Inquiry* 40. 487–503.
- Xiè, Y., 2012. Wùchuān huà liàngcí yánjiū [A study of classifiers in Wuchuan]. MA thesis, Peking University.
- Yè, J. 2021. Guìzhōu Zūnyì fāngyán biǎo dīngzhǐ de ‘míngliàng’ hé ‘liángmíng’ jiégòu [Definite N-CL and CL-N constructions in Zunyi dialect, Guizhou Province]. *Fāngyán [Dialect]* 4. 437–443.
- Zhū, D. 1982. *Yǔfǎ jiǎngyì [On grammar]*. Beijing: Shangwu.