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# Towards a new typology of comparative constructions in East Asian languages

https://doi.org/10.1515/lingty-2023-0028 Received April 1, 2023; accepted November 26, 2023; published online January 22, 2024

**Abstract:** This paper presents a typology that sheds light on the diversity and complexity of comparative constructions across languages. Specifically, this study focuses on topic-prominent comparatives, a newly discovered type of comparative construction commonly found in East Asian languages, providing a comprehensive analysis of their features and subtypes. Drawing from a wide range of East Asian languages, this study delineates three subtypes of topic-prominent comparatives: double-comparatum comparatives ('Hair she is longer than me'), comparee-standard mismatched comparatives ('Her hair is longer than me'), and standard-topic comparatives ('My hair, her hair is longer'). Additionally, this study introduces a pair of new parameters: concrete measurement and abstract measurement of comparative degrees. Concrete measurement involves the use of precise numerical values or quantifiable units to make comparisons, such as *three years* in *I am three years older than you*. Conversely, abstract measurement involves the use of non-specific, relative terms to establish comparisons, such as *much* in *I am much older than you*. These parameters are positioned differently in some East Asian languages.

**Keywords:** topic-prominent comparatives; double-comparatum comparatives; comparee-standard mismatched comparatives; standard-topic comparatives; concrete/abstract measurement

## 1 Introduction

In this paper, I, as many scholars have done, confine the term 'comparative constructions' to comparisons of inequality, where at least two objects<sup>1</sup> are compared

<sup>1</sup> The compared "objects" dealt with in this paper are restricted to NPs, without considering VPs or clauses.

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with respect to a certain property. For example, in (1), the height of *John* versus *Peter* is compared:

#### (1) John is taller than Peter.

Cross-linguistically, comparative constructions typically involve four elements: the comparee (COMPEE), the standard (ST), the marker of standard (M), and the parameter (P) that encodes the compared property. In (1), COMPEE = John, ST = Peter, M = than, and P = tall.

There are two remarkable aspects in a prototypical comparative construction like (1). Firstly, a comparative construction typically involves Two distinct compared objects: a COMPEE and a ST. This is clearly demonstrated by Stassen's (1985: 24) definition of comparative constructions:

[A comparative] construction has the semantic function of assigning a graded (i.e. non-identical) position on a predicative scale to two (possibly complex) objects.

#### Stassen further elaborates:

Thus, a case of comparison of inequality minimally involves three things: a gradable predicative scale, ... and two concepts, one of which represents the standard against which the other is measured and found to be unequal.

#### In Dixon (2012: 343), similar expressions are also found:

The prototypical comparative scheme in a grammar involves comparing two participants in terms of the degree of some gradable property relating to them ...

In East Asian languages, however, a third compared object commonly occurs. See (2) from Modern Standard Chinese (MSM):

大象鼻子比其他动物长。 dàxiàng bízi bǐ qítā dòngwu cháng. elephant nose м other animal long NP<sub>1</sub> NP<sub>2</sub> [ NP<sub>3</sub> ] 'The elephant's nose is longer than other animals'.'

There are three NPs in (2), $^4$  and two of them, 大象 dàxiàng 'elephant' and 鼻子 bizi 'nose' are comparee-like. This phenomenon has not received attention within the

<sup>2</sup> The P is usually realized as adjectives and sometimes as verbs (Dixon 2012).

**<sup>3</sup>** Some comparative constructions include the "degree marker" (Heine 1997) or "index" (Dixon 2012), which corresponds to the *-er* in *taller* in (1) (and other instances of *more* as in e.g., *more expensive*). This kind of marker falls outside the scope of this paper.

<sup>4</sup> Note that dàxiàng and bízi do not form a single possessive NP due to the absence of the possessive marker 的 de. Admittedly, de can be omitted in certain possessive constructions, such as 我爸爸 wŏ

existing typological literature. In this paper, the NPs analogous to dàxiàng and bízi are referred to as "comparatum" (COMPM) and "attribute comparatum" (ATTR-COMPM), respectively.<sup>5</sup> And the comparatives like (2) are termed as "double-comparatum" comparatives" (double-compm comparatives). See the definition of compm and ATTR-COMPM in Section 3.1 and the discussion on double-compm comparatives in Sections 3.2-3.4.

The second aspect that is noticeable in a typical comparative construction pertains to the relationship between the compee and the ST. The COMPEE and the ST form a subject-predicate structure with P, as exemplified in John/Peter is tall when considering (1). Accordingly, we can claim that the compee and the ST are aligned in the sense that both bear a direct semantic or argument relationship with the P. It is worth noting that many languages do not permit the "compee-st mismatched" comparatives. For instance, the sentence John's hands are bigger than Peter is not permitted in English when the intended meaning is 'John's hands are bigger than Peter's hands.'. While COMPEE-P is acceptable, as in John's hands are big, ST-P is deemed invalid in this context, as in \*Peter is big. This generalization, however, does not hold when examining East Asian languages, as they exhibit different patterns and allow for more flexibility. Consider (3) from MSM:

```
她的头发比我长。
(3)
      tā de tóufa bǐ wǒ cháng.
      3 poss hair m 1
                         long
          COMPEE ] M ST P
      'Her hair is longer than mine.' (lit. 'Her hair is longer than me.')
```

In (3), while COMPEE-P is acceptable (她的头发长 tā de tóufa cháng 'her hair is long'), the ST fails to establish the same subject-predicate relation with the P (\*我长 wǒ cháng 'I am long'). Thus, a mismatch occurs between the compee and the st, as only the former maintains a direct semantic relation with the P. The semantic mismatch between compee and st is manifested syntactically: while one of them functions as a possessive NP, the other functions as a non-possessive NP, as evidenced by (3).6

bàba 1 father 'my father'. However, in (2), dàxiàng bízi is not an NP that omits de. This is evidenced by two points, as claimed by Liu (2012): first, a pause and a topic marker (such as 啊a) can be inserted after dàxiàng, as in 大象啊, 鼻子 ... dàxiàng a, bízi ... 'as for elephants, the nose ...'; second, bízi can be swapped with dàxiàng, as in 鼻子 (啊,) 大象 ... bízi (a,) dàxiàng ... 'As for nose, elephants ...'. These indicate that dàxiàng and bízi do not constitute a NP.

<sup>5</sup> The term "comparatum" is employed as a synonym for "comparee" in certain literature. However, as these terms never appear together within the same literature, as noted by a reviewer, this paper adopts this synonymous pair and establishes a technical differentiation between them.

<sup>6</sup> It can also be the case where completes a non-possessive NP and ST is a possessive NP. See Section 4.

Section 4 will focus on examining comparatives like (3), which are referred to as "COMPEE-ST mismatched comparatives".

Based on comprehensive observations of both double-compm comparatives and competerst mismatched comparatives, which do not fit into any established typological framework (see Section 2), as well as the exploration of "st-topic comparatives" discussed in Section 5 (in which st is the topic in the construction "st, compete p"), this paper presents a novel typology of comparative constructions termed "topic-prominent comparatives." Furthermore, in Section 6, I present a new pair of parameters in comparative constructions, known as the "concrete measurement" and the "abstract measurement" of comparative degrees. Our findings indicate that these two types of measurement exhibit divergent patterns in their respective locations in some East Asian languages.

# 2 Previous typological framework for comparative constructions

This section introduces previous typological frameworks for comparative constructions, showing that they do not encompass the topic-prominent comparatives proposed in this paper. I therefore believe that this study can contribute to theoretical frameworks, cross-linguistic comparisons and language description in the realm of comparative constructions.

In his influential study, Stassen classifies comparative constructions into two main types: derived-case comparatives and fixed-case comparatives. Derived-case comparatives involve the marking of the ST being determined or derived from the marking of the COMPEE. In contrast, fixed-case comparatives mark the ST with a specific case form, irrespective of the marking of the COMPEE. Furthermore, Stassen establishes several subtypes of derived-case and fixed-case comparatives, based mainly on the particular type of case form employed (see Table 1).

	Subtype	Туре	Main performance
Type 1	Separative	Fixed-case	st encoded by an element indicating source ('from')
Type 2	Allative	Fixed-case	st encoded by an element indicating goal ('to', 'for')
Type 3	Locative	Fixed-case	st encoded by an element indicating contact ('on')
Type 4	Exceed	Fixed-case	st encoded by a verb meaning 'to exceed/surpass'

Table 1: The primary classification of comparative constructions in Stassen (1985).<sup>a</sup>

Derived-case

Conjoined

Type 5

Two clauses, one has compee and the other st

<sup>&</sup>lt;sup>a</sup>In addition to the primary (sub)types, Stassen (1985) also addresses some marginal comparative types, such as "mixed cases" and "particle comparatives". These types are classified based on the same criteria, although they present challenges in fitting neatly into the primary categories.

Stassen's typological classification of comparative constructions is primarily based on, as he specifically notes, "the encoding of the standard NP in comparatives" (p. 28).

Heine's (1997: 111) framework posits that "comparative markers tend to be derived from other, more concrete entities." However, Heine's focus extends beyond the mere M, or, the encoding of the ST. Instead, he considers the overall event schema manifested in comparative constructions. He classifies comparative constructions into eight schema categories, as depicted in Table 2.

Table 2: Comparative construction schemas in Heine (1997: 112).

Source schema <sup>a</sup>	Label of schema
X is Y surpasses Z	Action
X is Y at Z	Location
X is Y from Z	Source
X is Y to Z	Goal
X is Y, Z is not Y	Polarity
X is Y, then Z	Sequence
X is Y (like) Z	Similarity
X and Z, X is Y	Topic

 $<sup>^{</sup>a}X = COMPEE, Y = P, Z = ST.$ 

Note that the "topic schema" in Heine's framework bears resemblance to the STtopic comparatives discussed in this paper. If st-topic comparatives are incorporated into the topic schema using Heine's symbolic system, they can be expressed as "Z. X is Y.". This has previously been explored by scholars such as Chappell (2015). However, the other two types of comparatives examined in this paper, double-compm comparatives and compee-st mismatched comparatives, cannot be subsumed into existing schemas.

Dixon (2012) classifies comparative constructions based primarily on the grammatical function of the P, as shown in Table 3.

**Table 3:** Types of comparative constructions in Dixon (2012).

Туре	Main performance	
Type A	P as copula complement or as verbless clause complement	
Type B	P as adjective or as intransitive verb	
Type C	P as post-predicate constituent	
Type D	P as head of both A and O NPs in a transitive clause	
Type E	P as head of the predicate	

This paper presents a novel approach to classifying comparative constructions. The classification primarily concerns around the relationships between the COMPEE, COMPM, ATTR-COMPM, ST, and the P, along with specific characteristics of those elements. See Table 4.

**Table 4:** Types of topic prominent comparatives.

Туре	Main performance
Double-comparatum comparatives	COMPEE is divided into COMPM and ATTR-COMPM. COMPM is compared to ST, while ATTR-COMPM directly relates to P in terms of semantics or argument structure. COMPM and ST, on the other hand, do not share such a relationship with P.
Comparee-standard mismatched comparatives	Either COMPEE or ST functions as a possessive NP, while the other serves as a non-possessive NP; only the possessive NP has a direct semantic or argument relationship with ${\tt P}$ .
Standard-topic comparatives	st appears at the topic/initial position of the clause.

It is worth noting that the frameworks mentioned, including the one adopted in this paper, exhibit overlapping characteristics rather than being mutually exclusive. That is, a given comparative clause can be simultaneously categorized as, for instance, Stassen's Type 1, Heine's source schema, Dixon's Type B, and the double-comparatives proposed within this study.

## 3 Double-comparatives

#### 3.1 Definition

A double-comparatum (double-compm) comparative construction involves two competike NPs, namely the comparatum (compm) and the attribute comparatum (attr-compm). The compm refers to the NP that is compared to the St. In contrast, the attr-compm is the NP that possesses a specific attribute, often described by an adjective or more specifically, by P in the comparative construction. In many languages, the two concepts are expressed by the same NP, the compet. For example, in the English sentence *The price of this book is higher than that of another*, the compm is *the price of this book*, which is compared to the St *that of another*. Meanwhile, *The price of this book* is also the ATTR-COMPM since it is being described by the adjective *high*. In this case, the compet can be treated as the combination of the compm and the ATTR-COMPM. In MSM, however,

the two concepts are distinguishable, <sup>7</sup> as illustrated by (2) above. In essence, by considering the degree of relatedness, the COMPM, ATTR-COMPM, ST, and P can be grouped into two pairs: compm-st and [ATTR-COMPM]-P.

It should be emphasized that the conceptual distinction between COMPM and ATTR-COMPM is not an original contribution of this paper. When discussing "比"字差比句 'bǐcomparatives' in MSM, 8 Liu (2012) identifies two types of compete-like NPs, which he labels as 比较主体 bǐjiào zhǔtǐ 'compared subject' and 属性主体 shǔxǐng zhǔtǐ 'attribute subject'. These two types of zhǔtǐ can co-occur in what he terms as 双主体 差比句 shuāng zhǔtǐ chābǐjù 'double-subject comparatives.' However, the use of "subject" to translate both 主体 zhǔtǐ 'main body' and 主语 zhǔyǔ '(grammatical) subject' can lead to ambiguity in English. While zhǔtǐ 'main body' refers to the central or principal entity, it may not necessarily correspond to the grammatical subject of a sentence. In order to avoid this confusion, this study adopts the terms "comparatum" and "attribute comparatum" to represent Liu's 'compared subject' and 'attribute subject', respectively. Consequently, Liu's 'double-subject comparatives' are denoted as "double-comparatum comparatives" in this research.

In double-compm comparatives, the position of compm and Attr-compm can vary. As shown in (2), the compm can appear before the ATTR-COMPM. Alternatively, the ATTR-COMPM may precede the COMPM (4a) or immediately precede the P (4b). Example (4c) is an atypical case in which the compa and st have a mismatch: The former is a nonpossessive NP, while the latter is a possessive NP. These "COMPM-ST mismatched comparatives" are considered not only a subtype of double-comparative constructions, but also a subtype of the "compee-st mismatched comparatives", which will be discussed in Section 4.

**(4)** a. 价格这家店比那家店贵。

```
zhè jiā diàn bǐ nà jiā diàn guì.
jiàgé
           this CL store M that CL store expensive
price
ATTR-COMPM [
               COMPM
                       ] M [
                                  ST
                                        1
(lit. 'As for price, this store is higher than that store.')
```

这家店比那家店价格贵。

```
zhè jiā diàn
                  bĭ nà
                            jiā diàn
                                        jiàgé
                                                    guì.
this CL
          store
                      that
                            CL
                                 store
                                        price
                                                    expensive
[
     COMPM
               1 м
                             ST
                                      1 ATTR-COMPM P
(lit. 'This store, price is higher than that store')
```

<sup>7</sup> Although they do not necessarily separate, as in 张三比李四高 Zhāngsān bǐ Lǐsì gāo (Zhangsan м Lisi tall) 'Zhangsan is taller than Lisi.'

<sup>8</sup> Bi-comparative construction is the principle comparative constructions of inequality in MSM. Its basic structure is "compee bi-st p" where compee can be further divided into compm and attr-compm.

c. 价格这家店比那家店的贵。

```
Jiàgé
           zhè iiā diàn
                                            diàn
                             bĭ nà
                                       iiā
                                                          guì.
price
           this CL
                      store
                                 that cl
                                            store
                                                          expensive
                                                    POSS
ATTR-COMPM 
               COMPM
                          1
                             M
                                           ST
(lit. 'As for price, this store is higher than that store's.')
'The price in this store is higher than the price in that store.'
```

It should be noted that the constructions like (5) are not double-compm comparatives.

(5) 价格这家店的比那家店的贵。 jiàgé zhè jiā diàn de bǐ nà jiā diàn de guì. price this CL store POSS M that CL store POSS expensive

'This store's price is higher than that store's.'

Example (5) is a typical MSM *bǐ*-comparative construction (with a headless possessive NP). In this sentence, 这家店的 *zhè jiā diàn de* 'this store's' is a headless possessive NP, referring exactly to "(this store's) price". Accordingly, *zhè jiā diàn de* and *jiàgé* are not differentiated as two types of comparatums, and the sentence is thus not a double-comparative construction discussed in this paper.

COMPM and ATTR-COMPM typically exhibit a semantic possessive relationship in which the compm is the possessor and the ATTR-COMPM is the possessee. This can be illustrated via adding the possessive marker (e.g., *de* in MSM) between COMPM and ATTR-COMPM. However, as indicated in footnote 4, it is important to note that they do not form a syntactic possessive relationship nor do COMPM-[ATTR-COMPM] function as a single NP.

## 3.2 The topicality of double-compm comparatives

"Topic" is a pragmatic concept that pertains to the theme or subject matter of a sentence or discourse. Certain languages, referred to as "topic-prominent" languages (Li and Thompson 1976, 1981), have morpho-syntactically marked grammatical categories for sentence topics. For instance, MSM (as well as other Sinitic varieties, especially Wu) is commonly recognized as topic-prominent, where topic is considered a grammatical notion (see, among others, Shi 2000; Xu and Liu 2007); Similarly, Japanese and Korean employ dedicated topic markers that are distinct from subject markers. The definition of the topic as a descriptive category (Haspelmath 2010) varies across languages, with its status as a grammatical notion not being the focus of this paper. Instead, this study employs "topic" as a comparative concept (Haspelmath

**<sup>9</sup>** Most typologists consider these Sinitic varieties to be sufficiently distinct to be called languages, but within China there is a specific tradition using the label 'Chinese dialects'.

2010) which is defined as: A topic of a sentence is what the sentence is ABOUT or "set up to add new information to" (Shi 2000: 386).

From the definition, two notable characteristics of topic emerge that are relevant to the discussion in this paper. Firstly, a sentence can have more than one topic. Secondly, a topic does not necessarily correspond to the (grammatical) subject (Lambrecht 1994). These characteristics can be illustrated through example (6) from MSM.

#### 大象鼻子长。 (6) a.

dàxiàng bízi cháng. elephant nose long

- (i) 'As for elephants, their noses are long.'
- (ii) 'As for elephants, speaking of nose, it is long.'
- 那场火幸亏消防队来得快。 (Li and Thompson 1981: 96) b. nèi chăng huŏ xìngkuī xiāofángduì lái de kuài. that cl fire fortunate fire.brigade come COMP fast 'Speaking of that fire, fortunately the fire brigade came quickly.'

In terms of the number of topics, (6a) has two interpretations. Reading (i) contains one topic, 大象 dàxiàng 'elephant', and the remainder of the sentence constitutes the comment that adds new information to the topic; In reading (ii), there are two topics: dàxiàng 'elephant' serves as the primary topic, and 鼻子 bízi 'nose' the secondary topic (Xu and Liu 2007). As noted above, a sentence can contain more than two topics; however, this aspect is beyond the scope of this paper. Example (6b) shows that a topic does not necessarily align with the grammatical subject of a sentence. In this example, the topic 那场火 nèi chẳng huǒ 'that fire' lacks a clear thematic role in relation to the predicate 来得快 lái de kuài 'come quickly', as their semantic relationship is distant. Rather, a subtle "pragmatic relation" (Lambrecht 1994) exists between the topic 'that fire' and the comment 幸亏消防队来得快 'fortunately the fire brigade came quickly'.

On the one hand, it is noteworthy that an NP can fulfill dual roles as both the topic and the subject. For instance, in the sentence John went to school, the NP John serves as the subject and can also assume the role of the topic when the sentence is about John. On the other hand, as a sentence typically has only one subject, in sentences with two subject-like NPs preceding the predicate, often only one of the NP functions as the subject, while the other assumes the role of a topic. Xu and Liu (2007) present an operational definition that delineates this distinction, positing that within sentences featuring two subject-like NPs, other things being equal, the NP that bears a direct semantic or argument relationship with the predicate tends to be deemed as the subject, whereas the NP lacking such a relationship tends to be analyzed as the topic. Accordingly, nèi chẳng huỗ 'that fire' in (6b) is analyzed as the topic of the sentence, while *xiāofángduì* 'fire brigade' is the subject of the predicate *lái de kuài* 'come quickly'.<sup>10</sup> Considering that there are additional factors influencing topic recognition, such as position (initial or non-initial) and definiteness (definite or indefinite), it is justifiable to argue that, within the scope of this study, in a sentence containing two or more subject-like NPs, the NP(s) lacking a direct semantic or argument relationship with the predicate demonstrate(s) a significant level of topicality.

Liu (2012) provides evidence that in double-compm bǐ-comparatives in MSM, the ATTR-COMPM has a direct semantic or argument relationship with the P, and the COMPM commonly has no such relationship. In (4a), for example, [ATTR-COMPM]-P is acceptable as in 价格贵 jiàgé guì 'the price is expensive', whereas the COMPM, 这家店 zhè jiā diàn 'this store', lacks a direct semantic or argument relationship with guì 'expensive'. The COMPM thus exhibits a considerable degree of topicality. Furthermore, if the COMPM appears in the initial position of the sentence, as in the case of zhè jiā diàn 'this store' in (4b), its topicality is further enhanced.

Notably, Liu (2012) observes that in  $b\check{t}$ -comparatives, the st may not necessarily exhibit a direct semantic or argument relationship with the p, as seen in examples like 其他动物  $qit\bar{a}$   $dongw\grave{u}$  'other animals' and 长  $ch\acute{a}ng$  'long' in (2), as well as  $那家店 n\grave{a}$   $ji\bar{a}$   $di\grave{a}n$  'that store' and 贵  $gu\grave{u}$  'expensive' in (4). This is because the st is used to establish comparisons with the compm. When the compm lacks a direct semantic or argument relationship with the p, the st performs the same. The fact that the st can function independently of a semantic or argument relationship with the p reveals its topicality, despite occurring in a non-typical position for a topic. This is because the st only has a pragmatic relation to the core predicates in such cases.

## 3.3 Double-compm comparatives in Sinitic varieties

The Chinese linguistic community has long held the belief that while there are significant phonological differences between Sinitic varieties, there is only one universal Chinese grammar (Chao 1968). However, recent research has demonstrated that the grammatical differences between Sinitic varieties are greater than previously thought (Chappell et al. 2007; Dryer 2003; Hashimoto 1976; Szeto and Yurayong 2021; Szeto et al. 2018).

<sup>10</sup> The situation in (6a) is more complex. When the sentence is interpreted as "'elephant' topic+['nose'-long']<sub>comment</sub>", 'elephant' assumes the role of both the topic and the subject of the entire sentence, while 'nose' is viewed as a "small" subject within the comment. However, in an alternative interpretation as "'elephant' topic1+'nose' topic2+'long' predicate", 'nose' tends to be analyzed as the subject of the sentence (despite also serving as the secondary topic), and 'elephant' is the (primary) topic.

Comparative constructions, as a part of the Chinese grammatical system, exhibit a rich diversity. Some studies have been conducted on this topic. Dryer (2003) points out that the word order of comparative constructions in MSM blends the characteristics of both SOV and SVO languages. He provides examples of the bi-comparatives. See (7).

(7) Modern Standard Mandarin (Dryer 2003: 49) Zhāngsān bǐ tā pàng. Zhangsan M 3 fat 'Zhangsan is fatter than him/her.'

MSM has SVO as its basic word order, for which Predicate-Standard NP is predicted according to word order universals (Drver 2003), but it adopts the Standard-Predicate order typical of SOV languages. 11

Chappell and Peyraube (2015) note, however, that in addition to bi-comparatives, there is another type of comparative construction known as the "surpass" comparatives in Sinitic varieties, which, with the P-ST order, perfectly matches the word order of VO languages. For example:

(8) Cantonese (Hong Kong): Yue (Chappell and Peyraube 2015: 138) ngóh pa loúhsvú dō gwo néih. 1 fear mice more м 2. 'I'm even more afraid of mice than you.'

The marker of standard gwo in (8) has the meaning of "surpass," thus this type of comparative construction is referred to as the "surpass" comparatives in contrast to the "compare" comparatives represented by bi-comparatives.

The core difference between the "compare" and "surpass" comparatives lies in their word order and the marking pattern of the M (dependent-marking vs. headmarking), and the marker of the standard is not limited to by and gwo and their counterparts in various varieties. See (9).

- The "compare" comparatives: cmpee-[m-st]\_dependent-marking-P (9)(where м=比 bǐ, 赶 gǎn, 跟 gēn, 照 zhào ...)
  - The "surpass" comparatives: cmpee-[p-m]head-marking-st b. (where м=过 guò, 咖 kā, 啊 a, 起 qǐ ...)

Further insights into the usage, distribution, and diachronic origins of the markers of standard in Sinitic varieties are also found in Cao (2008) and Zheng (2012).

The presence of another comparative construction in Sinitic varieties, in which the MS are post-positioned case markers, has received less attention. This type of

<sup>11</sup> Thanks to the reviewer who suggested this expression.

comparative construction, termed as "case-marking" comparatives for convenience, 12 primarily exists in the Gansu-Qinghai linguistic area in northwest China, 13 where long-term and intensive contact has occurred between Mandarin Chinese, Tibetan and Altaic languages. See (10).

- (10) a. Zhoutun (my fieldwork)

  ŋr tṣaɛi xa kɔ tṣr kr.

  1 Zhaxi м tall prog part
  'I am taller than Zhaxi.'
  - b. Tangwang (Xu 2017: 88)

    ma ly sie khue.

    horse donkey M fast

    'The horse runs faster than the donkey.'

The comparative marker xa in (10a) is a widely distributed dative-accusative marker in the Gansu-Qinghai linguistic area (Zhou 2020), which serves as a comparative marker in this context. It is likely derived from the Mandarin Chinese locative particle  $\top$   $\epsilon ia$  'down' (Zhou 2019a, 2019b). The  $\mathtt{M}$   $\epsilon i\epsilon$  in (10b) is an ablative marker meaning 'from'. The use of case markers in the Gansu-Qinghai varieties  $^{14}$  to mark the  $\mathtt{ST}$  is a result of language contact with nearby Amdo Tibetan and Altaic languages. Under the influence of language contact, some Gansu-Qinghai varieties have also developed the rare dual comparative marking of dative-ablative (Zhou 2020).

Previous studies have explored the diversity of comparative constructions in Sinitic varieties, but a universal feature has been overlooked: the prevalence of the double-COMPM comparative construction. This construction is found in multiple groups within Chinese and used in different types of comparative constructions, including the "compare", "surpass", and "case-marking" comparatives.

The use of double-COMPM comparatives is explicitly mentioned in the work of Xia (2020), Sheng (2021), Wang (2022), and Zhou (2022, 2023a).

<sup>12</sup> Based on the source of the case markers, the "case-marking" comparatives in this paper can be grouped into different categories in e.g., Stassen (1985) and Heine (1997).

<sup>13</sup> This linguistic area is situated in the west of Gansu, the east of Qinghai and the bordering areas between the two provinces. It is an area where several Sinitic varieties, Amdo Tibetan and Altaic languages (including Mongolic and Turkic groups) have undergone prolonged and intensive contact. Scholars have referred to this linguistic area using various terms, such as "Qinghai-Gansu Sprachbund" (Zhou 2020).

<sup>14</sup> In this paper, Gansu-Qinghai varieties refer to the Sinitic varieties in the Gansu-Qinghai linguistic area that have changed their basic word order to SOV, and developed a case marking system.

Yiyang: Xiang (Xia 2020: 551; pers. comm.) (11) a. 阿价钱我比尔便官些。  $\eta o^{42}$   $pi^{21}$   $n^{21}$  $a^{45}$  tci $a^{45}$ li $e^{34}$  $pie^{213}ni^{34}$   $cia^{34}$ . DEF price 1 M 2 cheap a.little [ ATTR-COMPM ] COMPM M ST

年龄我大咖尔一些。 b.

> $t\alpha^{21}$   $ka^{45}$   $n^{21}$   $i^{45}$   $cia^{33}$ .  $n_i e^{13} lin^{33} no^{42}$ age 1 2 a.little big M ATTR-COMPM COMPM P M ST 'I am a little older than you.'

'The price of mine is a little cheaper than yours.'

(12)Shaoxing: Wu (Sheng 2021: 377)

钞票渠比我阿哥多。

duo.15 chaopiao au bi wo age 3 м 1 money elder.brother more ATTR-COMPM COMPM M ST 1 p 'His/her has more money than my elder brother.'

(13) a. Shenyang: Mandarin (Wang 2022: 232-3)

价钱这种水果比那种水果便宜。

jiagian zhe zhong shuiguo bi na zhong shuiguo pianyi. price this CL fruit M that cl fruit cheap ATTR-COMPM [ COMPM 1 Μ ſ 'The price of this kind of fruit is cheaper than that kind.'

b. 市内药都照郊区便宜。

shinei vao dou zhao jiaogu pianyi. urban medicine all suburban cheap M COMPM ATTR-COMPM M ST Р 'The medicine is cheaper in the city than in the suburbs.'

Zhoutun: Unclassified (Zhou 2022: 123)

我你啊岁数大着多。

(14)

ηγ nia su<del>i</del>fu ta tsy tuy. 1 2:м аде big COMP much COMPM ST-M ATTR-COMPM P 'I am much older than you.'

<sup>15</sup> The examples only containing Chinese characters are presented in Pinyin transcription without tone diacritics in this paper.

These data suggest that double-COMPM comparatives are not limited to any specific group or type of comparative construction (i.e., "compare," "surpass," and "case-marking" comparatives).

To provide further evidence for the prevalence of double-compm comparatives in Sinitic varieties, this study conducted a corpus analysis of 25 varieties from the Corpus of Chinese Dialect Grammar (CCDG) (Liu and Xia 2023). The CCDG consists of 711 test sentences from 22 grammatical categories, including comparative constructions, for each variety, and covers the ten major variety groups of Chinese as well as several unclassified varieties. The double-compm comparatives test sentence used in this study is (15), where the compm is 你nǐ 'you' and 我wǒ 'I' in the two clauses, respectively, and the ATTR-COMPM is 样式 yàngshì 'style' and 价钱 jiàqián 'price', respectively. The test sentences were recorded by CCDG contributors in the local variety to capture the most natural expressions of each variety.

(15) 衣服样式你比我好看些, 价钱我比你便宜些。

```
vīfu vàngshì
                 пĭ
                        bĭ
                             wŏ hǎokàn
                                                xie.
                                  good-looking a.little
cloth style
                 2
      ATTR-COMPM COMPM
                             ST
jiàgián
           wŏ
                  bĭ
                       пĭ
                            piányi
                                    xie.
                        2
                                    a.little
price
           1
                            cheap
ATTR-COMPM COMPM M
                       ST
```

'The design of your clothes is better than mine, and the price of mine is cheaper than yours.'

The results are presented in Table 5.

If the test sentence (15) is documented in the CCDG as a double-compm comparative construction, it is categorized as "tested" in Table 5. Conversely, if (15) is recorded as a "non-double-compm" (i.e., "single-compee") comparative construction, it is "not tested". Of the 25 varieties examined in Table 5, the double-compm comparative construction was tested in 14, which accounts for 56 % of the sample. These varieties represent the ten major groups within Chinese, with seven of them (Mandarin, Yue, Wu, Gan, Xiang, Jin, and Pinghua) exhibiting evidence of double-compm comparatives.

**<sup>16</sup>** The website of the database is http://www.dialectgrammar.com, last accessed on 3/20/2023. Note that the database is continuously updated, and more data may be added in the future.

<sup>17</sup> Note that in (15), 衣服yifu 'cloth' is the topic of the whole sentence and not the compm of each comparative clause.

	Variety	Double-сомрм comp	М	Туре	Contributor
1	Junxian: Mandarin	Not tested	pi	Compare	Xin (2023)
2	Lishu: Mandarin	Not tested	pi	Compare	F. Cao (2023)
3	Zichuan: Mandarin	Tested	pi	Compare	Sun (2023)
4	Deyang: Mandarin	Not tested	pi	Compare	Yang (2023)
5	Lanzhou: Mandarin	Tested	pi	Compare	Yi (2023)
6	Shenyang: Mandarin	Tested	pi/tṣau	Compare	Wang (2023)
7	Guangzhou: Yue	Tested	kuɔ	Surpass	Zheng (2023)
8	Lishui: Wu	Tested	pi	Compare	Sheng (2023a)
9	Shanghai: Wu	Tested	pi	Compare	Zhu (2023)
10	Linhai: Wu	Tested	pi	Compare	Lu (2023)
11	Rui'an: Wu	Tested	de	Compare	Y. Wu (2023)
12	Shaoxing: Wu	Tested	pi	Compare	Sheng (2023b)
13	Duchang: Gan	Tested	pi	Compare	L. Cao (2023)
14	Ji'an: Gan	Not tested	pi	Compare	Chang (2023)
15	Shanyin: Jin	Tested	pi	Compare	Guo (2023)
16	Linfen: Jin	Not tested	pi	Compare	Yan (2023)
17	Binyang: Pinghua	Tested	ko	Surpass	Qin (2023)
18	Dong'an: Xiang	Tested	bie	Compare	Hu (2023)
19	Shaoyang: Xiang	Not tested	pi	Compare	Jiang (2023)
20	Meixian: Hakka	Not tested	pi kuo	Mixed	Hou (2023)
21	Ningde: Min	Not tested	pi	Compare	L. Chen (2023)
22	Zhangzhou: Min	Not tested	pi	Compare	Lin (2023)
23	Qimen: Hui	Not tested	pi	Compare	Y. Chen (2023)
24	Zhanmi: Unclassified	Not tested	pi	Compare	F. Wu (2023)
25	Zhoutun: Unclassified	Tested	xa	Compare	Zhou (2023b)

**Table 5:** The usage of the double-comparatives in varieties in the CCDG.

The CCDG provides only a snapshot of the grammar of each variety, and the natural expressions recorded in the database may not exhaustively represent all grammatical structures of each variety. Therefore, the absence of double-compm comparative construction in the CCDG for a particular variety does not necessarily imply that it is absent in that variety. For instance, even though the CCDG data do not verify the use of double-comparatives in Qimen, the respondent has reported their occurrence in (16).

Qimen: Hui (Yao Chen, pers. comm.) (16)我手比尔大。  $a^{42}$ sen<sup>42</sup>  $pi^{33} n^{11} tha^{33}$ . hand 1 M 2 big COMPM ATTR-COMPM M 'My hands are bigger than yours.'

Example (16) provides evidence for the existence of double-COMPM comparatives in the Hui group. Further investigation reveals that the other two major groups, i.e., Hakka and Min, also use double-COMPM comparatives, see (17)—(18), respectively.

(17) Ninghua: Hakka (Zhang 2004: 259)

佢今年比旧年老掉好多。

 $k\partial^{44}$   $ki\eta^{44}\eta ie\eta^{24}$   $pik^{31}$   $\partial u42\eta ie\eta^{24}$   $lau^{31}$  thia?  $hau^{31}to^{44}$ . 3 this. year M last.year old comp much ATTR-COMPM COMPM M ST P 'S/he is much older this year than last year'

(18) Hui'an: Min (Chen 2020: 317)

今年比舊年風恰透。

 $ken^1$ - $lin^2$  $pi^{3-2}$  $ku^{5-4}$ - $lin^2$  $huan^1$  $khan^{7-8}$  $thian^5$ this.yearMold.yearwindmorestrongCOMPMMSTATTR-COMPMP

'The wind of this year is stronger than that of last year.'

The current findings present compelling evidence for the extensive distribution of the double-compm comparatives in Sinitic varieties. The construction has been identified in all ten major groups within Chinese, along with several unclassified varieties, and is utilized in a variety of comparative types, namely the "compare," "surpass," and "case-marking" comparatives.

## 3.4 Double-comparatives in East Asian languages

The double-COMPM comparatives are also found in numerous East Asian languages. <sup>18</sup> This includes Tibeto-Burman languages (19–24), Zhuang-Dong languages (25–28), Turkic languages (29), as well as Japanese (30) and Korean (31).

(19) Amdo Tibetan (Shao 2012: 38)

hgormo	cçʰo-a-wtina	ŋа	поŋ-ngш,
money	2-рат-м	1	less-aux
ATTR-COMPM	ST-M	COMPM	P
x <sup>h</sup> iwsa	cçʰo-a-wtina	ŋa	таŋ-пдш.
knowledge	2-рат-м	1	more-aux
ATTR-COMPM	ST-M	COMPM	P

<sup>&#</sup>x27;My money is less than yours; my knowledge is more than yours.'

<sup>18</sup> The term "East Asian languages" as used in this paper refers to the languages spoken in China, Japan, and Korea.

- (20)Yidu: Lhoba (Li 2008: 56)  $e^{31}tia^{55}nu^{55}$   $e^{55}ia^{55}nu^{55}$   $mi^{33}$   $a^{31}tha^{55}pra^{55}$  $na^{55}$ this.vear last.vear more PART Μ grain COMPM ST M ATTR-COMPM Р 'There is more grain this year than last.'
- (21)Luobozhai: Qiangic (Wang and Dong 2022: 43)  $pu^{55}su^{55}(-mu^{55})$   $na^{31}(-mu^{55})$   $aa^{31}-so^{55}ko^{55}$   $a^{31}-pu^{31}$   $ba^{31}(-na^{31})$ . age(-TOP) 2(-TOP) 1-м one-year big(-2:IMPF) ATTR-COMPM COMPM ST-M 'You are one year older than me.'
- (22)Mebzang nDrapa: Qiangic (Yang Huang, pers. comm.)  $\varepsilon^h a^{33} m u^{55} = m \varepsilon^{55} h k i^{33}$ ,  $so^{55} no^{55} = ma^{33} \varepsilon^h v^{33}$  stui<sup>55</sup>  $no^{55}$   $xo^{55}$   $t \varepsilon a^{55} - t s a^{33} - z \varepsilon^{33}$ . matsutake=TOP Yinshan=м Yangshan more have-IMPV-GNO ST-M ATTR-COMPM 'Yinshan has more matsutake than Yangshan.'
- (23)Jino: Yi (Zheng 2012: 61)  $tsh^{44}mi^{44}$   $i^{33}$   $e^{44}mi^{44}$   $e^{42}fu^{42}$  $la^{55}pha^{42}$   $fb^{42}$   $ia^{44}$ this.vear last.year rainfall less COMP more PART COMPM ST ATTR-COMPM P 'This year's rainfall is much lower than last year's.'
- (24)Bangduo Lahu: Yi (Li 2012: 365)  $\chi^{31}$ . i2<sup>53</sup>  $na^{31}$  $k\varepsilon^{35}$  $2^{33}va^{53}$ 3 1 strength more big COMPM ST ATTR-COMPM 'He is stronger than me.' (lit. 'He has more strength than me.')
- (25)Lachi: Gelao (Li 2008: 199)  $ni^{35}ne^{44}$  $ze^{35}$  $a^{35}$ vua<sup>35</sup>  $na^{44}nu^{35}$ . this.year rice good M last.year COMPM ATTR-COMPM P 'This year's rice is better than last year's.'
- (26)Pubiao: Gelao (Li 2008: 200) mie<sup>13</sup>nai<sup>55</sup> pi<sup>55</sup> mie<sup>13</sup>kun<sup>53</sup> ai<sup>53</sup>. *pje*<sup>53</sup> rice this.year last.year good ATTR-COMPM COMPM ST 'This year's rice is better than last year's.'

- (27) Tailue: Zhuang-Tai (Yan 2018: 357)  $7a^{41}ju^{33}$   $man^{41}$   $noi^{11}$   $la^{55}$   $ta:n^{33}$ . age 3 little M 2 ATTR-COMPM COMPM P M ST 'He is younger than you.'
- (28)Xia'ao: Zhuang-Tai (Wei 2012: 187)  $tu^{42}$  $\epsilon ia\eta^{13}$ rei<sup>231</sup> wa:i<sup>42</sup>  $mu^{42}$ . nən<sup>42</sup> nose elephant long M pig CLATTR-COMPM [ COMPM ſ 1 'The elephant's nose is longer than the pig's.'
- (29) Salar: Turkic (Zheng 2012: 62)

  asman gedze-dən buyun jaxfia.

  sky yesterday-m today good

  ATTR-COMPM ST-M COMPM P

  'Today's weather is better than yesterday's.'
- (30) Japanese (from Hiroyuki Suzuki, pers. comm.)

  zou=wa hana=ga hoka=no doobutsu=yori naga-i.

  elephant=top nose=nom other=poss animal=m long-aux

  compm attr-compm [ st-m ] p

  'The nose of an elephant is longer than that of any other animal.'

Note that (30) represents an exceptional case of double-compm comparatives where a mismatch occurs between the COMPM and the ST. In this case, the COMPM is a non-possessive NP, while the ST is a possessive NP. Consequently, similar to example (4c), (30) can also be classified as a COMPM-ST mismatched comparative construction, which falls under the subtype of COMPEE-ST mismatched comparatives discussed in Section 4.

(31) Korean (from Ian Joo, pers. comm.)

kokkiri-ka tal-un tongmwul-pota ko-ka te kil-ta.

elephant=nom different-adj animal-m nose-nom more long-dec

compm [ st-m ] ATTR-COMPM P

'The nose of elephant is longer than that of any other animal.'

## 4 Comparee-standard mismatched comparatives

#### 4.1 Definition

A comparee-standard (COMPEE-ST) mismatched comparative refers to a comparative construction that exhibits a "seemingly logical inconsistency" (Zhu 1982: 214) due to a

mismatch between the COMPEE and the ST. This construction usually involves two NPs, one of which is a possessive NP while the other is a non-possessive NP. The key feature of this construction is the syntactic mismatch that arises when the non-possessive NP semantically refers to a possessive NP. The non-possessive NP lacks a direct semantic or argument relation with the P. An example of this construction is given in (32) from MSM:

(32) a. 大象的鼻子比其他动物长。

```
dàxiàng de bízi bǐ qítā dòngwu cháng. elephant poss nose M other animal long [ COMPEE ] M [ ST ] P
```

'The nose of elephant is longer than that of any other animal.'

(lit. 'The elephant's nose is longer than any other animal.')

b. 他比我的玩具多。

```
t\bar{a} b\check{t} w\check{o} de w\acute{a}n\check{j}\check{u} du\bar{o}. 3 M 1 POSS toy more COMPEE M [ ST ] P 'He has more toys than me.' (lit. 'HE is more than MY TOYS.')
```

In (32a), the possessive NP 大象的鼻子 dàxiàng de bízi 'the elephant's nose' is syntactically mismatched with the non-possessive st 其他动物 qitā dongwu 'other animals.' Similarly, in (32b), the tcompee becomes a non-possessive NP 他 tā 'he', while the tt tth tt

These non-possessive NPs lack a direct semantic or argument relation with P, as evidenced by the unacceptability of constructions like \*其他动物长 q $\dot{t}$  $\dot{t}$ 

Owing to the scarcity of data, this paper refrains from delving into the intricacies of the compm-st mismatched comparatives referenced above, which are a subtype of COMPEE-ST mismatched comparatives where the COMPEE is divided into a COMPM and an ATTR-COMPM.

## 4.2 COMPEE-ST mismatched comparatives in Sinitic varieties

Zhou (2023a) mentions the existence of COMPEE-ST mismatched comparatives in Zhoutun, a Sinitic variety which is greatly influenced by Amdo Tibetan in the Gansu-Qinghai linguistic area:

<sup>19</sup> The sentence itself is grammatically correct, but it is unacceptable in this particular context.

(33) Zhoutun: Unclassified (Zhou 2023a: 4) 你的鞋我啊一号大着哩。

ni tr xɛ ŋa i xɔ ta tṣr li.
2 POSS shoe 1:м one size big PROG PART [ COMPEE ] ST-M P

'Your shoes are one size bigger than mine.'
(lit. 'YOUR SHOES are one size bigger than ме.')

This construction is also found in several other varieties.

- (34)Shenyang: Mandarin (Wang 2022: 233) 你的水平照人家比差远了。 hi ni de shuiping zhao renjia cha yuan le. 2 poss level other.people compare low far M PART COMPEE 1 M ST P 'Your level is far lower than others'.' (lit. your level is far lower than other people.)
- Qilian: Northwest Mandarin (Zhang 2016: 5)
  李四的个子张三哈不到啊。

  Lisi de gezi Zhangsan ha bu dao a.

  Lisi poss height Zhangsan м NEG reach PART
  [ COMPEE ] ST M [ P ]

  'Lisi is not as tall as Zhangsan.'

  (lit. LISI'S HEIGHT is not as tall as ZHANGSAN)
- (36)Liancheng: Hakka (Xiang 1997: 425) 二班个成绩比一班较差。  $pa^{33}$  $a^{35}$ pi<sup>51</sup> tshu<sup>33</sup>.  $n^{11}$ saŋ<sup>55</sup>tsi<sup>35</sup>  $pa^{33}$ kuə<sup>33</sup> two class POSS score one class more bad M 1 ſ ST COMPEE M 'The performance of the second class is even worse than that of the first (lit. the second class's score is even worse than the first class.)

There has been little attention given to COMPEE-ST mismatched comparatives in grammatical descriptions.<sup>20</sup> As a result, explicit descriptions of this construction in

**<sup>20</sup>** Numerous studies have focused on the "asymmetry" phenomenon in comparatives of MSM, with notable discussion by Cui (2014). However, when examining descriptive grammars of Sinitic varieties and other East Asian languages, there is a noticeable scarcity of information on this particular topic.

literature are scarce, with isolated instances found only sporadically. To systematically investigate this issue, the present study turns to the CCDG, which includes a test sentence (37) featuring an inferior comparative construction with a compee-st mismatched interpretation.

```
(37)
       我的头发没你(的)长。
       wǒ de tóufa méi nǐ (de) cháng.
          poss hair neg 2 poss
          compee 1
                       [ st ]
       'My hair is not as long as yours.'
```

Note that whether or not (37) is a competent mismatched construction is determined by the presence of the possessive marker 的 de following 你 nǐ 'you': in cases where de is present, the sentence does not belong to the category of COMPEEst mismatched comparatives. This is due to the syntactic-semantic match between the st 你的 (头发) nǐ de (tóufa) 'your (hair)' and the compee 我的头发 wǒ de tóufa 'my hair'. Conversely, when the sentence lacks the possessive marker de after ni, it is considered a compee-st mismatched comparative construction: the compee wo de toufa 'my hair' is syntactically incongruent with the sт nǐ 'vou'.

Table 6 shows that 12 out of 25 varieties in the CCDG have been confirmed to use COMPEE-ST mismatched comparatives, making up 48 % of the sample. This construction has been observed in seven of the ten major groups, namely Mandarin, Yue, Wu, Jin, Xiang, Hakka and Hui. While there is currently no confirmation of this construction in the remaining three major groups (Gan, Pinghua and Min), it should be noted that the lack of evidence in the CCDG does not necessarily indicate its absence. For instance, although the CCDG data does not confirm the use of compee-st mismatched comparatives in the Duchang variety, the contributor has reported its presence in (38).

```
(38)
          Duchang: Gan (Linlin Cao, pers. comm.)
           渠格书多似我。
                          su<sup>332</sup>
          g \varepsilon^{113}
                                                   \eta 2^{352}.
                   k\mathfrak{2}^0
          3
                          book
                                                   1
                   POSS
                                 many
                  COMPEE
                                                   ST
           'S/he has more books than I do.'
          (lit. 'HIS/HER BOOKS are more than ME.')
```

1 Junxian: Mandarin Not test 2 Lishu: Mandarin Not test 3 Zichuan: Mandarin Not test 4 Deyang: Mandarin Not test 5 Lanzhou: Mandarin Not test 6 Shenyang: Mandarin Tested	ted F. Cao (2023) ted Sun (2023)
3 Zichuan: Mandarin Not test 4 Deyang: Mandarin Not test 5 Lanzhou: Mandarin Not test	ted Sun (2023)
4 Deyang: Mandarin Not test 5 Lanzhou: Mandarin Not test	()
5 Lanzhou: Mandarin Not test	
	ted Yang (2023)
6 Shenyang Mandarin Tested	ted Yi (2023)
5 Sheriyang, Manaanii Testeu	Wang (2023)
7 Guangzhou: Yue Tested	Zheng (2023)
8 Lishui: Wu Tested	Sheng (2023a)
9 Shanghai: Wu Not test	ted Zhu (2023)
10 Linhai: Wu Tested	Lu (2023)
11 Rui'an: Wu Tested	Y. Wu (2023)
12 Shaoxing: Wu Not test	ted Sheng (2023b)
13 Duchang: Gan Not test	ted L. Cao (2023)
14 Ji'an: Gan Not test	ted Chang (2023)
15 Shanyin: Jin Tested	Guo (2023)
16 Linfen: Jin Tested	Yan (2023)
17 Binyang: Pinghua Not test	ted Qin (2023)
18 Dong'an: Xiang Tested	Hu (2023)
19 Shaoyang: Xiang Not test	ted Jiang (2023)
20 Meixian: Hakka Tested	Hou (2023)
21 Ningde: Min Not test	ted L. Chen (2023)
22 Zhangzhou: Min Not test	ted Lin (2023)
23 Qimen: Hui Tested	Y. Chen (2023)
24 Zhanmi: Unclassified Tested	F. Wu (2023)
25 Zhoutun: Unclassified Tested	Zhou (2023b)

**Table 6:** The usage of the COMPEE-ST mismatched comparatives in varieties in the CCDG.

The COMPEE-ST mismatched comparatives have also been observed in two other groups, namely Pinghua (39) and Min (40).

(39) Liangjiang: Pinghua (Xiao 2020: 112) 今日的天色比昨日媁。

 $ki\omega^{31}nie^5$   $ti^{33}$   $thin^{31}fo^5$   $p\omega^{33}$   $tshiu^{31}nie^5$   $w\omega^{35}$ . today Poss weather M yesterday good

'The weather is better today than it was yesterday.'

(lit. today's weather is better than yesterday.)

(40)Jian'ou: Min (Jiang 2015: 65) 你的年龄邀我妹仔差不多。 ni de nianling vao wo meizi cha bu duo. younger.sister different NEG much 2 Poss age COMPEE ] ſ ST 1 [ 1 'You are about the same age as my younger sister.' (lit. 'your age is about the same as my younger sister.)

#### 4.3 COMPEE-ST comparatives in East Asian languages

Although the concept of COMPEE-ST mismatched comparatives is not yet widely recognized, and no systematic discussion of such constructions can be found in the literature, examples of this phenomenon have nevertheless been identified in a number of East Asian languages or linguistic groups, including Tibeto-Burman (41–44), Zhuang-Dong (45–47), Korean (48), and Japanese (49).

- (41)Lhasa Tibetan (Li 2008: 55) khon<sup>55</sup>  $1\varepsilon^{712}ka^{54}$  $mi\epsilon\tilde{\epsilon}^{12}ta^{12}$  $re^{712}$ ki ka 3 other.people comparatively POSS work M good cop COMPEE ST Μ 'His work is better than others'.' (lit. his work is better than other people.)
- (42)Bangduo Lahu: Yi (Li 2012: 362) ci<sup>33</sup>sua<sup>33</sup>pa<sup>53</sup>na<sup>31</sup>  $ja^{53}$  $na^{31}xuu^{33} mu^{53}mi^{31}$  $ve^{33}$  $mu^{53}ie^{31}$ Xishuangbanna place POSS summer M 1:PL ſ ſ COMPEE 1 M ST 1  $k\varepsilon^{35}$  $x2^{33}$  $a^{31}$ . much hot PART

'Summer in Xishuangbanna is hotter than our hometown.' (lit. xishuangbanna's summer is hotter than our hometown.)

Khato: Yi (Zhao 2009: 197) (43) $z\alpha^{31}ni^{33}$   $kw^{33}$   $zi^{31}ni^{33}$ tha<sup>33</sup> уш<sup>31</sup>. today POSS yesterday big M compee 1 ST P 'Today's is bigger than yesterday's.' (lit. today's is bigger than yesterday.)

Note that in (43) the compee is a headless possessive NP.

- (44) Kucong: Yi (Chang 2009: 171)  $tchi^{31}ni^{33}kho^{31}$   $yuu^{33}$   $tsa^{31}$   $a^{31}mi^{31}kho^{31}$   $tha^{31}$   $na^{33}$ .

  this.year Poss rice last.year M good

  [ COMPEE ] ST M P

  'This year's rice is better than last year's.'

  (lit. THIS YEAR'S RICE is better than LAST YEAR.)
- (46) Maonan: Dong-Sui (Li 2008: 124)  $^mb\varepsilon^1ta^6$   $ti^0$   $hu^4$   $pi^3$   $^mb\varepsilon^1kun^5$   $co\eta^2$ .

  last.year poss rice M year.before.last more

  [ COMPEE ] M ST P

  'There is more rice last year than the year before.'

  (lit. LAST YEAR'S RICE is more than THE YEAR BEFORE.)
- (47) Lachi: Gelao (Li 2008: 199)  $vu^{44} \qquad ki^{55} \qquad to^{31} \ sei^{35} \ la\eta^{55} \ la^{44} \ m^{55}.$  bowl 1 big M CL POSS 2 [ATTR-COMPM COMPM]  $_{\text{COMPEE}}$  P M [ ST ] 'My bowl is bigger than yours.' (lit. As for bowl, I am bigger than YOUR BOWL.)

Example (47) is a COMPM-ST mismatched comparative construction, a subtype of COMPEST mismatched comparatives; it is also a subtype of double-COMPM comparatives, since there is COMPM and ATTR-COMPM.

Korean (Lianhua Bai, pers. comm.)

kokkiri-ui ko-ka tal-un tongmwultul-pota kil-ta.

elephant-poss nose-nom different-adj animal:pl-m long-dec

[ COMPEE ] [ ST-M ] P

'The nose of an elephant is longer than that of other animals.'

(lit. The elephant's nose is longer than other animals.)

```
(49)
        Japanese (Akiyama and Akiyama 2002: 177)
        Amerika yori, Nihon-no hō
                                         ga
                                              chiisai desu.
        America м
                        Japan-poss side nom small is
        ST
                  M
                        ſ
                               COMPEE
                                            1 p
        'Japan is smaller than America.'
        (lit. compared with America, Japan's side is small.)
```

Note that in Japanese, a typical comparative construction (COMPEE-ST-M-P) does not seem to allow for a mismatch between competent and St. Hiroyuki Suzuki (pers. comm.) explains that the sentence zou-no hana-ga hoka-no doobutsu-yori naga-i (elephant-Poss nose-Nom other-Poss animal-M long-Aux) (lit. "elephant's nose [is] other animal(s)" than long") can only be interpreted as a comparison between "the length of the elephant's nose" and "the length of other animals". That is, it can only mean 'the length of the elephant's nose is longer than the length of other animals'. The mismatched reading, 'the length of the elephant's nose is longer than the length of other animals' nose', is not allowed. The COMPEE-ST mismatched construction presented in (49) (ST-M, COMPEE-P), is atypical. A reviewer highlighted that (49) cannot be readily analyzed as a case of compee-st mismatched comparative construction, as the role of hō ga is merely to emphasize the comparee. Notably, it is not possible to substitute Amerika-yori in (49) with \*Amerika-no hō-yori ('than America's side'). From a formal standpoint, given that the COMPEE is a non-possessive NP while the ST is a possessive NP, I tentatively classify (49) as an instance of an atypical COMPEE-ST mismatched comparative construction. However, the definitive categorization of (49) within this framework remains an open question.

## 5 Standard-topic comparatives

#### 5.1 Definition

Standard-topic (st-topic) comparatives are structured as "topic-comment," where the st serves as the topic in the sentence-initial position, providing a reference point for the sentence. The comment portion then compares the ST to the COMPEE. For example, in Shaoxing Wu (Yimin Sheng, pers. comm.), one might say:

```
小张 (么,) 还是小王高。
(50)
         \sin^{33} \tan^{33} (me?,) hue^{211} ze^{25} \sin^{33} huo^{53}
                                                          k2^{55}.
         Little.Z
                      TOP
                              still
                                      be
                                             Little.W
                                                          tall
                                             COMPEE
         'Little Wang is taller than Little Zhang.'
```

Here, 'Little Zhang' serves as the ST in the topic position (it can be followed by a topic marker and a pause), with the comment portion stating that 'Little Wang is tall', indicating that 'Little Wang' is taller than 'Little Zhang'.

ST-topic comparatives are cross-linguistically uncommon due to the prevailing placement of COMPEE in the subject position (Dixon 2012): It is the COMPEE that is more inclined to take on a topical role, while the ST is typically positioned after the COMPEE and displays relatively lower topicality. Heine (1997) proposed a "topic schema" within his framework (see Section 2), which follows the structure "COMPEE and ST, COMPEE is P" (referred to as 'X and Z, X is Y'). According to this schema, COMPEE possesses at least an equal level of topicality as ST. However, the ST-topic schema introduced in this paper is "ST, COMPEE P", where ST assumes a significant topical role.

Note that expressions of the following kind, which resemble st-topic comparatives, do not actually qualify as st-topic comparatives.

#### (51) As for the price, this book is more expensive.

In this sentence, 'price' serves as the topic but not the ST, since it cannot be placed in the ST position of a regular comparative construction (\*This book is more expensive than the price). Thus, such structures do not qualify as ST-topic comparatives.

Depending on how the ST is marked, ST-topic comparatives in East Asian languages can be classified into two major types: "topic comparatives" and "'look' comparatives." Topic comparatives typically indicate the ST through the use of a pause and/or a topic marker, or by placing the ST at the beginning of the sentence. Topic comparatives are primarily observed in Wu and Hui Chinese. On the other hand, 'look' comparatives introduce ST with a M that conveys the meaning of 'look' ('look'-M), and are primarily found in Northwest Chinese and neighboring languages.

## 5.2 Topic comparatives

In a topic comparative construction, the st is placed in the topic position and can be followed by a pause and/or a topic marker, as shown in (50). According to Li (2003) and Chappell (2015), this type of comparative construction is a result of conflating two conjoined clauses: "Comparing *compee* with st: it is still the case that *compee* is p.' > 'As for st, *compee* is p.' The st in this construction exhibits strong topicality.

Topic comparatives are mainly found in a small number of Wu and Hui varieties (Chappell 2015; Li 2003). The data in (52) provide several examples with subtle differences.

Fuyang: Wu (Chappell 2015: 42) (52)

> 法国,还是中国大。  $fa^{51}kuo^{51}$ ,  $hua^{23}$   $z\eta^{213}$   $tsio\eta^{53}kuo^{51}$   $du^{313}$ . France still be China big 'still' 'be' COMPEE ST

'Compared with France, China is bigger.'

Tiantai: Wu (Dai 1999: 258)

```
小王是小李长。
                        \epsiloniau^{31}li^{31}
ciau<sup>31</sup>hũɔ<sup>13</sup>
                 ZΊ
                                      dzia\eta^{35}.
Little.W
                 be
                        Little.L
                                      tall
                 'be' COMPEE
                                      р
ST
'Little Li is taller than Little Wang.'
```

c. Wuyi: Wu (Li 2003: 225)

小姑还大姑好。

xiaogu hai dagu hao. vounger. aunt still elder. aunt good 'still' COMPEE

'The elder aunt is better than the younger aunt.'

Jixi: Hui (Li 2003: 225)

渠尔高些。

gao xie. au er tall a.little 3 2 COMPEE P

'You are a little taller than him.'

Based on the occurrence of 'still' and 'be', st-topic comparatives in Wu and Hui Chinese can be categorized into four subtypes: (i) ST (TOP) 'still' 'be' COMPEE P; (ii) ST 'be' COMPEE P; (iii) ST 'still' COMPEE P; and (iv) ST COMPEE P, exemplified in (52a-d) respectively. The synchronic distribution of these four subtypes across varieties provides valuable insights into the developmental trace of topic comparatives in Wu and Hui varieties. While lacking a marker of standard, 21 st-topic comparatives are grammatical comparative constructions due to their fixed nature, conveying the exclusive meaning of "COMPEE is more P than ST" but not the "ST is more P than COMPEE".

<sup>21</sup> L. Li (2003) categorizes the usage of 'be' in comparatives such as (52a-b) as the "comparative connective marker". However, Li does not provide any analysis on the function of 'still' in (52a) and (52c). Regardless of the specific terminologies employed, it is unlikely that 'be' or 'still' can be analyzed as the marker of standard (M), because (50) and (52a) clearly show that 'still', 'be' do not attach to the st.

Wang et al. (2018) report that the use of topic comparatives is also attested in other Wu varieties, including Hangzhou, Wenzhou, Tiantai, Jinhua, Suichang, Xuancheng, Shanghai, Danyang, and Ningbo. Topic comparatives can also be found in some Hui varieties such as Jixi, Shexian, Tunxi, Xiuning, Qimen, and Yixian (Li 2003).

Wang and Dong (2022: 46) assert that Luobozhai Qiang has topic comparatives, as in (53).

```
(53) nai lipa-soko-mu qa thau.

2:poss hand-m-top 1:poss long:evidential

[ st-m ] compee p

'My hands are longer than yours.'

(lit. 'Your hands, mine are longer.')
```

According to their analysis, the strong topicality of the ST is indicated by the mandatory use of the topic marker when it is placed at the beginning of the sentence.

#### 5.3 'Look' comparatives

The 'look' comparative construction utilizes a marker of standard that conveys the meaning of 'look' ('look'-m). The structure of this construction is 'Looking at ST, COMPEE is P' > 'As for ST, COMPEE is P', where the ST exhibits topicality.

'Look' comparatives are commonly found in the northwest region of China. Such structures can be observed in Amdo Tibetan (54).

The comparative meaning of (54) comes from the literal reading 'If looking at Lhasa, Xining is big' > 'As for Lhasa, Xining is big'. Shao (2012) demonstrates the occurrence of 'look' comparatives in classic Tibetan, as exemplified by (55).

```
(55) Amdo Tibetan (Shao 2012: 30)

da ro-las-bltasna ni namtehuŋ,

DEM COTPSE-M-look TOP Weak

[ ST+'look'-M ] P

rma-las-bltasna phogsna tehe-zing-mtehiis-na.

wound-M-look scar big-Aux-Aux-have

ST+'look'-M COMPEE
```

'(I am) weaker than a corpse; the scar is bigger than the wound.' (*Dunhuang Historical Documents of Tubo*, P.T. 1287 P1.566)

Shao (2012) argues that the prevalent use of 'look' comparatives in modern Amdo Tibetan is a remnant of classic Tibetan. The early context in which the 'look'-M is formed highlights the topicality of the ST, which appears at the clause-initial position (and can be marked by a topic marker), setting the scene for the following comment. Zhoutun also exhibits 'look' comparatives, as in (56).

```
(56)
        Zhoutun: Unclassified (Zhou 2023a: 6)
        你们的房子看时,我们的房子大。
                             khã si
                     fãtsi
                                        ny my ty
        ni my ty
                                                             ta.
           PI.
                Poss house look cond 1
                                                 poss house big
                                            PL
                          1 'look'-м
        ſ
                 ST
                                               COMPEE
        'Our house is bigger than yours.' (lit. 'If looking at your house, our house is big').
```

'Look' comparatives are also seen in the Linxia variety (Sinitic; Zhang 2016: 5) and Kyrgyz (Turkic; Zheng 2012) in northwest China.

Sandman and Simon (2016: 112) have pointed out that both Salar and Wutun, which are spoken in the Gansu-Qinghai linguistic area, have 'look'-M comparatives similar to those found in Amdo Tibetan. However, the examples provided by the authors (57) do not show the ST in the topic position. Due to a lack of data, it is currently unknown whether ST can be placed in the topic position in the synchronic or diachronic data of these languages. Based solely on example (57), these constructions cannot be classified as 'look' comparatives termed in this paper.

```
(57)
      a.
          Salar
          bigirox jiguo elige
                                    dzan-an
                                              vaq-sə
                                                         da
                                                              ayər-a
                                                                          ro.
          cloth
                   all
                          that.way life-2poss look-cond too heavy-test
                                              'look'
                   COMPEE
                                 1
                                    ST
          'Are all such clothes weightier (i.e. more important) than your life?'
      b.
          Wutun
                            zhungo kan-la
                                               xaige ga-li.
          je-ge
                  jjhakai
          this-ref country China
                                     look-cond very small-sen.inf
               COMPEE
                          1 st
                                     'look'
```

'This country is much smaller than China.'

Likewise, the comparatives in Korean with pota (po-'look') as the M do not qualify as look' comparatives, as the M does not occupy the topic position (which is taken by the COMPEE). See (58).

```
(58) Korean (Rhee 2022: 3)

John-un Bob-pota (te) ttokttokha-ta.

John-TOP Bob-M more be.smart-DEC

COMPEE ST-'look' P

'John is smarter than Bob.'

(lit. 'John, after seeing Bob, is smarter.')
```

Contrary to Salar and Wutun, there is ample diachronic evidence that the *pota*-comparatives in Korean have consistently had a compete-st-*pota* word order during their grammaticalization process (Rhee 2022). Therefore, it can be determined that *pota*-comparatives do not qualify as 'look' comparatives.<sup>22</sup>

Sections 3 and 4 of this paper introduced double-compm comparatives, compete-st mismatched comparatives, and st-topic comparatives. All of these types can be classified as topic-prominent comparatives due to their display of certain topic-related properties. In double-compm comparatives and compete-st mismatched comparatives, there is no direct semantic or argument relation between compete (compm) and/or st and p, but rather a pragmatic connection. In st-topic comparatives, the st serves as the topic, forming a "topic-comment" type of topic structure. These characteristics contrast with "subject-prominent comparatives", as represented by English comparative constructions, where both compete and st have direct semantic relations with p, compete does not distinguish between compm and attr-compm, and st does not serve as a topic element.

## 6 A pair of novel parameters: concrete measurement and abstract measurement

This section introduces a novel pair of parameters in comparative constructions, namely, concrete measurement and abstract measurement of comparative degrees. Concrete measurement involves the use of precise numerical values or quantifiable units to make comparisons, as exemplified by *three years* in *I am three years older than you.* In contrast, abstract measurement involves the application of non-specific, relative terms to establish comparisons, as illustrated by *much* in *I am much older than you*.

In most languages, both concrete and abstract measurements of comparative degrees are located on the same side of P, as exemplified by the use of 'three years' and 'much' in the previous examples. This may account for the lack of differentiation between these two parameters in prior research. Nonetheless, this study reveals that in certain East Asian languages, these two types of measurements may be positioned on different sides of the P.

**<sup>22</sup>** A reviewer pointed out that, despite the st in (58) not occupying the topic position, its marker and the 'look'-M in what we refer to as 'look' comparatives are both derived from 'look,' suggesting a potential generalization between them. While I find the comparison between these two types of comparatives utilizing the 'look'-M construction intriguing, it is important to note that, for the scope of this paper, (58) cannot be classified as a st-topic comparative. This is due to the fact that the topic position is occupied by COMPEE rather than ST.

Let us first take a look at MSM. While in most cases both concrete measurement (59a) and abstract measurement (59b) are placed to the right of p, the adverb 远vuǎn 'far' or 略*lüè* 'slightly' denoting abstract measurement is located to the left of the P (59c).

```
(59)
    a.
       他比我高一米。
```

bĭ wŏ gāo yī mĭ 3 tall 1 one meter [concrete measurement] COMPEE M ST 'He is one meter taller than me.'

他比我高很多。 h

> tā hĭ wŏ duō. *gāo* hěn 3 1 tall very much ST [abstract measurement] COMPEE M 'He is much taller than me.'

他远/略高于我。

tā vuăn / lüè gāo vú wŏ. 3 far slightly tall M 1 COMPEE [abstract measurement] M ST 'He is far/slightly taller than me.'

The positioning of abstract measurement on the left side of the P in MSM is a rare occurrence, and the expression "yuǎn/lüè-P-M<sub>νú</sub>-sτ" could be considered archaic in style. However, in the varieties examined below, it is consistently observed that abstract measurement and concrete measurement are placed on opposite sides of P.

According to Zhou (2023a), the placement of concrete measurement and abstract measurement in Zhoutun varies depending on the type of comparative constructions being used. In "case-marking" comparatives, concrete measurement appears before P (60a), whereas abstract measurement is positioned after P (60b). On the other hand, in "compare" comparatives, abstract measurement comes after p (61a), while concrete measurement can either appear after (61b) or before P (61c).

#### (60)Zhoutun: Unclassified (Zhou 2023a: 4)

安文栋连珺哈三岁大着哩。 a.

```
ãuỹtũ liãtcỹ xa sã
                              suŧ
                                                    li.
                                          ta
                                               tsr
       L
Α
             M
                 three
                              vear
                                          old prog part
COMPEE ST
                [concrete measurement] P
             M
'Anwendong is three years older than Lianjun.'
```

我你啊岁数大着多。 b.

```
ηγ
      nia
             suɨfu
                      ta
                           tsr
                                  tuy.
1
                      old comp
                                 much
      2:м
             age
                                  abstract measurement
COMPM ST-M ATTR-COMPM P
'I am much older than you.'
```

kχ.

- (61) Zhoutun: Unclassified (Zhou 2023a: 5)
  - a. 我比你大着多。

ηγ pi ni ta tşγ tuγ.

1 м 2 big сомр much

COMPEE M ST P abstract measurement

'I am much bigger (taller) than you.'

b. 我比你大一岁。

ηγ pi ni ta i sui.

1 м 2 old one year

COMPEE M ST P [concrete measurement]

'I am one year older than you.'

c. 老王比老张头一个高着个。

louã pi lotṣã thư i kư ko tṣư

old.W m old.Z head one cl tall prog part

COMPEE M ST [concrete measurement] P

'Old Wang is one head taller than Old Zhang.'

Li (2012) observes that in Bangduo Lahu: Yi, concrete measurement is positioned before P (62a) while abstract measurement appears after P (62b).

(62) Bangduo Lahu: Yi (Li 2012: 363–4)

a.  $j2^{53}$   $\eta a^{31}$   $tha^{31}$   $te^{53}$   $qh2^{31}$   $uu^{31}$   $ta^{31}$ .

3 1 ACC one year old prog

COMPEE ST [concrete measurement] P

'He is one year older than me.'

b.  $a^{31}vi^{35}pa11$   $a^{31}ni^{33}pa^{11}$   $a^{35}vi^{35}$   $a^{35}vi^{35}$  elder.brother younger.brother more fat very

COMPEE ST P abstract measurement

'The elder brother is much fatter than the younger one.'

In Luobozhai: Qiangnic, concrete measurement is placed before P (63a), and abstract measurement "mainly appears before the P (63b), and in some instances, it can be placed after the P" (63c). (Wang and Dong 2022: 46).

(63) Luobozhai: Qiangnic (Wang and Dong 2022: 46)

a.  $na^{31}$   $tha^{31}$ - $so^{55}ko^{55}$   $\epsilon e^{55}$ - $pu^{31}$   $stsau^{31}$ .

2 3-M three-year young: EVIDENTIAL

COMPEE ST-M concrete measurement P

'You are three years younger than him.'

b.  $tha^{31} qa^{31}$ -so<sup>55</sup> $ko^{55} tce^{31}$   $qa^{31}mi^{55} ja^{31}$ .

3 1-м much thoughtful ракт

COMPEE ST-M abstract measurement P

'He is much thoughtful than me.'

 $tha^{31}-so^{55}ko^{55}$   $pe^{31}ca^{55}$   $\chi a^{31}so^{55}$ . tu<sup>31</sup>bza<sup>31</sup> elder.brother 3-м capable much abstract measurement COMPEE ST-M 'The elder brother is much more capable than he is.'

#### 7 Conclusion

This paper proposes a new type of comparative construction, called "topic-prominent comparatives," based on data from East Asian languages. These comparatives are characterized by prominent topicality and can be further classified into three subtypes: double-comparatives, comper-st mismatched comparatives, and sttopic comparatives. The paper also introduces a new pair of parameters for analyzing comparative constructions: concrete measurement and abstract measurement of comparative degrees.

The concept of topic-prominent comparatives, as well as the differentiation between compm and ATTR-COMPM, and concrete measurement and abstract measurement, offer new perspectives for the typological investigation of comparative constructions.

Overall, the proposed framework sheds new light on the study of comparative constructions and opens up new avenues for future research. Some potential research topics in this field include, but are not limited to the following.

Firstly, it is worth investigating which other languages exhibit topic-prominent comparatives. Based on current observations, topic-prominent comparatives seem to be more prevalent in East Asian languages, 23 which may be attributed to their inherent topic-prominent nature. Further, the distribution of topic-prominent comparatives in East Asian languages and their presence in other linguistic regions, can be examined, thus building on the findings presented in this paper.<sup>24</sup>

<sup>23</sup> While I have not conducted a large-scale survey, based on the initial review of the data and communications with linguists, few cases of topic-prominent comparatives are found in other parts of the world.

<sup>24</sup> According to Denis Creissels (pers. comm.), COMPEE-ST mismatched comparatives are seen in Mande languages, as in the following example from Mandika (Mande, Senegal):

<sup>(</sup>i) Kàláa lè lá tíñáaróo wàrátá tàmbôo tí. pen-FOC-POSS-damage-is.big-spear-in.comparison.with 'The damage caused by a pen is bigger than that caused by a spear.' (lit. 'THE DAMAGE OF A PEN is bigger than A SPEAR.')

Secondly, a more detailed investigation of topic-prominent comparatives is needed. Given that the concept of topic-prominent comparatives is relatively new, existing literature on this type of comparative construction remains limited in scope, leaving numerous questions. For example, what are the syntactic and semantic properties of topic-prominent comparatives, as well as their discourse-pragmatic functions and diachronic evolution across different languages? Can different subtypes of topic-prominent comparatives co-occur, as shown in (4c), (30) and (47) by the co-occurrence of double-comparatives and comparatives?

Furthermore, are there any implicational universals in relation to topic-prominent comparatives? As current observations suggest, the existence of subject-prominent comparatives can be inferred from the presence of topic-prominent comparatives. Specifically, if a language has double-comparatives, then it also has single-comparatives. If a language has compee-st mismatched comparatives, then it also has compee-st matched comparatives. However, it remains to be further investigated whether there is an implicational relationship between double-comparatives and compee-st mismatched comparatives.

Finally, what is the reason for the different positions of concrete measurement and abstract measurement? If concrete measurement and abstract measurement in most languages are located on the same side of P, then it needs to be explained why they are located on opposite sides of P in some languages. Language contact may be one important reason. Zhou (2023a) suggests that in Zhoutun, the fronting of concrete measurement before P is due to the influence of Tibetan, while the postposition of abstract measurement after P retains the feature of Mandarin Chinese. Yet further study is needed.

**Acknowledgments:** My thanks go to Danqing Liu, Zhengda Tang, Liping Xia, Yimin Sheng, Yao Chen, Yang Huang, Hiroyuki Suzuki, Lianhua Bai, Ian Joo, Linlin Cao, and Denis Creissels. I would like to extend my appreciation to the anonymous reviewers for their valuable suggestions and insights, and to the editorial team of *Linguistic Typology*, especially Angela Terrill. Heartfelt thanks to Wenxuan Zhang and Tunxin Zhou for their unwavering support and encouragement. Any shortcomings in the paper are solely my responsibility.

**Research funding:** This research is supported by the key project of Chinese National Social Science Fund (19AYY004).

## **Abbreviations**

- 1 1st person
- 2 2nd person
- 3 3rd person

adjective ADI auxiliary AUX classifier CI

complement marker COME

conditional COND copular COP dative DΔT declension DEC definitive DFF evidential EVIDENTIAL focus FOC gnomic GNO imperfective IMPF IMPV imperfect inferential INF interrogative marker of standard

negative NEG nominal NOM PART particle PL plural possessive POSS progressive PROG referential RFF sensory evidence SEN testimonial TEST topic marker TOP

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