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Toward the Copular Status of Chinese Clefts – Evidence from Diachronic Syntax

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Abstract

This paper develops a substantive link between three independent and chronologically separate diachronic patterns in Classical Chinese. In each development, a newly copularized (reanalyzed from lexical sources) morpheme occurs in both a copular clause and a cleft. We argue that this connection can be captured by a theory according to which clefts are a type of the copular construction. Both canonical copular clauses and clefts are thus headed by the same copula verb, hence the tendency for both copular structures to emerge and decline in a coordinated way.

Toward the Copular Status of Chinese Clefts—Evidence from Diachronic Syntax

Dawei Jin and Jun Chen

1 Introduction

This paper develops a substantive link between three independent and chronologically separate diachronic patterns in Classical Chinese. In each development, a newly copularized (reanalyzed from lexical sources) morpheme occurs in both a copular clause and a cleft. We argue that this connection can be captured by a theory according to which clefts are a type of the copular construction. Both canonical copular clauses and clefts are thus headed by the same copula verb, hence the tendency for both copular structures to emerge and decline in a coordinated way.

The assumption of homogeneity, which we will call the copular approach to clefts, contrasts with an alternative approach that treats the copula morpheme in clefts as an operator participating in (exhaustive) focus marking. Unlike the copular approach, we show that the focus-based approach faces difficulties in addressing the above historical pattern of coordinated emergence and decline. The upshot is that diachronic data can be a useful means in evaluating alternative theories of the cleft structure, especially in morphologically impoverished languages such as Chinese, which has presented a challenging case for morpho-syntactic analyses in the synchronic sense.

The rest of this paper is structured as follows: Section 2 presents three copula-to-cleft grammatical processes. Section 3 shows how an analysis that assumes an underlying uniformity between copular clauses and clefts captures the similarity among the three processes.

2 Data

2.1 Some Basics

(1) exemplifies a modern Mandarin Chinese copular clause headed by *shì*. Following Williams (1983), den Dikken (2006) and Mikkelsen (2005), we define a copula as a verb that mediates between a (logical) subject and its complement. The copula has no semantic load, but it syntactically functions to establish a predication relation by which the complement is predicated of the subject. We assume in this paper that the copula's function is not order-sensitive: Thus, in predicational copular clauses like (1a), the pre-copula element is the entity-denoting subject, and the post-copula element is the property-denoting complement. In specificational copular clauses like (1b), the predicative complement precedes the copula, and the subject is post-copula.¹

- (1) a. Zhāngsān shì běijīng rén.
Zhangsan COP Beijing person
'Zhangsan is a Beijinger.'
- b. Dìyī míng shì zhāngsān.
first place COP Zhangsan
'The one that is placed the first (wins the first place) is Zhangsan.'

We define the cleft in terms of a syntactic pattern that introduces a linear separation between the discourse-prominent/focused constituent and the informationally backgrounded constituents. The cleft construction in modern Mandarin Chinese is exemplified in (2). Here the cleft sentence in (2B) provides an exhaustive answer to a prior congruent question in (2A). The linear partition of the cleft is realized in the sense that the focused phrase (henceforth the cleft phrase) immediately adjoins to the copula morpheme and the backgrounded portion (henceforth the cleft clause) must follow the cleft phrase. The copula morpheme is optionally preceded by a topic DP in the Chinese cleft.

¹The following abbreviations are used in the glossing: ACC: accusative; C: complementizer; CLF: classifier; COP: copula; DEM: demonstrative; FUT: future tense; NEG: negative, negation; NMLZ: nominalizer; NOM: nominative; PASS: passive; POSS: possessive; PRF: perfect; PRS: present; PRT: particle; PST: past; REL: relativizer; TOP: topic marker.

- (2) A: Who will come next week?
 B: (Xiàge xīngqī) shì [Zhāngsān]_{focus} [yào lái]_{background}.
 Next week COP Zhangsan will come
 ‘(Speaking of next week), it is Zhangsan who will come.’

In relation to clefts, the copula morpheme additionally participates in the discourse function of asserting broad focus. In (3B), the propositional content corresponding to the entire post-copula clause is being asserted as discourse-new information, while ruling out other alternative propositions featuring in the immediate context of (3A). Following Paul and Whitman (2008), we refer to the copulative structure instantiated in (3B) as the propositional assertion construction.

- (3) A: He did not greet you. You and he have fallen out, right?
 B: Nǎ’er de shì. Wǒ juéde shì [tā méi rènchūlái wǒ].
 where POSS affair. I think COP he NEG recognize me
 ‘Nonsense. I think it’s that he did not recognize me.’

2.2 The Copula-to-Cleft Pathway

The remainder of this section chronicles the development of three distinct copula morphemes in the history of Chinese, based on the chronological order in which relevant examples for each morpheme are first attested. The copula morphemes under investigation are *wéi*, *shì* and *xì*. The grammaticalization of each individual morpheme has already been studied previously. Our empirical novelty is to propose that these three morphemes together form a copula-to-cleft pathway: The emergence of the copular clause use invariably results in the employment of the copula morpheme in a propositional assertion strategy as well as a clefting strategy, and the process of decline is witnessed to target all the three uses alike. To our knowledge, this claim has not been made before.

The grammaticalization processes of the three morphemes will be exemplified in the following examples (4) to (6), respectively. The data in (4) to (6) (as well as their translations) are all taken from previous works. Examples (4a-4c) exemplify the functions of the copula morpheme *wéi* attested in the oracle bones inscriptions of Pre-Classical Chinese (from 14th century BC to 11th century BC). The inscription in (4a) is understood as describing a potential future in which the nobin Bin will be minister (people believe this future will happen if the divination’s crack pattern points that way). *Wéi* is interpreted as a copula modified by a future tense-marking auxiliary, which links a (proper name) subject argument with a predicative nominal complement (here the analysis is adopted from Peyraube and Wiebusch, 1994; Djamouri, 2001). The inscription of (4b) is written to seek divine information about whether the king will take a future hostile action against another tribe. *Wéi* introduces a propositional assertion, with the entire post-*wéi* proposition under negotiation (Takashima, 1990). (4c) instantiates *wéi*’s cleft use, with the immediately post-copula proper name phrase receiving an exhaustive focus.

- (4) a. Yà bīn qí **wéi** chén.
 noble Bin FUT WEI minister
 ‘The noble Bin will be minister.’
 (*Jiǎgǔwén Héjì* ‘Collected Oracle Bones Inscriptions’, 22301, 14th century BC-11th century BC)
- b. **Wéi** [wáng fá - fāng].
 WEI king fight missing.tribe.name tribe
 ‘It is the case that [the king will fight the (illegible tribe name) tribe].’
 (*Jiǎgǔwén Héjì*, 614, 14th century BC-11th century BC)
- c. **Wéi** [Fù Jiǎ] tā wáng.
 WEI Fu Jia place.a.curse.on king
 ‘It was [Fu Jia] who placed a curse on the king.’
 (*Jiǎgǔwén Héjì*, 1659, 14th century BC-11th century BC)

The chronological order of *wéi*'s three uses cannot be determined. Already in the oracle bones records (i.e. the earliest known writing system of Chinese), the three uses are attested with a certain productivity, evidenced by the observation that they occur with a wide range of lexical items and syntactic environments (Wang, 1940). This suggests that all the three uses had already emerged by the period of pre-oracle bones Chinese, for which there are no written records. No quantitative study has been published in the literature on *wéi*'s corpus frequency, therefore we conducted our own survey. Based on the 67 complete full-sentence *wéi*-inscriptions that Liu et al. (2005) extracted from *Jiǎgǔwén Héjì* with translations provided, we found that altogether 65 sentences (or 97%) belong to one of the three uses, registering a ratio of 19 (copular clause): 30 (propositional assertion): 16 (cleft).

The examples in (5a-5c) exemplify the emergence of three uses for the copula morpheme *shì* in Early Medieval Chinese (approx. 1st c. to 10th c. AD). (5a) is analyzed as an early case of the copular clause use (Wang, 1940). (5b) is analyzed as a proposition assertion with a clausal scope focus (Wang, 1940). Clefts are first attested more than four centuries later, in the 9th century AD (Zhan and Traugott, 2015), illustrated in (5c).

- (5) a. Yùzhāng tàishǒu gù shào **shì** yōng zhī zǐ.
Yuzhang commandery Gu Shao **SHI** Yong POSS son
'The grand warden of the Yuzhang Commandery, Gu Shao, is Gu Yong's son.'
(*Shìshuō Xīnyǔ* 'A New Account of the Tales of the World', ch. 6.1, 403-444 AD)
- b. Wángníng yì móu, yún **shì** [qīng wèi qí jì].
wangning conspire, say **SHI** you for him scheme
'Wang Ning is conspiring for a coup. People said [you are masterminding for him].'
(*Shìshuō Xīnyǔ*, ch. 2, section 100, 403-444 AD)
- c. Yíqiè zhòngshēng píngděng, jiē yǒu zhēnrúfǎshēn, fēi **shì** [dù] shǐnǎi yǒu
all lives equal, DIST have dharma, not **SHI** deliverance then have
yě.
PRT
'All lives are equal, and all have dharma. It is not [via deliverance] that we obtain dharma.'
(*Dūnhuáng Biànwén. Wéimójiéjīng Jiǎngjīngwén* 'Dunhuang Transformation Texts. Lectures on the Vimalakirti Sutra', vol.2.717, ca. 900 AD)

Mather (2002) has conducted a quantitative survey of *Shìshuō Xīnyǔ*, a colloquial style document that is among the oldest sources with a significant number of *shì*-copula sentences. Mather finds that 48 (or 73%) out of a total of 66 *shì*-sentences have a structure of [NP/pronoun *shì* NP], thereby potentially instantiating a copular clause use. 9 (or 13%) out of the 66 *shì*-sentences are interpreted as propositional assertions based on context. No unambiguous cleft use is attested by this point. We have conducted another quantitative survey of the 10th century colloquial document *Dūnhuáng Biànwén*, which features some of the earliest attestations of *shì*-clefts. We classify 7 out of 67 (or 10.4%) *shì*-sentences as potentially instantiating a cleft use (a cleft use is identified if a focus-background linear partition is established based on context), in comparison with 11 out of 67 (or 16.4%) propositional assertion uses, indicating that the cleft use has reached a level of productivity comparable to the propositional assertion by that time.

The examples in (6a-6c) illustrate the emergence of three uses for *xì* in Late Medieval Chinese (approx. 1000-1600 AD). Similar to *shì*, the use of *xì* in the copular clause and the propositional assertion emerged in close proximity, demonstrated by (6a) and (6b), respectively (Wang, 1940; Tang, 2009; Jin, 2017; Sun, 2018). Cleft uses are attested productively more than three centuries later, e.g. in (6c).

- (6) a. Yīshàng bā rén, yì yuán **xì** běn zhōu wǔwèi dǐjiǔ zhǐhuì, jiàngyúhóu,
above 8 people, also originally XI local province garrison 9th zhìhuì, jiàngyuhou,
chéngjū.
chengju.
'The above mentioned eight people were previously also the ninth *zhìhuì*, the *jiàngyuhou* and the *chengju* of the local garrison, respectively (*zhìhuì*, *jiàngyuhou* and *chengju* are

military titles within the military rank of the Song Dynasty-era China).’
(*Ōuyáng Wénzhōnggōng Jí* ‘Collections of Ouyang Xiu’, vol.118.2.1.15, ca.1072 AD)

- b. Zǐlái guóshū zhǐ shì sī fēn rén xiūxiě,
since.long diplomatic.letters only corresponding ministry assign person transcribe,
jūyú tǐlì, zì wú rěbǐ. Jīn xī [zhǔshàng qīn
follow protocols, naturally no illegible.writings this.time XI [His.Majesty self
yù hàn mò].
take.hold pen ink]

‘It’s long been the case that diplomatic letters are in the sole charge of corresponding ministries, who assign scribes and follow all the protocols, so that naturally there are no illegible writings. This time, it is the case that [His Majesty took up his pen and ink Himself to write the letter] (that’s why there are illegible writings).’

(*Sāncháo Běiméng Huìbiān* ‘Collection of documents concerning alliances with the north during the three reigns’, vol.15.13, ca.1137 AD)

- c. Shàng yuē gāifǔ fēnzhēng bú wèi fèngsì xiānghuǒ, zhuān wèi tǔdì
His.Majesty said this.house dispute not for worship materials, specially for land
rénxiào ǎr...zhèngyí chá gāopíngwáng hōng hòu dào jīn, xī [hérén] fèngsì
staff PRT...need.to check King.Gaoping die after until now, XI who worship
guǎnlǐ, [yīn hé] zhé qǐ zhēngduān.
manage, because.of what often arise dispute.

‘His Majesty said: The disputes in that royal house were not about the worship itself, but about the land and staff that the worship rights are entitled to...I want you to check that, from the time King Gaoping passed away up until now, who was it that was doing the worship and daily management, and for what reason was it that disputes often arose.’
(*Míngshìzōng Shìlù* ‘Records of the Emperor Shizong of Ming’, vol.253.4, ca.1507 AD)

Based on a study of 15 volumes of conversational documents within the 11th century collection *Ōuyáng Wénzhōnggōng Jí*, Sun (2018) reports that 18 out of 53 attested *xì*-sentences (34%) belong to the copular clause use, while 13 out of 53 (24.5%) are propositional assertions. In a study of transcriptions of oral conversations and correspondences in the early 16th century source *Míngshìzōng Shìlù*, Jin (2017) reports a ratio of propositional assertions versus clefts at 17:11, indicating that the cleft use has risen in productivity by that time.

All the three copula morphemes underwent independent decline processes: By the 6-4th century BC, *wéi* had disappeared from the three uses we have shown in (4) and had changed into a distinct exclusive adverb (Wang, 1940; Pulleyblank, 1995). The other two copula morphemes *shì* and *xì* have also undergone decline processes. It has long been observed that Sinitic languages (descendants of historical Chinese) are divided into the *shì*-type and the *xì*-type: *Shì* is in productive use today in modern Mandarin Chinese and a subset of other Sinitic languages, yet has ceased to be used in other Sinitic languages such as Cantonese and Hakka. In those languages where *shì* has disappeared, *xì* is found to be in productive use (Wang, 1940; Yue-Hashimoto, 1969; Jin, 2017, 2020). This tendency for only one copula to be productively used within an individual language thus points to a competition effect, in which the redundancy of copulas with identical functions triggered the decline of one copula and the retention of the other.

Crucially, the mutually complementary pattern of *shì* vis-à-vis *xì* is observed to apply to all the three environments of copular clauses, propositional assertions and clefts: As previous surveys and our own fieldwork have confirmed, the generalization is that for a given Sinitic variety, if a reflex of the historical Chinese *shì*-copula is used in one of these environments, then it is also used for the other two environments. The same applies to reflexes of the *xì*-copula. We do not find cases where (for instance) a Sinitic language employs a *shì*-copula for copular clauses but employs a *xì*-copula for marking clefts.

To summarize, we have brought attention to three copula morphemes that emerged in distinct periods of historical Chinese. We unveil a common grammaticalization pattern, namely, when a copula morpheme began to be used productively in copular clauses, it also expanded to the focus-marking constructions (propositional assertions and clefts). Moreover, when the focus-marking

copula morpheme underwent change/decline, it also declined from the copular clause construction.

3 In Favor of a Copular Approach to Cleft Constructions

In this section, we show that the copula-to-cleft pathway supports treating Chinese clefts as underlyingly a copular clause. We start in section 3.1 by showing how the cleft structure is derived from a copular structure, and then in section 3.2 we show the alternative characterization of the cleft as a clause with a focus-sensitive modifier. The syntactic analyses we present below are not our own. We draw upon well-established previous proposals to make possible a precise illustration of how the cleft sentence can be implemented under each of the two competing approaches. We then present in section 3.3 our argument that the copula-to-cleft pathway discussed in Section 2 is compatible with the copular approach, while presenting challenges for the focus-based approach.

3.1 Clefts as a Copular Structure

According to an idea dating back to Jespersen (1928), the copula morpheme in the cleft is a copula verb, which projects a special kind of copular clause. As the English example in (7a) illustrates, the copula heads a clause with a logical subject and a pronominal predicative complement that co-refers with a right-dislocated headless relative. The complement with its construing relative provides a variable, and the subject specifies the value of that variable. In this view, clefts are treated as a concealed specificational pseudocleft (see also Akmajian, 1970; Bolinger, 1972; Percus, 1997).² This can be seen clearly by comparing (7a) with the specificational pseudocleft in (7b).

- (7) a. [It]_{complement} is [Zhangsan]_{specificational value} [who will come]_{headless relative}.
 b. [(The one) who will come]_{complement} is [Zhangsan]_{specificational value}.

Many accounts of Chinese clefts have subscribed to the above view that clefts are derived from pseudoclefts (Yue-Hashimoto, 1969; Li and Thompson, 1989). To show how the derivation works, we present in the following a syntactic implementation of the Mandarin Chinese *shì*-cleft in (8).

- (8) Shì Zhāngsān yào lái.
 SHI Zhangsan will come
 'It is Zhangsan that will come.'

Following Percus (1997), we assume that the derivation starts with a specificational pseudocleft structure, in which the pre-copula predicative complement is a free relative that bears an empty head noun selected for by a definite determiner (DEF), illustrated by (9a). Next, the relative together with its covert head is extraposed to the right from the pre-copula position, illustrated by (9b). Extraposition is treated as adjunction to a right-peripheral clause position via A'-movement (cf. Büring and Hartmann, 1997). Finally, Percus assumes that the definite determiner and the left-behind CP trace are spelled out as a pronominal (see also Hedberg, 2000). We may posit that in Chinese a phonetically empty *pro* element is yielded during Spell-Out (Wang, 2011).

- (9) a. Derivation starts with a pseudocleft structure.
 [DEF [\emptyset _{null head} + [yaolai]]] *shi*_{copula} [Zhangsan_{focus}]
 b. Extraposition of the relative
 [DEF t_k] *shi*_{copula} [Zhangsan_{focus}] [\emptyset _{null head} + [yaolai]]_k
 c. Spell-Out of the definite determiner and the CP trace as a null *pro* element in Chinese.³

²We have adopted the standard assumption that in a specificational copular clause, the pre-copula element is a predicative complement, and the post-copula element is an entity-denoting subject. We refer the reader to the discussions above example 1.

³Chinese has no overt definite articles, yet an unpronounced definiteness operator has been postulated in free relatives to account for the definite reading (e.g. Cheng et al., 2017). Moreover, a covert operator licenser is standardly assumed in Chinese relatives. Specifically, it is assumed that (9a)'s relative structure additionally contains an operator that coindexes with the null head and binds a variable across the relative clause boundary, illustrated in (1a). (1a) thus corresponds with the English relative *the one who/that will come* in (1b) (assuming a constraint in English banning the *who*-operator and the *that*-complementizer from co-occurring):

- (1) a. [DEF [\emptyset _{null head} + OP_i + \emptyset _{null complementizer} + [t_i yaolai]]] *shi*_{copula} [Zhangsan_{focus}]

The role of the copula in the pseudocleft structure (underspecified in Percus) is further fleshed out by den Dikken (2013). Based on the framework developed in den Dikken (2006), den Dikken (2013) proposes that the copula projects a small clause establishing a predication relation between the (logical) subject as the copula's specifier and the predicate as its complement. In (8), *shi* heads the small clause, its specifier is occupied by the subject *Zhangsan*, and *shi*'s complement is posited to be resided by a *pro*-predicate, illustrated in (10a) (See Cheng 2008 for an analysis of *shi*-clefts in line with den Dikken, see also Adger and Ramchand 2003 for more evidence that the cleft contains a pronominal predicate). *Shi* subsequently undergoes raising, and the *pro* predicate raises further to the left of the copula, creating an inverse predication structure as in (10b) (cf. Moro, 1997; Mikkelsen, 2005).⁴ The subsumption of the cleft under the pseudocleft structure is derived from the fact that a pseudocleft is similarly underlied by an inverse predication structure.

- (10) a. [SC [SUBJECT *Zhangsan*] *shi* [PRED *pro*]]
 b. [*pro*_i *shi*_k [SC [SUBJECT *Zhangsan*] *t*_k [PRED *t*_i]]]
 c. [ConjP [*pro*_i *shi*_k [SC [SUBJECT *Zhangsan*] *t*_k [PRED *t*_i]]] [Conj' Conj⁰ [∅_{null head} [CP *yao lai*]]]]

Like Percus, den Dikken captures the uniqueness of the cleft compared with its corresponding pseudocleft by postulating that the cleft relative undergoes extraposition. Such extraposition is characterized by den Dikken as a case of conjunction (following Koster, 2000), illustrated in (10c). The right-placed free relative is conjoined with the copula-headed small clause and is construed with the small clause's specificational subject DP. According to den Dikken, the further modification of the DP subject's value via right dislocation is necessary, because the cleft relative must contain a null head, and hence it cannot enter into a direct head-complement relation with the subject DP.

In the copular approach to clefts, the propositional assertion receives an underlying copular clause structure similar to the cleft, based on the assumption that the post-copula specificational focus position can also host CP constituents (Moro, 1997; den Dikken, 2006; Cheng, 2008). Thus, the entire clausal focus in (11) resides in the position of the copula's small clause subject argument (Moro, 1997, 174ff.). Unlike in clefts, there is no extraposed clause that construes with the subject CP in propositional assertions. According to den Dikken (2013), this is because the null head DP of the free relative cannot be construed with a CP subject, given the category mismatch.

- (11) a. *Shì* [tā méi rènchūlái wǒ].
 COP he did.not recognize me
 '(It's not that he and I have fallen out) it's that [he did not recognize me].'
 b. [*pro*_i *shì*_k [SC [SUBJECT *ta mei renchulai wo*] [*t*_k [PRED *t*_i]]]]

3.2 A Focus Marker Analysis of Clefts

In the following we turn to the alternative approach dating back to Jespersen (1937), according to which clefts are not a type of the copular clause, but rather a single CP structure, with the copula morpheme functioning as a focus-sensitive modifier directly encoding the exhaustive semantics associated with clefts. Similar to the copular-based approach, the focus-based approach has also been taken up by a plethora of accounts of Chinese clefts (e.g. Teng, 1979; Zhu, 1996; Dong, 2004; Erlewine, 2020). We will present an idea of how this approach yields the cleft structure and captures its exhaustive interpretation.

Specifically, there are two distinct proposals to implement the focus-based approach. According to one analysis, *shi* is a focus-sensitive sentential modifier adjoined at the CP level that must c-command its associate (focus) (Rooth, 1985), and is additionally subject to a low attachment constraint such that while c-commanding its focus associate, it occurs adjacent to the focus whenever possible (Erlewine, 2020). The preference for low attachment has been independently proposed for German and Dutch exclusive focus operators (Jacobs, 1983).

b. [*the* [*one*_{head} + *who*_i + *that*_{complementizer} + [*relative t*_i *will come*]]]

⁴The copula's raising is motivated by its role as a linker, serving as an escape hatch to circumvent the locality constraint that would otherwise be incurred during the long-distance raising of the *pro*-predicate. See den Dikken (2006) for detailed motivations for the linker role, which we do not dwell upon here.

Based on this analysis, when *shì* is in a pre-subject position, it either associates with the subject or with the entire clausal prejacent due to low attachment, enabling a unified underlying structure for clefts and propositional assertions, as in (12a) and (12b).

- (12) a. [*shi* [[*Zhangsan*]_{focus} *yaolai*]] (cleft)
 b. [*shi* [*Zhangsan yaolai*]_{focus}] (propositional assertion)

The linear adjacency between the copula and the post-subject focus constituents in Chinese clefts can be similarly captured by the low attachment constraint. For instance, the default position of an adjunct in Chinese syntax is between the subject and the VP. When *shì* is adjoined at the C-level and associates with an adjunct focus within its c-command domain, the low attachment constraint is predicted to come into effect, causing the subject to scramble/topicalize to a higher C-level position, so that the adjunct is positioned next to the copula morpheme with no ‘intervening’ element in between, i.e. [subject_i [*shi* t_i adjunct_{focus} VP]].⁵

In the second, constituent-based analysis, *shì* can be seen as a dedicated functional head attracting an exhaustively identified focus constituent via relevant syntactic feature-checking (Horvath, 1995; Brody, 1995). This solution resorting to focus movement has been independently proposed for a wide range of languages (Kiss, 1998; Hiraiwa and Ishihara, 2002). (13) illustrates how the cleft and the propositional assertion are derived based on the functional head approach in Hiraiwa and Ishihara (2002): The copula morpheme initially merges at a focus projection head, posited to be FocP, and triggers the movement of the cleft phrase (see 13a) or the entire clausal focus (see 13b) to [Spec, FocP], again unifying clefts and propositional assertions. The copula morpheme subsequently undergoes remnant movement to a projection structurally higher than FocP.⁶

- (13) a. [_{TopP} *shi*_k [_{FocP} *Zhangsan*_i [_{Foc} Foc⁰ e_k [_{FinP} e_i *yaolai*]]]]] (cleft)
 b. [_{TopP} *shi*_k [_{FocP} [*Zhangsan yaolai*]_i [_{Foc} Foc⁰ e_k [_{FinP} e_i]]]]]] (propositional assertion)

3.3 Capturing the Copula-to-Cleft Pathway under the Copular Approach

The previous two subsections have shown that both the copula-based approach and the focus-based approach are able to account for the basic aspects of the cleft construction. Both derive the adjacency constraint, in which the copula morpheme is immediately followed by the focus, and both derive the exhaustive focus interpretation of clefts, when interfacing with an appropriate semantic mechanism.

Leaving aside structural diagnostics, we now point out that the diachronic copula-to-cleft pathway identified above can be drawn upon to support the copular approach to Chinese clefts. To start with, let’s assume in accordance with previous works (Harbsmeier, 1981; Pulleyblank, 1995; Hale, 1998, 2007; Herforth, 2003; LaPolla, 2015) that word order, clause structure and construction type have remained largely stable for the previous stages of Chinese syntax. That is, Chinese has consistently been a predominantly SVO language, and similarly in a Chinese copular structure, the copula has consistently intervened between the subject and the complement. We further assume that adopting a copular approach of clefts amounts to saying that a cleft structure has consistently been an underlyingly copular structure that is headed by a copula.

Under the copular approach, the emergence of each copula morpheme in a historical stage means that learners acquire a new lexical item for the category of copula verb within her/his lexicon. As a new copula member in the lexicon, the lexical insertion of this morpheme to the verbal head of a copular clause structure is triggered. What then follows is an extension process, that is, the lexical insertion of the same copula element to all other constructions that involve a copula verb. Given the homogeneity of the copular clause and the propositional assertion within the learner’s grammar, it is expected that learners will first extend the new copula to a propositional assertion. Under the copular

⁵The low attachment analysis further predicts that with a VP under focus, all pre-VP elements (subjects, adjuncts) will be scrambled across *shì*, so that *shì* will attach directly next to the VP focus. A VP cleft is indeed attested in Mandarin (Hole, 2011) and also in historical Chinese (Dong, 2004).

⁶The movement site of the copula morpheme is posited to be a topic projection (Meinunger, 1998; Hiraiwa and Ishihara, 2002), but the motivation for it is not very clear, other than the need to get the word order right.

analysis, the informationally partitioned cleft differs from the non-partitioned propositional assertion by featuring an extraposition structure. Assuming that the extension to a copular structure with additional extraposition takes time to develop, the copular approach can account for the temporal gap between the extension of the copula to the propositional assertion and the extension to the cleft we have seen. Based on the above discussion, the expansion of the copula function is reduced to a reanalysis-and-extension process (Harris and Campbell, 1995): The reanalysis of a morpheme as instantiating a copula verb category results in the extension of this morpheme to structures that host the copula verb category. Importantly, it is expected that the above process of expansion will be replicated each time a new copula use emerges, which accounts for the similarity of the patterns of expansion across copula morphemes.

The copular approach also explains the pattern of decline witnessed in the three copula morphemes. For *wéi*, the initial use in copular clauses, clefts and propositional assertions gave way to a distinct exclusive operator use where *wéi* may associate with any focus it c-commands without being subject to the adjacency constraint. According to the copular approach, this change came about via a reanalysis: The copula verb is required in a cleft structure, and when external change caused the structure to be no longer analyzed as a cleft by learners (see Section 2 for Meisterernst 2010's discussions of such change), the exhaustive focus interpretation associated with the structure leads to a reinterpretation of the copula verb as an exclusive adverb. Note here that the posited lexical change of *wéi* from a copula verb into an exclusive adverb is not to be conflated with the analysis of *wéi* under the focus-based approach to clefts: In the former case, it is assumed that *wéi* is a copula verb in clefts. The cleft structure later changed into a different structure, and this change then triggered the reanalysis of *wéi* into a different category, which is also accompanied by a change of *wéi*'s distributional behaviors as discussed in section 2.2. As *wéi* no longer retains the copula verb meaning, its disappearance from the copular clause is accounted for.

We have further seen that the use of *shì* has declined in a number of modern Sinitic languages, and the use of *xì* has declined in other Sinitic languages. Crucially, in each language the decline process is coordinated in the three environments: We do not find a case where a copula morpheme is unproductive in copular clauses but remains productive in clefts/propositional assertions, or the other way round. According to the copular approach, such coordinated decline pattern follows from the assumption that the copular clause and the two focus-marking constructions have underlying the same copula verb. It follows that the loss of productivity of a given copula verb will lead to its decline in use across the three environments.

We now show that compared against a copula-based analysis, a focus-based analysis does not fare equally well in capturing the full array of diachronic data. To account for the patterns where a newly emerged copula expanded to propositional assertions and then to clefts, the focus-based approach may posit that in three separate, individual cases, the copula verb underwent change into a focus marker, and afterwards the focus-marking copula morpheme started to appear in clefts and propositional assertions. A problem with this analysis lies with the fact that a change taking place in the focus-marking uses of the copula morpheme always affects the copular clause use: When *wéi* in clefts changed into an *only*-like adverb, *wéi* also disappeared from copular clauses. Furthermore, the loss of productivity of *shì* and *xì* in clefts/assertions correlated with their loss of productivity in copular clauses. A focus-based analysis of Chinese clefts would commit to positing two homophonous lexical entries for the copula morpheme in the copular clause and the copula morpheme in the propositional assertion/cleft, respectively. A direct consequence is the lack of convincing reason to account for why the loss of both lexical entries should be closely correlated.

In sum, the above discussions provide evidence that the copular approach to clefts better captures the diachronic development in Chinese. Note that our discussions lend support to the general idea that clefts are copular clauses, and do not by itself support any specific implementation within the copular approach. We will need more investigations to understand whether the historical data can lend further support to a particular copula-based analysis.

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