▶ The Chinese Copula Shi and Its Origin: A Cognitive-Based Approach

從認知觀點看漢語系詞 "是" 及其起源

THE CHINESE COPULA *SHI* AND ITS ORIGIN:
A COGNITIVE-BASED APPROACH[*]

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ABSTRACT

This paper discusses the proposals of Li and Thompson (1977), Yen (1986), and Feng (1993) in relation to the development of the Chinese copula and argues that Li and Thompson's suggestion of a topic mechanism, Yen's analogical change, and Feng's phonological pause are unsatisfactory in explaining the development of the copula. It is suggested that Katz's (1996) cognitive concept of existence in time and space between pronouns and copulas is what relates the demonstrative pronoun *shi* to a copula, while the verbal form *shi* occurring in the same syntactic context as the demonstrative pronoun *shi* is what triggers this demonstrative pronoun to turn into a copula.

1. INTRODUCTION

It is generally believed that equational sentences had no copulas in Archaic Chinese (10th-2nd c. B.C.) (Wang 1958a).[1] According to Wang, the Chinese copula *shi* came into being in Pre-Medieval times (Late Han,

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[1] The term 'equational sentences' is used here to refer to all sentences in which an identificational or a member/class relationship between two NPs is expressed (Li and Thompson 1977). According to Kroeger (2005:175), if the predicate NP is definite, the equational sentence states that the two NPs refer to the same individual. If the predicate NP is indefinite, the equational sentence states that the subject NP is a member of the class named by the predicate NP.

1st c. A.D.). An equational sentence with no copula in Archaic Chinese is given in (1).

(1) Kongzi   xian   ren   ye.
    Confucius   virtuous   person   PRT[2]
    'Confucius is a virtuous person.'   (Zhanguo Ce: Zhao Ce)[3]

The Archaic Chinese sentence 'subject-nominal predicate-ye' in (1) was later replaced by the Modern Chinese sentence, in which there is a copula *shi* between subject and nominal predicate (Li and Thompson 1977:421), and the clause-final particle *ye* is gone.[4] An example is shown in (2).

(2) Kongzi   **shi**   xian   ren.
    Confucius   is   virtuous   person.
    'Confucius is a virtuous person.'

It can be observed in classical Chinese texts that *shi* has different functions. It can act as a determiner, as in (3), an affirmative particle as in (4), a demonstrative pronoun, as in (5), and a non-copular verb, as in (6). However, in Modern Chinese it can never be used as a demonstrative pronoun or a verb.

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[2] The abbreviations used in this paper are PRT: particle, GEN: genitive, CL: classifier, DAT: dative, NOM: nominative.

[3] *Zhanguo Ce*, translated as Record of the Warring States, was written by Xiang Liu in the 5th c. B.C.

[4] According to Dawson (1968) and Harbsmeier (1981), the final particle *ye* indicates a judgment or a state. Yen (1986) and Feng (1993) treat *ye* as a clause-final particle; Li and Thompson (1977) regard it as a declarative particle; however, Peyraube and Wiebusch (1994:388) believe *ye* to be a copula since it links an NP subject and a nominal predicate and expresses an assertion. This paper follows Yen and Feng's analysis that *ye* is a clause-final particle. I do not adopt Li and Thompson's analysis that *ye* is a declarative particle since it can occur not only in declarative sentences but also in interrogative sentences. Neither do I adopt Peyraube and Wiebush's assumption that *ye* is a copula since *ye* can occur with adjectival or verbal predicates in addition to nominal predicates. According to Cheng (1989:328-29), the final particle *ye* in Archaic Chinese is equivalent or semi-eqivalent in modern Chinese particles such as *a*, *ya*, and *ba*, while it is equivalent or semi-equivalent in Taiwanese particles such as *lah*, *ne*, *a*, etc.

(3) *Shi* as a determiner

Fuzi zhi   yu **shi**   bang   ye.

master arrive at this   nation PRT

'The Master arrived in this nation.'   (Lunyu)[5]

(4) *Shi* as an affirmative particle

Ru yi   gui   **shi**   si   ren,   ze   qi   bo

if   think   ghost affirm. dead   person then their simple

zang   fei   ye.

funerals   wrong PRT

'If they think that ghosts are dead people, then their advocacy of

 simple funerals is wrong.'[6]   (Lunheng)[7]

(5) *Shi* as a demonstrative pronoun

Fu   yu   gui   **shi** ren   zhi suo   yu   ye.

wealth and   nobility this person GEN thing want   PRT

'Wealth and nobility, these are the things for which everyone longs.'

                                           (Lunyu)

(6) *Shi* as a verb

Baixing   jie **shi**   wu   jun   er   fei   lin

citizen   all agree our   king   but   not   neighbor

guo,   ze   zhan yi   sheng yi.[8]

country   then war   already   win   PRT

 'If all the citizens agree with our king but not with our neighboring

 country, then we have already won the war.' (Wuzi)[9]

   There are different hypotheses about the origin of the Chinese copula
shi: (a) it developed from an affirmative particle, as suggested by Yen
(1986); (b) it developed from a demonstrative pronoun, as proposed by

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[5] *Lunyu*, translated as The Confucian Analects, was written in the 5th c. B.C. It consists of dialogues between Confucius and his disciples.

[6] In (4) *shi* is not a copula though it is translated as such.

[7] *Lunheng* was written by Chong Wang in the 1st c. A.D.

[8] The clause-final particle *yi* indicates a change of state, whether temporal or logical (Harbsmeier 1981).

[9] *Wuzi* is a work of war strategy, which was written by Qi Wu in the Warring States Period (403-221 B.C.).

Hong (1957), Wang (1958a), Ma (1959), Li and Thompson (1977), Feng (1993), Peyraube and Wiebusch (1994), Katz (1996), and others; and (c) it developed from the categorical interactions between a demonstrative pronoun and a verb, as argued by Ao (1985) and Sun (1992).

In this paper, I present a different solution, showing how the demonstrative pronoun *shi* developed into a copula in Chinese. I argue that Katz's (1996) cognitive concept of existence in time and space between pronouns and copulas is what relates the demonstrative pronoun *shi* to a copula, while its verbal form *shi* occurring in the same syntactic context as the demonstrative pronoun *shi* is what triggers this demonstrative pronoun to turn into a verb and become a copula. In addition, I suggest that the presence of *shi* now re-analyzed as a copula can be used to disambiguate a phrasal vs. sentential interpretation in Chinese.

2. PREVIOUS ANALYSES

The development of the Chinese copula *shi* has been explained in a number of different ways. In the following sections, three previous approaches are reviewed: the topic mechanism of Li and Thompson (1977) in Section 2.1, the analogical change of Yen (1986) in Section 2.2, and the phonological pause of Feng (1993) in Section 2.3.

2.1 Li and Thompson (1977) and the Problems with their Analysis

To explain how the demonstrative pronoun *shi* developed into a copula, Li and Thompson (1977:420) suggest that this change came about via a topic mechanism: 'the subject pronoun which is co-referential with the topic in the comment of a topic-comment construction is re-analyzed as a copula morpheme in a subject-predicate construction.' As Li and Thompson have pointed out, the copula *shi* originated from the demonstrative pronoun *shi*, which was reanalyzed as a copula when the topic grammaticalized into a subject, the topic-comment construction thus becoming a subject-predicate construction, as shown in (7).

(7) Topic + Comment → Subject + Predicate
    NP1/S1   *shi* + NP2   NP1/S1   *shi* + NP2

The *shi* in the comment means 'this/these,' referring to the topic, while the second *shi* is a copula. Examples are given below.

(8) Zhi   er   shi   zhi,   **shi**   bu   ren   ye.
    know   then   use   him,   this   not   kind   PRT
    'To use him knowing (that he would rebel), that was unkind.'
                                                                    (Mengzi)[10]

(9) Ji   yu   qi   sheng   you   yu   qi   si,
    already wish   him   live   also   wish   him   die

    shi   huo   ye.
    this   indecision   PRT
    'Wishing him to live while wishing him to die, that is indecision.'
                                                                    (Lunyu)

(10) Qiong   yu   jian,   **shi**   ren   zhi   suo   wu   ye.
     poverty and   debasement   this   people GEN   thing dislike PRT
     'Poverty and debasement, that is what people dislike.'   (Lunyu)

   The important fact about the sentences in (8)-(10) is that they have a topic-comment structure, the topic being the clause in (8) and (9) or the initial phrase in (10), the comment being the clause consisting of the demonstrative pronoun subject *shi* and the predicate NP. Li and Thompson explain that sentences such as (8)-(10) are open to multiple analysis. One analysis yields a topic-comment structure with *shi* functioning as an anaphoric pronoun, and the other provides a subject-predicate structure with *shi* functioning as a copula. According to Li and Thompson, structural ambiguity is necessary for re-analysis to take place.

   However, Li and Thompson's proposal has the following problems: First, they suggest that when a phrase or clause in topic position moves to subject position, *shi* would be pushed from a position within the subject to one within the predicate. However, such an assumption is plausible only if Chinese developed from a topic-oriented language to a subject-oriented language, and as Li and Thompson (1976) themselves

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[10] *Mengzi*, translated as The Mencius, was written in the end of the 4th c. B.C. It is composed of conversations held between the sage Mengke and the princes and grandees of his time.

point out, Chinese is still a topic-prominent language.[11] That is, if Chinese did not become a subject-oriented language, then there would be no topic-to-subject movement. If there were no topic-to-subject movement, the demonstrative pronoun *shi* would not develop into a copula. Li and Thompson's suggestion of a topic mechanism for the development of the Chinese copula thus contradicts their own argument that Chinese is still a topic-oriented language.

Second, according to Li and Thompson, the copula *shi* came from the demonstrative pronoun *shi* via the topic mechanism. The demonstrative *shi* was re-analyzed as a copula when the topic-comment construction became a subject-predicate construction. However, if the topic mechanism were to have triggered the demonstrative pronoun *shi* to develop into a copula, then it should also have triggered the demonstrative pronoun *ci* 'this/these' to develop into a copula, since it occurred in the same environment as where the demonstrative pronoun *shi* became a copula. However, this is not the fact, as illustrated in the following examples.

(11) Qiong yu jian,   **shi** ren   zhi suo wu   ye.
     poverty and debasement this people GEN thing dislike PRT
     'Poverty and debasement, that is what people dislike.' (Lunyu)

     Topic   + Comment   ⇒   Subject + Predicate
     NP1/S1   *shi* + NP2   NP1/S1   *shi* + NP2

(12) Ren   you   zhong xin,   le   shan
     humanity and   loyalty trustworthiness   delight good

     bu   juan, **ci** tianjue   ye.
     not   tired these   Heaven's patents of nobility PRT
     'Such things as humanity and justice, loyalty and trustworthiness, and a tireless delight in the good—these are Heaven's patents of nobility.'   (Mengzi)

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[11] According to Li and Thompson (1976), there are four basic types of languages: (i) languages that are subject-prominent; (ii) languages that are topic-prominent; (iii) languages that are both subject-prominent and topic-prominent; (iv) languages that are neither subject-prominent nor topic-prominent. Li and Thompson believe Chinese to be a topic-prominent language.

Topic   +   Comment $\rightleftarrows$ Subject   +   Predicate
NP1/S1 ci + NP2   NP1/S1 ci + NP2

2.2 Yen (1986) and the Problems with his Analysis

Yen (1986) proposes that the copula *shi* originated as a particle of affirmation opposed to the particle of negation *fei* 'wrong.' He explains that the copula *shi* appeared because the speakers came to feel that it was the exact antonym of the negative *fei*. Since the negative *fei* was most commonly used before a nominal predicate, its affirmative counterpart *shi* naturally began to appear also before a nominal predicate, just like a copula. Yen's analysis can be explained as an analogical change in (13) and (14), while an example is shown in (15).

(13)   *fei* 'wrong'   ::   *shi* 'right'
    =   *fei* 'negative'   ::   *shi* 'affirmative'
    = occur before nominal predicate :: occur before nominal predicate

(14) *fei* $\Rightarrow$ *bu shi* $\Rightarrow$ *bu* + verb $\Rightarrow$ *bu* + *shi*   (therefore, *shi* is a verb)

(15) Ru   yi   gui   **fei**   si   ren,   ze   qi   xin
     if   think ghost   be not dead people then   their   believe

     Dubo fei   ye; ru   yi   gui   **shi**   si   ren,
     Dubo wrong PRT if   think ghost   affirm. dead   people

     ze   qi   bo   zang   fei   ye.
     then   their   simple funerals wrong   PRT

   'If they think that ghosts are not dead people, then their belief in the story of Dubo is wrong; if they think that ghosts are dead people, then their advocacy of simple funerals is wrong.' (Lunheng)

To explain why the affirmative particle *shi* was re-analyzed as a copula, Yen proposes two motivations. First, because the clause-final particle *ye* disappeared, the affirmative *shi* was regarded as the marker of nominal predicate. Second, after the negative *fei* was replaced by *bu shi* 'be not', the affirmative particle *shi* was regarded as a verb because the negative *bu* could appear before it. Yen explains that new generations of

speakers of the language thus re-analyzed the affirmative particle *shi* as a copula.

Yen states that *ci* 'this/these' did not have the meaning of 'right', and hence it was never paired with *fei* as an antonym. According to Yen's analysis, *ci* did not develop into a copula since it could not be used as a particle of affirmation opposed to the negative *fei*.

Yen's proposal is strongly based on the assumption that *fei* was first replaced by *bu shi* 'be not.' The reason that *shi* was treated as a copula was because *bu* preceded it. However, there is a problem with this analysis. As Ma (1959: 67) points out, *fei* could not have been replaced by *bu shi* before the Han dynasty (from 206 B.C. to A.D. 220). If Ma's argument is correct, then *shi* functioned as a copula even before *fei* was replaced by *bu shi*. Yen's proposal therefore cannot explain why the copular use of *shi* developed before *fei* was replaced by *bu shi*.

In addition, as Feng (1993:281-84) has pointed out, although it is possible that under analogical change the affirmative *shi* might have developed as an antonym of *fei*, in fact the copula *shi* does not seem to have developed from the affirmative *shi*. In the *Lunheng* (ca. A.D. 100), which already shows the changes in *shi*, there are ten sentences in which *shi* is used as a copula, but only one of them can be considered to be paired with *fei*. Since the pairing of *shi* and *fei* occurred so infrequently, and since this theory cannot explain a large number of the sentences in question, an affirmative use of *shi* is considered not to be responsible for the development of the copula *shi*.

2.3 Feng (1993) and the Problems with his Analysis

Feng (1993) proposes that the Chinese copula *shi* developed from the demonstrative pronoun *shi* through the following steps. First, the phonological pause between the subject and the predicate became unnecessary in equational sentences. Second, the function of the demonstrative pronoun *shi* was weakened. Third, the adverbs preceding the demonstrative *shi* pushed *shi* into the pause position. As a result, the anaphoric function of *shi* became opaque, and *shi* was re-analyzed as a copula. The original example is illustrated in (16), which can be analyzed in (17) according to Feng's example.

(16) Shu   ming   xing yun shi   ziran   zhi   bian   ye.
     tree   rustle star fall   these nature GEN   change   PRT
     'Trees rustle, stars fall, these are natural phenomena.'   (Xunzi)[12]

(17) S_1 [Shu ming xing yun] S_2[shi   ⬜   [ziran zhi bian ye]].[13]
              topic   subject pause   predicate

Feng explains that the demonstrative *shi* in the subject position refers to the topic immediately preceding it. The demonstrative *shi* appeared in the subject position in order to preserve the pause position, since the pause could only occur between two elements (i.e., subject and predicate). Feng argues that the movement of S1 in (17) from the topic position to the subject position pushed *shi* rightward into the pause position. As a result, the anaphoric function of *shi* became opaque. This movement is shown in (18).

(18) S_1 [Shu ming xing yun] S_2[shi   ⬜   [ziran zhi bian ye]].=(16)
             topic   subject pause   predicate

           [Shu ming xing yun]   ⬜shi⬜   [ziran zhi bian ye].
              subject   pause   predicate

Feng further suggests that adverbs also played an important role in promoting the changes of *shi*. That is, an adverb, for example, *guo* 'definitely' appearing before *shi* as in (19) pushed *shi* forward into the pause position. This movement is shown below.

(19) [Fu yu gui]   [shi]   ⬜   [ren zhi suo yu ye]. = (5)
         topic   subject   pause   predicate

     [Fu yu gui] **guo** [shi] ⟶ ⬜   [ren zhi suo yu ye].
        topic   adverb subject pause   predicate

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[12] *Xunzi* was written by Kuang Xun in the 3rd c. B.C.

[13] In Feng's (1993) analysis, *shu ming xing yu* can also be analyzed as two separate sentences (i.e., S_1[*shu ming*], S_2[*xing yu*]).

Feng observes that the demonstrative pronoun *ci* 'this/these' could also occur in the same position as *shi*, but that it never became a copula. He explains that *ci* occurred much less frequently than *shi* in equational sentences, and the higher frequency of *shi* was an important advantage in its competition with *ci*.

From this analysis, Feng implies that both topic-to-subject movement and also the presence of adverbs forced the demonstrative pronoun *shi* to move into the pause position from the subject position. After *shi* was pushed into the pause position, the pause disappeared, *shi* lost its anaphoric function and it became a copula. As a result, the demonstrative pronoun *shi* changed its lexical category from a [+N] to a [+V].

Feng tries to propose a mechanism for the development of the copula *shi*. However, his analysis has several problems. First, he suggests that when a phrase or a sentence in the topic position moves to the subject position, *shi* would be pushed out of the subject into the pause position. However, as previously mentioned in Section 2.1, Chinese did not become a subject-oriented language; therefore, topic-to-subject movement could not have happened, and so it could not have triggered the demonstrative pronoun *shi* to become opaque and develop into a copula.

Second, in Feng's analysis, the more adverbs appeared before *shi*, the more *shi* was likely to be re-analyzed in Archaic Chinese. Feng's evidence is from the classical Chinese written texts such as *Lunheng* (A.D. 100) and *Shi Shuo Xin Yu* (A.D. 450). According to Wang (1958b), the copula *shi* already existed in the Late Han (A.D. 100).[14] Therefore, Feng's observation cannot provide evidence for the development of the Chinese copula *shi*. It can only show that *shi* had already become a verb, thus allowing adverbs to appear before it, and that more and more adverbs were placed before the copula *shi* after the copula *shi* had already developed. Support for this hypothesis comes from earlier written texts in Chinese. For example, in *Mengzi* (300 B.C.) only one adverb is found occurring before *shi*; in *Lunheng* (A.D. 100), eight adverbs can be found occurring before *shi*, while in *Shi Shuo Xin Yu* (A.D. 450), 32 adverbs are found occurring before *shi* (Feng 1993:298).

Third, Feng argues that the demonstrative pronoun *ci* never developed into a copula because (a) *ci* occurred less frequently than *shi*,

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[14] Peyraube and Wiebusch (1994:384) propose that the copula *shi* in fact already existed in Late Archaic Chinese, during the Zhanguo period (5th-3rd c. B.C.).

and (b) no adverbs could occur before *ci*. As shown in (11) and (12), *shi* and *ci* could occur in the same syntactic environment from which Feng argues the copula *shi* developed. The argument that *ci* did not develop into a copula just because it occurred less frequently is very doubtful. In addition, as previously mentioned, adverbs could appear before *shi* because *shi* had already changed into a verb. *Ci* never became a verb; thus, no adverbs could occur before it. Thus, Feng's proposal is weakened since neither (a) nor (b) can prevent *ci* from developing into a copula.

2.4 Summary

The main ideas of the previous approaches in explaining the development of the Chinese copula can be summarized as follows:

	Origin of the copula	Mechanism	Reasons why *ci* did not develop into a copula
Li and Thompson (1977)	Demonstrative pronoun	Topic mechanism	Not mentioned
Yen (1986)	Particle of affirmation	Analogical change	Never paired with *fei* 'wrong'
Feng (1993)	Demonstrative pronoun	Topic mechanism Adverb mechanism	Low frequency of *ci* and no adverbs occur before it

TABLE 1: Summary of the previous approaches

I have argued that there is no evidence to show that topic-to-subject movement took place before the Chinese copula developed since Chinese is still a topic-prominent language. In addition, I have suggested that neither frequency of occurrence, nor the occurrence of adverbs, nor the replacement of *fei* 'wrong' by *bu shi* 'be not' is responsible for the development of the Chinese copula; nor was any of these phenomena responsible for preventing the demonstrative pronoun *ci* from becoming a copula.

3. AN ALTERNATIVE VIEW of THE DEVELOPMENT OF *SHI*

In this section, a new analysis will be proposed to account for the development of the Chinese copula and to provide answers for the following questions: (a) How did *shi* develop into a copula? (b) Why did *shi* become a copula but *ci* did not?

3.1 Structure and Copular Development

There are different structural representations for equational sentences. Some linguists assume that equational sentences with no copulas involve a silent or invisible copula, while some assume that the grammatical head of equational sentences with no copulas is the NP_2, expressing the semantic predicate (Kroeger 2005:178). These two different analyses are indicated in the phrase structure rules in (20) and (21), respectively.

(20)   S → NP_1 V NP_2
              [SUBJ] [silent copula]

(21)   S → NP_1 NP_2
              [SUBJ]

The structure of English equational sentences is essentially the same as the structure in (20) except that it is headed by the copula or linking verb *be*. Because the NP_2 in both (20) and (21) defines or describes the subject, and occurs as the complement of the copula and is predicative in the sense that it contributes the semantic core of the sentence, it is called the subject predicative complement (Evans and Creen 2006:597).

It should be pointed out that Modern Chinese differs from English and Tagalog in that English requires a copula whereas Tagalog does not require a copula in equational sentences, as shown in (22) and (23), respectively. In Modern Chinese, however, the copula *shi* seems to be optional in certain equational sentences, as given in (24) and (25).

(22) Equational sentence that requires a copula (English)
     That man is a linguist.

(23) Equational sentence that does not require a coplula (Tagalog)
    Opisyal   sa-hukbo   ang-panganay.
    Officer   DAT.army   NOM.eldest
    'The eldest child is an officer in the army.' (Kroeger 2005:178)

(24) Equational sentence with no copula   (Chinese)
    Nei   ge   nanhai   Taiwanren.
    That   CL   boy   Taiwanese
    'That boy is a Taiwanese.'

(25) Equational sentence with a copula   (Chinese)
    Nei   ge   nanhai   shi   Taiwanren.
    That   CL   boy   be   Taiwanese
    'That boy is a Taiwanese.'

Though equational sentences with no copulas are possible in Modern Chinese, the insertion of the copula into these sentences is grammatical without changing the meaning of the sentence. Therefore, it is assumed that a Chinese equational sentence has a structure which is headed by a visible or invisible copula, and that this head takes a subject predicative complement, as given in (26).

(26)

In Archaic Chinese, however, *shi* was originally a demonstrative. Since both topic and subject can be either a clause (S) or a noun phrase (NP), (27a) can be represented as in (27b).[15]

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[15] Chafe (1976) states that one of the primary characteristics of topics is that they must be definite. According to this characterization of definiteness, proper and generic NPs are also understood to be definite. The conditions regarding the speaker's assessment of the hearer's knowledge under which a proper noun can be appropriately used are the same as those under which a definite common noun phrase can be used. A generic noun phrase is definite because its referent is the class of items named by the noun phrase,

(27) a. Shu ming xing yun shi   ziran   zhi   bian   ye.
       tree rustle star   fall these   nature GEN   change PRT
       'Trees rustle, stars fall, these are natural phenomena.'

b.
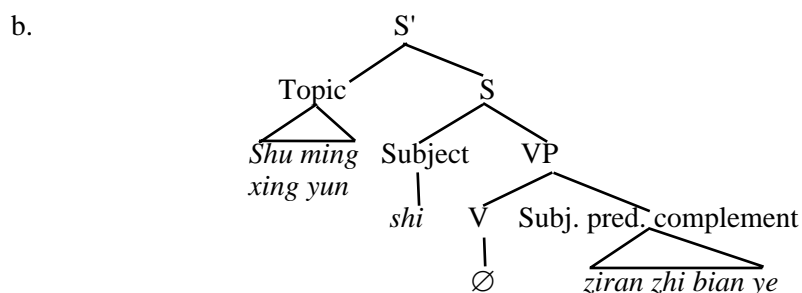
In (27a), *shu ming xing yun* is the topic, and the demonstrative pronoun *shi* 'this/these,' which refers to the topic, is the subject, while *ziran zhi bian ye* is the nominal predicate headed by a silent copula.

3.2 The Relation between Pronouns and Copulas

Why are pronouns chosen to perform copula functions? According to Katz (1996:62), 'copulas and third person pronouns code the same basic concept of 'existence in time and space' under different grammatical guises, the one more verbally, the other more nominally. When the surrounding linguistic material regroups, the same morpheme that coded 'a being' may be used to express the act of 'being,' and vice versa.' Thus, the third person anaphora can be seen as related to the predication of existence.

Katz (1996:30) further explains that 'it is the copular morpheme for identity and class membership that patterns with the third person pronoun. Third person pronominal marking is, in turn, separate and distinct from first and second, as evidenced by morphological characteristics cross-linguistically.' As for why copulas and third person pronouns code the same basic concept of existence in time and space, Katz (1996:30-31) states that first and second person pronouns refer to situationally salient participants, while third person pronouns require a greater level of abstraction. When referring to a third person participant

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which the hearers can be assumed to know about if they know the meaning of that noun phrase.

for the first time in discourse, speakers are in fact also presupposing the existence of such a participant. Thus, third person anaphora is cognitively related to a predication of existence. The copula is the most empty of all verbs semantically, since it merely states the existence of a specified pseudo-logical relationship between A and B, and there are no event contours.

According to Katz, the alternation between a nominal interpretation and a verbal interpretation of a morpheme denoting 'a being' or the 'act of being' is what motivates the re-analysis of pronouns as copulas and vice versa.[16] The ambiguity of interpretations available during the period when *shi* still served a dual function as a demonstrative and a copula, and when the particle *ye* was still used for equative purposes, is precisely what led to the re-analysis.

To account for the development of the Chinese copula, Katz first establishes a cognitive relationship (i.e., the same basic concept of existence in time and space) between copulas and pronouns, and then re-analyzes the demonstrative pronoun *shi* as a copula when ambiguous interpretations occur. However, Katz's proposal still cannot explain why the demonstrative pronoun *ci* in (28) was not re-analyzed as a copula, even though it occurred in the same environment as *shi*.

(28)
Ren	you	zhong	xin,	le	shan
humanity	and	loyalty	trustworthiness	delight	good

bu	juan,	**ci**	tianjue	ye. = (12)
not	tired	these	Heaven's patents of nobility	PRT

'Such things as humanity and justice, loyalty and trustworthiness, and a tireless delight in the good—these are Heaven's patents of nobility.' (Mengzi)

I believe that the development of the copula *shi* in modern Chinese may be related to the function of pronouns. Eid (1983:206) takes Arabic as an example and suggests that pronouns are perhaps the most

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[16] Katz (1996) demonstrates the following instances of grammaticalization of pronoun and copula: (i) Chinese — from pronoun to copula; (ii) Hebrew (Biblical to Modern) — from pronoun to copula; (iii) Finnish — from pronoun to copula; (iv) Turkish — from copula to pronoun; (v) Hebrew (pre-proto-Semitic to Biblical) — copula to pronoun. The Hebrew example, combining (ii) and (v) above, provides us with a full cycle (i.e., from copula to pronoun to copula).

reasonable choice for the performance of a copular function because verbs in Arabic must agree with their subjects in gender, number, and person. They are the most efficient elements to use with respect to the Arabic verb system since they provide all the information required within this system. In (29), for example, the third person pronoun *huwwa* 'he' is treated as a copula.

(29) Il-mudarris   huwwa   da.   (Arabic)
     the teacher   is   this
      'The teacher is this.'

Eid observes that pronouns can be chosen to act as copulas because both of them share certain morphological properties. This observation suggests that the development of a copula is not necessarily motivated by topic-to-subject movement, as proposed by Li and Thompson (1977) and Feng (1993). Since Chinese has little verbal morphology, the development of the copula *shi* must follow different path.

To establish a pathway for the transition of the Chinese copula from the demonstrative pronoun *shi* and to avoid the problems which Katz encounters, I propose that the demonstrative pronoun *shi* developed into a copula because of its dual properties: First, it has the same basic concept of existence in time and space as copulas, as suggested by Katz; and second, it has a verbal form (i.e., being able to act as a verb as in (6)), as proposed by Ao (1985) and Sun (1992). According to Sun (1992), *shi* developed into a copula due to its dual categories (i.e., a demonstrative pronoun and a verb). He argues that it was the verbal function of *shi* that caused the demonstrative pronoun *shi* to develop into a copula.

In addition, as previously mentioned for (3)-(6), and as repeated in (30)-(33), *shi* has multiple categorial and grammatical statuses. It can act as a determiner, an affirmative particle, a demonstrative pronoun, and a verb.

(30) *Shi* as a determiner
    Fuzi   zhi   yu **shi**   bang   ye.
    master arrive   at this   nation PRT
    'The Master arrived in this nation.'   (Lunyu)

(31) *Shi* as an affirmative particle
Ru   yi   gui   **shi**   si   ren,   ze   qi
if   think   ghost affirm.   dead   person then their

bo   zang   fei   ye.
simple funerals   wrong   PRT
'If they think that ghosts are dead people, then their advocacy of
simple funerals is wrong.'   (Lunheng)

(32) *Shi* as a demonstrative pronoun
Fu   yu   gui   **shi** ren   zhi   suo   yu   ye.
wealth and nobility this person GEN thing want   PRT
'Wealth and nobility, these are the things for which everyone longs.'
(Lunyu)

(33) *Shi* as a verb
Baixing   jie   **shi**   wu jun   er fei lin   guo,
citizen   all   agree   our king   but not neighbor country

ze   zhan   yi   sheng yi.
then   war   already   win   PRT
'If all the citizens agree with our king but not with our neighboring
country, then we have already won the war.'   (Wuzi)

    The fact that the demonstrative *shi*, affirmative *shi*, and verb *shi* all occur in the same syntactic context (i.e., all of the examples in (30)-(33) involve a noun phrase to the left side of *shi*) is one major motivation for the demonstrative *shi* to develop into a copula (personal communication with Y.-C. Li). Note that at first glance, the verb *shi* in example (33) seems to occur in different syntactic contexts from the other examples of the use of *shi*'s in (30)-(32), because there is an adverb *jie* 'all' occurring between the NP *baixing* 'citizen' and the verb *shi* 'agree.' It is assumed that the Chinese speakers in Pre-Medieval times could identify the adverb before the verb *shi* as an optional element, thus it did not present a problem for re-analysis, or that the examples which caused the demonstrative pronoun *shi* to develop into a copula usually did not involve the presence of any adverbs before the verb *shi*.

    It has been suggested that the demonstrative pronoun *shi* developed its verbal function because both the demonstrative *shi* and the verb *shi*

occurred in the same syntactic context, and the cognitive concept of existence in time and space then turned the demonstrative *shi* into a copula. The demonstrative pronoun *ci*, though it shared the same basic concept of existence in time and space with a copula, failed to develop into a copula since it did not have a verbal form (i.e., was not able to act as a verb).

3.3 Anaphoric Verb and the Chinese Copula

I have suggested that the Chinese copula *shi* developed from the demonstrative pronoun because this pronoun unifies the cognitive concept of existence and the verbal form. My argument is supported by the fact that sentences exist in which *shi* contains these two properties (the cognitive concept of existence and the verbal form) at the same time before the time when the Chinese copula *shi* was fully developed. An example is given in (34), while the structure is shown in (35).

(34) De   xing   Wu di,   sheng   zi yi   ren,
     obtain favor   Wu emperor   bear   son one person

     Zhao di   **shi**   ye.
     Zhao emperor   ana.verb   PRT
     '(She) won the favor of the Emperor Wu, and gave a birth to a son,
     who is the Emperor Zhao.'   (Shi Ji)[17]

(35)
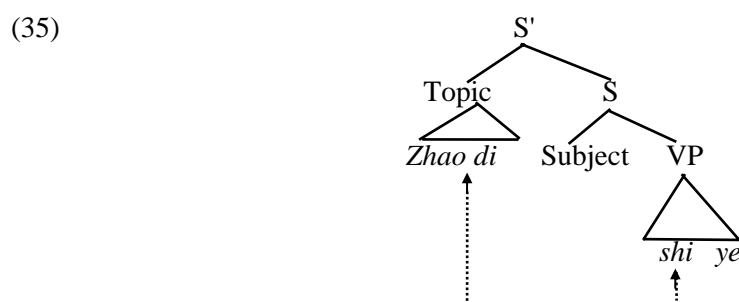
In (35) *shi* has both anaphoric and verbal functions, as noted by Ao (1985) and Sun (1992). According to my hypothesis, the anaphoric verb *shi* began to lose its anaphoric function and became a full copular verb.[18]

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[17] *Shi Ji*, the Historical Records, was written by Ma-Qian Si in the 1st c. B.C.

Peyraube and Wiebusch (1994) observe that after *shi* developed into a copula, both forms 'NP1+*shi*+NP2+*ye'* and 'NP1+*shi*+NP2' still existed in equational sentences. Examples are given in (36) and (37).

(36) Ci   shi   wo zhen nuxu   ye.
     this   be   I   real son-in-law   PRT
     'This is my real son-in-law.'   (Sou Shen Ji)[19]

(37) Ru   shi   wo   zi .
     you   be   my   son
     'You are my son.'   (Faxian Zhuan)[20]

In both (36) and (37) *shi* can only be interpreted as a copula since it is preceded by a pronoun (demonstrative or personal), but *ye* appears in only (36).

According to Peyraube and Wiebusch, an adverb such as *bi* 'certainly' occurring before *shi* proves that *shi* had already changed from a pronoun to a verb, or at the least that it was already under the process of grammaticalization, which started at the latest under the Qin Dynasty (around 180 B.C.). An example is given in (38).

(38) Ci   bi   shi   ye.
     this   certainly be   PRT
     'This certainly is.'   (Lü Shi Chunqiu: Zhong Yan)[21]

It has been shown that after *shi* developed into a copula, both forms 'NP1+*shi*+NP2' and 'NP1+*shi*+NP2+*ye*' still existed in equational sentences. If the clause-final particle *ye* is a copula as suggested by Peyraube and Wiebusch, why are there two copulas in an equational

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[18] I do not treat *shi ye* in (34) as a nominal predicate, because it acts as a verb but still has an anaphoric function. The term anaphoric verb is used to refer to the anaphoric pronoun *shi* in the predicate position. The alternation of *shi* between a demonstrative pronoun and a verb can be regarded as a piece of evidence in support of the development of the copula.

[19] *Sou Shen Ji*, translated as Stories of the Supernatural, was written in the Min Dynasty (A.D. 1368-1644).

[20] *Faxian Zhuan* is the biography of the monk Faxian (A.D. 337-422).

[21] *Lü Shi Chunqiu*, translated as The Spring and Autumn Annals, was written by Bu-Wei Lü in the 3rd c. B.C.

sentence?[22] This undermines Peyraube and Wiebusch's assumption that *ye* is a copula rather than a final particle. As we have seen, adverbs can occur before *shi* only if *shi* has become a verb/copula.

3.4 Equational Sentences with or without Copulas

The fact that the copula *shi* is not entirely optional in Modern Chinese can be explained from the two conditions under which its presence is preferred. [23] First, the occurrence of a copula is preferred when ambiguous interpretations might arise (e.g., a sentential interpretation vs. a topic interpretation). Thus, the copula *shi* in Chinese can serve to prevent ambiguity: it forces a sentential interpretation and prevents a potential topic interpretation, as mentioned in Hashimoto (1969) and Hengeveld (1990).[24] For example, *Jintian xingqisan* in (39) could have the structure in either (40) or (41). However, when the copula *shi* is involved, it can only have sentential interpretation, as in (42).

(39) Jintian xingqisan, women bu bi shangxue.
today Wednesday we not need go to shool
'Today, Wednesday, we need not go to school'
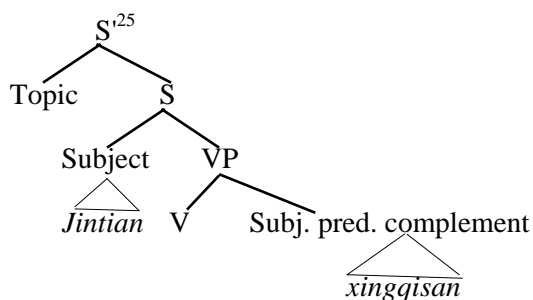or 'Today is Wednesday. We don't need to go to school'

(40)

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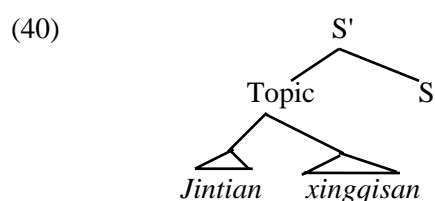
[22] Peyraube and Wiebusch (1994:388) believe *ye* in *Kongzi xian ren ye* (Confucius virtuous person PRT) 'Confucius is a virtuous person' to be a copula since it links an NP subject and a nominal predicate and expresses an assertion.
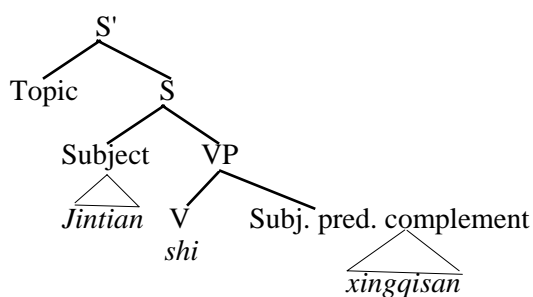
[23] Pustet (2003) uses more than forty semantic features (e.g., age, animate entity, toponym, sex, quantity, mental value, dimension, etc.) to uncover semantic principles underlying the distributional behavior of copulas. For the distributional behavior of copulas in modern Chinese, the reader may refer to Pustet (2003:210).

[24] Chu (1987:218) observes that in Archaic Chinese there are at least a dozen particles (e.g., *xi, zai, a, ya, ne, ma,* etc.) that may be used to mark the topic. I believe that the ambiguity of the present interpretations can be attributed to the loss of the topic markers used in Archaic Chinese.

(41)

```
                    S'²⁵
                  /    \
              Topic     S̄
                      /    \
                 Subject    VP
                   /\      /   \
              Jintian     V    Subj. pred. complement
                                        /\
                                  xingqisan
```

(42)

```
                    S'
                  /    \
              Topic     S̄
                      /    \
                 Subject    VP
                   /\      /   \
              Jintian     V    Subj. pred. complement
                         shi            /\
                                  xingqisan
```

A second condition under which *shi* is strongly preferred is when the subject in classifying constructions is long and complex. As suggested by Junger (1981:127), the occurrence of copulas in sentences with long and complex subjects is to separate the subjects from the predicates in order to ease the process. An example is given in (43), taken from Li and Thompson (1977:422):

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[25] Chao (1968:69) states that 'The grammatical meaning of subject and predicate in a Chinese sentence is topic and comment, rather than actor and action.' From his view, subject can also be topic. According to Li and Thompson (1976:362), 'the topic is a discourse notion, whereas the subject is to a greater extent a sentence-internal notion. The former can be understood best in terms of the discourse and extra-sentential considerations; the latter in terms of its functions within the sentence structure.' Thus, the noun phrase *Jintian* 'today' in (41) and (42) can also be analyzed as a topic.

(43) Chi   pingguo   de   nei ge   ren   shi wo
      eat   apple   DE   that CL   person be   I

     xihuan de   pengyou.
     like   DE   friend
     'The person who is eating an apple is the friend I like.'

3.5 Summary

The new alternative proposed for the explanation of copular development in Chinese can be summarized as follows:

Origin	Demonstrative pronoun
Motivation	a. The same basic concept (existence in time and space) between copulas and demonstrative pronouns b. *Shi* has a verbal form occurring in the same syntactic context as the demonstrative *shi*.
Process	The demonstrative pronoun *shi* became an anaphoric verb, which then developed into a copula.
Why didn't *ci* develop into a copula?	*Ci* has no verbal form (verbal status) to trigger the development.

TABLE 2: Summary of the new proposal

4. CONCLUDING REMARKS

This paper has analyzed the origin and the development of the copula *shi* in Chinese. It is argued that neither the placement of adverbs nor topic-to-subject movement caused *shi* to be analyzed as a copula. It is suggested that the demonstrative pronoun *shi* could develop into a copular verb because it shared the same cognitive concept of existence in time and space as a copula and it had a verbal form. When these two properties were unified in the demonstrative pronoun *shi*, it became an anaphoric verb; its anaphoric function then gradually disappeared, and it finally developed into a copula.

The demonstrative pronoun *ci* never became a copula, not because it occurred less frequently, but because it never had a verbal form (i.e., was not able to act as a verb). In addition, it was only after *shi* developed into a copula that adverbs could occur before it. This explains why all the

shi's occurring after adverbs are analyzed as copulas. *Ci* never becomes a verb; therefore no adverbs can occur before it.

Moreover, the presence of the copula *shi* can reduce the potential ambiguity of different interpretations though it seems to increase the structural complexity. It is interesting to find that a language prefers structural complexity (e.g., the presence of the copula) if it can reduce potential ambiguity (i.e., if there is the possibility of more than one interpretation).

Furthermore, my proposal takes actual language phenomena into account. If a demonstrative pronoun could develop into a copula in Chinese, it may also be expected that the same development took place in other languages, for example, Hebrew, Palestinian Arabic, Finnish, and Zway, as claimed by Li and Thompson (1977) and Katz (1996). If a copula in Chinese can prevent ambiguity, it may also be predicted that the same strategy can be applied in other languages, for instance, in Egyptian Arabic, as has been observed by Eid (1983).

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從認知觀點看漢語系詞「是」及其起源

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本文探討了先前 Li & Thompson (1977)，Yen (1986)以及 Feng (1993)有關漢語系詞「是」的發展看法，作者認為 Li & Thompson (1977)的主題機制 (topic mechanism)，Yen (1986)的類比改變(analogical change)以及 Feng (1993)的語音停頓(phonological pause)觀點雖有意義，但皆未能對漢語系詞的發展提供令人滿意的解釋。本文採用了 Katz's (1996)的認知概念，認為代詞和系詞在時間與空間上之存在的認知關聯使兩者產生了關係，而古文獻中指示代詞的「是」和動詞的「是」出現在同一個句法環境則誘發了指示代詞的「是」發展成為後來的系詞。