

# Emergence and Formation of the Modern Chinese Anaphor ZIJI\*

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## Abstract

This paper proposes an analysis of the formation of the modern Mandarin anaphor 自己 ZIJI. I first examine the binding properties of the two members of this compound in Late Archaic Chinese, arguing that 自 ZI could only be locally bound, while 己 JI could be either locally or long distance bound. I then turn to a discussion of diachronic change and show that ZI underwent reanalysis in Early Middle Chinese such that, by the time of the formation of ZIJI, both JI and ZI could be locally or long distance bound. Thus, ZIJI is a compound consisting of like members. This proposal stands in stark contrast to the view that the local binding property of ZIJI was inherited from the Archaic Chinese local anaphor ZI, while its ability to be long distance bound comes from the long distance pronominal form JI. I further demonstrate that JI and ZIJI coexisted in Middle Chinese and exhibited similar behavior with respect to the Binding Principles, both employed as either local or long distance anaphors. But the two were differentiated in terms of prosody, ZIJI forming phrases with other disyllabic words and JI occurring with other monosyllabic words in order to produce phrases consisting of even numbers of syllables.

## Keywords

Reflexives, local binding, long distance binding, applicative, syntactic change

## 1 Introduction

This paper presents an analysis of the formation of the Modern Mandarin anaphor 自己 *ziji* (hereafter ZIJI) from two Late Archaic Chinese anaphors 自 *zi* (ZI) and 己 *ji* (JI). The primary characteristic of modern ZIJI which I consider in this paper is the fact that it can be either locally or long distance bound, as has been noted repeatedly in the literature (Y.-H. Huang 1984; C.-T. Huang et al. 1984; Tang 1989; Battistella 1989; Yu 1992; Huang and Liu 2001; Cole et al. 1990; Huang and Tang 1991; Cole and Sung 1994; Cole and Wang 1996; Pan 1998, 2001; Cole et al. 2001; Y. Li 1993; Xu 1993; and others). In (1), the anaphor in the embedded clause can take either the embedded or the matrix subject as its antecedent.

- (1) Zhāngsān<sub>i</sub> rènwéi [Lǐsì<sub>j</sub> hài-le zìjǐ<sub>i/j</sub>].  
Zhangsan think Lisi hurt-ASP self  
'Zhangsan<sub>i</sub> thought that Lisi<sub>j</sub> hurt him<sub>i</sub>/himself<sub>j</sub>.'

ZIJI emerged in the Six Dynasties period (3<sup>rd</sup>-6<sup>th</sup> centuries CE). It is composed of two anaphors which had different binding requirements in Late Archaic Chinese of the Warring

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States period (5<sup>th</sup> – 3<sup>rd</sup> centuries BCE). The first member of the compound, 自 ZI, was required to be locally bound in the late archaic period. In (2a), ZI refers to the clause-mate subject. The second member of the compound, 己 JI, could be bound locally or long distance. In (2b), JI in the embedded clause refers to the matrix subject and is therefore long distance bound.

- (2) a. 多行不義，必自斃。 (Zuozhuan, Yin 1)  
 Duō xíng bù yì, e<sub>i</sub> bì zì<sub>i</sub> bì.  
 much do not right certain self kill  
 ‘Having done much wrong, he will certainly do himself in.’  
 b. 諸侯惡其害己。 (Mencius, Wan Zhang 2)  
 Zhūhóu<sub>i</sub> wù [qí<sub>j</sub> hài jǐ<sub>i</sub>].  
 feudal.lord dislike they inconvenience self  
 ‘The feudal lords<sub>i</sub> dislike it that they<sub>j</sub> inconvenience them<sub>i</sub>.’

It is uncontroversial that ZIJI is a compound consisting of the two Archaic Chinese anaphors ZI and JI. But there is disagreement as to what features of these two are inherited by the compound. Cheng (1999) and Dong (2002) analyze JI not as an anaphor but as a pronominal. For the formation of ZIJI, they propose that the combination of local and long distance binding capability of the modern anaphor is the result of combining the features of the anaphor ZI to the pronominal JI. However, an obvious complication inherent in this proposal is the logical contradiction in asserting that a pronominal form can be subject to both Condition A and Condition B of Chomsky’s (1981, 1986) Binding Principles. Condition A requires that an anaphor be bound in a local domain, while Condition B requires a pronominal to be free (unbound) in the same domain. Given that it is not possible to meet both of the requirements simultaneously, ZIJI cannot be said to be an amalgam of the features of an anaphor and a pronominal. For the purposes of this paper, I assume an informal definition of binding domain as a TP or CP clause. I also assume the standard definition of binding such that a nominal or pronominal is bound if it is c-command by another nominal that it is co-indexed with.

Cheng (1999) and Dong (2002) also fall short on the empirical front. As I show in section 2, JI could in fact be locally bound in the Late Archaic period and was therefore not a Condition B pronominal at that time. An additional empirical complication for Cheng (1999) and Dong (2002) is the fact that ZI was reanalyzed in Middle Chinese and could be long distance bound by the time the compound ZIJI was formed. I discuss this in section 3.

In contrast to the preceding approach, Zhu (2007) proposes that ZIJI is a compound consisting of like members, both of which could be either locally or long distance bound. However, he assumes that the change which took place allowing ZI to be long distance bound was the result of contact with Sanskrit, citing the preponderance of long distance ZI in translations of Buddhist texts. I show in section 3, however, that this innovation can be observed in the first Han dynasty, before the introduction of Buddhism to China. Therefore, the change in the binding possibilities of ZI must be understood as an indigenous development.

Wei (2004) correctly captures the empirical difference between Late Archaic ZI and JI, specifically that ZI must be locally bound, while JI can be either locally or long distance bound. However, like Dong (2002), he assumes that the local and long distance potentiality

of modern Mandarin ZIJI are the result of the respective inheritance of features from each of the Archaic Chinese anaphors, which I have pointed out is a logical contradiction. Wei also misrepresents the empirical distribution of ZIJI by suggesting that early instances of the compound all involve local binding. As I point out in section 4, long distance binding of ZIJI was possible even in Middle Chinese.

I propose in this paper that ZIJI is a compound composed of like members. Specifically, ZI was reanalyzed in Middle Chinese as a potentially long distance anaphor, so it came to have the same binding requirements as JI by the time the compound was formed. I also show that ZIJI and JI coexisted during Middle Chinese with similar functions. The main difference between them was prosodic. ZIJI occurred with other disyllabic phrases to form four-syllable phrases, while JI was paired with other monosyllabic words to form disyllabic phrases.

## 2 Binding properties of Archaic ZI and JI

As mentioned in the preceding section, ZI and JI had distinct binding requirements in Late Archaic Chinese. JI could be locally or long distance bound, while ZI had to be locally bound. JI was also a free morpheme and occurred in the full range of argument positions. The examples in (3) are all instances of binding of JI by the local subject. (3a) shows JI functioning as a direct object. In (3b), JI is the object of a preposition, while JI is a possessor in (3c). All of them refer to the subject of the same clause, which is null in each case.

- (3) a. 脩己以安人。 (Analects 14)  
 $e_i$  xiū jǐ yǐ ān rén.  
 train self to protect person  
 ‘Train yourself in order to protect other people.’
- b. 禹思天下有溺者，由己溺之也。 (Mencius, Lilou 2)  
 $Y\ddot{u}_i$  sī [tiānxià yǒu nì zhě,  
 Yu think world have drown DET  
 $e_i$  yóu jǐ nì zhī yě].  
 by self drown 3.ACC STAT  
 ‘ $Y\ddot{u}_i$  thought that if someone in the world drowned, then (he<sub>i</sub>) drowned them himself.’
- c. 譬之是猶舍己之君，而事人之君也。 (Xunzi 5)  
 Pìzhī shì yóu [ $e_i$  shě jǐ zhī jūn,  
 for example this like discard self GEN lord  
 ér shì rén zhī jūn] yě.  
 CONJ serve other GEN lord STAT  
 ‘For example, this is like discarding one’s own lord and serving someone else’s lord.’

(4) shows examples of long distance binding of JI. In both cases, JI appears in object position in an embedded clause and is bound by the matrix subject.

- (4) a. 諸侯惡其害己。 (Mencius, Wan Zhang 2)  
 Zhūhóu<sub>i</sub> wù [qí<sub>j</sub> hài jǐ<sub>i</sub>].  
 feudal.lord dislike they inconvenience self  
 ‘The feudal lords<sub>i</sub> dislike it that they<sub>j</sub> inconvenience them<sub>i</sub>.’  
 b. 不患人之不己知。 (Analects 1)  
 e<sub>i</sub> bù huàn [rén<sub>j</sub> zhī bù jǐ<sub>i</sub> zhī].  
 not worry others GEN not self know  
 ‘Do not worry that others do not understand you.’

JI could also be unbound. In (5a), JI is the subject of a root clause and is therefore clearly unbound. In (5b), JI is the object in a root clause, but its antecedent is not the subject, so JI is likewise unbound. Chen (1992) discusses similar examples with modern Mandarin ZIJI.

- (5) a. 人皆取先，己獨取後。 (Zhuangzi 3.11)  
 Rén jiē qǔ xiān, jǐ dú qǔ hòu.  
 other all take lead self alone take rear  
 ‘While others all take the lead, one alone himself remains in the rear.’  
 b. 莫己知也，斯己而已矣。 (Analects 14)  
 e<sub>j</sub> mò jǐ<sub>i</sub> zhī yě, sī yǐ éryǐ yǐ.  
 none self know TOP then stop only ASP  
 ‘If no one understands you, then you should just give up.’

It must be pointed out that the ability of JI to be locally bound has been called into question by Cheng (1999), Dong (2002), and Zhang (2019). Cheng (1999) and Dong (2002) analyze JI as a pronominal which cannot be locally bound. However, the fact that JI refers to the subject of its clause in all of the examples in (3) rules out the possibility that JI must be locally free.

Cheng (1999), Dong (2002), and Zhang (2019) point out that the antecedent of JI is often a generic nominal, as in (3a) and (3c), and on this basis try to conclude that JI is not an anaphor. However, whether the antecedent has specific reference is irrelevant to determining whether a pronominal form is an anaphor or not. The very fact that JI obtains its reference from a c-commanding antecedent in the clause in which it appears entails that this pronominal form is an anaphor. Furthermore, JI can also refer to specific individuals, as in (3b), so there is no inherent connection between JI and generic reference.

An additional property of anaphors is that they take a c-commanding nominal as antecedent whenever possible, while pronouns are more frequently unbound. (6a) shows a long distance example of JI; JI refers to the matrix subject and not the local subject in the embedded clause, but it is bound none the less, since it has a c-commanding antecedent. In contrast, the pronoun in (6b) does not refer to the matrix subject but rather takes its antecedent from the preceding sentence. Consequently, it is unbound within the sentence in which it appears.

- (6) a. 桓公知諸侯之歸己也，故使輕其幣而重其禮。 (Guoyu, Qi)  
 Huán Gōng<sub>i</sub> zhī zhūhóu zhī guī jǐ<sub>i</sub> yě.  
 Huan duke know lords GEN return self STAT  
 ‘Duke Huan knew that the feudal lords had come over to his side.’

- b. 施伯，魯君之謀臣也，夫知吾將用之，必不予我矣。 (Guoyu, Qi)

Shī Bó<sub>i</sub> Lǔ jūn zhī móu chén yě.  
 Shi Bo Lu lord GEN capable advisor STAT  
 Fú zhī wú jiāng yòng zhī,  
 if know we will use 3.ACC  
 bì bù yú wǒ yě.  
 certainly not give us STAT

‘Shi Bo is a very capable advisor to the lord of Lu. If (they) know that we want to use him, (they) will surely not give (him) to us.’

On the subject of JI surfacing in embedded clauses, the vast majority of cases involve long distance binding, but this was also not obligatory (contra Harbsmeier 1981). In the following example, JI is bound by the subject in the embedded clause. This is clear, since the feudal lords would be expected to side with Duke Huan due to his acting selflessly for the benefit of others. They would not be expected to side with him if they thought he had acted against their own interests.

- (7) 於是天下諸侯知桓公之非為己動也，是故諸侯歸之。 (Guoyu, Qi)

Yúshì tiānxià zhūhóu zhī  
 thus world lords know  
 Huán Gōng fēi wèi jǐ dòng yě.  
 Huan Duke not.be for self act STAT  
 Shì gù zhūhóu guī zhī.  
 this reason lords return 3.ACC

‘Because of this, the feudal lords all knew that Duke Huan was not acting on his own behalf. For this reason, they pledged their allegiance to him.’

In contrast to the pronominal analysis, Zhang (2019) argues that JI was a noun when locally bound. He gives two syntactic arguments for this proposal. First, he shows that JI could be followed by the genitive case marker, which was typically the case for an nouns (but generally not for pronouns) when serving as a possessor or the subject of a nominalized embedded clause. (8a) shows an example of JI functioning as a possessor. However, though not as common, this was also possible for a non-reflexive pronoun, as shown in (8b).

- (8) a. 譬之是猶舍己之君，而事人之君也。 (Xunzi 5)

Pìzhī shì yóu shě jǐ zhī jūn,  
 for.example this like discard self GEN lord  
 ér shì rén zhī jūn yě.  
 CONJ serve other GEN lord STAT

‘For example, this is like discarding one’s own lord and serving someone else’s lord.’

- b. 白狄及君同州，君之仇讎，而我之昏姻也。 (Zuozhuan, Cheng 13)

Báidí jí jūn tóng zhōu. Jūn zhī chóuchóu  
 Baidi and lord same province lord GEN enemy

ér      wǒ      zhī      hūnyīn      yě.  
 CONJ   we      GEN   marriage   STAT  
 ‘The Baidi and the lord are from the same province. (They) are the lord’s enemy,  
 but (they) are our relatives through marriage.’

Note that both examples are used in parallel constructions involving contrast. An obvious possible reason for the genitive marking is to make the phrases parallel in structure with the phrases they are being contrasted with.<sup>1</sup>

The second argument given by Zhang is taken from Aldridge (2009). She shows that long distance bound JI could undergo fronting to negation in negated clauses. Fronting in negated clauses was common for pronouns in Archaic Chinese but was not found with nouns. The reader is referred to Aldridge (2021) for an analysis. An example with JI is shown in (9a). In contrast, locally bound JI could not undergo fronting, as shown in (9b). Aldridge (2009) proposes that this is because JI could not surface in the same phase<sup>2</sup> as its antecedent.

- (9) a. 不患人之不己知。 (Analects 1)  
*e<sub>i</sub>   bù   huàn   [rén   zhī   bù   jǐ   zhī].*  
 not worry others GEN not self understand  
 ‘Do not worry that others do not understand you.’  
 b. 順人而不失己。 (Zhuangzi 3.4)  
*e<sub>i</sub>   shùn   rén   ér   e<sub>i</sub>   bù   shī   jǐ.*  
 accommodate person CONJ not lose self  
 ‘(He) accommodates others and without losing himself.’

Zhang proposes that the lack of fronting in cases like (9a) is due to the fact that locally bound JI is a noun, and nouns never underwent fronting in this environment. This is one possible analysis, but since Zhang does not refute the phase-based approach, this alternative is also equally valid. Furthermore, all of the examples of locally bound JI in negated clauses are contrastive. Avoidance of fronting could also be explained on this basis, as stressed pronouns did not undergo fronting (Feng 1996). Consequently, Zhang’s argument is not more convincing than my alternative.

Clearly, then, JI could be both locally and long distance bound. In contrast to this, ZI was always bound by the clause-mate subject in Late Archaic Chinese. (10) shows monoclausal examples in which ZI functions as the direct object and is bound by the subject.

- (10) a. 邦君之妻，君稱之曰夫人，夫人自稱曰小童。 (Analects 16)  
*Bāng   jūn   zhī   qī,   jūn   chēng   zhī   yuē   “fūrén”;*  
 nation ruler GEN wife ruler call 3.ACC say my lady

<sup>1</sup> According to Harbsmeier (1981), locally bound JI was typically used contrastively.

<sup>2</sup> Chomsky (2000) defines phases as vP (the extended verbal domain) and CP (a full clause). According to Aldridge (2009), JI and its antecedent must be separated by at least one phase boundary, but JI would be spelled out in the same CP as its antecedent in (9b).

fū rén zì chēng yuē “xiǎo tóng”.  
 wife self call say little servant

‘The ruler of a country refers to his wife as “my lady”, while the wife refers to herself as his “little servant”.

- b. 夫子自道也。 (Analects 14)

Fūzǐ zì dào yě.  
 master self speak STAT

‘The master is speaking of himself.’

(11) and (12) contrast ZI and JI in embedded clauses. In (11), JI and ZI are objects inside relative clauses. JI in (11a) is bound by the matrix subject, but ZI in (11b) refers to the embedded subject, which is also the gap in the relative clause.

- (11) a. 愧不若黃帝而哀不已若者。 (Zhuangzi 3.2)

$e_i$  kuì bù ruò Huángdì ér  
 be.ashamed not like Huangdi CONJ  
 $e_i$  āi [ $e_j$  bù jǐ ruò zhě].  
 feel.sympathy not self like DET

‘(He) is ashamed of not being as good as Huangdi and feels sympathy for those who are not as good as he is.’

- b. 吾未見能見其過而內自訟者也。 (Analects 5)

Wú wèi jiàn [ $e_j$  néng jiàn qí guò  
 I not.yet see can see 3.GEN error  
 ér nèi zì sòng zhě] yě.  
 CONJ within self blame DET STAT

‘I have never seen someone who can see his errors and privately blame himself.’

(12) shows parallel behavior in a complement clause. JI refers to the matrix subject in (12a), while ZI is bound by the embedded subject in (12b).

- (12) a. 謂己諛人，則怫然作色。 (Zhuangzi 2.5)

$e_i$  wèi [ $j_i$  yúrén], zé  $e_j$  fúrán zuòsè.  
 say self flatterer then anger flush

‘If someone<sub>i</sub> says he<sub>j</sub> is a flatterer, then he<sub>j</sub> flushes in anger.’

- b. 言非禮義，謂之自暴也。 (Mencius, Lilou 1)

Yán fēi Lǐ Yì,  
 speech betray Rite Righteousness  
 $e_i$  wèi [ $zh_i$  zì bào] yě.  
 say 3.ACC self injure COP

‘If his speech betrays the Rites and Righteousness, then (one) says of him that he harms himself.’

There was also a positional difference between JI and ZI. As noted above, JI was a free form, occurring in argument position, as shown above in (3a-c). On the other hand, ZI was a bound form, adjoined or cliticized to the verb. The morphological properties of ZI are not

directly relevant to the discussion in this paper. The reader is referred to Aldridge (2009) for detailed discussion and analysis of the morphological properties of ZI.

It bears mentioning at this point that the main motivation for Zhang (2019) to propose that JI could not be a locally bound anaphor is to maintain complementary distribution for the two anaphors JI and ZI. As mentioned above, he proposes that long distance JI was a pronoun, while the one construed with a local antecedent was a noun. In this way, he can claim that only ZI was a locally bound anaphor in Late Archaic Chinese. On the other hand, complementary distribution can still be observed even without denying that locally bound JI is an anaphor. This is because JI was a free form, surfacing in a variety of argument positions, which was impossible for the clitic ZI. As shown in (8a), JI can also be used contrastively, which was also not possible for ZI. Consequently, the distributions of ZI and JI even if both are analyzed as anaphors.

To summarize this section, Late Archaic Chinese JI could be locally or long distance bound, like modern Mandarin ZIJI, while ZI was required to be bound by the clause-mate subject. This empirical finding is consistent with that of Wei (2004) and Zhu (2007) and clearly refutes the proposal by Cheng (1999), Dong (2002), and Zhang (2019) that JI could not be locally bound. In Middle Chinese, ZI undergoes reanalysis such that it comes to have the binding properties of JI, acquiring the ability to be either locally or long distance bound. I turn to this reanalysis in the next section.

### 3 Middle Chinese reanalysis of 自 ZI

In this section, I show how ZI was reanalyzed as a potentially long distance anaphor in Early Middle Chinese. Binding of long distance anaphors involves the presence of an intervening potential antecedent. Because Chinese anaphors must be bound by a subject, long distance binding must cross a clause boundary. No examples of this sort are found with ZI in Archaic Chinese. There are however, examples of monoclausal causative constructions in which ZI is bound by the subject in the presence of an intervening causee. Since the causee is not the grammatical subject of the clause, it is not a potential antecedent for ZI, and these causative constructions are not examples of long distance binding of ZI. But I argue that pseudo-long distance binding in Late Archaic Chinese in these causative constructions facilitated the reanalysis of ZI as a long distance anaphor in Early Middle Chinese, and this is because a causee is a semantic subject, i.e. an agent. I first give Middle Chinese examples of true long distance binding in section 3.1. I then discuss in section 3.2 how the reanalysis of ZI as a long distance anaphor was facilitated by pseudo-long distance binding in causative applicative constructions in Late Archaic Chinese.

#### 3.1 Middle Chinese long distance ZI

The first instances of true long distance bound ZI date from Early Middle Chinese of the first Han period and are found in object control constructions. (13a) is clearly an object control construction, since the fact that the matrix object Qin also serves as the agent subject in the embedded clause. (13b) is a causative construction, which I also analyze as object control rather than stacked vPs or VoicePs. I present an argument for this analysis in (15) by demonstrating that the agent in the embedded clause is also its grammatical subject.



- (13) a. 是助秦自攻也。 (1<sup>st</sup> C. BCE: *Zhanguoce*, Zhao 3)  
 Shì [ *e<sub>i</sub>* zhù Qín<sub>j</sub> [PRO<sub>j</sub> zì gōng ]] yě.  
 this aid Qin self conquer STAT  
 ‘This is aiding the Qin to conquer us.’
- b. 止使自相。 (1<sup>st</sup> C. CE: *Lunheng* 11)  
*e<sub>i</sub>* zhǐ *e<sub>j</sub>*, shǐ *e<sub>j</sub>* [PRO<sub>j</sub> zì xiàng].  
 stop make self tell.fortune  
 ‘(He<sub>i</sub>) stopped (him<sub>j</sub>) and made (him<sub>j</sub>) tell his<sub>i</sub> fortune.’

To claim that (13b) involves long distance binding requires showing that the intervening agent is a subject. It is well known that modern Mandarin ZIJI requires its binder to be a subject. ZIJI in (14) can be bound by the matrix or embedded subject but not by the dative object.

- (14) Wángwǔ<sub>i</sub> shuō Zhāngsān<sub>j</sub> zèngsòng gěi Lǐsì<sub>k</sub>  
 Wangwu say Zhangsan give to Lisi  
 yīpiān guānyú zìjǐ<sub>i/j/\*k</sub> de wénzhāng.  
 one about self REL article  
 ‘Wangwu<sub>i</sub> says that Zhangsan<sub>j</sub> gave an article about him<sub>i</sub>/himself<sub>j</sub> to Lisik.’  
 (Cole & Sung 1994:360)

Since I have found no counterexamples in Archaic Chinese texts, I assume that the subject-orientedness has been a feature of Chinese anaphor binding throughout its attested history. I now proceed to show that the intervening causee in (13b) functions as the subject of the embedded clause and is consequently a potential antecedent for an anaphor in that clause. This is confirmed by the fact this subject is able to locally bind a reflexive in the embedded clause. (15a) shows a Late Archaic Chinese example; (15b) is an Early Middle Chinese example. In both examples, the causee binds the reflexive *zi*, showing that the causee is indeed the subject in the embedded clause.

- (15) a. 使君自取一以避罪。 (3<sup>rd</sup> C. BCE; *Hanfeizi* 48)  
*e* shǐ jūn<sub>i</sub> [PRO<sub>i</sub> zì qǔ yī yǐ bì zuì].  
 make ruler self take one C avoid blame  
 ‘(They) have the ruler himself choose one so that (they) avoid blame.’
- b. 李斯使人遺非藥，使自殺。 (1<sup>st</sup> C. BCE; *Shiji* 63)  
 Lǐ Sī shǐ rén wèi Fēi yào, shǐ *e<sub>i</sub>* [PRO<sub>i</sub> zì shā].  
 Li Si make person send Fei poison make ZI kill  
 ‘Li Si had someone send (Han) Fei poison and made (him<sub>i</sub>) kill himself<sub>i</sub>.’

Once ZI had been reanalyzed as a potentially long distance anaphor, it could appear in a variety of embedded clauses and be bound by the matrix subject (across the intervening embedded subject). The anaphor in (16a) is contained within a finite embedded clause. The embedded clause in (16b) is nominalized. The intervening potential antecedent in this case is the embedded subject in genitive case.

- (16) a. 或疑洪知裔自嫌。 (3<sup>rd</sup> C. CE; *Sanguozhi*, Shu 11)  
 Huò yí Hóng<sub>i</sub> zhī [Yì zì xián].  
 some suspect YH know ZY ZI dislike  
 ‘Some suspected that Yang Hong knew that Zhang Yi disliked him.’  
 b. 翔恨靖之不自納。 (3<sup>rd</sup> C. CE; *Sanguozhi*, Shu 8)  
 Xiáng<sub>i</sub> hèn [Jìng zhī bù zì nà].  
 ZX hate XJ GEN not ZI accept  
 ‘Zhang Xiang resented Xu Jing’s not accepting him.’

Examples like (16) make it clear that Middle Chinese ZI was a potentially long distance anaphor like Archaic Chinese JI. This fact presents a problem the analysis of the formation of ZIJI proposed by Cheng (1999) and Dong (2002). They claim that ZIJI combines the local character of ZI with the long distance character of JI, but this claim is nullified by the fact that Middle Chinese ZI was no longer restricted to local binding. Furthermore, as pointed out in section 1, to say that ZIJI combines the properties of both ZI and JI from the Late Archaic period would require that ZIJI must be locally bound (like ZI), though it can also be long distance bound (like JI), but this is a logical contradiction. My approach does not suffer from this problem, since ZI and JI could both be used as long distance anaphors by the time they combined to form ZIJI.

Zhu (2007) also proposes that ZI could be long distance bound by the time it combined with JI to form ZIJI. But there is still a problem for his approach. Zhu claims that the reanalysis of ZI as a long distance anaphor was the result of influence from Sanskrit. But long distance binding of ZI is clearly found in pre-Buddhist-influenced Chinese texts, as (13a) attests. Buddhism did not reach China until the first century CE, so the example in (13a) predates this contact.

Clearly, then, the reanalysis of ZI as a long distance anaphor was a Chinese-internal development. In the next subsection, I consider the structural environment in which this reanalysis could have taken place.

### 3.2 Archaic period pseudo-long distance ZI

The existence of long distance binding of ZI in object control constructions like (13) in Early Middle Chinese leaves open the question of how the local anaphor ZI came to allow long distance binding in the first place. In this subsection, I identify a structure which could have served as the input to the reanalysis of ZI as a potentially long distance anaphor in Early Middle Chinese. Late Archaic Chinese had an applicative construction in which the applied object could be interpreted as a causee. There are a few examples in Archaic texts in which ZI functions as the lower object and is bound by the subject, while the applied object causee intervenes between ZI and the subject. These examples are not cases of long distance binding, because they are monoclausal constructions, and the causee is not a grammatical subject. However, I suggest that this construction led to the reanalysis of ZI as a long distance anaphor because it contained an intervening c-commanding animate argument that could also be interpreted as an agent, i.e. a semantic subject. For example, this intervener in (17a) is *jiachen* ‘retainer’. In (17b), the intervener is the null pronominal which refers to the subject of the preceding sentence.

- (17) a. 身士以家臣自代者幾何人? (Guanzi 24)  
 [Shēn shì *e<sub>i</sub>* yǐ jiāchén zì dài] zhě  
 own job APPL retainer ZI replace DET  
 jīhé rén?  
 how.many person  
 ‘How many persons are there who have themselves replaced with retainers in their own occupations?’
- b. 今徐子力多臣，臣不以自代，恐他人言之而為罪也。 (Hanfeizi 33)  
 Jīn Xúzi lì duō chén, chén<sub>i</sub> bù yǐ *e<sub>j</sub>* zì dài,  
 now Xuzi ability more me I not APPL ZI replace  
 kǒng tā rén yán zhī ér wéi zuì yě.  
 fear other person mention 3.ACC CONJ do blame STAT  
 ‘Now Xuzi’s ability is greater than mine. If I do not have him replace me, I fear that someone else might mention him (to you) and criticize me.’

To my knowledge, Wei (2004: 177) was the first to speculate that this type of construction may have served as the input to the reanalysis of ZI as a long distance anaphor, given the potential of the intervening causee argument to be interpreted as an agent. In this subsection, I adopt this position but go beyond Wei 2004 by arguing for a structural analysis in which the intervening applied object is in a structural position to c-command the contents of VP. I follow Aldridge (2012) in analyzing *yī* as a high applicative head in the sense of Pylkkanen (2002). The DP which follows it occupies its specifier. The surface order is derived by movement of *yī* to *v*. Note that the DP in [Spec, ApplP] also c-commands all material to its right.

- (18) [TP DP<sub>i</sub> ... [<sub>VP</sub> <DP<sub>i</sub>> YI [<sub>AppIP</sub> DP <YI> [<sub>VP</sub> ZI<sub>i</sub>+V]]]]

The structure in (18) is highly reminiscent of the analysis proposed for the Modern Mandarin *ba* construction put forth by Whitman (2000) and Whitman and Paul (2005). In the *ba* construction, an internal argument appears in preverbal position following the functional morpheme *ba*. Note that the *ba* object is also often interpreted as a causee.

- (19) Nǐ zěnmē bǎ yī gè zéi pǎo zǒu le?  
 you how BA one CL thief run away ASP  
 ‘How did you let a thief get away?’ (Bender 2000:109)

Whitman (2000) and Whitman and Paul (2005) propose the structure in (20) for the *ba* construction. The primary difference between this analysis and my proposal for *yī* in (18) is that the object following *ba* in surface order is selected by the lexical verb and base merged within the VP. This DP then moves to the specifier of the functional projection headed by *ba*. The object is able to move across the lower *vP* shell, since this it does not project a specifier and consequently is not a strong phase. *Ba* moves to *v* like *yī* does in (18). Consequently, like the applied object in (18), the object in (20) also commands the VP and does not form a constituent with *ba*.

- (20) [<sub>VP</sub> bǎ [<sub>baP</sub> yī gè zéi t<sub>ba</sub> [<sub>VP</sub> pǎo zǒu le]]]

With Zhu (1957), Bennett (1981), Chen (1983), Mei (1990), Her (1991), Sun (1996), Feng (2000), and Wu (2003), I assume a historical connection between the Archaic Chinese *yi* construction and the Modern Mandarin *ba* construction. It is important, however, to recognize one significant difference between the *yi* and *ba* constructions. *Ba* constructions involve object sharing, while this is not always the case for *yi* constructions. This is the motivation for positing movement of the *ba* object in (20) and the reason that I assume base generation of the *yi* object outside VP in (18). My other main departure from the Whitman and Paul analysis of *ba* is that I have chosen to analyze *yi* as an applicative rather than assign it a novel label. This is because of parallels between *yi* constructions and high applicatives in other languages, which I discuss below.

Returning to the role of *yi* constructions in the reanalysis of ZI as a long distance anaphor, in this subsection, I propose a concrete connection between the construction in (18) and true long distance binding of ZI in biclausal constructions in Early Middle Chinese. There are two crucial ingredients. The first was noticed by Wei (2004), i.e. the fact that *yi* can introduce the causee in a causative construction which is the agent of the following VP. This aids the reanalysis since agents are semantic subjects. I concentrate here on the second ingredient, which is my analysis of *yi* in which the object introduced by *yi* c-commands the lower object. This is a necessary condition for the reanalysis since c-command is necessary for binding. With these semantic and syntactic conditions fulfilled, it is then a small step which allowed ZI to be bound over an intervening grammatical subject in a biclausal construction in Early Middle Chinese. In the remainder of this subsection, I argue for the analysis of *yi* as an applicative whose argument c-commands all material in the VP.

My analysis is based partly on the parallel behavior between *yi* and applicatives in other languages, taking examples from Austronesian languages. In particular, the range of arguments which could be selected by *yi* overlaps nearly completely with Austronesian languages like Tagalog. First, *yi* often selects a transported theme in a ditransitive construction. Archaic Chinese had three types of ditransitive construction. (21a) shows a dative construction with a direct object and PP goal. (21b) is a double object construction. In (21c), the theme is preposed with *yi*. This can also be understood as a causative construction, the causative interpretation involving causing the theme to be located at or possessed by the goal.

- (21) a 天子能薦人於天。 (Mencius 9)  
 Tiānzǐ néng [jiàn rén yú tiān].  
 ruler can recommend person to heaven  
 ‘The ruler can recommend someone to heaven.’
- b 不能使天與之天下。 (Mencius 9)  
 bù néng shǐ tiān [yǔ zhī tiānxià].  
 not can make heaven give 3.ACC world  
 ‘(He) cannot make heaven give him the world.’
- c 天子不能以天下與人。 (Mencius 9)  
 Tiānzǐ bù néng yǐ tiānxià [yǔ rén].  
 ruler not can APPL world give person  
 ‘The ruler cannot give the world to someone.’

(22) shows that Tagalog *i-* also selects the theme in a ditransitive. This is parallel to Archaic Chinese *yi* in (21c). Since Tagalog is an ergative language, the applied object has absolutive case, while the subject has ergative case.

- (22) I-b<in>igay                      ng      babae      ang      bulaklak      sa      lalaki.  
 APPL<TR.PRIV>give              ERG      woman      ABS      flower      to      man  
 ‘The woman gave the flower to the man.’

As shown by Rackowski (2002), the *i-* applicative construction in Tagalog has the properties of a high applicative. For example, as in many other languages with high applicatives, e.g. Kichaga and Kinyarwanda (McGinnis 2001), Tagalog *i-* can select a benefactive argument, as in (23a). Note further that the applicative combines with an unergative VP, which is one of Pylkkanen’s (2002) hallmark diagnostics for a high applicative, as opposed to a low one. Another type of argument commonly selected by a high applicative is an instrument, which is shown by the related language Seediq in (23b). The applicative in this language is *s-*.<sup>3</sup>

- (23) a. I-t<in>awa                      ng      babae      ang      anak=niya.  
 APPL<TR.PRIV>laugh      ERG      woman      ABS      child=3SG.GEN  
 ‘The woman laughed for her child.’  
 b. Wada=na      s-pahu      lukus      ka      qushia mutaso.  
 PAST=3SG.ERG APPL-wash clothes ABS      water      clean  
 ‘She washed clothes with the clean water.’

In Late Archaic Chinese, *yi* could also select an instrument or beneficiary, as shown in (24a) and (24b), respectively. Note further that (24a) is unergative, providing support for my analysis of *yi* as a high applicative. The object selected by *yi* is the gap in a headless relative clause and does not appear overtly. The VP within the relative clause consists of a single unergative verb.

- (24) a. 此昔吾先王之所以霸。 (Lüshi Chunqiu 14.5)  
 Cǐ      [xī      wú      xiān      wáng]      zhī      suǒ      [yǐ      e      bà].  
 this      past      1.GEN      former king      GEN      REL      APPL      reign  
 ‘This is means with which our former king reigned supreme in the past.’  
 b. 虢仲以王南征。 (9th – 8th c. BCE: *Guo Zhong xu gai* 虢仲盪蓋)  
 Guó      zhòng      yǐ      wáng      nán      zhēng.  
 Guo      Zhong      for king      go.south      fight  
 ‘Guo Zhong on behalf of the king went south on an expedition.’  
 (Djamouri & Paul 2021:71)

Finally, as seen in (25b), *yi* can also introduce the causee in a causative construction. (25b) is very similar to the examples with *ZI* in (17), but this example is not reflexive. In the monotransitive (25a), the subject of *dai* is an external argument, specifically the one who replaces the internal argument object. (25b) is a causative applicative with *yi*. The argument

<sup>3</sup> The Tagalog and Seediq applicatives are cognate with each other, both deriving from \*Si-.

selected by *yi* is an internal argument, but it is the causee which replaces the innermost object.

- (25) a. 文公子佗殺太子免而代之。 (Zuozhuan, Huan 5)  
 Wéngōng zǐ Tuó shā tàizǐ Wèn ér dài zhī.  
 CW son Tuo kill heir Wen CONJ replace 3.ACC  
 ‘Chen Wen’s son Tuo killed the heir Wen and replaced him (on the throne).’  
 b. 欲以其子奚齊代太子申生。 (Hanfeizi 31)  
 Yù yǐ qí zǐ Xīqí dài tàizǐ Shēnshēng.  
 want APPL 3.GEN son Xiqi replace heir Shensheng  
 ‘(She) wanted to have her son Xiqi replace the heir Shensheng.’

The Tagalog high applicative can also introduce a causee. In its intransitive use, *balik* means ‘return’, as shown in (26a). With the applicative, it becomes transitive and causative, as in (26b).

- (26) a. Ba-balik=ako sa bahay.  
 FUT-return=1SG.ABS to house  
 ‘I am going home.’  
 b. I-ba-balik=ko ang libro sa aklatan.  
 APPL-FUT-return=1SG.ABS ABS book to library  
 ‘I will return the book to the library.’

The Standard Indonesian counterpart of Tagalog *i-* is the verbal suffix *-kan*. The ditransitives in (27) are parallel to the Archaic Chinese ditransitives in (27). The verb is unmarked in the double object construction in (27a). In this example the goal appears in immediate post-verbal position, followed by the theme. When the applicative suffix *-kan* is added to the verb, the theme immediately follows the verb, as in (27b).

- (27) a. Ali mem-beri Nuri buku.  
 Ali TR-buy Nuri book  
 ‘Ali gave Nuri a book.’  
 b. Ali mem-beri-kan buku kepada Nuri.  
 Ali TR-buy-APPL book to Nuri  
 ‘Ali gave Nuri a book.’

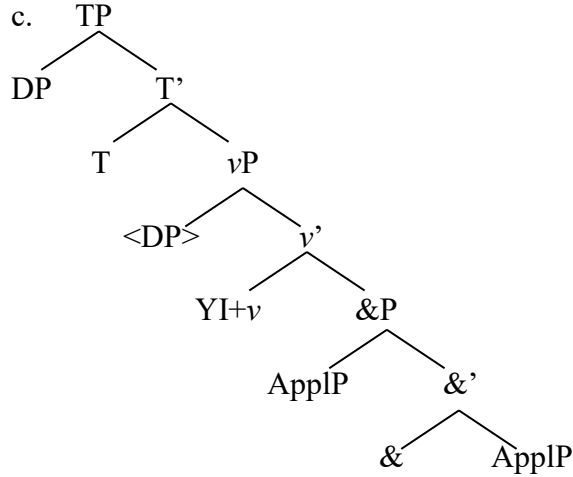
(28) shows the *-kan* applicative in causative function.

- (28) a. Adik saya sudah mandi.  
 brother 1SG already bathe  
 ‘My brother has already bathed.’  
 b. Dia me-mandi-kan adik saya.  
 3SG TR-bathe-APPL brother 1SG  
 ‘He bathed (caused to bathe) my brother.’  
 (Cole and Son 2004:341)

Son and Cole (2008) propose that all uses of *-kan* involve causative semantics. My analysis of Archaic Chinese *yi* follows Rackowski (2002) in assuming a high applicative structure. But I am also in agreement with Son and Cole regarding the causative interpretation. Interpreting the DP following *yi* as a causee in pseudo-long distance anaphor binding examples like (17) is what I suggest in this paper led to the emergence of true long distance binding of ZI in biclausal constructions in Early Middle Chinese. This is because the intervening causee in monoclausal causative constructions is a semantic subject that c-commands the object in VP.

The analysis of *yi* as an applicative runs counter to the widely held assumption in the field of Chinese historical linguistics that *yi* is a preposition rather than a functional head on the clausal spine (Wang 1980, Yang and He 1992, Hsueh 1997, Guo 1998, Djamouri 2009, Djamouri and Paul 2021, among many others). However, analyzing *yi* as a preposition rather than a causative applicative misses the striking parallel between *yi* and high applicatives in other languages like Tagalog. There is also empirical evidence that *yi* does not form a constituent with the following DP, as would be expected if *yi* were a preposition. Complements of *yi* are conjoined in (29), but *yi* is not repeated. My analysis of *yi* in (18) allows (29a, b) to be analyzed as gapping along the lines proposed by Tang (2001) for modern Mandarin. This analysis is shown in (29c). The structure is built on coordinated ApplPs. When movement of *yi* to *v* takes place, across-the-board movement will apply so that both instances of *yi* raise from their respective ApplPs in accordance with the Coordinate Structure Constraint. These movements strand the conjoined ApplPs containing the applied objects and the following VPs, while *yi* has moved outside of this constituent. Consequently, there is only one instance of *yi* preceding the conjoined ApplPs.

- (29) a. 臣請以彫玉為棺， 文梓為槨。 (1<sup>st</sup> C. BCE; *Shiji* 126)  
 Chén qǐng yǐ [diāo yù wéi guān],  
 minister ask APPL carve jade be outer  
 [wén zǐ wéi guǒ].  
 inscribe wood be inner  
 ‘I request making carved jade into the outer coffin and inscribed wood into the inner coffin.’
- b. 以大將軍吳漢為大司馬，偏將軍景舟  
 為驃騎大將軍。 (5<sup>th</sup> C. CE; *Hou Hanshu*)  
 Yǐ [dà jiāngjūn Wú Hàn wéi dàsīmǎ]  
 APPL great general Wu Han be chief  
 [piān jiāngjūn Jǐng Zhōu wéi piàojí dàjiāngjūn].  
 lesser general Jing Zhou be cavalry commander  
 ‘(The emperor) made General Wu Han commander in chief of the military and Lieutenant General Jing Zhou commander of the cavalry.’



I point out that the examples in (29) are from Middle Chinese texts. I have found no examples involving coordination under *yi* in Archaic texts. This does not, however, invalidate my claim that *yi* was not a preposition in Archaic Chinese. The coordination evidence in (29), especially the Early Middle Chinese example in (29a), shows that *yi* could not have been a preposition at this time. Attempting to maintain the preposition analysis for Archaic Chinese would require positing a radical reanalysis of *yi* from a preposition to a clausal head in Middle Chinese.

Another argument against the preposition analysis of *yi* comes from the ability of the argument selected by *yi* to undergo syntactic movement. If *yi* formed a constituent with this DP to the exclusion of the rest of the clause, then this constituent would be an island to extraction, contrary to fact. VP-internal interrogative pronouns underwent fronting to a position between the subject and the VP. (30a) shows movement of a direct object. In (30b), an object selected by *yi* undergoes fronting to the same position. (30c) shows movement of an applied object in a relative clause.

- (30) a. 吾誰欺？欺天乎？ (Analects 9)  
 Wú shéi [vP qī *t<sub>shei</sub>*]? Qī tiān hū?  
 I who deceive deceive Heaven Q  
 ‘Who do I deceive? Do I deceive Heaven?’
- b. 失忠與敬，何以事君？ (Zuozhuan, Xi 5)  
 Shī zhōng yǔ jìng, hé [vP yǐ [ApplP *the* [vP shì jūn]]]?  
 lose loyalty and respect what APPL serve lord  
 ‘Having lost loyalty and respect, what does one serve his lord with?’
- c. 君子不以其所以養人者害人。 (Mencius, Liang Hui Wang 2)  
 Jūnzǐ bù yǐ [DP qí suǒ yǐ [ApplP *the* [vP  
 good.man not APPL 3.GEN REL APPL  
 yǎng rén]] zhě] hài rén.  
 nourish person DET harm person  
 ‘A superior man does not harm people using that with which he nourishes them.’



An anonymous reviewer questions my analysis of the constituency in (29a, b) by suggesting that prepositions in Late Archaic Chinese could be gapped by deletion, and this is because they had not fully grammaticalized from verbs. This assumption is problematic for two reasons. First, gapping has been argued convincingly to be derived via across-the-board movement, as I showed in (29c), and not by ellipsis. The reader is referred to Tang (2001) for arguments and references to other literature. Secondly, the ability to undergo gapping was not in fact a property of verbs in Late Archaic Chinese. An interesting contrast is offered by the causative verb *shi*. This verb projects different structures, depending on whether it causes an event to take place or whether it causes an individual to perform an action. The two types are distinguished semantically in terms of whether the DP following *shi* is an agent or not. If *shi* causes an event to take place, then it selects the entire clause following it, and the DP following *shi* is not an agent, as shown in (31a). The fact that the DP following *shi* is not an agent is clearest from the fact that the embedded subject in the second conjunct *shi* ‘task’ is inanimate. Although the embedded subject in the first conjunct *min* ‘people’ is animate, it is not acting of its own volition in this sentence and consequently is also not an agent. Aldridge (2016) analyzes this complement clause as a TP rather than a full CP in order to allow the matrix *v* to exceptionally case license the embedded subject. The other structure projected by *shi* is object control. Examples of this sort were discussed in section 3.1. An example involving coordination is shown in (31b). Note that the DP following *shi* is an agent that is made to perform an action.

- (31) a. 使民必勝事，事必出利。 (Xunzi 10)  
       **shǐ** [TP *mín* *bì* *shèng* *shì*]  
       make people must be.up.to task  
       [TP *shì* *bì* *chū* *lì*].  
       task must yield benefit  
       ‘...make it be the case that [people are necessarily up to their tasks] and [the tasks yield benefit].’
- b. 使愚詔知，使不肖臨賢。 (Xunzi 11)  
       [VP **shǐ** *yú*<sub>i</sub> [CP PRO<sub>i</sub> *zhào* *zhì*]]  
       make ignorant teach knowledgeable  
       [VP **shǐ** *búxiào*<sub>i</sub> [CP PRO<sub>i</sub> *lín* *xián*]].  
       make unvirtuous look.down.on virtuous  
       ‘...make the ignorant teach the knowledgeable and make the unvirtuous stand above the virtuous.’

What is important for the discussion at hand is that the causative verb appears once in (31a) and twice in (31b). This is not because of optional deletion in (31a) and the lack of deletion in (31b). Aldridge (2016) shows that the asymmetry between the two constructions shown in (31) is robustly attested in Late Archaic Chinese. Specifically, the structure in (31a) contains a constituent TP which can be coordinated to the exclusion of the verb *shi*. Consequently, there is only one instance of *shi*. But there is no constituent in (31b) excluding the verb that can be coordinated, since the verb, the DP controllee, and the embedded clause are all contained within the VP. This demonstrates that the lack of repetition of verbs in coordinate structures like (29a, b) and (31a) is a consequence of constituency and is not the result of optional deletion.

To summarize this section as a whole, I have proposed that the emergence of long distance bound ZI was enabled by examples in which ZI was bound over an intervening causee applied object in Late Archaic Chinese. This causee was not a syntactic subject, but as a semantic subject, it provided indirect evidence to language acquirers that ZI could be bound across a type of subject which intervened between ZI and its antecedent. Furthermore, as the applied object, this DP was in a structural position to c-command the object in VP. This structural configuration was then extended in Early Middle Chinese to biclausal constructions in which the intervening subject was also a grammatical subject in true cases of long distance binding of the anaphor ZI. The next section discusses the development of the modern anaphor ZIJI by combining ZI and JI, which could both be either locally or long distance bound at the time this word was formed.

#### 4 Emergence of ZIJI

This section discusses the properties of the compound ZIJI. As for the motivation for the formation of the compound, I assume this was part of the significant increase of disyllabic words in the lexicon in Early Middle Chinese of the Han period (Wang 1980, Norman 1988, Feng 1997, and others), which in turn was probably due to simplification of syllable structure through sound change (Norman 1988 and Feng 1997). But my discussion here will be limited to the syntactic properties of this compound.

In the previous section, I have shown that the compound ZIJI consists of two anaphors which could be locally or long distance bound. In other words, the two members of the compound have the same requirements with respect to the Binding Theory. Therefore, it is not possible to accept the proposal by Cheng (1999) and Dong (2002) that ZIJI takes its local binding possibility from ZI and its long distance binding possibility from JI. This is because ZI was reanalyzed as a potentially long distance anaphor in Middle Chinese before the compound was formed.

Zhu (2007) does agree with the current proposal that ZI allowed long distance binding by the time the compound ZIJI was formed. However, he attributes this reanalysis to influence from Sanskrit. This cannot be the case, since long distance binding of ZI can be seen in native texts which predate the arrival of Buddhism in China, as discussed in section 2. In section 3, I argued that the reanalysis was a native development and took place in causative constructions.

Wei (2004) correctly analyzes the binding requirements of ZI and JI. However, he incorrectly asserts that early examples of ZIJI all involve local binding. In this section, I show that ZIJI could be either locally or long distance bound from at least the 4<sup>th</sup> century. Thus, ZIJI in Middle Chinese had the same binding requirements as it does in modern Mandarin. In fact, ZIJI was completely parallel in its syntactic function and distribution to JI, which maintained its Late Archaic Chinese function of allowing both local and long distance binding in Early Middle Chinese.

The tables in (32) and (33) show the distributions of JI and ZIJI in the 4<sup>th</sup> century translation of the Buddhist sutra *Mohe Seng Qilü* (摩訶僧祇律) available on the Academia Sinica Ancient Chinese corpus. There are examples of both local and long distance binding for each of them. As shown in (32), when they are locally bound, JI functions overwhelmingly as a possessor.

(32)	<u>Local</u>	<u>己 JI</u>	<u>自己 ZIJI</u>
	Object (of P):	3 (12%)	3 (75%)
	Possessor:	<u>22</u> (88%)	<u>1</u> (25%)
		25	4

As can be seen in (33), when they are long distance bound, they rarely function as possessors, but occur with roughly equal frequency in subject and object position.

(33)	<u>LD</u>	<u>己(JI)</u>	<u>自己(ZIJI)</u>
	Subject:	8 (53%)	1 (57%)
	Object (of P):	6 (40%)	2 (29%)
	Possessor:	<u>1</u> (7%)	<u>1</u> (14%)
		15	4

Clearly, then, the two are comparable in terms of syntactic function or distribution. I propose that the difference between them was prosodic. The disyllabic form 自己 ZIJI was used in conjunction with other disyllabic words or phrases in order to form four-syllable phrases. In (34a), ZIJI is a possessor. The noun it possesses consists of two syllables, so the entire possessed DP consists of four syllables. In this example, ZIJI is not locally bound; in fact it is unbound, which is clear from the fact that it is embedded inside the subject of its clause. Consequently, it is not possible for an antecedent to appear in this clause. In (34b), ZIJI is the object of a disyllabic verb, forming a four-syllable VP. This ZIJI is long distance bound by the subject of the highest clause.

- (34) a. 自己衣鉢亦師房中。 (4<sup>th</sup> C: *Mohe Seng Qilü* 3)  
 [Zǐjǐ yī bō] yì shī fáng zhōng.  
 self robe bowl also teacher room inside  
 ‘His own robe and bowl were also in the master’s quarters.’  
 b. 但令執作供給自己。 (4<sup>th</sup> C: *Mohe Seng Qilü* 3)  
 e<sub>i</sub> dàn lìng e<sub>j</sub> zhízuò [gòngjǐ zìjǐ].  
 just order labor supply self  
 ‘(You) just order (them) to labor to supply you.’

Monosyllabic 己 JI combined with other monosyllabic words in order to form disyllabic phrases. (35a) shows a VP with a monosyllabic verb and JI as the object. (35b) shows a PP. Interestingly, in all of the examples in which a preposition takes an anaphor as its object, the object is JI and not ZIJI. I assume this is because a P+ZIJ I combination would result in a three-syllable phrase, which is rare in this text. (35c) shows JI as a possessor possessing a monosyllabic noun. (35b) involves long distance binding, while JI in (35a) and (35c) is bound by the local subject.

- (35) a. 自稱者，稱己也。 (4<sup>th</sup> C: *Mohe Seng Qilü* 4)  
 e<sub>i</sub> zì chēng zhě, [v<sub>P</sub> chēng jǐ] yě.  
 self refer DET refer self STAT  
 ‘A self-proclaimer refers to himself.’

- b. 若師知爲己敷 (4<sup>th</sup> C: *Mohe Seng Qilü* 14)  
 Ruò shī<sub>i</sub> zhī e<sub>j</sub> [pp wèi jǐ] fū ...  
 if teacher know for self spread  
 ‘If the master knows that (you) spread (it) for him ...’
- c. 若我自取己分，不久當盡。 (4<sup>th</sup> C: *Mohe Seng Qilü* 2)  
 Ruò wǒ<sub>i</sub> zì qǔ [DP jǐ fèn], bù jiǔ dāng jìn.  
 if I self take self share not long will end  
 ‘If I only take my own share, then it will soon be gone.’

From the preceding discussion, it can be seen that JI and ZIJ are parallel in their syntactic function and distribution. The difference in their distribution seems to be only due to prosodic factors. Before concluding this section, I briefly consider the case of ZI during this period.

Wei (2004) points out that the use of ZI as an anaphor declines in Middle Chinese. (36) shows the distribution of ZI in the first three volumes of the *Mohe Seng Qilü*. In this very preliminary survey, I have not separated the local and long distance cases. Nor have I counted the instances of ZI as an anaphor as opposed to its non-pronominal uses. But it is clear from the table that the overwhelming number of cases involve ZI as an adverbial (whether as an anaphor or not) and not as an argument.

(36)	<u>自</u> ZI
Adverb:	80 (86%)
Argument:	<u>13</u> (14%)
	93

(37) provides some examples. In (37a), ZI functions as the direct object. In (37b), ZI is an adverb but it is still an anaphor bound by the local subject. In (37c), ZI is an adverb and not a pronominal at all. It is cases like (37c) that Wei (2004) notes are increasing in Middle Chinese.

- (37) a. 或有自供，或有賣者。 (4<sup>th</sup> C: *Mohe Seng Qilü* 3)  
 Huò yǒu zì gòng \_\_, huò yǒu mài zhě.  
 some exist self supply some exist sell DET  
 ‘Some took (it) for themselves; some sold (it).’
- b. 諸比丘各各自作屋住。 (4<sup>th</sup> C: *Mohe Seng Qilü* 2)  
 Zhū bǐqiū gègè zì zuò wū zhù.  
 PL monk each self make house live  
 ‘Each monk made a house himself to live in.’
- c. 家自無材，王材亦盡。 (4<sup>th</sup> C: *Mohe Seng Qilü* 2)  
 Jiā zì wú cái, wáng cái yì jìn.  
 home self not.have wood king wood also gone  
 ‘The house was long since out of wood. The king’s wood was likewise gone.’

The decline in use of ZI as an argument substantiates Wei’s (2004) observation that ZI was losing its function as a pronominal anaphor in Middle Chinese, this role being assumed primarily by JI and ZIJ for the duration of this period.

## 5 Conclusion

In this paper, I have shown that ZI was a locally bound anaphor in Late Archaic Chinese, while JI could be either locally or long distance bound. In Middle Chinese, ZI was reanalyzed as a potentially long distance anaphor. I identified a causative applicative structure which served as the input to the reanalysis. Pseudo-long distance binding of ZI over the applied object causee facilitated true long distance binding of ZI over an intervening embedded subject in a biclausal construction in Early Middle Chinese due to the fact that the causee could be interpreted as a semantic subject, and this DP also c-commands the contents of VP.

Once ZI was reanalyzed as a potentially long distance anaphor, it could combine with JI to form the compound ZIJI. Middle Chinese ZIJI could be locally or long distance bound, having inherited the binding requirements of its two roots ZI and JI. JI and ZIJI coexisted during Middle Chinese with similar binding properties, the difference between them being prosodic. JI lost its status as a free morpheme by the time of Early Mandarin and is retained only in compounds like ZIJI. ZIJI serves as the primary reflexive pronoun in Modern Mandarin.

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# 反身代詞“自己”的產生和形成過程

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## 摘要

本文分析反身代詞「自己」的來源，以及其由先秦漢語的代詞「自」及「己」之形成過程。首先，討論先秦漢語中「自」及「己」的約束要求，提出「自」僅能接受局部約束，反之，「己」既可接受局部約束又能接受長距離約束。其次，本文考察歷時演變，指出在早期中古漢語中，「自」被重新分析為長距離反身代詞，換言之，複合詞「自己」形成之前，「自」及「己」均可接受局部以及長距離的約束。由此可見，「自己」是由兩個相似的成分所構成。此結論亦反對過往研究所主張，「自己」的兩種約束可能性分別來自於局部反身代詞「自」及代詞「己」的分析。最後，本文進一步證明在中古漢語中，「己」與「自己」均存在，並且皆可做為局部或長距離的反身代詞，唯在韻律上有區別：「自己」多與雙音節的詞彙結合為四個音節的詞組，而「己」通常搭配其他單音節的詞彙構成雙音節的詞組。

## 關鍵詞

反身代詞、局部約束、長距離約束、施用式、句法演變