Emergence and Formation of the Modern Chinese Anaphor

ZIJI

1. Introduction

This paper presents an analysis of the formation of the Modern Mandarin anaphor 自己 ZIJI from two Late Archaic Chinese anaphors 自 ZI and 己 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) Zhangsan, renwei [Lisi j hai-le ziji j].

Zhangsan think Lisi hurt-ASP self

‘Zhangsan thought that Lisi hurt him/himself.’

ZIJI emerged in the Six Dynasties period (3rd–6th centuries CE). It is composed of two anaphors which had different binding requirements in Late Archaic Chinese of the Warring States period
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, 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）
Duo xing bu yi, ei bi zi bi.
‘Having done much wrong, he will certainly do himself in.’

b 諸侯惡其害己。 （Mencius 10）
Zhuhoui wu [qi ji hai ji].
‘The feudal lords dislike it that they inconvenience self’

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. Dong (2002) proposes that the combination of local and long distance binding capability of modern ZIJI is the result of adding the features of the anaphor ZI to the pronominal JI. 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. Condition A of Chomsky’s (1981, 1986) Binding Principles requires that an anaphor be bound in a local domain, while Condition B requires a pronominal to be free 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.

Dong’s proposal also fails 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 Dong’s analysis 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 Dong’s 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 very free even in Middle Chinese.

I propose in the paper that the compound ZIJI is 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. Ultimately, JI was replaced by ZIJI.
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 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 a possessor. In (3c), JI is the object of a preposition.

(3) a 修己以安人。 (Analects 14)

\[ e_i \text{ xiu} \ j_i \text{ yi} \ an \ ren. \]

train self to protect person

‘Train yourself in order to protect other people.’

b  堯以不得舜為己憂。 (Mencius 5)

Yao yi bu de Shun

Yao take not obtain Shun

\[ \text{wei} \ [j_i \ you]. \]

be self concern

‘Yao took not obtaining Shun (as his successor) as his own concern.’
(4) shows examples of long distance binding of JI. In both cases, JI appears in object position in an embedded clause. JI is bound by the matrix subject.

(4) a 諸侯惡其害己。 (Mencius 10)

Zhuhou, wu [qi, hai ji].

feudal.lord dislike they inconvenience self

‘The feudal lords dislike it that they inconvenience them.’

b 不患人之不己知。 (Analects 1)

ei bu huan [ren, zhi bu ji, zhi].

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.
(5) a 人皆取先，己獨取後。  (Zhuangzi 3.11)

Ren jie qu xian, ji du qu hou.

‘While others all take the lead, one alone himself remains in the rear.’

b 莫己知也。  (Analects 14)

eji mo ji zhi ye.

‘Noone understands me!’

In contrast to JI, ZI was always bound by a clause-mate subject in Late Archaic Chinese. (6) shows monoclausal examples in which ZI functions as the direct object and is bound by the subject.

(6) a 多行不義，必自斃。  (Zuo zhuan, Yin 1)

Duo xing bu yi, e bi zi bi.

‘Having done much wrong, he will certainly kill himself.’

b 夫子自道也。  (Analects 14)

Fuzi zi dao ye.

‘The master is speaking of himself.’
(7) and (8) contrast ZI and JI in embedded clauses. In (7), JI and ZI are objects inside relative clauses. JI in (7a) is bound by the matrix subject, but ZI in (7b) refers to the embedded subject, which is also the gap in the relative clause.

(7)  

a 愧不若黃帝而哀不己若者。 (Zhuangzi 3.2)  

ei kui bu ruo Huangdi er  
be.ashamed not like Huangdi CONJ  
ei ai [ ej bu ji ruo zhe].  
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)  

Wu i wei jian [ ej neng jian qi guo  
I not.yet see can see 3.GEN error  
er nei zi song zhe ye.  
CONJ within self blame DET ASP  
‘I have never seen someone who can see his errors and privately blame himself.’
(8) shows parallel behavior in a complement clause. JI refers to the matrix subject in (8a), while ZI is bound by the embedded subject in (8b).

(8)  

a 講已諛人，則怫然作色。 (Zhuangzi 2.5)  

\[ e_i \text{ wei } [\text{ji}_j \ yuren], \ ze \ e_j \ furan \ zuose. \]

say self flatterer then anger flush

‘If someone\(i\) says he\(j\) is a flatterer, then he\(j\) flushes in anger.’

b 言非禮義，謂之自暴也。 (Mencius 7)  

Yan fei Li Yi,  

speech betray Rite Righteousness  

\[ e_i \text{ wei } [\text{zhi}_i \ zi_i \ bao] \ ye. \]

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. 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.

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 Dong (2002) that JI could not be locally bound. In Middle Chinese, ZI loses this requirement, acquiring the ability to be long distance bound.

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 a causee. Since the causee is not the 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 in these causative
constructions facilitated the reanalysis of ZI as a long distance anaphor in Early Middle Chinese. Supporting evidence for this proposal comes from the fact that the first examples of true long distance binding of ZI involve biclausal causative constructions in Early Middle Chinese. The causee in these cases was a subject, specifically the subject of the clause embedded under the causative verb. The object of these embedded clauses was the anaphor ZI; the subject therefore was an intervening potential antecedent. In later Middle Chinese, long distance binding of ZI was extended to other contexts, including binding across a finite clause boundary.

3.1. Middle Chinese long distance ZI

The first instances of true long distance bound ZI are found in causative constructions. The examples in (9) date to Early Middle Chinese of the Han period. Note in particular the causative verb *shi* in (9b).

(9)  a 是助秦自攻也。 (1st C. BCE: *Zhanguoce*, Zhao 3)

Shi [ *e*1 zhu [Qin *zi*1 gong]] ye.

this aid Qin self conquer COP

‘This is aiding the Qin to conquer us.’
To claim that the examples in (9) involve long distance binding requires showing that they are biclausal and that the intervening DP is the embedded subject. It is well known that modern Mandarin ZIJI requires its binder to be a subject. ZIJI in (10) can be bound by the matrix or embedded subject but not by the dative object.

(10) Wangwu$_i$ shuo Zhangsan$_j$ zengsong gei Lisi$_k$
    Wangwu say Zhangsan give to Lisi
    yipian guanyu ziji$_i$/$j^*$ de wenzhang.
    one about self REL article
    ‘Wangwu$_i$ says that Zhangsan$_j$ gave an article about
    him$_i$/himself$_j$ to Lisi$_k$.’  (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 (9a, b) is the subject of the
embedded clause and consequently a potential antecedent for an anaphor in that clause.

I first show that causative verbs embed a clausal structure and not just a vP. As shown in (11), passives could be embedded under a causative verb like shi ‘make’.

(11) a 善治者，使跖可信。 (Shangjun Shu 18)
 Shan zhi zhe shi [Zhi ke xin].
 well govern DET make Zhi PASS believe
 ‘One who governs well makes (the thief) Zhi able to be believed.’

b 使國可長保而傳于子孫 (Yanzi Chunqiu 1.16)
 Shi [guo ke chang bao
 make nation PASS long keep
 er chuan yu zisun] ….
 CONJ pass to descendant
 ‘To make the nation sustained for a long time and passed on to one’s descendants …’

This means that the embedded structure must have a position for derived subjects, entailing the presence of a TP layer above the vP. Accordingly, the causees in the examples in (9) occupy the [Spec, TP] subject position in the embedded clauses and consequently are
potential antecedents for the reflexives, yielding the result that the reflexives in these examples are long distance bound.

(12) \[ TP \text{ DP}_i \text{ make } [TP \text{ DP } [VP \text{ ZI}_i^+V]] \]

The subjecthood of the causee is further confirmed by the fact that it is able to locally bind a reflexive in the embedded clause.

(13) 李斯使人遺非藥，使自殺。 (1st C. BCE; Shiji 63)

Li Si shi ren qian Fei yao, shi e_i zi_i sha.

Li Si make person send Fei poison make ZI kill

‘Li Si had someone send (Han) Fei poison and made him kill himself.’

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 (14a) is contained within a finite embedded clause. The embedded clause in (14b) is nominalized. The intervening potential antecedent in this case is the embedded subject in genitive case.
Examples like (14) make it clear that Middle Chinese ZI was a potentially long distance anaphor like Archaic Chinese JI. This fact presents a problem for Dong’s (2002) analysis of the formation of ZIJI. She claims 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. There is also a problem for Zhu’s (2007) approach. Zhu claims that the reanalysis of ZI was the result of influence from Sanskrit. But long distance binding of ZI is clearly found in pre-Buddhist-influenced Chinese texts, as (9a) attests. Buddhism did not reach China until the first century CE. But the example in (9a) predates this contact.
3.2. *Archaic period pseudo-long distance ZI*

The existence of long distance binding of ZI in causative constructions like (9) 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 was 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 subject. The intervener in (15a) is *jiachen*. In (15b), the intervener is the null pronominal.

(15)  a 身士以家臣自代者幾何人？ (Guanzi 24)

[Shen  shi  e_yi  jiantchen  zhi_dai]  zhe
own   job   YI  retainer   ZI  replace   DET
jihe    ren?
how_many   person

‘How many persons are there who replace themselves with retainers in their own occupations?’
In this paper, I analyze yi as a high applicative head in the sense of Pylkkanen (2002). The DP which follows it in surface order occupies its specifier. The surface order is derived by movement of yi to v.

(16) \[ \left[ \text{TP DP}_i \ldots [\text{vP } \text{DP}_i] \ YI \ [\text{ApplP DP } YI] \ [\text{VP ZI}_i + V]] \right] \]

The structure in (16) 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.

(17) Ni zenme ba yi ge zei pao zou le?
    'How did you let a thief get away?'  (Bender 2000:109)
Whitman (2000) and Whitman and Paul (2005) propose the structure in (18) for the *ba* construction. The primary difference between this analysis and my proposal for *yi* in (16) 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 *yi* does in (16).

(18) \[ [\textit{vP} \; \textit{ba} \; [\textit{baP} \; \textit{zhuyu} \; t_{ba} \; [\textit{vP} \; \textit{zixi} \; \textit{kan}]]] \]

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 *yi* constructions do not. This is the motivation for positing movement of the *ba* object in (18) and the reason that I assume base generation of the *yi* object outside VP in (16). 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, Wei (2004) also speculates that pseudo-long distance binding of ZI in examples like (15) played a pivotal role in this process. Unfortunately, he does not offer an explanation as to why he thinks this is the case. In this subsection, I offer a more concrete connection between the construction in (16) and true long distance binding of ZI in biclausal causative constructions in Early Middle Chinese. I propose that *yi* applicatives are themselves a type of causative construction in which the applied object is the causee. It is then a small step which allowed ZI to be bound over an intervening causee in a biclausal causative construction in Early Middle Chinese. In the remainder of this subsection, I argue for the analysis of *yi* constructions as causative applicatives.

My analysis is based partly on the parallel behavior between *yi* and applicatives in other languages, specifically Austronesian languages, which are also associated with a causative semantics. First, *yi* often selects a transported theme in a ditransitive construction. Archaic Chinese had three types of ditransitive construction. (19a) shows a dative construction with a direct object
and PP goal. (19b) is a double object construction. In (19c), the theme is preposed with *yi*. The causative interpretation involves making the theme be located at or possessed by the goal.

(19) a 天子能薦人於天。 (Mencius 9)

Tianzi neng [jian ren yu tian]

ruler can recommend person to heaven

‘The ruler can recommend someone to heaven.’

b 不能使天與之天下。 (Mencius 9)

bu neng shi tian [yu zhi tianxia]

not can make heaven give 3.Obj world

‘(He) cannot make heaven give him the world.’

c. 天子不能以天下與人。 (Mencius 9)

Tianzi bu neng

ruler not can

yi tianxia [yu ren].

Appl world give person

‘The ruler cannot give the world to someone.’

In (20b), the causative sense is even clearer. Note that the main verb *dai* is the same verb in the examples with ZI in (15). In the monotransitive (20a), the subject of *dai* is an external argument, specifically the one who replaces the internal argument object.
(20b) is a causative applicative with yi. The argument selected by yi is an internal argument, but it is the argument which replaces the innermost object.

(20) a 文公子佗殺太子免而代之。  (Zuozhuan, Huan 5)

Wengong zi Tuo sha taizi Tu
CW son Tuo kill heir Tu
er dai zhi.
CONJ replace 3.ACC

‘Chen Wen’s son Tuo killed the heir Tu and replaced him (on the throne).’

b 欲以其子奚齊代太子申生。  (Hanfeizi 31)

Yu yi qi zi Xiqi
want APPL 3.GEN son Xiqi

dai taizi Shensheng.
replace heir Shensheng

‘(She) wanted to replace the heir Shensheng with her son Xiqi.’

As indirect support for the analysis of yi as an applicative, I point out here that many Austronesian languages also have an applicative construction which is parallel to the Archaic Chinese yi construction. As shown by Rackowski (2002), the i- verbal prefix
in Tagalog has the properties of a high applicative. As in many other languages with high applicatives, e.g. Kichaga and Kinyarwanda (McGinnis 2001), Tagalog *i-* can select a benefactive argument, as in (21). Note further that the applicative combines with an unergative VP, which is one of Pylkkänen’s (2002) hallmark diagnostics for a high applicative, as opposed to a low one. Since Tagalog is an ergative language, the applied object always has absolutive status.

(21) **I-t<in>awa** ng babae

APPL<TR.PRV>laugh ERG woman

*ang anak=niya.*

ABS child=3SG.GEN

‘The woman laughed for her child.’

Archaic Chinese *yi* did not select a benefactive argument, but it did frequently merge with an instrument, which is also common for a high applicative, as in (22a). The VP following the instrument in (22a) is transitive. It is not in fact necessary to demonstrate that *yi* is a high (and not a low) applicative using unergative VPs. The position of *yi* clearly shows that it is merged above VP. For clarity of exposition, however, I add an unergative example in (22b). 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.

(22)  a 君子不以其所以養人者害人。

(Mencius, Liang Hui Wang 2)

Junzi  bu yi [qi  suo  yi
good.man not YI 3.Gen  SUO  YI

yang  ren  zhe]  hai  ren.
nourish  person  Det  harm  person

‘A superior man does not harm people using that with which he nourishes them.

b 此昔吾先王之所以霸。

(Lüshi Chunqiu 14.5)

Ci  [xi  wu xian  wang]  zhi
this  past  1.Gen  former  king  GEN

suo  [  yi  e  ba].
REL  YI  reign

‘This is means with which our former king reigned supreme in the past.’

(23) shows that Tagalog i- also selects the theme in a ditransitive.

This is parallel to Archaic Chinese yi in (19c).
The connection with causativity is particularly clear in alternations like the following. In its intransitive use, balik means ‘return’. With the applicative, it becomes transitive and causative.

(23) I-b<in>igay ng babae

APPL<TR.PRV>give Erg woman

   ang bulaklak sa lalaki.

   Abs flower to man

‘The woman gave the flower to the man.’

The Standard Indonesian counterpart of Tagalog i- is the verbal suffix –kan. The ditransitives in (25) are parallel to the Archaic Chinese ditransitives in (19). The verb is unmarked in the double object construction in (25a). In this example the goal appears in immediate post-verbal position, followed by the theme. When the

(24) a Ba-balik=ako sa bahay.

   FUT-return=1.SG.ABS to house

   ‘I am going home.’

b I-ba-balik=ko ang libro sa aklatan.

   APPL-FUT-return=1. SG.ABS ABS book to library

   ‘I will return the book to the library.’
applicative suffix –kan is added to the verb, the theme immediately follows the verb, as in (25b).

(25)  
  a  Ali mem-beri  Nuri  buku.  
      Ali  TR-buy  Nuri  book  
      ‘Ali gave Nuri a book.’  
  b  Ali mem-beri-k an  buku  kepada  Nuri.  
      Ali  TR-buy-APPL  book  to  Nuri  
      ‘Ali gave Nuri a book.’

(26) shows the -kan applicative in causative function.

(26)  
  a  Adik  saya  sudah  mandi.  
      brother  1.SG  already  bathe  
      ‘My brother has already bathed.’  
  b  Dia  me-mandi-k an  adik  saya.  
      3.SG  TR-bathe-APPL  brother  1.SG  
      ‘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 on the causative interpretation. Interpreting the DP following yi as a causee in pseudo-long distance anaphor binding examples like (15) is what I suggest in this paper led to the emergence of true long distance binding of ZI in biclausal causative constructions like (9) in Early Middle Chinese. The ability of ZI to be bound over an intervening causee in monoclausal causative constructions facilitated true long distance binding over a causee which was the embedded subject in biclausal causative constructions in Early Middle Chinese.

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 1958, Yang and He 1992, Hsueh 1997, Guo 1998, Djamouri 2009, among many others). However, analyzing yi as a preposition rather than a causative applicative loses the diachronic connection between the emergence of long distance binding of ZI in causative constructions and the role of the causative applicative construction formed on yi. Specifically, if yi were a preposition, it could not introduce a c-commanding causee DP which intervened between ZI and its subject antecedent in pseudo-long distance binding examples like (15). There would consequently be no parallel with the biclausal causative constructions like (9), which
are the first attested examples of true long distance binding of ZI in Early Middle Chinese.

On the empirical side, there is 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 (27), but \( yi \) is not repeated.

(27)  
\[
\text{臣請以雕玉為棺,} \\
\text{Chen qing yi [diao yu wei guan],} \\
\text{minister ask YI carve jade be outer} \\
\text{文梓為槨。} \quad (1^{\text{st}} \text{ C. BCE; Shiji 126}) \\
\text{[wen zi wei guo].} \\
\text{inscribe wood be inner} \\
\text{‘I request making carved jade into the outer coffin and inscribed wood into the inner coffin.’}
\]

b  
\text{以大將軍吳漢為大司馬，偏將軍景舟} \\
\text{為騶騎大將軍。} \quad (5^{\text{th}} \text{ C. CE; Hou Hanshu}) \\
\text{Yi [da jiangjun Wu Han wei dasima]} \\
\text{YI great general Wu Han be chief} \\
\text{[pian jiangjun Jing Zhou} \\
\text{lesser general Jing Zhou}
Wei piaoji dajiangjun].

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 (27) 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 (27), especially the Early Middle Chinese example in (27a), 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 as a clausal head in Middle Chinese.

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. In early Middle Chinese, we see examples of long distance binding of ZI across a causee functioning as the subject of an embedded TP. As a subject, this causee was a potential antecedent for the anaphor in the embedded clause. Hence, this anaphor was long distance bound when it referred to
the matrix subject. Once the possibility of long distance binding was introduced, then ZI could appear in a variety of embedded contexts and be bound by the subject outside these embedded clauses.

4. Emergence of ZIJI

In the previous section, I have shown that the compound ZIJI consists of two anaphors which can 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 Dong’s (2002) proposal 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, for example (9a). In section 3, I showed how 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 4th 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.

The tables in (28) and (29) show the distributions of JI and ZIJI in the 4th century translation of the Buddhist sutra *Mohe Seng Qiliü*. There are examples of both local and long distance binding of each of them. As shown in (28), when they are locally bound, they tend overwhelmingly to function as possessors.

<table>
<thead>
<tr>
<th></th>
<th>Local</th>
<th>ǐ JI</th>
<th>自ǐ ZIJI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Object (of P):</td>
<td>8 (30%)</td>
<td>1 (20%)</td>
<td></td>
</tr>
<tr>
<td>Possessor:</td>
<td>19 (70%)</td>
<td>4 (80%)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>27</td>
<td>5</td>
<td></td>
</tr>
</tbody>
</table>

As can be seen in (29), when they are long distance bound, they rarely function as possessors, but occur with roughly equal frequency in subject and object position.
Clearly, then, there is no significant difference between them in terms of syntactic function or distribution. I propose that the difference was purely 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 (30a), ZIJI is a possessor. The noun it possesses consists of two syllables. The entire possessed DP consists of four syllables. Incidentally, (30a) is the only example in this text in which ZIJI used as a possessor is not locally bound. ZIJI in (30a) is in fact unbound. In (30b), 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.
(30)  
a. 自己衣鉢亦師房中。 
(4th C: Mohe Seng Qilü 3)

[Ziji yi bo] yi shi fang zhong.

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。
(4th C: Mohe Seng Qilü 3)

Dan ei ling ej zhizuo [gongji ziji].

but order labor supply self

‘But (you) order (them) to labor to supply you.’

Monosyllabic 己 JI combined with other monosyllabic words in order to form disyllabic phrases. (31a) shows a VP with a monosyllabic verb and JI as the object. (31b) shows a PP.

Interestingly, 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+ZIJI combination would result in a three-syllable phrase, which is rare in this text. (31c) shows JI as a possessor possessing a monosyllabic noun. (31b) involves long distance binding, while JI in (31a) and (31b) is bound by the local subject.
From the above discussion, it can be seen that JI and ZIJI are parallel in their syntactic function and distribution. Their difference in distribution seems to be only due to prosodic factors. Before concluding this section, I briefly consider the case of ZI at this time.

Wei (2004) points out that the use of ZI as an anaphor declines in Middle Chinese. (32) 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.

(32)

自 ZI

Adverb: 80 (77%)
Argument: 13 (13%)

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(33) provides some examples. In (33a), ZI functions as direct object. In (33b), ZI is an adverb but it is still an anaphor bound by the local subject. In (33c), ZI is an adverb and not a pronominal at all. It is cases like (33c) that Wei (2004) notes are increasing in Middle Chinese.

(33) a. 或有自供，或有賣者。 (4th C: Mohe Seng Qilü 3)

Huo you zi gong __,
some exist self supply

huo you mai zhe.
some exist sell DET

‘Some took (it) for themselves; some sold (it).’
b. 諸比丘各各自作屋住。  (4th C: *Mohe Seng Qilü* 2)

Zhu biqiu gege zi zuo wu zhu.

PL monk each self make house live

‘Each monk made a house to live in.’

c. 家自無材，王材亦盡。  (4th C: *Mohe Seng Qilü* 2)

Jia zi wu cai,

home self not have wood

wang cai yi jin.

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 seen in (32) substantiate Wei’s (2004) observation that ZI was loosing its function as a pronominal anaphor in Middle Chinese, this role being assumed primarily by JI and ZIJI 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 causative construction in Early Middle Chinese.

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 requirements, 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.

References


