

PURE REFLEXIVITY, PURE IDENTITY, FOCUS AND

CHINESE *ZIJI-BENSHEN**

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Chen-Sheng Luther Liu

1. INTRODUCTION

When an elaborate scenario is provided, human languages allow people to refer to a statue by using the name of the person that the statue portrays. Example (1) is such a case in which the name of the late Generalissimo *Jiang Jie-Shi* (i.e., *Chiang Kai-Shek*) refers to his statue rather than the actual person.

- (1) Ni kan! Jiang Jie-Shi zai nar yijing zhan-le wu-shi nian le, ye bu
You see Jiang Jie-Shi at there already stand-Asp five-ten year Sfp also not xiaode hai
yao zai zhan duo jiu.
know still want again stand how long
'Look! Jiang Jie-Shi has been standing there for fifty years, and we do not know how long he
still has to be there.'

Jackendoff (1992) notes that the ability of names to refer either to persons or to their statues partially carries over to anaphors, though in a curious way. For example, (2), taken from Jackendoff (1992, 5), can mean that Ringo Starr (wandering around at Madame Tussaud's London wax museum) fell on his statue.¹

- (2) Ringo fell on himself. (himself = statue)

That is, the English anaphor (i.e., reflexive) *himself* might take as referent a "virtual representation of its antecedent", for example the statue of Ringo Starr.

Lidz (1996, 2000, 2001a) points out that the Chinese bare reflexive *ziji* 'self' behaves on a par with the English reflexive *himself* in this respect; that is, the Chinese bare reflexive *ziji* 'self' does not establish complete identity with its antecedent but rather a relation which allows a coreference

interpretation but does not necessarily require complete identity with its antecedent, as indicated by

(3).²

(3) Mao Ze-Dong ba ziji qiangbi le. (Lidz (1996, 158))

Mao Ze-Dong BA self shot Sfp

'Mao Ze-Dong shot himself.' (ziji = Mao Ze-Dong/statue)

In other words, in the Madame Tussaud context, the Chinese bare reflexive *ziji* 'self' allows either the statue or the identity interpretation.

All other things being equal, we also find that the same obtains with the Chinese complex reflexive *ta-ziji* 'himself', as shown below.³

(4) Zai ziji-de tongxiang qian, Jiang Jie-Shi yong gunzi da-le ta-ziji yi-xia.

At self-DE statue before Jiang Jie-Shi use cane hit-Asp himself one-Cl

'In front of his statue, Jiang Jie-Shi uses a cane to hit himself.' (ta-ziji = Jiang Jie-Shi/statue)

Since both the bare reflexive *ziji* 'self' and the complex reflexive *ta-ziji* 'himself' are referentially dependent on but not necessarily identical with their antecedents, following Lidz (1996, 2000, 2001a), we call them near reflexives; that is, near reflexives might take as referent an extension of the antecedent.⁴

The purpose of this paper is twofold. First, we shall show that the Chinese complex anaphor *ziji-benshen* 'self-self' requires complete identity with its antecedent, as shown by the examples in (5) (cf. X.-F. Yu (1996, 1998)).⁵

(5) a. Ni_i zhe shi zai piping ziji-benshen_i ne!

You this is at criticize self-self Sfp

'What you are doing now is criticize yourself!'

b. Wo_i zhi guanxin ziji-benshen_i-de liyi.

I only care-about self-self-DE benefit

'I only care about my own benefit.'

c. Zhangsan_i da-le ziji-benshen_i yi-xia.

Zhangsan hit-Asp self-self one-Cl

'Zhangsan hit himself once.'

d. Tamen_i zhi guanxin ziji-benshen_i-de liyi.

They only care-about self-self-DE benefit

'They only care about their own benefit.'

The specific semantic characteristics of the complex anaphor *ziji-benshen* 'self-self' are due to the semantic composition of the near reflexive function of the morpheme *ziji* 'self', the focus function of the morpheme *benshen* 'self' and the operator status of *ziji-benshen* 'self-self'; more precisely, in Chinese pure identity is a consequence of the focus function of *benshen* 'self' (cf. Lidz (1996, 2000, 2001a)).

Secondly, we shall suggest that human languages might use different ways to get pure identity and then discuss how these ways differ from each other. This paper proceeds as follows. In section two, we shall show how the anaphor *ziji-benshen* 'self-self' differs from the *non-benshen* 'non-self' anaphor in semantic interpretation. Since the traditional binding theory is insufficient to formally represent the pure-identity versus near-identity distinction, in section three a revised binding theory, as suggested by Rooryck and Vanden Wyngaerd (1998; henceforth R&W (1998)) for the purpose of capturing the "internalist" conception of identity and coreference, will be briefly reviewed and then shown to be untenable in dealing with *ziji-benshen* 'self-self'. A focus operator anaphor analysis under which the pure identity shown by *ziji-benshen* 'self-self' is considered as a consequence of focus will be proposed in section four; this claim is reminiscent of Lidz's (2001a) theory of pure identity shown by languages which show the antilocality effect. A discussion of the difference between pure identity as a consequence of focus, as we propose for *ziji-benshen* 'self-self', and pure identity as a consequence of Condition R, as proposed by Lidz (2001a), will be provided in section five after a brief introduction to predicate-centered binding theory, especially Lidz (2001a). In section six, we will state our conclusions.

2. THE SEMANTIC DISTINCTIONS BETWEEN THE ANAPHOR *ZIJI-BENSHEN* AND THE *NON-BENSHEN ANAPHOR*

Yu (1996, 1998) points out that, in addition to the bare reflexive *ziji* 'self' and the complex reflexive with the form *pronoun-ziji* 'pronoun-self', there exists another type of (complex) reflexive in Chinese with the form *X-benshen* 'X-self', in which *X* is either *ziji* 'self' or *pronoun-ziji* 'pronoun-self'.⁶ In this paper, we shall focus on the one in which *X* is *ziji* 'self', as the examples in (6) show.⁷

- (6) a. Zhangsan_i zai piping ziji-benshen_i.
 Zhangsan at criticize self-self
 'Zhangsan is criticizing himself.' (Yu (1996, 184))
- b. Zhangsan_i zhidao [Lisi_j zai piping ziji-benshen*_{i/j}].
 Zhangsan know Lisi at criticize self-self
 'Zhangsan knew that Lisi was criticizing himself.' (Yu (1996, 126))
- c. Zhangsan_i zhidao [zhe dei guai ziji-benshen_i le].
 Zhangsan know this should blame self-self Sfp
 'Zhangsan knew that he should be blamed for this.' (Yu (1996, 213))
- d. Zhe dei guai ziji-benshen le.
 This should blame self-self Sfp
 'This should be blamed on me/him.' (Yu (1996, 133))

Yu (1996, 237-238) suggests that the Chinese reflexive *ziji-benshen* 'self-self' has the properties listed below.

- (7) a. *Ziji-benshen* 'self-self' has two uses: it can be an anaphor, and it can be an emphatic element.
- b. When *ziji-benshen* 'self-self' is an anaphor, it is locally bound.

c. *Ziji-benshen* 'self-self' can be long-distance bound, or even free in an entire sentence, if and only if the local subject is inanimate.

However, the nature of *ziji-benshen* 'self-self' is much more complicated than Yu (1996, 29-31) has observed. For example, in a specific situation involving a psych-predicate, *ziji-benshen* 'self-self' allows backward binding even when the antecedent does not c-command it, as shown by (8).

(8) Lian *ziji-benshen*_i dou hui shou dao gongji shi-de zongtong_i shi-fen shengqi. Even self-self all will suffer arrive attack cause-DE president ten-Cl angry

'The fact that even the president himself is attacked makes the president very angry.'

Though of significant interest, we put aside matters related to the syntactic distribution of the reflexive *ziji-benshen* 'self' because they are not our concern here. Instead, we shall restrict our discussion to properties of the locally bound *ziji-benshen* 'self-self', especially restrictions on the nature of its antecedent and some related issues. Following Liu (1999, 2002) and Huang and Liu (2000), we assume that the "dividing line" between the locally bound *ziji-benshen* 'self-self' and its non-locally bound counterpart is the traditional notion of a governing category, as given in (9).

(9) The Governing Category (cf. Huang (1983) and Chomsky (1986))
 α is the governing category for β if and only if α is the minimal category containing β , a governor of β , and a SUBJECT accessible to β .

Assuming this, the reflexive *ziji-benshen* 'self-self' may be considered a locally bound reflexive in the environments described in (10a-e).

(10) a. When it is bound by a co-argument subject.
 b. When it is contained in an argument NP and bound by a coargument of that NP.

- c. When it is contained in an adjunct and locally bound by an argument outside.
- d. When it is locally bound by a sub-commanding NP.
- e. When it is the subject of an embedded clause, or contained in the subject of an embedded clause, and is locally bound in the matrix clause.

Along the lines of Liu (1999) and Huang and Liu (2000, 172), we further consider the locally bound *ziji-benshen* 'self-self' a syntactic reflexive (i.e., an anaphor).

Based on these assumptions, in what follows, we shall argue that the anaphor *ziji-benshen* 'self-self' differs from the *non-benshen* 'non-self' anaphor in interpretation. The former requires pure identity with its antecedent while the latter can pick out as its referent an entity from the discourse which is spatio-temporally dissociated from the antecedent or can be construed as the antecedent. The question of inadequacies of the traditional binding theory then arises.

2.1. THE ACTUAL PERSON VERSUS THE STATUE

Consider the following scenario: Suppose that the late Generalissimo *Jiang Jie-Shi* went down to the wax museum with his bodyguards. When they came upon his statue, the Generalissimo found the statue to be portrayed in a way that made it look like that of Chairman *Mao Ze-Dong*. The Generalissimo lost control and hit the statue furiously with his cane. At this moment, the bodyguards may say (11a-b) rather than (11c) with humor.

- (11) a. Jiang Jie-Shi_i henhen-de da-le ziji_i yi-xia.
 Jiang Jie-Shi furiously hit-Asp self one-Cl
 'Jiang Jie-Shi hit himself furiously.' (ziji = Jiang Jie-Shi/statue)
- b. Jiang Jie-Shi_i henhen-de da-le ta-ziji_i yi-xia.
 Jiang Jie-Shi furiously hit-Asp himself one-Cl
 'Jiang Jie-Shi hit himself furiously.' (ta-ziji = Jiang Jie-Shi/statue)
- c. *Jiang Jie-Shi_i henhen-de da-le ziji-benshen_i yi-xia.

Jiang Jie-Shi furiously hit-Asp self-self one-Cl

'Jiang Jie-Shi hit himself furiously.' (*ziji-benshen* = Jiang Jie-

Shi/*statue)

The well-formedness of (11a-b) in the context described above is reminiscent of Lidz's (1996, 2000, 2001a) observation that the Chinese anaphor *ziji* 'self' allows its referent to be an extension (or extended part) of its antecedent (i.e., The anaphor *ziji* 'self' allows near identity). However, in the same situation, the ungrammaticality of (11c) implies that the referent of the Chinese complex anaphor *ziji-benshen* 'self-self' must be the actual- person antecedent; that is, pure identity between the referent of *ziji-benshen* 'self-self' and the antecedent must be guaranteed.

Likewise, the pure-identity versus near-identity distinction between *ziji* 'self' and *ta-ziji* 'himself', on the one hand, and *ziji-benshen* 'self-self', on the other, is also clearly revealed by the contrast between (12a) and (12b) under the following scenario: Suppose that Queen Elizabeth II and Zhangsan go down to Madame Tussaud's wax museum.

They come upon a wax figure of the Queen, and the Queen notices that there is something wrong with the figure's nose. The Queen touches the figure's nose, and the nose falls off. In this situation, it is felicitous in Chinese to say (12a) but not (12b).⁸

- (12) a. Nuwang_i, ni_i zenme ba ziji_i-de bizi nong diao le.
Queen you how BA self-DE nose make fall-off Sfp
'Your Majesty, how come you made your nose fall off by touching it.'
- b. *Nuwang_i, ni_i zenme ba ziji-benshen_i-de bizi nong diao le.
Queen you how BA self-self-DE nose make fall-off Sfp
'Your Majesty, how come you made your nose fall off by touching it.'

The ungrammaticality of (12b) in this situation indicates that the anaphor *ziji-benshen* 'self-self' cannot be interpreted as referring to an extension of the antecedent, namely, the wax figure of Queen Elizabeth II.

2.2. THE ACTUAL SELF VERSUS THE DISSOCIATED SELF

For sentences such as (13a-c) to be informative as speech acts, the speaker must assume that there are two different entities in the domain of discourse, namely, the present (or actual) Zhangsan and yesterday's Zhangsan.⁹

- (13) a. Zhangsan_i zai piping zuotian-de ziji_i.
Zhangsan at criticize yesterday-DE self
'Zhangsan is criticizing yesterday's himself.'
- b. Zhangsan_i zai piping zuotian-de ta-ziji_i.
Zhangsan at criticize yesterday-DE himself
'Zhangsan is criticizing yesterday's himself.'
- c. *Zhangsan_i zai piping zuotian-de ziji-benshen_i.
Zhangsan at criticize yesterday-DE self-self
'Zhangsan is criticizing yesterday's himself.'

The informativeness of (13a-b) implies that the referents of *ziji* 'self' or *ta-ziji* 'himself' can be an extension of the antecedent which exists in a domain spatio-temporally dissociated from that of the present (i.e., actual) antecedent. In other words, the referent of *ziji* 'self' and *ta-ziji* 'himself' can be spatio-temporally dissociated from the actual antecedent. However, *ziji-benshen* 'self-self' does not allow this.

Similarly, in the context of viewing family photo albums, (14a-b) can describe a situation in which Zhangsan experiences embarrassment upon remembering a past event. In this case, *ziji* 'self' and *ta-ziji* 'himself' can refer to a spatio-temporal extension of the antecedent.

- (14) a. Zhangsan_i wei zhaopian zhong de ziji_i gandao bu-hao-yisi.
Zhangsan for picture inside DE self feel embarrassing
'Zhangsan feels embarrassed about himself as shown in the photo.'
- b. Zhangsan_i wei zhaopian zhong de ta-ziji_i gandao bu-hao-yisi.

Zhangsan for picture inside DE himself feel embarrassing

'Zhangsan feels embarrassed about himself as shown in the photo.'

- c. *Zhangsan_i wei zhaopian zhong de ziji-benshen_i gandao bu-hao-yisi.

Zhangsan for picture inside DE self-self feel embarrassing

'Zhangsan feels embarrassed about himself as shown in the photo.'

The ungrammaticality of (14c), however, indicates that the referent of *ziji-benshen* 'self-self' cannot be spatio-temporally dissociated from the antecedent.

Likewise, the sentences in (15) must be understood in a context where there exists a spatio-temporal distance between the reader and the writer. A similar contrast obtains between (15a-b) and (15c):¹⁰

- (15) a. Zhangsan_i zhengzai kan na-ben ziji_i xie-de shu.

Zhangsan now read that-Cl self write-DE book

'Zhangsan is reading that book which was written by himself.'

- b. Zhangsan_i zhengzai kan na-ben ta-ziji_i xie-de shu.

Zhangsan now read that-Cl himself write-DE book

'Zhangsan is reading that book which was written by himself.'

- c. *Zhangsan_i zhengzai kan na-ben ziji-benshen_i xie-de shu.

Zhangsan now read that-Cl self-self write-DE book

'Zhangsan is reading that book which was written by himself.'

The grammaticality of (15a-b) shows that *ziji* 'self' and *ta-ziji* 'self-self' tolerate the existence of spatio-temporal distance between their referent and the antecedent. However, *ziji-benshen* 'self-self' does not.¹¹

Simply put, Chinese anaphors can be divided into two semantic types: One, namely the *X-benshen* 'X-self' anaphor, requires pure identity with its antecedent; the other, the *non-X-benshen* 'non-X-self' anaphor, allows near identity with its antecedent or may be interpreted not only as referring to a (spatio-temporal) extension of antecedent but also as being strictly identical to its antecedent.^{12, 13}

Putting these points together, we are immediately faced with the following question. If the semantic distinctions between these two types of Chinese anaphors, namely the actual person versus the statue distinction and the actual *self* versus the dissociated *self* distinction, are to be formalized at all within the traditional binding theory, as proposed in Chomsky (1981, 1986), the conventional binding theory is inadequate. However, by Occam's Razor, a theory that treats all properties of anaphors, either syntactic or semantic, in a uniform way should be preferred over one that does not. So, can we modify the conventional binding theory to handle an interpretation of the type "referentially dependent but not identical", as R&W (1998) (i.e., Rooryck and Vanden Wyngaerd (1998)) attempt? Or might we say that the semantic characteristics shown by the Chinese anaphor *ziji-benshen* 'self-self' need not be formalized at all within the traditional binding theory (cf. Jackendoff (1992), Burzio (1994) and Lidz (1996, 2000, 2001a))? In order to answer this question, in the following section, we shall first briefly review R&W (1998) and then show that the R&W-style binding theory is untenable.

3. A BRIEF REVIEW OF ROORYCK AND VANDEN WYNGAERD (1998)

Voskuil and Wehrmann (1990) observed that the use of the Dutch complex anaphor *zich-zelf* 'self-self' or its simplex counterpart *zich* 'self' triggers a difference in interpretation. For example, only the complex anaphor *zich-zelf* 'self-self' is felicitous in a masquerade context, as shown by the contrast below, taken from R&W (1998, 360).

(16) a. Op het gemaskerd bal konden Sally en Freddy zich-zelf zien zonder spiegel.

'At the masquerade, Sally and Freddy could see themselves without a mirror.'

b. *Op het gemaskerd bal konden Sally en Freddy zich zien zonder spiegel.

'At the masquerade, Sally and Freddy could see themselves without a mirror.'

In other words, the "Doppelgänger" or duplication effect becomes prominent in environments where a spatio-temporal distance is introduced. This observation leads R&W (1998, 360-362) to make the generalization: Whenever a predicate allows for the interpretation of the antecedent as a duplicated (i.e., a spatio-temporally different entity), the complex anaphor *zich-zelf* 'self-self' is required.

R&W (1998, 361) further propose that the difference between *zich* 'self' and *zich-zelf* 'self-self' can be derived from the linguistic representation of animate entities in terms of time-slices. Namely, the simplex anaphor *zich* 'self' is considered an unaccusative head in T which establishes a relation of simultaneity between a time-slice of an animate DP in SpecAGRS/TP and a time-slice of the situation expressed in V (cf. Carlson (1977), Grimshaw (1990) and Burzio (1994)). Example (17a) hence has the LF representation in (17b), in which the index T on *zich* 'self' is an indication of the checking of simultaneity (cf. R&W (1998, 362)).

- (17) a. Jan wast zich. (scheert zich/kleedt zich aan)
 John wash self (shaves/dresses/...)
 'John washes.'

- b. NP [XP V [TP zich_T [tv t_{NP}]]
 |
 {t₁...t₂...t_T...t_n}

The interpretive duplication effects of *zich-zelf* 'self-self', as R&W (1998) argue, are derivable from its morphological complexity. Morphologically, the complex anaphor *zich-zelf* 'self-self' consists of two components: *zich* 'self' and *zelf* 'self'.¹⁴ The latter functions as a focus marker in the same way as the English *himself* in DPs such as *John himself* does. Specifically, *zelf* 'self' involves a notion of scalarity with respect to the expectations of the speaker and this focal property of *zelf* 'self' can be expressed in terms of exhaustive identification of sets of DPs (i.e., entities); R&W (1998, 368) thereby characterize *zelf*-focus in (18a) as in (18b), in which *pro* represents a set of DPs (i.e., entities) (cf. Edmondson and Planck (1978)).¹⁵

- (18) a. Jan zelf heeft de afwas gedaan.

Jan self has the dish done

'Jan himself did the dishes (i.e., Jan, and no one else).'

- b. *Zelf*-Focus ranges over DPs (*pro*):

Zelf exhaustively identifies any potential animate DP doing the dishes

(represented by *pro*) with *Jan*.

Given this focus property of *zelf*'self', the interpretation: Jan, and not the expected people lower on the scale did the dishes, is then derived for (18a) from the exhaustive identification by excluding the expected complement set pragmatically. R&W (1998, 370), assuming an almost identical analysis for the complex anaphor *zich-zelf*'self-self', suggest (19a) has the LF representation in (19b).

- (19) a. Jan heeft zich-zelf gewassen.

Jan has self-self wash

'Jan washed himself.'

- b. [TP Jan [T_i zich-heeft] [AGROP [ZELFP [ZELF_i t_{ZICH}-zelf] t_{ZICH}] AGRO_i gewassen]]

As (19b) shows, *zich*'self' first incorporates itself into *zelf*'self'. Since SpecZelfP is empty, in order to ensure identification as a time-slice, the nominal time-slice *zich*'self' then covertly moves to T for checking its time-slice feature (cf. footnote (15)). The chain created by this covert movement makes the DP *Jan* in SpecTP available for the identification requirement of *zelf*'self'. The semantic interpretation of *zich-zelf*'self-self' in (19a) thereby must be derived in the same way as the semantic interpretation of focus marker *zelf*'self' in (18b). Consequently, the interpretation of (19a) is as in (20), in which *zich*'self' represents a set of time-slices (cf. Carlson (1977)).

- (20) *Zelf*-Focus ranges over temporal slices (*zich*): (R&W (1998, 370))

Zelf exhaustively identifies any potential temporal slice t_x that is washed (represented by *zich*), with the temporal slices $\{t_1 \dots t_2 \dots t_n\}$ contained in the DP *Jan*.

In other words, the simplex anaphor *zich* 'self' involves a single simultaneous time-slice to establish reflexivity, while the complex anaphor *zich-zelf* 'self-self' necessarily involves a type of reflexivity which involves a set of time-slices. The fact that *zich-zelf* 'self-self' refers to a set of time-slices allows for a wider range of reflexive interpretations. The duplication effect hence can be understood as a side-effect of the requirement that *zich-zelf* 'self-self' establishes a type of reflexivity involving a set of time-slices.

We have seen that R&W's (1998) proposal provides an insightful account of interesting facts. However, their analysis also encounters a few theoretical and empirical difficulties. First, under their minimalist analysis, the coreference between anaphors, either simplex or complex, and their antecedent in fact is indirectly established through the local nominal time-slice feature checking relation between *zich* 'self' and T. The only difference between the simplex anaphor *zich* 'self' and the complex anaphor *zich-zelf* 'self-self' is that the former consists of only one single simultaneous nominal time-slice while the latter consists of a set of nominal time-slices. And the duplication effect can be understood as a side-effect of reflexivity of the kind that *zelf* 'self' of *zich-zelf* 'self-self' exhaustively identifies any potential temporal slice t_x that is represented by *zich* 'self' of *zich-zelf* 'self-self' with the temporal slices $\{t_1 \dots t_2 \dots t_n\}$ contained in the antecedent (cf. (20) and Carlson (1977)). Hence, on the one hand, R&W (1998) would expect that (21a), which involves the simplex anaphor *zich* 'self', allows the sloppy reading only (cf. (17b)); on the other hand, they would expect that the interpretation of (21b) can only range from the pure identity reading: *She defended her actual person better than Peter defended his actual person* to the near identity reading: *She defended an entity construed as her better than Peter defended an entity construed as Peter* (cf. (20); Lidz (1996, 135) and Sells, Zaenen and Zec (1987)).

- (21) a. *Zij verdedigde zich beter dan Peter.*
 She defend self better than Peter
 i. 'She defended herself better than Peter defended himself.'
 ii. *'She defended herself better than Peter defended her.'
- b. *Zij verdedigde zich-zelf beter dan hij.*
 She defend self-self better than he
 i. 'She defended herself better than he defended himself.'

- ii. 'She defended herself better than he defended her.'

Namely, the interpretation (21bii), in which the object *her* cannot be construed as the local subject *he*, is not expected under their analysis (i.e., the strict reading). R&W (1998) thereby fail to explain the fact that in comparative deletion constructions, the simple anaphor *zich* 'self' allows only the sloppy interpretation, as (21ai) shows, while the complex anaphor *zich-zelf* 'self-self' allows both the strict and sloppy interpretations.¹⁶

Second, R&W's (1998) analysis is typologically untenable. If the simplex anaphor, as they argue, consists of only one single simultaneous nominal time-slice to establish spatio-temporal identity between a time-slice of an animate DP in SpecAGRS/TP and a time-slice of the situation expressed in V, we would expect that the Chinese simplex anaphor *ziji* 'self' behaves in the same way as the Dutch *zich* 'self' does. Namely, *ziji* 'self' would require pure identity with its antecedent; however, the fact does not bear out this expectation (cf. (3)).

Third, assuming that *zich* 'self' represents a single simultaneous time-slice, R&W (1998) would expect that the identifiable, simultaneous time-slice *zich* 'self' to be incompatible with predicates which are devoid of differentiated time-slices, for example stative or individual level predicates, as illustrated in (22a-b), cited from R&W (1998, 364).¹⁷

- (22) a. *Freddy vindt zich fantastisch.
 Freddy consider self fantastic
 'Freddy considers himself fantastic.'
- b. *Suzy haat zich.
 Suzy hate self
 'Suzy hates herself.'

Their analysis would further expect examples like (23), taken from Reinhart and Reuland (1993, 713; henceforth R&R (1993)), to be grammatical, contrary to fact.

- (23) *Jan critiseerde zich.

Jan criticize self

'Jan criticized herself.'

Since the verb *critiseerde* 'criticize' is a stage-level rather than an individual-level predicate, they would expect (23) to be well-formed. However, the prediction is not borne out.

Although an alternative involving the "internalist" conception of identity and coreference, like R&W (1998), seems insightful, the overall picture of the relationship between the semantics and the morphology of anaphors is too complex for the R&W-style binding theory to capture. In the next section, we shall propose a focus operator anaphor analysis for the Chinese anaphor *ziji-benshen* 'self-self' by assuming that the specific semantic properties of *ziji-benshen* 'self-self' are due to the semantic composition of the near reflexive function of the morpheme *ziji* 'self', the focus function of the morpheme *benshen* 'self' and the operator status of *ziji-benshen* 'self-self'. Hence, it is promising for us to say that the semantic distinctions between the *X-benshen* 'X-self' and the *non-X-benshen* 'non-X-self' anaphor are not necessary to be formalized at all within the traditional binding theory. And some theoretical consequences will be discussed.

4. A FOCUS OPERATOR ANAPHOR ANALYSIS FOR *ZIJI-BENSHEN*

We assume that the semantic characteristics of locally bound *ziji-benshen* 'self-self', meaning that the referent of *ziji-benshen* 'self-self' must be strictly identical to the antecedent, can be derived from its morphological complexity. Morphologically, the complex anaphor *ziji-benshen* 'self-self' consists of two components: *ziji* 'self' and *benshen* 'self'. Although the morpheme *benshen* 'self' as well as the intensifying *ziji* 'self', as illustrated in (24a-b), must be related to some other NP in the sentence, for example *Zhangsan* in (24a) and (25a), they still differ from each other in syntactic distribution. Intensifying *ziji* 'self' may appear between the subject NP and the predicate, as (24a) shows, and between the auxiliary and the main verb, as illustrated by (24b) (cf. Jane Tang (1989)).

- (24) a. Zhangsan ziji hui lai.
Zhangsan self will come

'Zhangsan himself will come.'

b. Zhangsan hui ziji lai.

Zhangsan will self come

'Zhangsan will come by himself.'

However, the morpheme *benshen* 'self' must be syntactically adjacent to an NP (or a DP) and be used as a modifier for it. These syntactic characteristics of *benshen* 'self' are clearly shown by sentences in (25).¹⁸

(25) a. Zhangsan benshen hui lai (de).

Zhangsan self will come Sfp

i. 'Zhangsan himself will come.'

ii. *'Zhangsan will come by himself.'

b. Zhe-jian shi dui Zhangsan benshen yinxiang zui da.

This-Cl thing to Zhangsan self affect most big

'This event affects Zhangsan himself a lot.'

c. *Zhangsan hui benshen lai (de).

Zhangsan will self come Sfp

'Zhangsan will come by himself.'

More significant here is the fact that the morpheme *benshen* 'self' also functions as a focus marker. The focus properties of *benshen* 'self' can be illustrated by having it compared with the focus marker *zhiyou* 'only', as shown below.

(26) Wei-le tuxian liang-guo jian cunzai de jinzhang guanxi, zhiyou

For-Asp highlight two-state between exist DE tense relation only

wai-jiao-bu ci-zhang dao jichang yingjie lai-fang de

foreign-ministry assistant-minister arrive airport welcome come-visit DE

meiguo guowuqing.

United States Secretary of State

'In order to highlight the tension between the two countries, only the Assistant Foreign Minister came to the airport to welcome the U.S. Secretary of State.'

(27) Wei-le jiaqiang liang-guo jian de bangyi, zongtong bensen yao
For-Asp reinforce two-state between DE friendship president self want
dao jichang lai yingjie meiguo guowuqing.
arrive airport come welcome United States Secretary of State

'In order to reinforce the diplomatic relationship between the United States and us, the president himself will come to the airport to welcome the U.S. Secretary of State.'

Semantically, *zhiyou* 'only' and *bensen* 'self' both involve a notion of scalarity with respect to the expectations of the speaker (cf. Edmondson and Planck (1978) and R&W (1998)). The focus marker *zhiyou* 'only' as in (26) expresses the fact that the person receiving the U.S. Secretary of State is lower on the scale than the one the speaker expected, while the focus marker *bensen* 'self' as in (27) expresses the fact that the person receiving the U.S. Secretary of State is higher on the scale than the one the speaker expected. The contrast between (26) and (27) on the scalarity with respect to the expectations of the speaker gets further support from the fact that switching *zhiyou* 'only' in (26) and *bensen* 'self' in (27) would give rise to pragmatic oddity, as the contrast below shows.¹⁹

(28) ?*Wei-le tuxian liang-guo jian cunzai de jinzhang guanxi,
For-Asp highlight two-state between exist DE tense relation
wai-jiao-bu ci-zhang bensen yao dao jichang yingjie
foreign-ministry assistant-minister self will arrive airport welcome
lai-fang de meiguo guowuqing.
come-visit DE United States Secretary of State

'?*In order to highlight the tension between the two countries, the Assistant Foreign Minister herself/himself came to the airport to welcome the U.S. Secretary of State.'

(29) ?*Wei-le jiaqiang liang-guo jian de bangyi, zhiyou zongtong yao For-Asp
reinforce two-state between DE friendship only president want dao jichang lai yingjie
meiguo guowuqing.

arrive airport come welcome United States Secretary of State

'?*In order to reinforce the diplomatic relationship between the United States and us, only
the president came to the airport to welcome the U.S. Secretary of State.'

According to Bonomi and Casalegno (1994) and Szabolsci (1994), the focus behavior of
zhiyou 'only' as in (30a) can be formalized in terms of exhaustive identification of sets of events as in
(30b).

(30) a. Zhiyou wai-jiao-bu ci-zhang dao jichang yingjie

Only foreign-ministry assistant-minister arrive airport welcome

lai-fang de meiguo guowuqing.

come-visit DE United States Secretary of State

'Only the Assistant Foreign Minister came to the airport to welcome the
U.S. Secretary of State.'

b. *Zhiyou*-Focus as exhaustive identification of sets of events:

Every event of x doing the welcome is exhaustively identified with an
event where the Assistant Foreign Minister did the welcoming.'

The formalization in (30b) derives the exclusion effect shown by the interpretation of (30a) (namely,
the Assistant Foreign Minister, and not the others who were also expected to do the welcoming) as a
pragmatic effect; that is, exhaustive identification of sets of events in (30b) excludes the (expected)
complement set.

Upon a closer examination of (27), we, however, find that the focus marker *benshen* 'self' has
the following two semantic characteristics. First, there is only one single welcoming event involving
several expected welcomers; second, although the president is not the only person who will go to the
airport to welcome the U.S. Secretary of States, s/he is the most important one (i.e., the president did

the welcoming was more than expected). Since (27) implies that the president is not the only person who will attend the welcoming event, the focal characteristics of *benshen* 'self' should not be formalized in terms of the exhaustive identification of sets of entities (i.e., Every x doing the welcome event is exhaustively identified with the president) because behind this analysis is the intuition that there is only one person who will attend the welcoming event, contrary to fact.²⁰ A way to tackle the focus properties of *benshen* 'self' is as follows: Suppose that *Zhangsan* is the president, the subject NP *zongtong* 'president' in (27) then can be understood as *Zhangsan*. Since a (proper) name allows a near-identity interpretation, *zongtong* 'president' in (27) thereby can be understood as a set containing the actual-person *Zhangsan* and entities in the world that could be construed as *Zhangsan* (e.g., *a statue of Zhangsan*, ... etc) (cf. Jackendoff (1992)). We then suggest that the focus marker *benshen* 'self', which must be adjacent to the NP modified, has the function of choosing the one element highest on the scale of these elements that identifies *the president* (i.e., *Zhangsan*) from this set. The fact that the president (i.e., *Zhangsan*) did the welcoming was more than expected thereby can be understood as a side-effect of this focus function pragmatically. Furthermore, since the focus function of *benshen* 'self' does not exclude people other than the president from attending the welcoming event, the fact that the president is not the only one person who will go to the airport to welcome the U.S. Secretary of States is derived naturally.

Seen in this light, the semantic characteristics of *ziji-benshen* 'self-self' can be characterized as follows: The morpheme *benshen* 'self' is a focus marker that picks out from the set denoted by the range of the near reflexive function of the morpheme *ziji* 'self' the best representation of the antecedent which happens to be the actual person.²¹ Now let us take (31) as example to show how the meanings of the elements combine here.

(31) Zhangsan da-le ziji-benshen yi-xia.
 Zhangsan hit-Asp self-self one-Cl
 'Zhangsan hit himself once.'

In (31), the morpheme *ziji* 'self' introduces the near reflexive function, and this near reflexive function can be understood as having a domain of one (e.g., *Zhangsan*) and a range of more than one (i.e., the

set of entities in the world that could be construed as *Zhangsan*, e.g., a portrait of *Zhangsan*, a statue of *Zhangsan*, ... etc.). The focus marker *benshen* 'self' then applies to this set/domain (i.e., the range of the near reflexive function) and gives us the one element highest on the scale of these elements that identifies *Zhangsan*. Since *Zhangsan himself* is the most precisely identical element of the set that identifies *Zhangsan*, we require that Zhangsan criticized Zhangsan himself and not some portrayal or representation of him.²² So, as one of the reviewers suggests to us, the semantic property of *ziji-benshen* 'self-self' cannot be simply characterized as pure reflexivity because of the rich semantic content of the anaphor *ziji-benshen* 'self-self'. Instead, it is near reflexivity plus a focus marker that picks out the best representation of the antecedent which happens to be the actual person (cf. Bickerton (1987)).²³

Semantically, the focus function of *ziji-benshen* 'self-self' (or more precisely the morpheme *benshen* 'self') implies that the Chinese anaphor *ziji-benshen* 'self-self' possesses a "semantic range" (i.e., the range of the near reflexive function). This implication suggests that *ziji-benshen* 'self-self' in some sense functions as an operator (cf. Katada (1992)). The operator status of anaphoric *ziji-benshen* 'self-self' gets further support from the contrast between (32a) and (32b) in interpretation.²⁴

- (32) a. Zhangsan xianzai bi Lisi guoqu geng guanxin ziji-de liyi.
 Zhangsan now compare Lisi past more care-about self-DE benefit i.
 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'
- ii. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'
- b. Zhangsan xianzai bi Lisi guoqu geng guanxin ziji-benshen-de liyi.
 Zhangsan now compare Lisi past more care-about self-self-DE benefit
 liyi.
 benefit
 i. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'

- ii. *'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'

In comparative deletion constructions, the anaphor *ziji-benshen* 'self-self' allows only sloppy interpretation while the near anaphor *ziji* 'self' allows strict or sloppy interpretation. Namely, the missing predicate in (32b) should be treated as though its object is dependent on the embedded subject for its interpretation. Therefore, it is not unnatural for us to assume that the elided structure in (32b) involves an operator-variable relation (cf. Heim and Kratzer (1998) and Chierchia and McConnell-Ginet (2000)). And the most obvious way to express this operator-variable relation is to assume that the anaphor *ziji-benshen* 'self-self' in fact is a focus operator anaphor.

The morphological, syntactic and semantic characteristics of the anaphor *ziji-benshen* 'self-self' now lead to our proposal. In much the same spirit as Katada (1992), we suggest that the anaphor *ziji-benshen* 'self-self' in fact is a focus operator anaphor which is adjoined to VP at the level of LF (cf. Huang and Tang (1991)). On the focus operator anaphor analysis, example (33a) has the LF representation in (33b).

- (33) a. Zhangsan you zai piping ziji-benshen le.
 Zhangsan again at criticize self-self Sfp
 'Zhangsan is criticizing himself again.'
- b. [[Zhangsan] [_{VP} ziji-benshen_i [_{VP} you zai piping t_i le]]].

That is, at the level of LF the focus operator anaphor *ziji-benshen* 'self-self' in (33b) is adjoined to VP and then subject to predication or strong binding by an appropriate local subject (cf. Chomsky (1986)). Semantically, the focus marker *benshen* 'self' of *ziji-benshen* 'self-self' in (33b) takes the range of the near reflexive function of the morpheme *ziji* 'self' as its domain and picks out the one element highest on the scale of these elements that could be construed as *Zhangsan*. Since the variable created by the movement of *ziji-benshen* 'self-self' (i.e., *t_i* in (33b)) covaries with the picked-out element (i.e., the actual Zhangsan rather than the expected "entity" referentially dependent on the antecedent), we can derive the interpretation "Zhangsan criticizes the actual-person Zhangsan, not a virtual representation

of Zhangsan".²⁵ In other words, the semantic composition of the near reflexive function of *ziji* 'self', the focus function of *benshen* 'self' and the operator status of *ziji-benshen* 'self-self' results in the fact that the Chinese anaphor *ziji-benshen* 'self-self' requires its referent to be purely identical to the antecedent. The anaphor *ziji-benshen* 'self-self' hereby not only requires pure identity with its antecedent but also allows only sloppy identity under comparative deletion constructions.

In contrast, following Lidz (1996, 2000, 2001a), we assume that the Chinese near anaphor such as *ziji* 'self' and *ta-ziji* 'himself' behaves in the syntax like an anaphor but in the semantics like "a pronoun in coreference" because, like near anaphors, pronominals not only license both the statue and the actual person reading, as shown by (34a), but also allow both strict and sloppy identity in the comparative deletion constructions, as illustrated in (34b).²⁶

- (34) a. Jiang Jie-Shi_i da-le ta_i-de tou yi-xia.
 Jiang Jie-Shi hit-Asp he-DE head one-Cl
 'Jiang Jie-Shi_i hit his_i head once.' (ta = Jiang Jie-Shi/statue)
- b. Zhangsan xianzai bi Lisi guoqu geng guanxin ta-de liyi.
 Zhangsan now compare Lisi past more care-about he-DE benefit
 i. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'
 ii. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'

Or, in the term of Lidz (1996, 2000, 2001a), the near anaphor must be syntactically interpreted as an anaphor but semantically a nominal pronominal.^{27, 28}

Our focus operator anaphor analysis of *ziji-benshen* 'self-self' has the following theoretical and empirical consequences. First, as has already been discussed, the specific semantic characteristics of the Chinese anaphor *ziji-benshen* 'self-self' (i.e., the pure-identity requirement of the antecedent) come from the semantic composition of the near reflexive function of *ziji* 'self', the focus function of *benshen* 'self' and the operator status of *ziji-benshen* 'self-self'. The distinction between the *X-benshen* 'self-self' anaphor and the *non-X-benshen* 'non-X-self' anaphor hereby is independent on the distinction between

simplicity and complexity in morphology or the distinction between local and long-distance reflexives.^{29, 30}

Second, the semantic distinctions between the *X-benshen* 'X-self' and the *non-X-benshen* 'non-X-self' anaphor are not necessary to be formalized at all within the traditional binding theory. In addition, since the distribution and coindexation of the Chinese anaphor, either in the *X-benshen* 'X-self' form or not, are well captured by the traditional binding theory, no changes are needed for the conventional binding theory if the job of binding theory is just to take care of the distribution and coindexation of anaphors (cf. Chomsky (1981, 1986), Cole, Hermon and Sung (1990), Cole and Sung (1994), Liu (1999), Huang and Liu (2000) and Lidz (1996, 2000, 2001a)).

Third, the semantic characteristic of *ziji-benshen* 'self-self', as we have argued, is near reflexivity plus a focus marker that picks out from the set of entities denoted by the near reflexive function of *ziji* 'self' the best representation of the antecedent that happens to be the actual person. The anaphor *ziji-benshen* 'self-self' therefore should not be considered a pure operator; instead, it is an operator with a great deal of semantic/pragmatic content.

Before concluding this section, it is important to note, inter alia, that our claim that in Chinese pure identity shown by the anaphor *ziji-benshen* 'self-self' can be considered as a consequence of focus is reminiscent of Lidz's (2001a) theory of pure identity shown by languages which show the antilocality effect. In section five, a discussion of the difference between Lidz's (2001a) theory of pure identity shown by *zich* 'self' (i.e., pure identity as a consequence of Condition R) and our proposal of *ziji-benshen* 'self-self' (i.e., pure identity as a consequence of focus) will be provided after a brief introduction of predicate-centered binding theory.³¹

5. TWO WAYS TO GET PURE IDENTITY

In this section, we shall briefly review R&R's (1993) predicate-centered binding theory and then introduce a modified version proposed by Lidz (1996, 2000, 2001a). The latter, as we shall point out, provides evidence to show that in languages which show the antilocality effect, pure identity is attained by using an anaphor without any content. We then show that there are two ways to get pure identity

and the difference between pure identity as a consequence of focus and pure identity as a consequence of Condition R will be discussed.

5.1. PREDICATE-CENTERED BINDING THEORY: LIDZ (2001a)

Unlike most reflexives, bare reflexives such as the Dutch *zich* 'self' and the Norwegian *seg* 'self' in the past have been characterized as antilocal reflexives because they require a binder outside of the local domain, as shown below (cf. Everaert (1986), Hellan (1988) and Hestvik (1990)).

- (35) a. *Max haat zich. (Dutch: R&R (1993, 665))
Max hate self
'Max hates himself.'
- b. *Jon foraktet seg. (Norwegian: Hellan (1988, ch 3 (13b)))
Jon despise self
'Jon despises himself.'

However, this description has been challenged because the local binding of these bare reflexives is licensed in cases like (36a-b).

- (36) a. Max legt het boek achter zich. (Dutch: R&R (1993, 665))
Max put the book behind self
'Max put the book behind him(self).'
- b. Jon legger boken bak seg. (Norwegian: Hellan (1988, ch 3 (61)))
Jon put book behind self
'Jon puts the book behind himself.'

The appropriate description of this type of anaphor, as R&R (1993) argue, hereupon should be that it may be locally bound unless the anaphor and its antecedent are both the arguments of the same

predicate. Given the grammaticality of sentences like (37a-b), R&R (1993) further suggest that local binding is also possible if the verb involved is intrinsically reflexive.³²

- (37) a. Max schaamt zich. (Dutch: R&R (1993, 666))
Max shame self
'Max is ashamed.'
- b. Jon skammer seg. (Norwegian: Hellan (1988, ch 3 (9c)))
John shame self
'John is ashamed.'

Based on these observations, R&R (1993, 678) pioneeringly state the binding conditions in terms of predicates rather than a domain for finding an antecedent, as shown in (38) (cf. Chomsky (1981)).

- (38) a. A reflexive-marked predicate is reflexive.
b. A reflexive predicate is reflexive-marked.

Central to their analysis are the definition of "a syntactic predicate" and the notions of being "reflexive-marked" and being "reflexive", as shown below (cf. R&R (1993, 678)).

- (39) a. The syntactic predicate formed of (a head) P is P, all its syntactic arguments, and an external argument of P (subject). (The syntactic arguments of P are the projections assigned θ -role or Case by P.)
- b. A syntactic predicate (formed of P) is reflexive-marked iff either P is lexically reflexive or one of P's arguments is a SELF anaphor (i.e., a morphologically complex anaphor).
- c. A predicate is reflexive iff two of its arguments are coindexed.

As (39b) shows, reflexive-marking can be realized lexically or syntactically (through a SELF-anaphor), as shown by (40a-b).³³

- (40) a. Max schaamt zich. (R&R (1993, 666))
 Max shame self
 'Max is ashamed.'
- b. Jan haat zich-zelf. (R&R (1993, 661))
 Jan hate himself
 'Jan hates himself.'

However, the binding conditions (i.e., (38a-b)), as R&R (1993) suggest, are not sensitive to the manner of reflexive-marking (cf. (39b)); that is, no matter how it is realized, reflexive-marking corresponds to semantic reflexivity. Hence, one prediction of their theory is that reflexive-marked predicates are semantically uniform, meaning that semantically, reflexive-marked predicates should form a natural class; put another way, all reflexive-marked predicates, either lexically or syntactically realized, behave alike. However, Lidz (2001a, 128-129) argues that the facts do not bear out this prediction. First, Lidz (2001a, 128) points out how a lexically reflexive-marked predicate differs from a syntactically reflexive-marked predicate in semantic interpretation by providing the contrast between (41a) and (41b), coupled with his (2001a, 128) Madame Tussaud scenario: Imagine the famous "Beatle" Ringo Starr goes into Madame Tussaud's wax museum, where he comes upon a statue portraying him. Upon seeing the statue, Ringo is appalled because the museum has chosen to portray him with a beard, though Ringo himself prefers a cleaner-cut image. Therefore, Ringo pulls out his razor and begins to shave the statue that portrays him.

- (41) a. Ringo scheert zich. (Lidz (2001a, 128))
 Ringo shaves self
 'Ringo shaves himself.'
- b. Ringo scheert zich-zelf. (Lidz (2001a, 128))
 Ringo shaves self-self
 'Ringo shaves himself.'

In this situation, it is felicitous in Dutch to say (41b) rather than (41a).³⁴

A second place, as Lidz (2001a, 128-129) points out, where R&R (1993) make a wrong prediction, is in comparative deletion constructions. They would expect no semantic distinction between (42a) and (42b). However, as the contrast between (42a) and (42b), taken from Lidz (2001a, 129), shows, this is not correct (cf. Sells, Zaenen and Zec (1987)).³⁵

- (42) a. Zij verdedigde zich beter dan Peter.
 She defend self better than Peter
 i. 'She defended herself better than Peter defended himself.'
 ii. *'She defended herself better than Peter defended her.'
- b. Zij verdedigde zich-zelf beter dan hij.
 She defend self-self better than he
 i. 'She defended herself better than he defended himself.'
 ii. 'She defended herself better than he defended her.'

Since lexically/morphologically reflexive-marked predicates do not allow an interpretation in which the anaphor referentially depends on its antecedent but is not identical with it while syntactically reflexive-marked predicates do, Lidz (1996, 2001a) calls the former (i.e., the one with an antilocal anaphor) a pure-reflexive predicate while the latter (i.e., the one with a morphologically complex anaphor) a near-reflexive predicate. Their difference is given in (43), taken from Lidz (2001a, 129).

- (43) a. $\lambda x [P(x, x)]$ (semantic-/pure-reflexive)
 b. $\lambda x [P(x, f(x))]$ (near-reflexive)

(43a) indicates that the two arguments of the predicate P are identical (or that there is one entity that realizes both roles of the predicate); in (43b), the second argument is a function taking the first argument as input and returning an entity which is representationally related to that argument (cf. Fauconnier (1985), Jackendoff (1992), Reuland (1995) and Lidz (2001a, 129-130)). Therefore, the SELF anaphor which syntactically reflexive-marks a predicate in fact is a near anaphor which

referentially depends on its antecedent but is not necessarily identical with it; however, anaphors which require pure identity with their antecedents in pure reflexive sentences are pure anaphors, for example the Dutch *zich* 'self', the Italian *se* 'self' and the Norwegian *seg* 'self'. Furthermore, as Lidz (2001a, 130) notes, in (44a) the simplex anaphor *zich* 'self' bound by a non-coargument does not introduce the near reflexive function (cf. Reuland (1995)).

- (44) a. Ze zag zich in een griezelige hock staan.
 She saw self in a creepy corner stand
 'She saw herself (= reflection/*statue) standing in a creepy corner.'
- a. Ze zag zich-zelf in een griezelige hock staan.
 She saw self-self in a creepy corner stand
 'She saw herself (= reflection/statue) standing in a creepy corner.'

In other words, (44a) implies that in Dutch the distinction between pure and near reflexivity lies in the lexical content of the reflexive pronouns themselves and only derivatively in predicates. Lidz (2001a, 130) therefore makes the proposal: The anaphors that occur in pure-reflexive sentences, on the one hand, are pure variables and do not contribute anything to interpretation other than that the argument they represent is identical to some syntactically determined antecedent; the anaphors that occur in near-reflexive sentences, on the other hand, do contribute something to interpretation.³⁶

So, the crux of the matter pertaining to the Dutch pure anaphor (i.e., the antilocal anaphor) *zich* 'self', as Lidz (2001a, 131) says, is to explain the following two questions. First, why is the coargument restriction on the anaphor *zich* 'self' obviated by the presence of lexical/morphological reflexivity? Second, why is lexical reflexivity always semantic reflexivity as in example (43a)? Lidz (2001a, 131) suggests Condition R to explain them.

- (45) Condition R:
- | | | |
|-----------------------|-------------------|-------------------------|
| $\lambda x [P(x, x)]$ | \leftrightarrow | $(\theta_1 = \theta_2)$ |
| semantics | | θ -grid |

As Lidz (2001a, 131) suggests, the left side of this formula depicts the semantic representation of reflexivity. The right side depicts the θ -grid of a lexically reflexive predicate.³⁷ This condition states that if a predicate is semantically reflexive, then it must be lexically reflexive. Similarly, if a predicate is lexically reflexive, then it must be semantically reflexive.³⁸

Simply put, in Dutch pure reflexivity depends on the properties of anaphors inherently and those of predicates derivatively only. That is, the pure anaphor in fact is a pure variable and makes no contribution to the semantics other than holding an argument position; in contrast, the near anaphor does contribute something to interpretation. In the next section, we will discuss the difference between our claim that in Chinese pure identity can be considered as a consequence of focus and Lidz's (2001a) claim that in languages such as Dutch pure identity can be considered as a consequence of Condition R.

5.2. PURE IDENTITY: FOCUS VERSUS CONDITION R

Typologically, there are two ways to get pure identity: One is by using a focus marker with a rich semantic/pragmatic content (e.g., the Chinese *benshen* 'self'); the other is by using an anaphor without content (e.g., the Dutch *zich* 'self').³⁹ The former has pure identity as a consequence of focus while the latter as a consequence of Condition R. These two ways in getting pure identity significantly differ from each other in the following ways:⁴⁰

First, pure identity shown by the focus operator anaphor *ziji-benshen* 'self-self' in fact is near reflexivity plus the focus marker *benshen* 'self' that picks out the best representation of the antecedent which happens to be the actual person. So, pure identity cannot be simply considered as pure reflexivity. And pure identity does not necessarily imply pure reflexivity, but not vice versa.

Second, the anaphor *ziji-benshen* 'self-self' should not be considered as a pure anaphor without content because *ziji-benshen* 'self-self' has significant semantic/pragmatic content. Namely, *ziji-benshen* 'self-self' is not a pure variable as is the Dutch pure anaphor *zich* 'self'.

Third, since there is no pure anaphor in Chinese, Condition R does not apply to Chinese and thereby Chinese does not show the antilocality effect, as is confirmed by the contrast between (46) and (47) (cf. Yu (1996, 1998)).⁴¹

- (46) a. Zhangsan you zai piping ziji/ziji-benshen le.
 Zhangsan again at criticize self/self-self Sfp
 'Zhangsan is criticizing himself again.'
- b. Zhangsan zai nuli kezhi ziji/ziji-benshen.
 Zhangsan at hard restrain self/self-self
 'Zhangsan was restraining himself hard.'
- (47) a. *Jan critiqueerde zich. (R&R (1993, 713))
 Jan criticize self
 'Jan criticized herself.'
- b. Max schaamt zich. (R&R (1993, 666))
 Max shame self
 'Max is ashamed.'

So, in Chinese the notion of coargumenthood does not play a role as it does in languages such as Dutch and Norwegian.⁴²

6. CONCLUDING REMARKS

Chinese anaphors with the form *X-benshen* 'X-self', in which *X* is either *ziji* 'self' or *pronoun-ziji* 'pronoun-self', always require pure identity with their antecedents. Seen in this way, Chinese anaphors can be divided into two semantic types: One requires pure identity with its antecedent; the other allows near identity with its antecedent. Pure identity shown by the anaphor *ziji-benshen* 'self-self' can be derivable from the semantic composition of the near reflexive function of the morpheme *ziji* 'self', the focus function of the morpheme *benshen* 'self' and the operator status of *ziji-benshen* 'self-self' while near identity (or near reflexivity) shown by the *non-X-benshen* 'non-X-self' anaphor is due to its being "a pronoun in coreference". In other words, in Chinese pure identity is near reflexivity plus a focus marker which picks out the best representation of the antecedent that happens to be the actual person. So, the *X-benshen* 'X-self' anaphor should not be considered a pure anaphor without content.

Typologically, there are two ways for human languages to get pure identity: One is by using an anaphor without content; the other is by using a focus marker that picks out the best representation of the antecedent which happens to be the actual person. The typological difference in getting pure identity answers the long standing question of why the notion of coargumenthood is often adopted by linguists in defining binding conditions in languages which show the antilocality effect but seldom in Chinese. Since there is no pure anaphor in Chinese, the antilocality effect does not appear in Chinese. The notion of coargumenthood therefore does not play a role in defining binding conditions for Chinese. The distribution and coindexation of all Chinese anaphors, both the *X-benshen* 'X-self' and the *non-X-benshen* 'non-X-self' anaphors, are determined by one single syntactic condition, namely, the traditional binding theory, regardless of whether they are inside or outside the coargument domain. In contrast, in languages which show the antilocality effect, the binding theory allows both pure and near anaphors within the coargument domain but Condition R filters out one of them in the absence of lexical/morphological reflexivity; however, outside the coargument domain, the binding theory itself governs the distribution and coindexation of all anaphors.

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NOTES

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¹ Example (2) is good when the subject is <plain> *Ringo* and the object is <statue of> *himself*, but is unacceptable when the subject is <statue of> *Ringo* and the object is <plain> *himself*. See Jackendoff (1992) for discussion on this issue. Abbreviations used in this paper include: Asp: aspect markers; BA: the disposal marker *ba*; Cl: classifiers; DE: verbal suffix or marker for modifying phrases like genitive

phrases, relative clauses, and noun complement clauses; JIANG: the disposal marker *jiang*; JIU: the adverb *jiu*; Sfp: sentence final particles; SHI: the emphatic marker *shi*; and SUO: the object clitic *suo*.

² C.-S. Liu (1999) argues that in Chinese the bare anaphor *ziji* 'self' can only be interpreted as referring to an actual-person antecedent while the complex anaphor *ta-ziji* 'himself' can be interpreted as referring to an extension of its antecedent. Liu's (1999) assumption is based on the contrast between (i) and (ii) under the context: Suppose that we are playing a game and we cover up Zhangsan's eyes so that he cannot see anything, we then have two wooden puppets: one stands for Zhangsan, the other for Lisi, and ask Zhangsan to hit one of the puppets. If Zhangsan hits the puppet Zhangsan, we can say (ii) rather than (i) with humor.

(i) #Zhangsan da-le ziji yi-xia.

Zhangsan hit-Asp self one-Cl

'Zhangsan hit himself once.'

(ii) Zhangsan da-le ta-ziji yi-xia.

Zhangsan hit-Asp himself one-Cl

'Zhangsan hit himself once.'

However, Liu's (1999) observation cannot be true. The bare anaphor *ziji* 'self' in fact can be interpreted as referring to an extension of the antecedent if an appropriate situation is provided, for example, a statue that the antecedent portrays. For instance, suppose that Queen Elizabeth II and Zhangsan go down to Madame Tussaud's wax museum. They come upon a wax figure of the Queen, and the Queen notices that there is something wrong with the figure's nose. The Queen touches the figure's nose, and the nose falls off. On the spot, Zhangsan may say (iii), which involves the bare anaphor *ziji* 'self', with humor.

(iii) Nuwang_i, ni_i zenme ba ziji_i-de bizi nong diao le.

Queen you how BA self-DE nose make fall-off Sfp

'Your Majesty, how come you made your nose fall off by touching it.'

³ One reviewer suspects that in (4) the complex reflexive *ta-ziji* 'himself' allows the statue reading. Among 27 native speakers interviewed, none of them say *ta-ziji* 'himself' cannot get the statue reading. Anyway, we do agree with the reviewer that this might be related to the fact there exist dialectal variations among Chinese spoken in Southern China, Northern China, Hong Kong and Taiwan.

⁴ Reflexives which require pure identity with their antecedents in sentences involving pure-reflexive (i.e., lexically-/morphologically-reflexive) predicates are pure reflexives (cf. Lidz (1996, 2000 and 2001a)).

⁵ Through an internet search of large Chinese corpora with the keyword *ziji-benshen* 'self-self' (己身•»-) at the web sites: <http://www.sina.com>, <http://www.kimo.com.tw> and <http://tw.search.yahoo.com>, at least 9370 sentences involving *ziji-benshen* 'self-self' were found on May 26, 2001. Upon a closer examination of the data, we find that the word *ziji-benshen* 'self-self' can occur in argument (i.e, subject and object) or non-argument positions. It can be bound, either locally or non-locally, or completely unbound (i.e., syntactically free).

⁶ In fact, besides the complex reflexive with the form *X-benshen* 'X-self', there exists another type of complex reflexive with the form *X-benren* 'X-self', in which *X* might be either *ziji* 'self' or *pronoun-ziji* 'pronoun-self'. The morpheme *benren* literally means *this person* while the morpheme *benshen* literally means *this body*. Since the issue of the characteristics of the *X-benren* 'X-self' reflexive is beyond the scope of this paper, we shall not discuss it in the rest of this paper and the term, the *non-benshen* 'non-self' anaphor, which we use in this paper, will not include the *X-benren* 'X-self' anaphor. However, we agree with one of the reviewers that the usage of *benshen* 'self' might slightly differ from that of *benren* 'self'. People interested might see Pan (1997, 185-209) for a discussion of the difference between *benshen* 'self' and *benren* 'self' though we do not agree with Pan (1997) in some points on the usage of *benshen* 'self' (cf. footnote (10)).

⁷ Intuitively, we only accept (6d) with the reading: This should be blamed on me.

⁸ Example (12a-b) are due to one of the reviewers.

⁹ One reviewer points out that the unacceptability of (13c) and (14c) does not result from the dissociation of the referent of *ziji-benshen* 'self-self' from the actual-person antecedent by providing examples like (i)-(iii).

- (i) Zhangsan jintian shuo zuotian ziji-benshen yiying wanquan hutu-le.
Zhangsan today say yesterday self-self already completely confused-Asp
'Zhangsan said today that he himself was completely confused yesterday.'
- (ii) Zhangsan jintian shuo zuotian shi ziji-benshen bu hao.
Zhangsan today say yesterday SHI self-self not good
'Zhangsan said today that he himself did not behave well yesterday.'
- (iii) Zhangsan wei zhaopian zhong ziji-benshen de hansuan yang
Zhangsan for photo inside self-self DE shabbiness appearance
gandao nan-wei-qing.
feel embarrassed
'Zhangsan feels embarrassed for his shabbiness shown in the photo.'

Among 21 native speakers interviewed, only seven of them accept these sentences. Anyway, this might be related to dialectal variations. Instead, the reviewer provides example (iv) to show that (13c) and (14c) are unacceptable because the anaphor *ziji-benshen* 'self-self' cannot be modified by an NP-*de* 'NP-DE' modifier phrase.

- (iv) *Zhangsan zai piping xianzai-de ziji-benshen.
Zhangsan at criticize now-DE self-self
'Zhangsan is criticizing the present self.'

As the reviewer argues, although the referent of the object *xianzai-de ziji-benshen* 'now-DE self-self' in (iv) should be *Zhangsan himself* and thus the actual person, sentence (iv) is still ungrammatical. We agree that *ziji-benshen* 'self-self' cannot be modified by an NP-*de* 'NP-DE' modifier phrase. But we believe that the ungrammaticality of (iv) in fact results from some pragmatic reasons. Now let us consider the contrast between (v) and (vi) closely.

(v) Xianzai-de wo ke shuo shi zhuang-de xiang tiao-niu si de.
Now-DE I can say is strong-DE like Cl-cow like Sfp
'It can be said that now I am as strong as a cow.'

(vi) Wo ke shuo shi zhuang-de xiang tiao-niu si de.
I can say is strong-DE like Cl-cow like Sfp
'It can be said that I am as strong as a cow.'

Syntactically, example (v) differs from (vi) in that the subject NP in (v) is modified by the adjective *xianzai-de* 'now-DE' (or the NP-*de* 'NP-DE' modifier phrase) while the subject NP in (vi) is not. Particularly significant here is the fact that pragmatically (v) would imply that there exists a *guoqu-de wo* 'past-DE I' who is not so strong as *xianzai-de wo* 'now-DE I'. So, once if we use the modifier *xianzai-de* 'now-DE', as in (iv), to modify the anaphor *ziji-benshen* 'self-self', pragmatically (iv) would imply that there exists a "past" actual person in some different domain of discourse. The co-existence of a "now" actual person and a "past" actual person hence gives rise to pragmatic oddity and makes (iv) unacceptable. By the same reasoning, if we use the adjective *da-de* 'big-DE' to modify *ziji-benshen* 'self-self', pragmatically sentences involving this adjective would imply that there exists a "non-big" actual person in some different domain of discourse. So, the pragmatic oddity explains why the anaphor *ziji-benshen* 'self-self' cannot be modified by any adjective. Furthermore, the uniqueness of the actual person also excludes the anaphor *ziji-benshen* 'self-self' from being modified by the numeral *one* because of semantic redundancy, as the unwell-formedness of the phrase *yi-ge ziji-benshen* 'one-Cl self-self' shows. Of course, *ziji-benshen* 'self-self' cannot be modified by numerals other than *one*.

¹⁰ One reviewer points out that the unacceptability of (15c) might not result from the spatio-temporal distance between the referent of *ziji-benshen* 'self-self' and its antecedent, but suggests that example (15c) and (27) are unacceptable simply because the antecedent of *ziji-benshen* 'self-self' or the NP-*benshen* 'NP-self' cannot be interpreted as an agent, as noted by Pan (1997, 203 and 210). However, the following examples which we have got from the textual (cf. Jiang and Pan (1998, 53)) and internet search indicate that the NP-*benshen* 'NP-self' (cf. (i)-(v)) or the antecedent of *ziji-benshen* 'self-self' (cf. (vi)-(x)) might be interpreted as being agentive.

(i) Tamen bensen bing bu dui luoji mingti de zhenzhi tiaojian de neirong They self
also not to logic proposition DE truth condition DE content zhijie zuo chu gongxian. (Jiang and
Pan (1998, 53))

directly do out contribution

'They themselves do not have any direct contribution on the content of the truth condition of
logic propositions.'

(ii) Min-Yi bensen xieshi de gongli-shifan dui gaotu
Min-Yi self realistic-painting DE ability-demonstration to smart-disciple you
biranxingde yinxiang.

have necessary affect

'Min-Yi substantially affects his smart disciples by demonstrating his own realistically
painting capability.'

<http://art.network.com.tw/artco/specialmember/changtangku/main5.htm>

(iii) Bingren bensen zai chi yao bing bu shi yisheng zai chi yao.

Patient self at eat medicine and not is doctor at eat medicine

'It is the patient himself who takes medicine not the doctor who takes medicine.'

http://www.vghtpe.gov.tw/doc_vgh/epi003.htm-size:1423

(iv) Wo bensen xiang yao zu yi-tai diannaoh.

I self wish want assemble one-CI computer

'I myself want to assemble a computer.'

http://www.ulycom.com.tw/faq/match_faq.asp?faq_cate=1

(v) Tantan ta bensen canyu tiaocha de xinde.

Talk-talk he self join investigate DE mental-gain

'Let us talk about what he learned from his/her joining this investigation.'

<http://health.sinchew-i.com/content.phtml?sec=128>

(vi) ... geng renwei renlei-de lixing keyi zizhu, geng renwei ren zhiyao yi ... more think
people-DE senses can self-control more think people only-if use ziji-bensen wei qishi
jiu keyi xiang renhe da wenti-de

self-self as starting-point JIU can think-about any big question-DE da'an
answer

'... (We) even think that people can self-control their own senses; (we) even think that
a person can think about how to get answer for important questions only if he can use himself as
the starting point'

<http://www.arts.cuhk.edu.hk/~hkshp/humanities/ph56-03.txt>

(vii) Yuanzhuminzu zai ci shouji zese niantu, yong yi caihui bing zhuangshi Aboriginal
at here collect auburn clay use it paint and decorate

ziji-benshen.

self-self

'The aboriginals collected the auburn clay here and used it to paint and decorate themselves.'

<http://www.canadatourism.org.tw/information/song.html>

(viii) Zai tongxue pingguo ziji-benshen-de nengli he quding-le suo quan

At student evaluate self-self-DE ability and identify-Asp SUO choose

xueke hou

course after

'After students evaluated their own ability and identified courses which they had chosen,'

<http://www.macaustreet.com/public/education/usa/usa.htm>

(ix) ... yu taolun mou-ge lishi shijian shi, zui da-de jihui, jiu shi bu ... when
discuss some-CI history event moment most big-DE taboo JIU is not yao jiang ziji-benshen
shiren jianjie shenru qizhong

want JIANG self-self personal opinion saturate inside

'... When you are discussing some historical event, the biggest mistake is to have your
own personal opinion put into it'

<http://saturn.ihp.sinica.edu.tw/~liutk/shih/wwwboard/messages/480.html>

(x) Ta yi ziji-benshen-de qinqie ziran youmuo suihe zuofeng qingyi

He use self-self-DE hospitality nature humor easygoing attitude easily jiechu

tingzhong-de jinzhang.

release audience-DE anxiety

'He uses his own hospitable, nature, humor and easygoing attitude to release the audience from anxiety easily.'

http://www.ptl.edu.tw/publish/bookevlu/32/text_17.html

However, we understand that there exist dialectal variations among Chinese spoken in Southern China, Northern China, Hong Kong and Taiwan. So, the data we have collected here, except (i), do not directly falsify Pan's (1997) observation which is based on the Chinese he speaks.

¹¹ Since a context of viewing oneself in the mirror can be understood as one without any spatio-temporal distance between the viewer and viewee, examples like (iii) are acceptable for some people (cf. R&W (1998) and Liu (1999)).

- (i) Zhangsan_i cong jingzi li kandao-le ziji_i.
Zhangsan from mirror inside see-Asp self
'Zhangsan views himself in the mirror.'
- (ii) Zhangsan_i cong jingzi li kandao-le ta-ziji_i.
Zhangsan from mirror inside see-Asp himself
'Zhangsan views himself in the mirror.'
- (iii) Zhangsan_i cong jingzi li kandao-le ziji-benshen_i.
Zhangsan from mirror inside see-Asp self-self
'Zhangsan views himself in the mirror.'

¹² Since the *pronoun-ziji-benshen* 'pronoun-self-self' anaphor shares with *ziji-benshen* 'self-self' all the semantic distinctions mentioned above, we use the term *X-benshen* 'X-self', in which *X* might be *ziji* 'self' or *pronoun-ziji* 'pronoun-self', to represent the anaphor *ziji-benshen* 'self-self' and the *pronoun-ziji-benshen* 'pronoun-self-self' anaphor here.

¹³ The existence of the actual *self* versus the spatio-temporally dissociated *self* distinction implies that identity and coreference need to be viewed as decomposable, nonmonadic notion (cf. Pica and Snyder (1997) and R&W (1998)).

¹⁴ Postma (1997) observes that *zelf* 'self' in *zich-zelf* 'self-self' diachronically derives from a DP with inalienable possession (*zelf* = *se* + *lf* 'his body').

¹⁵ R&W (1998) propose that the DP *Jan zelf* has the extended DP structure in (i).

(i) [ZelfP [DP Jan] [[pro] zelf] t_{pro}]

pro in (i) occurs as the complement of *zelf* 'self' first and then incorporates itself into *zelf* 'self'. *Zelf*'s requirement on identification between its complement *pro* and something else is done through identification of complement *pro* with *Jan* in SpecZelfP.

¹⁶ See Lidz (2001a, 135-137) for the discussion on the contrast between (21a) and (21b) (cf. footnote (28)).

¹⁷ See Lidz (1996, 138-139) for an alternative for accounting for the ungrammaticality of cases like (22a-b).

¹⁸ Since we assume that the morpheme *benshen* 'self' must be syntactically adjacent to an NP (or a DP), we would assume that *benshen* 'self' in (i) has the form *pro-benshen* 'pro-self'.

(i) Xin zhengfu jianchi benshen-de yunzuo meiyou wenti.
New government insist self-DE operation have-not problem
'The new government insists that its operation is okay.'

¹⁹ We are indebted to a reviewer for reminding us of this.

²⁰ Thanks to one of the reviewers for reminding us of this.

²¹ Much thanks go to one of the reviewers for reminding us of this alternative and some theoretical consequences of it.

²² Since this paper focuses on the *X-benshen* 'X-self' anaphor, in which *X* is either *ziji* 'self' or *pronoun-ziji* 'pronoun-self', anaphors like *ta-benshen* 'he-self' or *ta-benren* 'he-self', will not be discussed here.

²³ These focus characteristics of the morpheme *benshen* 'self' are likewise observed with the English emphatic *himself* as shown in (i)-(ii), taken from Bickerton (1987, 345).

- (i) John himself did it.
- (ii) I gave it to Bill himself.

As Bickerton (1987) suggests, the emphatic *himself* may occur with NP in both subject and non-subject positions, and with the meaning 'NP_i, and no one but NP_i.' In other words, when *himself*, which allows a near reflexive interpretation, is adjacent to an NP, the (picked-out) best representation reading will be got, as the contrast below illustrates (Thanks to one of the reviewers for providing this contrast for us).

- (iii) Ringo expects himself to be on display. (himself = Ringo/statue)
- (iv) Ringo expects he-himself to be on display. (himself = Ringo/*statue)

So, as one of the reviewers suggests to us, the notion of pure reflexivity should be separated from the focus function of *benshen* 'self' and *himself*.

²⁴ The reason why we insert adverbs *xianzai* 'now' and *guoqu* 'past' into (32a-b) is to ensure that they are clausal comparatives (i.e., S-comparatives) rather than phrasal comparatives (NP-comparatives) (cf. Brame (1983), Hoeksema (1983, 404-406) and Liu (1999)). A phrasal comparative, as Hankamer (1973) argues, is a prepositional construction; the morpheme *bi* 'compare' as in (i) thereby can be analyzed as a preposition. In other words, (i) might not involve comparative deletion.

- (i) Zhangsan bi Lisi gao.
Zhangsan compare Lisi tall
'Zhangsan is taller than Lisi.'

In contrast, the morpheme *bi* 'compare' in clausal comparatives such as (32a-b) can be analyzed as a complementizer-like subordinator which is followed by a clause involving comparative deletion (cf. Liu (1999)). One reviewer, however, points out that if the two adverbs (i.e., *xianzai* 'now' and *guoqu* 'previous') are deleted, (32a) will show resistance to the strict reading and (32b) will allow the strict reading. However, among 27 native speakers interviewed, only 4 do not allow (32a) to have the strict reading; furthermore, only 3 allow (32b) to have the strict reading. The reviewer further provides example (ii) to argue that if the meaning of the sentence can be processed easily, the strict reading can be easily obtained even with the above-mentioned two adverbs added.

(ii) Zhangsan xianzai de jingzi bi Lisi guoqu de jingzi geng neng zhaoqing Zhangsan
 now DE mirror compare Lisi past DE mirror more can reflect ziji-benshen de moyang.
 self-self DE image

a. 'Zhangsan's present mirror reflects Zhangsan's image more clearly than
 Lisi's previous mirror reflects Lisi's image.'

b. 'Zhangsan's present mirror reflects Zhangsan's image more clearly than
 Lisi's previous mirror reflects Zhangsan's image.'

c. '?Zhangsan's present mirror reflects Lisi's image more clearly than
 Lisi's previous mirror reflects Lisi's image reflected.'

As the reviewer suggests, in (ii) *ziji-benshen* 'self-self' can be easily interpreted either with *Zhangsan* or with *Lisi*. Now let us examine (ii) more closely. It is interesting to note that example (ii) does not clearly indicate who is the user of the mirror. Pragmatically, it is possible for us to understand (ii) in the following ways: (A) Zhangsan uses both mirrors (i.e., Zhangsan's mirror and Lisi's mirror), (B) Zhangsan uses Zhangsan's mirror and Lisi uses Lisi's mirror or (C) Lisi uses both mirrors. *Ziji-benshen* 'self-self' in (ii) thereby can be interpreted either with *Zhangsan* or *Lisi*, depending on who is the user of the mirror. Given this, it is hard to say that it is more difficult for a reader to process the interpretation of (32a-b) than (ii). Furthermore, example (ii) will become a counterexample to our claim that in comparative deletion constructions, *ziji-benshen* 'self-self' allows only the sloppy reading only if it can be proven to be a clausal comparative.

²⁵ Our assumption that the specific semantic characteristics of *ziji-benshen* 'self-self' are due to the semantic composition of the near reflexive function of *ziji* 'self', the focus function of *benshen* 'self' and the operator status of *ziji-benshen* 'self-self' implicitly implies that example (i), in which the pronoun *ta* 'he' can be understood as a variable at the level of LF, might allow the statue reading because of the lack of the focus function here. As we expect, the fact bears out this expectation.

- (i) Mei-ge ren_i dou mo-le ta_i-de tou yi-xia.
 Every-Cl people all touch-Asp he-DE head one-Cl
 'Everyone_i touches his_i head once.' (ta = the actual person/statue)

In other words, the specific semantic characteristics of *ziji-benshen* 'self-self' are not simply due to its operator status.

²⁶ Due to our assuming Huang and Liu's (2000) analysis on Chinese reflexives, only a locally-bound reflexive is regarded as a syntactic reflexive (i.e., an anaphor). The strict reading as shown in (i)-(ii) hereby should not be considered an anaphoric reading.

- (i) Zhangsan xianzai bi Lisi guoqu geng guanxin ziji-de liyi.
 Zhangsan now compare Lisi past more care-about self-DE benefit
 a. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'
 b. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'
- (ii) Zhangsan xianzai bi Lisi guoqu geng guanxin ta-ziji-de liyi.
 Zhangsan now compare Lisi past more care-about himself-DE benefit
 a. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'
 b. 'Zhangsan_i cares about his_i benefit more than Lisi_j cared about his_j benefit.'

So, we shall suggest that the strict reading (ib) in fact is a logophoric reading which is derivable from the LF operation, as suggested in Huang and Liu (2000), while the strict reading (iib) can be derived from Pan's (1998, 794) Anaphor Condition which is defined in terms of closeness and prominence.

²⁷ In fact, our focus operator anaphor analysis for *ziji-benshen* 'self-self' still differs from Katada's (1992) operator anaphor analysis in the following respects. First, the possession of "semantic range" of Japanese operator anaphors such as *zibun* 'self' and *zibun-zisin* 'self-self', as Katada (1992) argues, comes from their lack of phi-features (i.e., person, number and gender). However, as we argue, the possession of "semantic range" of *ziji-benshen* 'self-self' is due to its focus function. Second, Katada (1992) treats the Japanese bare anaphor *zibun* 'self' as an operator anaphor while we consider the Chinese bare anaphor *ziji* 'self' (not the logophoric *ziji* 'self') a nominal pronominal (or "a pronoun in coreference"). Third, as for the Japanese operator anaphor *zibun-zisin* 'self-self', only the part *zibun* 'self' undergoes LF operator movement; however, we suggest that, for the Chinese focus operator anaphor *ziji-benshen* 'self-self', it is the whole *ziji-benshen* 'self-self' that undergoes LF operator movement. Fourth, assuming that, for *zibun-zisin* 'self-self', what raises is *zibun* 'self' rather than *zibun-zisin* 'self-self', Katada (1992) argues that the local nature of *zibun-zisin* 'self-self' is due to the fact that *zibun* 'self' here lacks the genitive Case marker *no*; that is, *zibun* 'self' here is not in a lexically-governed position; therefore, it must be antecedent-governed in order to satisfy the ECP. However, we have the local nature of *ziji-benshen* 'self-self' resort to the pure identity (or focus) function of the morpheme *benshen* 'self' (cf. Liu (2002)).

²⁸ At this point, our focus operator anaphor analysis immediately encounters one potential problem: Although the Dutch complex reflexive *zich-zelf* 'self-self' and the Chinese complex anaphor *ziji-benshen* 'self-self' are similar to each other in morphology, the former can refer either to the actual person or to the statue while the latter can only refer to the actual person. So, we have to explain why *zich-zelf* 'self-self', though being similar to *ziji-benshen* 'self-self' in morphology, must be analyzed as a near reflexive (or a nominal pronominal) (cf. Lidz (1996, 2000, 2001a)). Although *zich-zelf* 'self-self' and *ziji-benshen* 'self-self' are similar to each other in morphology, they still differ from each other in

the following respects. First, as we have argued, the focus marker *benshen* 'self' can only take NPs/DPs as domain; however, as R&W (1998, 368-370) argue, *zelf* 'self' occurs as a focus marker not only in the domain of DP, but also in the domains of VP and CP. Second, the morpheme *zich* 'self', as Lidz (2001a) argues, is a pure anaphor (or pure operator) while the morpheme *ziji* 'self' is a near anaphor. So, the difference between *zich-zelf* 'self-self' and *ziji-benshen* 'self-self' in restrictions on the nature of their antecedents might be due to these distinctions. Besides this, in section five we shall further point out that typologically Dutch and Chinese differ from each other in the way of getting pure identity. So, we shall resort to Lidz's (2001a) theory of pure identity for explaining the characteristics of *zich-zelf* 'self-self' and the contrast between (21a) and (21b).

²⁹ Since a long-distance bound *ziji-benshen* 'self-self' as in (i)-(ii) still requires pure identity with its antecedent, the distinction between the *X-benshen* 'X-self' anaphor and the *non-X-benshen* 'non-X-self' anaphor should not be dependent on the distinction between the local and long-distance reflexives.

(i) Zhangsan_i shuo [zhe dei guai ziji-benshen_i le].

Zhangsan say this should blame self-self Sfp

'Zhangsan says that he should be blamed for this.'

(ii) Lian ziji-benshen_i dou hui shou dao gongji shi-de zongtong_i shi-fen Even self-

self all will suffer arrive attack cause-DE president ten-Cl shengqi.

angry

'The fact that even the president himself is attacked makes the president very angry.'

Since the issue of non-locally bound *ziji-benshen* 'self-self' is beyond the scope of this paper, we will not discuss it here.

³⁰ In fact, Chinese also uses the reflexive prefix *zi-* 'self' to denote pure identity though this way of use is not so popular in contemporary Chinese, as shown below (cf. Kao (1993), T.-C. Tang (1994) and Yu (1996)).

(i) Lin Ping-Zhi zhongyu ye zi-gong-le.

Lin Ping-Zhi finally also self-castrate-Asp

'Lin Ping-Zhi finally castrated himself.'

- (ii) Xiang-Yu zuihou zi-jin-le.

Xiang-Yu finally self-kill-Asp

'Xiang-Yu finally killed himself.'

- (iii) You you shibing zi-cai-le.

Again have soldier self-kill-Asp

'The event of soldiers' committing suicide happens again.'

- (iv) Nei-ge jiahuo laoshi zai zi-nue.

That-CI bastard always at self-torture

'That bastard always tortures himself.'

The Chinese reflexive prefix *zi-* 'self' is similar to the Kannada verbal reflexive *koL-* in the affixal status that makes them attach to the stem verb obligatorily. However, the Chinese lexically reflexive predicates do not allow any object while the object of the Kannada morphologically reflexive predicate is optional.

³¹ Thanks to one of the reviewers for reminding us to discuss the difference between pure identity as a consequence of focus and pure identity as a consequence of Condition R.

³² As Everaert (1986) and R&R (1993) argue, a verb like *schamen* 'shave' is intrinsically reflexive because it cannot take any object distinct in reference from the subject.

³³ As Lidz (1995, 1996) notices, in Kannada when the verbal reflexive *koL-* (or *koND-* in past tense) occurs, coreference between the simplex anaphor *tannu* 'self' and its coargument antecedent becomes possible (cf. Bhat (1981) and Lidz (1996, 125)).

- (i) Hari tann-annu hogaL-i-koND-a.

Hari self-Acc praise-PP-REFL.PST-3SM

'Hari praised himself.'

Since Kannada does not have the SELF anaphor, Lidz (1995, 70) suggests that the most obvious way to interpret the Kannada verbal reflexive which expresses identity between the subject and the direct object, indirect object or beneficiary is to say that it is a reflexive marker. That is to say, besides the way for a predicate to be reflexive-marked by some special anaphoric pronouns (i.e., the SELF anaphor), as suggested in R&R (1993), reflexive marking can be something that can be marked on the predicate itself. Namely, the Kannada verbal reflexive *koL-* is a morphological reflexive marker.

³⁴ As Lidz (1996, 2001a) points out, a similar contrast is also found in languages such as Italian, Kannada, Norwegian and Russian (cf. Burzio (1994)).

³⁵ As Lidz (1996, 2001a) points out, this phenomenon is also found in languages such as Italian, Kannada, Norwegian, and Russian; namely, in comparative deletion constructions, when the verbal/pure reflexive is present, only the sloppy reading is available; when the complex anaphor is present in the absence of the verbal/pure reflexive, both readings are available.

³⁶ Burzio (1994, 60) argues that there exists a "complementarity" between semantics and morphology in the expression of coreference, in the sense that extra morphological material is employed always and only to achieve what the inherent semantics does not. This principle, as Burzio (1994) suggests, can be stated as in (i).

- (i) Weak Anaphora Principle (Burzio (1994, 60))
- | | | |
|----------------------|---|---------------|
| Inherent coreference | ↔ | Weak anaphora |
| (semantics) | | (morphology) |

The person-portrayal coreference, as Burzio (1994, 75) points out, nicely exemplifies the Weak Anaphora Principle. The person-portrayal coreference in fact is paradoxical since there is both a sense in which the two entities are the same, and one in which they are different. The semantically deviant person-portrayal coreference thereby would require strong anaphors, as shown in (iia), rather than the weaker form *se* or *si*, as in (iib-d), which imposes strict identity instead (person-person, or statue-statue).

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- (ii) a. ?Ringo cadde su se-stesso_S.
 Ringo fell on self-same
 'Ringo fell on himself.' (se-stesso = Ringo/statue)
- b. ??Ringo cadde su di se_S.
 Ringo fell on of self
 'Ringo fell on himself.' (se = Ringo/??statue)
- c. *Ringo si_S e sputato addosso.
 Ringo to-self spat upon
 'Ringo spat on himself.' (si = Ringo/*statue)
- d. *Ringo si_S e rotto un braccio.
 Ringo to-self broke an arm
 'Ringo broke his arm.' (si = Ringo/*statue)

Although many of Lidz's (1996) ideas can be traced back to Burzio (1994), the difference between Burzio's (1994) Weak Anaphora Principle and Lidz's (1996, 2000, 2001a) Condition R can be depicted as follows. The former is a principle governing the relationship between semantics and morphology while the latter is a condition regulating the relationship between lexicon and semantics. It is quite obvious that the Weak Anaphora Principle is inapplicable to the Chinese data.

³⁷ As Lidz (2001a, 131 (footnote (11))) points out, the θ -grid in (45) indicates that the two thematic roles of the predicate are coindexed and not that the two positions have become one. That is, he is not making any claims about argument absorption in this representation. The use of a verbal reflexive in nonreflexive contexts in which argument absorption has taken place is not directly relevant to Lidz (2001a), though ultimately quite important (cf. Lidz (2001b)).

³⁸ So, Lidz (1996, 2001a) maintains the standard binding theory to regulate the distribution and coindexation of all anaphors, either pure or near (cf. Chomsky (1981, 1986), Cole, Hermon and Sung (1990) and Cole and Sung (1994)).

³⁹ Since Chinese also uses the reflexive prefix *zi-* 'self' to denote pure identity, it is better for us to say that typologically there are at least two ways to get pure identity (cf. footnote (30)).

⁴⁰ The following discussion benefits a lot from the helpful and useful comments and suggestions from one of the reviewers.

⁴¹ Based on whether their object is allowed to be distinct in reference from their subject if both subject and object are human, Yu (1996, 1998) classifies Chinese verbs into three distinct groups: *zizhi* 'self-referring', *tazhi* 'other-referring' and *zhongxing* 'neutral' verbs. *Zizhi* verbs such as *kezhi* 'restrain' in (46b) are lexically specified as not allowing their object to be distinct in reference from their subject if both of subject and object are human while *zhongxing* verbs such as *piping* 'criticize' in (46a) do not have any requirement on their object (cf. Yu (1998, 394-395)). See Liu (1999) for further discussion.

⁴² Under the framework of Pollard and Sag (1992), Pollard and Xue (1998) adopt the notion of coargumenthood to define binding conditions for the Chinese bare reflexive *ziji* 'self'. They first treat *ziji* 'self' as an item that can be, but do not need to be, bound syntactically but that, if not syntactically bound, must be interpreted in accordance with appropriate pragmatic conditions. Seen in this way, they then suggest that *ziji* 'self' can be syntactically bound by an argument by being its co-argument or by being contained within a constituent that is the antecedent's co-argument. See Huang and Liu (2000) for more discussion of Pollard and Xue (1998).