

# Chinese Reflexives: A Feature Checking Approach\*

William Earl Griffin

*The University of Texas at Austin*

## 1. Introduction

The Chinese reflexive pronoun *ziji* ‘self’ has been the subject of considerable discussion and debate in recent years, especially since numerous recent works have presented new distributional facts which challenge the established observations of previous work. Numerous works have taken the essential properties of anaphoric *ziji* to be: i) animate subject orientation, (ii) long-distance binding and the blocking effect of an intervening subject with different person features, and (iii) distinct anaphoric and intensifier usages (see Chou, 1992; Huang, 1982; Batistella, 1989; Huang and Tang, 1988; Tang, 1989; Cole, Hermon, and Sung, 1990). More recent work however has shown that the binding properties of *ziji* are considerably more complicated than these studies suggest since it also allows: (i) preverbal BA and BEI object antecedents (Yu, 1992, Xu, 1994, Cole and Wang, 1996), (ii) object antecedents in object-control constructions (Chou, 1992; Xue, Pollard, and Sag, 1994), (iii) indirect object antecedents in double object constructions (Xu, 1994, Griffin, 1997), and (iv) object blocking effects (Xue, Pollard, and Sag, 1994).

Under the traditional assumptions of the Binding Theory, Principle A requires that two syntactic conditions obtain for the proper binding of reflexives: 1) a locality condition defined in terms of its governing category (GC), and 2) a dominance relation between an NP/DP antecedent and the reflexive defined in terms of c-command (Chomsky, 1981, 1986). The interest in Chinese *ziji* follows from the fact that its binding properties apparently violate both of these conditions. As is well known, *ziji* may be bound by successively c-commanding NP/DP's outside of its local GC (instances of long distance binding).<sup>1</sup> In addition, the subject orientation and so-called blocking effect, illustrated in (1) and (2) below, have made an adequate analysis even more difficult.

---

While this work is in many respects still a work in progress, I would like to thank Lisa Green, Mark Loudon, and Ralph Blight for their helpful comments and suggestions at various stages in the development of this work.

<sup>1</sup> It is also well known that *ziji* may also be bound by so-called "discourse" antecedents where the reflexive clearly has no clausal antecedent (i.e., where it is the subject of a matrix clause). Given this, a number of scholars have proposed that the binding properties of reflexives like *ziji* are best derived from semantic, pragmatic, and discourse principles (see Huang 1991, among others). Nevertheless, many researchers like Cole and Wang (1996) maintain that there is a grammatical "core" to the locality restrictions on potential antecedents and that the role of post-grammatical principles is to differentiate between competing well-formed binding

- (1) [Zhangsan<sub>i</sub> renwei [Lisi<sub>j</sub> zhidao [Wangwu<sub>k</sub> xihuan ziji<sub>i/j/k</sub>]]]  
 Zhangsan think Lisi know Wangwu like self  
 'Zhangsan thinks that Lisi knows that Wangwu likes him/himself.'
- (2) [Zhangsan<sub>i</sub> renwei [wo<sub>j</sub> zhidao [Wangwu<sub>k</sub> xihuan ziji<sub>\*i/\*j/k</sub>]]]  
 Zhangsan think I know Wangwu like self  
 'Zhangsan thinks that I know that Wangwu likes \*him/\*me/himself.'

Previous analyses employ either of two basic strategies to account for these facts. While they agree that *ziji* overtly appears to violate the requirements of Principle A, the relevant binding relations may obtain covertly either by i) head movement or adjunction of the reflexive at LF (Yang, 1983; Pica, 1987; Huang and Tang, 1989; Cole, Herman, and Sung, 1990; Cole and Sung, 1994; Cole and Wang, 1996), or ii) by language specific parameterization of the governing category (GC) with which the reflexive may be coindexed: for simple reflexives like Chinese *ziji*, this corresponds to the entire sentence where any and all instances of IP are potential GC's; for the compound or complex reflexive *ta-ziji* 'he/she-self' this corresponds to the immediate (most local) instance of IP (Progovac, 1992, 1993). One general assumption shared by most head movement and GC approaches is that simple reflexives like *ziji* are X<sup>0</sup> constituents (heads) and that the difference in their categorial status in comparison to complex (XP) reflexives like *taziji* may account for the fact that *ziji* may be long-distance bound by multiple non-local subjects.

Despite the attention it has received in the literature, numerous binding facts associated with the anaphoric use of *ziji* continue to resist adequate analysis.<sup>2</sup> Recent works show that both head movement and GC approaches based on Principle A encounter serious empirical and conceptual problems in accounting for additional binding facts (Yu, 1992; Xu, 1993, 1994; Pan 1995, 1997; Cole and Wang 1996). For instance, Yu (1992), Xu (1994) and Cole and Wang (1996) point out that while previous analyses have focused on the subject orientation of *ziji*, they fail to provide any account for instances where the object may bind *ziji* in constructions where it follows the passive morpheme *bei* or the preverbal object marker *ba*.

- (3) Lisi<sub>i</sub> ba (wo<sub>j</sub>/ni<sub>j</sub>/Zhangsan<sub>j</sub>) ling hui le ziji<sub>i/j</sub> de jia.  
 Lisi BA (I/you/Zhangsan) lead back ASP self DE home  
 'Lisi took (me/you/Zhangsan) back to his/your/my home.'
- (4) Ta<sub>i</sub> bei (wo<sub>j</sub>/ni<sub>j</sub>/Zhangsan<sub>j</sub>) guan zai ziji<sub>i/j</sub> de cheli.  
 he BEI (I/you/Zhangsan) shut in self DE car-inside  
 'He was shut up by (me/you/Zhangsan) inside his/your/my car.'

---

possibilities. This work will focus on the core grammatical usage of anaphoric *ziji* following in the view of Cole and Wang (1996).

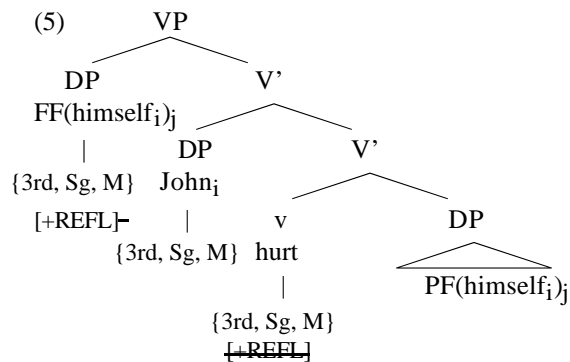
<sup>2</sup> Tang (1989) distinguishes between two uses of *ziji*: i) an anaphoric usage, and ii) an intensifier usage. This work will focus on its anaphoric usage, leaving the matter of demonstrating how the analysis proposed here may account for the intensifier usage for future work.

In (3) and (4), both the subject and the preverbal object (regardless of its person features) may serve as antecedents for *ziji*. Given these facts, it is clear that any adequate analysis of *ziji* must not only account for the subject binding and blocking effects illustrated above but must also account for the possibility of object binding as well.

Cole and Wang (1996) propose a ‘revised’ head movement analysis incorporating the Split-INFL hypothesis (Pollock, 1989) and the VP-Internal Subject hypothesis (see Koopman and Sportiche, 1991, among others) which will allow the facts above to be accounted for by head movement of the reflexive at LF. While this analysis has greater explanatory adequacy than previous head movement and GC analyses, the ‘revised’ head movement analysis also fails to account for other instances of object binding and object blocking effects and encounters serious conceptual problems concerning the base position of objects and the heads that license them. Clearly, an alternative analysis that makes the correct predictions with respect to subject and object binding and blocking effects associated with anaphoric *ziji* and eliminates these conceptual problems will be preferable on both empirical and conceptual grounds.

This work will outline a new approach to reflexive binding within Chomsky’s (1995) Minimalist Program which does not rely on the government relation and the notion of the governing category. Instead, the proposed approach will be based on the spec-head relation and the theory of feature checking, which posits that the force driving syntactic operations like Move are the morphological properties of elements within the computational system (for a brief review see Kitahara, 1997).

Following in the spirit of Reinhart and Reuland (1993), I will argue that a predicate may be specified for a formal [+REFL] reflexive feature which must be checked against a reflexive such that reflexives must undergo XP-movement at LF and check a formal reflexive [+REFL] feature against a local predicate in a spec-head relation. Under this view, the antecedent for a given reflexive will be an NP/DP which is also a specifier of the local head or predicate and contained (at some point in a given derivation) within its checking domain. Rather than being determined by a governing category, the locality restrictions on complex reflexives are determined by the presence of the Phi-features of the reflexive and the antecedent within the checking domain of a local predicate as illustrated in (5) below.



Consider briefly the proposed role of Phi-features in determining the locality restrictions on binding relations in a language like English. Assuming the VP-Internal Subject Hypothesis, for a sentence like *John hurt himself*, subjects are licensed internally to VP and undergo movement to the spec of TP to check case and agreement features as well as the +EPP feature of T. Given that agreement feature checking requires that agreement features are specified on both the verb and the subject, I will suggest here that when reflexives raise at LF, the grammatical Phi-features of the reflexive are checked against the verb, which in turn checks these features against the subject (presumably in [spec, TP]). If the grammatical Phi-features specified on the reflexive, the verb, and the subject agree, the result is a convergent derivation with an interpretable binding relation.

In the case where the reflexive and the antecedent do not agree in either person, number, or gender, as in (6), the result is an uninterpretable binding relation and a non-convergent derivation.

- (6) a. \*John loves themselves.  
b. \*John loves myself.  
c. \*John loves herself.

Given the proposed approach as outlined briefly above, I will argue that long-distance binding effects in Chinese result from the *absence* of grammatical [+Person] on both the reflexive and the antecedent within the checking domain of the local verb and successively c-commanding NP/DP's. Conversely, the blocking effect will result from the *presence* of formal grammatical [+Person] features (in Chinese) in local and non-local, successively c-commanding NP/DP's since this will block raising of the reflexive for the purposes of feature checking in accordance with the economy principles of UG. The proposed analysis will have numerous empirical advantages over previous analyses of Chinese reflexives. In addition to accounting for a broader range of facts concerning the binding properties of the simple reflexive *ziji*, it will also allow for a uniform account of both simple and complex reflexives--both may be analyzed as XP elements which raise at LF.

The proposed analysis will have theoretical advantages as well. Clearly, Principle A cannot be maintained in its standard form within a minimalist model of grammar. Since the government relation has no status in this theory (Chomsky, 1995: 173), the notion of the Governing Category undefined. Under the alternative formulation of Principle A proposed here, three derivational conditions must obtain for the proper binding of reflexives: 1) a derivational condition where the antecedent must c-command the reflexive at LF, 2) a derivational (feature checking) condition which requires a reflexive to check a [+REFL] feature against a *reflexive predicate* (following in the spirit of Reinhart and Reuland 1993) at LF in the spec of VP (where subjects are presumable base generated) and 3) a derivation condition on agreement feature checking which requires that the antecedent and the reflexive contained within the checking domain of a local VP agree (only in person features in Chinese). A derivational formulation of Principle A based on the spec-head, feature-checking relation as outlined above has numerous empirical advantages over previous analyses. Not only will it allow us to account for long-distance binding and object blocking facts which are problematic for Cole and Wang's 'revised' Head Movement analysis and standard Principle A based analyses, but it will also allow us to do so without relying on the government relation and the notion of the governing category. Before illustrating more precisely how the proposed approach may account for reflexive binding in

Chinese, I will briefly review Cole and Wang's (1996) revised head movement analysis and show how it encounters serious empirical and conceptual problems when confronted with additional data reported in previous studies.

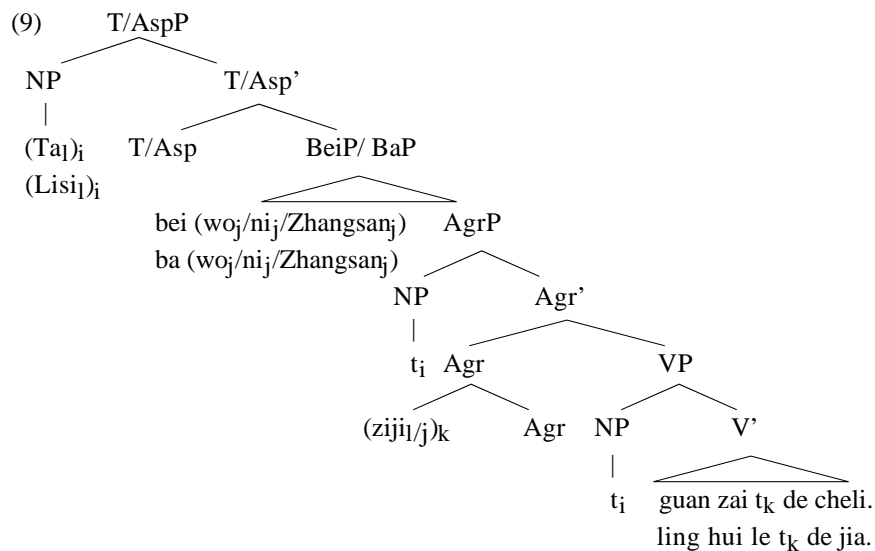
## 2. Problems for the Revised Head Movement Analysis

Cole and Wang's (1996) analysis is similar to previous head movement analyses in assuming that the reflexive *ziji* undergoes head movement at LF (see Cole, Hermon and Sung, 1990; Cole and Sung, 1994). However, it differs from previous analyses in two important ways with respect to clause structure. First, it assumes a clausal structure incorporating the Split-INFL Hypothesis, following Pollock (1989), where I is not a single node, but two separate functional heads, Tense/Aspect Phrase (T/AspP) and agreement Phrase (AgrP), that project as distinct phrases. Second, they make the rather controversial assumption that BEI and BA nominals occupy a fixed position between modals and verbs where (when present) BEI and BA project as independent functional phrases in the syntax as shown in (7).

$$(7) \quad [T/AspP [BeiP [BaP [AgrP [VP \dots ]]]]]$$

Within this clausal framework, Cole and Wang adopt the additional assumptions outlined in (8) below.

- (8) a. The antecedent for *ziji* must c-command *ziji* at LF.
- b. Head movement adjoins *ziji* to Agr at LF.
- c. The subject is generated in [spec, VP] position and moves in the syntax to [spec, T/AspP] following Huang (1993).
- d. *Ziji* has grammatical person features that are specified when it is inserted into a derivation.



Now consider how this approach accounts for preverbal BA and BEI object antecedents, (3) and (4) above, as shown in (9) above. Here the subject *Lisi* or *ta* moves from [spec, VP] to [spec, AgrP] and then to [spec, T/AspP]. The reflexive *ziji* undergoes head movement at LF to Agr. In both cases, the subject and the preverbal BA and BEI object c-command *ziji* and thus may serve as antecedents. Given that *ziji* is inserted into a derivation with grammatical [+Person] features, long-distance binding (as illustrated in (1) above) may be accounted for by head movement of the reflexive to successively c-commanding Agr positions. Since the (t)race of each successive (local) subject will c-command the reflexive in a spec-head relation, they may serve as antecedents for *ziji*.

The blocking effect of subjects (as illustrated in (2) above) is accounted for by the spec-head agreement relation between *ziji* and the subject (t)race in [spec, AgrP]. If a successively c-commanding Agr in a higher clause has agreement (person) features which are different from the most local Agr, then *ziji* does not raise to the higher Agr position and blocks the reflexive from taking successively c-commanding antecedents.

While the revised head movement analysis readily accounts for long-distance binding and blocking effects, and antecedent binding by pre-verbal objects (BA and BEI nominals), it fails to account for other well-known facts reported in the literature. Xue, Pollard, and Sag (1994) show that objects can in fact induce a blocking effect. As illustrated in (10) and (11), the intervening first-person and second-person (pronoun) objects block the higher subject *Zhangsan* from serving as an antecedent for *ziji*.

(10) [Zhangsan<sub>i</sub> gaosu wo<sub>j</sub> [Lisi<sub>k</sub> hen ziji<sub>\*i/\*j/k</sub>]]  
 Zhangsan tell me Lisi hurt self  
 ‘Zhangsan told me that Lisi hurt himself.’

(11) [Wo<sub>i</sub> zhidao [Zhangsan<sub>j</sub> gaosu ni<sub>k</sub> [Lisi<sub>m</sub> hen ziji<sub>\*i/\*j/\*k/m</sub>]]]  
 I know Zhangsan tell you Lisi hurt self  
 ‘I know that Zhangsan told you that Lisi hurt himself.’

Clearly these blocking effects do not readily follow from the revised head movement analysis. Since there is no intervening AgrP, and consequently no specifier position available for these objects, it incorrectly predicts that long-distance binding should be possible in these constructions.

In addition, it fails to predict binding patterns involving indirect objects in double object constructions. While it has been generally assumed that objects cannot serve as antecedents (see Tang, 1989), Xu (1994) shows that the indirect object of a ditransitive verb may serve as an antecedent for *ziji*. More recently, Griffin (1997) finds an asymmetry in the binding properties of indirect object pronouns and proper names. While the indirect object may serve as an antecedent in double object constructions when the object is a pronoun, it may not serve as an antecedent when it is a proper name as illustrated in (12).<sup>3</sup>

---

<sup>3</sup> These observations are consistent with those reported elsewhere in the literature (see Battistella, 1989, 988; Tang, 1989, 99; Xu, 1994, 117; Cole and Wang, 1996, 361). It should be noted that not all ditransitive verbs allow their indirect objects to serve as antecedent for *ziji*. For a detailed discussion see Griffin (1997, section 2).

- (12) a. Ni<sub>i</sub> gei Lisi<sub>j</sub> ziji<sub>i/\*j</sub> de shu.  
 You give Lisi self's book  
 'You gave Lisi (your/his) book.'
- b. Ni<sub>i</sub> gei ta<sub>j</sub> ziji<sub>i/j</sub> de shu.  
 You give he self's book  
 'You gave him (your/his) book.'
- c. Lisi<sub>i</sub> gei wo<sub>j</sub> ziji<sub>i/j</sub> de shu.  
 Lisi give me (his/my) book  
 'Lisi gave me (his/my) book.'
- d. Wo<sub>i</sub> gei ni<sub>j</sub> ziji<sub>i/j</sub> de shu.  
 I give you self's book  
 'I gave you (my/your) book.'

Since no intervening Agr (head) is present, and the required spec-head relation does not obtain between the reflexive and the object antecedent, the revised head movement analysis fails to predict the binding possibilities in (12b, c, and d).

One possible solution to these problem is to expanded Pollock's (1989) theory of clause structure, following Chomsky (1991), to allow separate agreement projections for the object and subject as illustrated in (13).

- (13) [AgrSP [T/AspP [AgrOP [VP ... ]]]]

If we adopt a so-called Agr-based theory of clause structure as a plausible clause structure for Chinese, we may account for the object blocking facts in (10), and the binding facts in (11) and (12b, c, and d). If we assume that an object may raise covertly to [spec, AgrOP],<sup>4</sup> *ziji* may raise to AgrO in (11) and (12b, c and d) and check its [+Person] features against the object in a spec-head relation. Since the object will now c-command the reflexive, it may serve as an antecedent for *ziji*. If the object and the reflexive have different [+Person] features, *ziji* will not raise to AgrO and object binding is not possible.

One problem with this solution is that it provides no account for facts like (12a), where the indirect object fails to bind the reflexive. In addition, our analysis will now incorrectly predict that objects should block long-distance by the matrix subject when *ziji* is the subject of a subordinate clause as shown in (14a, b, and c). Furthermore, it fails to predict the absence of object binding when the object is a proper name as in (14d).<sup>5</sup>

- (14) a. Wo<sub>i</sub> gaosu ta<sub>j</sub> [yiqian ziji<sub>i/j</sub> de xiangfabu yiding dui]  
 I tell he previous self's idea not necessarily correct  
 'I told him that (my/his) previous ideas were not necessarily correct.'

<sup>4</sup> There is compelling evidence to reject an alternative possibility where the object moves overtly to [spec, AgrOP] and the main verb moves overtly to T/Asp as has been suggested for French (see Pollock, 1989; Chomsky, 1995). If this were the case, we would expect then the verb to precede the negatives elements like *bu*, which is assumed to be in a position between T/AspP and VP, but this is not the case since negative elements in Chinese follow subjects but precede verbs (See Li and Thompson, 1981, Ch. 12).

<sup>5</sup> These examples are taken from Griffin (1997) (for similar observations see Tang, 1989, 111; Xu, 1994, 125).

- b. Ni<sub>i</sub> gaosu wo<sub>j</sub> [yiqian ziji<sub>i/j</sub> de xiangfabu yiding dui]  
You tell me previous self's idea not necessarily correct  
'You told him that (your/my) previous ideas were not necessarily correct.'
- c. Lisi<sub>i</sub> gaosu ni<sub>j</sub> [yiqian ziji<sub>i/j</sub> de xiangfabu yiding dui]  
I tell you previous self's idea not necessarily correct  
'Lisi told you that (his/your) previous ideas were not necessarily correct.'
- d. Wo<sub>i</sub> gaosu Lisi<sub>j</sub> [yiqian ziji<sub>i/?j</sub> de xiangfabu yiding dui]  
I tell Lisi previous self's idea not necessarily correct  
'I told Lisi that (my/?his) previous ideas were not necessarily correct.'

The facts in (14) confirm the observation of Griffin (1997) and further illustrate the asymmetry in the binding properties of object pronouns and proper names. These facts are clearly not accounted for by the revised head movement analysis, even if we adopt an Agr-based theory of clause structure following Chomsky (1991).

One additional problem follows from the controversial assumption that BA and BEI project independently in the syntax. Traditional analyses analyze BA and BEI nominals as instances of NP-movement from a postverbal complement position to a preverbal specifier position (see Wang, 1970; Huang, 1982; Li, 1990). While Cole and Wang (1996) does provide an adequate account for word order facts (MOD BEI NP BA NP VP), it is not apparent how this approach may capture the basic grammatical relation that BA and BEI nominals are objects licensed by a verb.

### 3. A Feature Checking Approach to Reflexive Binding

In traditional linguistics, reflexivization was analyzed as a property of predicates, the reasoning being that a reflexive pronoun is used to avoid repetition of the subject when the verb expresses a reflexive relation (see Jespersen, 1933; Gleason, 1965). More recently, Reinhart and Reuland (1993) have proposed a more formal formulation of the notion of the reflexive predicate.<sup>6</sup> I propose alternative definitions of the reflexive predicate and the antecedent which may be expressed as follows:

---

<sup>6</sup> Reinhart and Reuland's (1993) reformulation of Condition A and Condition B is based on a relationship between reflexivity and argument structure where a predicate is reflexive iff (at least) two of its arguments are coindexed. It should be noted that this approach provides no account for long-distance binding and blocking effects involving the simple reflexive *ziji* since the reflexive need not be an argument of a local predicate. Furthermore, it provides no account for instances of long-distance binding involving complex reflexives like *taziji* (see Pan, 1995; 1997):

- (i) Ta<sub>i</sub> shou [wo<sub>j</sub>/ni<sub>j</sub> ba taziji<sub>i/\*j</sub> erbushi ba Lisi haiku le]  
he say I/you BA he-self not BA Lisi hurt-hard ASP  
'He said that I/you hurt him but not Lisi very much.'

Since the BA nominal *ba taziji* 'he-self' is not an argument of the matrix verb, this approach cannot account for the reflexive property of the verb *shou* 'say' nor the antecedent relation with the matrix subject *Ta*. Presumably, this approach would have to classify these as instances of discourse or semantic binding. I will show (in section 4) that these effects do in fact follow

- (15) a. A predicate is reflexive iff it is lexically specified for a formal reflexive [+REFL] feature (FF[+REFL]) or one of its arguments or adjuncts contains a SELF anaphor.<sup>7</sup>  
 b. An NP/DP (or its trace) may serve as an antecedent for a reflexive iff it is a specifier of a reflexive predicate which contains the reflexive (also a specifier of the reflexive predicate).

As formulated here, I take the formal [+REFL] reflexive feature of a predicate to be an interpretable feature which must be checked at LF and that this feature is checked in a spec-head relation by raising a reflexive at LF. Under the proposed approach, reflexive binding relations will be determined by two converging feature checking operations which are constrained by the economy principles of UG:

- (16) a. Reflexive raising at LF,  
 b. Agreement feature checking

In addition to the standard assumptions the minimalist framework (Chomsky, 1995, Ch.4), I adopt the following assumptions:

- (17) a. *Ziji* may inserted into a derivation with grammatical [+Person] features (Progovac, 1993; Cole and Wang, 1996) or with no [+Person] features.  
 b. The subject is generated in [spec, VP] and moves overtly to [spec, T/AspP] (Huang, 1993; Cole and Wang, 1996)  
 c. BA and BEI nominals are generated as complements of V and undergo overt movement to [spec, VP] (Wang, 1970; Huang, 1982; Li, 1990).  
 d. Objects with grammatical [+Person] features (formal agreement features) check these features covertly in [spec, VP] at LF.  
 e. Proper names (in Chinese) have a no formal agreement features, only pronouns have formal agreement features.  
 f. The antecedent and the reflexive must be specifiers of a reflexive predicate (the antecedent need not c-command the reflexive).<sup>8</sup>

Given the assumptions outlined above, let us now consider how the proposed approach may account for long-distance binding possibilities when applied to a sentence like (1) above, shown as (18) below.

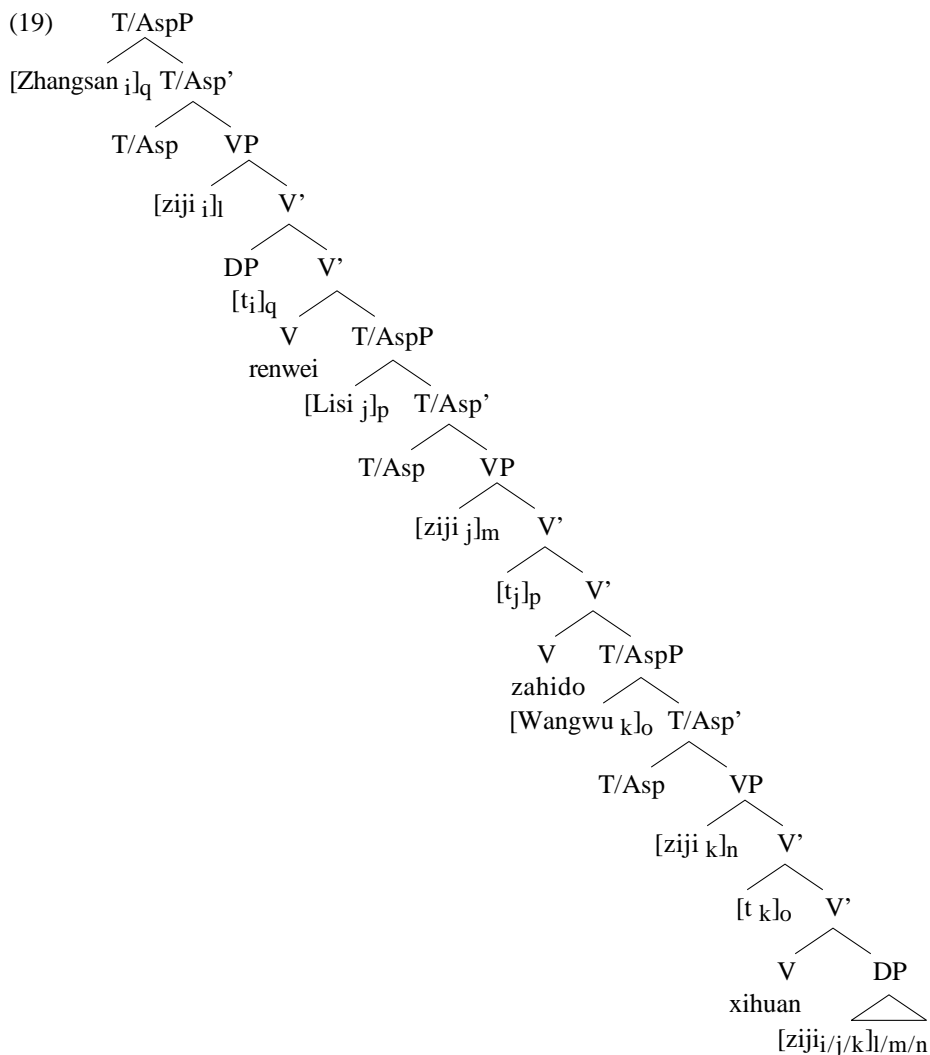
---

from syntactic constraints on movement operations (i.e., Greed and the Minimal Link Condition).

<sup>7</sup> I will assume that the reflexive feature [+REFL] of a predicate is a formal feature associated with the head of a verb which licenses a subject in its specifier position.

<sup>8</sup> Clearly this is the most controversial assumption made under the proposed approach. While the c-command relation will usually obtain (or always obtain) between the reflexive and the antecedent when they are arguments of predicates, I propose replacing this formal relation with the formal spec-head relation of the checking domain (see Chomsky, 1995). As a result, this approach may allow for a syntactic account of apparent counterexamples to the c-command requirement, such as so-called sub-commanding antecedents (see Tang, 1989) if we additionally assume a theory of feature percolation (see Cole, Hermon, and Sung, 1993).

- (18) [Zhangsan<sub>i</sub> renwei [Lisi<sub>j</sub> zhidao [Wangwu<sub>k</sub> xihuan ziji<sub>i/j/k</sub>]]]  
 Zhangsan think Lisi know Wangwu like self  
 ‘Zhangsan thinks that Lisi knows that Wangwu likes him/himself.’



Recall from our discussion in Section 1, it is the absence of formal [+Person] agreement features on *ziji* and an antecedent which determines long-distance binding possibilities. Given that a predicate with a specified formal reflexive [+REFL] feature must check this feature, *ziji* may undergo XP-movement at LF to [spec, VP] to check this feature. Since both *ziji* and the local subject *Wangwu* are not specified for formal agreement [+Person] features they are transparent (not visible) to the locality restrictions imposed by agreement feature checking. Thus, since both are specifiers of a reflexive predicate, *Wangwu* may serve as an antecedent for *ziji*. In addition, since both non-local subjects are not specified for formal agreement features, they are also transparent to the locality restrictions imposed by agreement feature checking. In the case where either *zhido*

or *zenwei* are lexically specified for a [+REFL] feature, *ziji* may raise to their respective [spec, VP] positions to check this feature. As a result, since *ziji* and their respective subjects may both be specifiers of a reflexive predicate, they may serve as antecedents for *ziji*. The relevant aspects of the derivation of (18) are illustrated in (19) above.

The blocking effect is the result of the unlike [+Person] features of successively c-commanding subjects as illustrated in (2) above, shown here as (20). Now consider how the proposed approach may account for blocking effects. Given that the local predicate *xihuan* is specified for a [+REFL] feature, *ziji* may raise to local [spec, VP] to check this feature at LF. Since *ziji* and the local subject do not have formal [+Person] agreement features they are not visible to local agreement feature checking. Thus, since both the local subject and the reflexive are specifiers of a reflexive predicate, the result is an interpretable binding relation.

The possibility of additional raising of *ziji* to [spec, VP] in the higher subordinate clause is blocked due to the fact that the subject and the verb are specified for first-person agreement features while *ziji* is not specified for formal agreement features. Since *ziji* does not agree with the verb and the subject, additional raising of the reflexive would result in a failure of agreement feature checking and a non-convergent derivation. Thus, additional raising *ziji* constitutes a violation of the economy principle Greed since it cannot be checked against these first-person features of the non-local predicate and subject.

- (20) [Zhangsan<sub>i</sub> renwei [wo<sub>j</sub> zhidao [Wangwu<sub>k</sub> xihuan ziji<sub>\*i/\*j/k</sub>]]]  
 Zhangsan think I know Wangwu like self  
 ‘Zhangsan thinks that I know that Wangwu likes \*him/\*me/himself.’

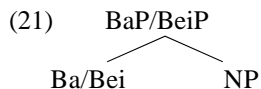
Now recall that we have assumed that *ziji* may be inserted into a derivation with differential [+Person] features or with no formal agreement features. This suggests the possibility that *ziji* could be inserted with first-person agreement features and raise directly to [spec, VP] in the higher subordinate clause. Since it would now agree with the non-local predicate and subject, we might expect (incorrectly) that *wo* ‘I’ may serve as the antecedent for *ziji* and not local subject *Wangwu*.

Notice however that inserting *ziji* with first-person agreement features will result in a failure of local agreement feature checking in the lower subordinate clause. Since *ziji* is an object with formal [+Person] agreement features, it must raise first to check agreement features against the most local predicate as required by Greed and in accordance with the Minimal Link Condition. Since *ziji* does not now agree with the local predicate and subject which have no formal agreement features, agreement feature checking fails and the result is a non-convergent derivation. Thus, under the proposed analysis and the assumptions outlined above, we correctly predict that the non-local subject *wo* cannot serve as an antecedent for *ziji*--raising *ziji* directly to a non-local [spec, VP] position results in a violation of the MLC and a failure of local agreement feature checking and, in turn, a non-convergent derivation.

In contrast, this problem does not arise in a sentence like (18). Since *ziji* is inserted without formal agreement features, it is not visible to the locality restrictions imposed by local agreement feature checking. Thus, additional raising of the reflexive does not result in a failure of either local or non-local agreement feature checking and no violation of the

MLC is incurred. In short, we correctly predict that long-distance binding is possible only with elements which are not visible (transparent) to local agreement feature checking.

While BA and BEI nominals have traditionally been analyzed in terms of XP-movement, it is generally assumed that the BA or BEI morpheme is the head of the phrase and not the nominal as shown in (21) (also see Cole and Wang, 1996, Appendix 1).



Let us assume that this phrase structure configuration renders the object invisible to object-verb agreement feature checking. Given this, now consider how the proposed analysis correctly predicts binding possibilities involving BA and BEI nominals. If Ba and BEI nominals undergo XP-movement to [spec, VP] where subjects are generated, we correctly predict that both BA and BEI nominals, in addition to local subjects, may serve as antecedents for *ziji* since they are likewise specifiers of a reflexive predicate.

(22) Lisi<sub>i</sub> ba (wo<sub>j</sub>/ni<sub>j</sub>/Zhangsan<sub>j</sub>) ling hui le ziji<sub>i/j</sub> de jia.  
 Lisi BA (I/you/Zhangsan) lead back ASP self DE home  
 'Lisi took (me/you/Zhangsan) back to his/your/my home.'

(23) Ta<sub>i</sub> bei (wo<sub>j</sub>/ni<sub>j</sub>/Zhangsan<sub>j</sub>) guan zai ziji<sub>i/j</sub> de cheli.  
 he BEI (I/you/Zhangsan) shut in self DE car-inside  
 'He was shut up by (me/you/Zhangsan) inside his/your/my car.'

In these constructions, notice that *ziji* may be inserted with the [+Person] agreement features of the local subject such that agreement feature checking is satisfied; otherwise it is inserted without formal agreement features such that the BA or BEI nominal serves as the antecedent for *ziji*. In this way, the minimal requirement for an interpretable binding relation is the spec-head relation--which may or may not be further restricted by local requirements on agreement feature checking. In instances where local agreement requirements do not apply (i.e., when the subject is a proper name or a BA or BEI preverbal object), *ziji* may have multiple antecedents.

As evidence for the proposed analysis, consider constructions in which the BA or BEI nominal is contained within a subordinate clause. Cole and Wang (1996) show that while subjects induce the blocking effect, antecedents within BA and BEI nominals do not block long-distance binding possibilities as shown in (24) and (25) below.

(24) a. [Zhangsan<sub>i</sub> yiwei [wo<sub>j</sub> hui ba ni<sub>k</sub> ling hui le ziji<sub>\*i/j/k</sub> de jia]].  
 Zhangsan think I will BA you lead back ASP self DE home  
 'Zhangsan thought I would take you back to \*his/my/your home.'  
 b. [Zhangsan<sub>i</sub> yiwei [Lisi<sub>j</sub> hui ba ni<sub>k</sub> ling hui le ziji<sub>i/j/k</sub> de jia]].  
 Zhangsan think Lisi will BA you lead back ASP self DE home  
 'Zhangsan thought Lisi would take you back to his/his/your home.'

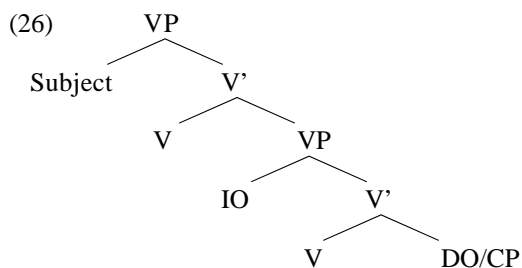
- (25) a. [Zhangsan<sub>i</sub> yiwei [wo<sub>j</sub> hui bei ni<sub>k</sub> ling hui ziji<sub>\*i/j/k</sub> de jia]].  
 Zhangsan think I will BEI you lead back self DE home  
 ‘Zhangsan thought I would be taken by you back to \*his/my/your home.’
- b. [Zhangsan<sub>i</sub> yiwei [Lisi<sub>j</sub> hui bei ni<sub>k</sub> ling hui ziji<sub>i/j/k</sub> de jia]].  
 Zhangsan think Lisi will BEI you lead back self DE home  
 ‘Zhangsan thought Lisi would be taken by you back to his/his/your home.’

In the case of (24a) and (25a), long-distance binding is blocked since *ziji* must agree with either the local first-person subject *wo* ‘I’ or with the BA or BEI nominal (*ziji* has no features). Notice that *ziji* cannot be inserted without formal [+Person] agreement features and undergo direct movement to [spec, VP] in the matrix clause; otherwise local agreement feature checking fails (against either local antecedent) and the result is a non-convergent derivation.

In contrast, in the case of constructions like (24b) and (25b), long-distance binding is possible. Since *ziji* may be inserted without formal agreement features, and given that the local subject *Lisi* also lacks formal [+Person] agreement features, raising *ziji* to [spec, VP] of the matrix clause will not result in a failure of local agreement feature checking. Since both the non-local subject and the reflexive are specifiers of a reflexive predicate, long-distance binding is possible in these constructions.

By adopting the proposed analysis, not only may we readily account for the binding and blocking facts accounted for by the revised head movement analysis, but we may do so while maintaining a standard analysis of the licensing of objects since BA and BEI nominals are analyzed as complements of the verb which undergo overt movement to [spec, VP].

Now consider how the proposed analysis may account for additional object binding and blocking effects associated with ditransitive verbs which are not explained by the revised head movement analysis. First, consider again the asymmetry in binding possibilities between indirect object pronouns and proper names observed by Griffin (1997)--only indirect object pronouns may serve as antecedents for *ziji*. If we assume that ditransitive verbs have the standard VP-shell structure proposed by Larson (1988; 1990), shown in (26), these facts readily follow from the assumptions outlined in (17) above.



Since pronouns are specified with formal [+Person] agreement features, these will undergo movement to [spec, VP] to check these features (presumably at LF). As a result, when

*ziji* raises to [spec, VP] to check the [+REFL] feature of the predicate, the reflexive, the indirect object, and the subject will all be specifiers of a reflexive predicate. Thus, in a construction like (12b) above (shown as (27) below), when *ziji* is inserted with third-person features, the indirect object pronoun *ta* ‘he/she’ may serve as the antecedent for *ziji*. Similarly, in the case where *ziji* is inserted with second-person features, the subject *Ni* ‘you’ may serve as the antecedent for *ziji*.

- (27)  $Ni_i$  gei  $ta_j$   $ziji_{i/j}$  de shu.  
 You give he self’s book  
 ‘You gave him (your/his) book.’

In contrast, in constructions like (12a) above (shown as (28) below), since proper nouns are not specified for formal [+Person] agreement features, these do not raise to [spec, VP]. As a result, since the indirect object proper name is not a specifier of the reflexive predicate, it cannot serve as an antecedent for *ziji*.

- (28)  $Ni_i$  gei  $Lisi_j$   $ziji_{i/*j}$  de shu.  
 You give Lisi self’s book  
 ‘You gave Lisi (your/his) book.’

Notice that while *ziji* may have multiple antecedents (either the subject or indirect object pronoun) when it is the direct object of a ditransitive verb as in (27), it may not take either argument of a ditransitive verb when *ziji* is the object in a subordinate, complement clause as in (29) below. As observed by Xue, Pollard and Sag (1994), the first-person pronoun *wo* blocks the matrix subject from serving as an antecedent for *ziji*.

- (29) [ $Zhangsan_i$  gaosu  $wo_j$  [ $Lisi_k$  hen  $ziji_{i/*j/k}$ ]]  
 Zhangsan tell me Lisi hurt self  
 ‘Zhangsan told me that Lisi hurt himself.’

These blocking effects are readily explained by the proposed analysis. As discussed above, in sentences involving the subject blocking effect, *ziji* may be long-distance bound only when it is inserted without formal agreement features in the subordinate clause, otherwise local agreement feature checking fails between the local subject and the reflexive object, and the result is a non-convergent derivation. Thus, the blocking effect results from the presence of unlike-person features in successively higher [spec, VP] positions.

In the case of structures like (29) however, since both the subject and the indirect object pronoun are specifiers of the ditransitive verb, *ziji* may only raise if it *agrees simultaneously with both of these elements*--an impossibility since they in fact have distinct formal agreement features. Thus, *ziji* cannot raise to the specifier position of the ditransitive verb in constructions like (29). If it is inserted without formal agreement features and raised to this position, it will not agree with the first-person indirect object pronoun and will result in a non-convergent derivation. If it is inserted with first-person features, local agreement feature checking in the subordinate clause will fail and the result is a non-convergent derivation. Thus, when *ziji* is the object in a subordinate clause as in (29) we correctly predict the impossibility of long-distance binding.

However, in the case where both the subject and the indirect object (of a ditransitive verb) do not have formal agreement features, as in (30) below), we correctly predict the possibility of long-distance binding.

- (30) [Zhangsan<sub>i</sub> gaosu Wangwu<sub>j</sub> [Lisi<sub>k</sub> hen ziji<sub>i/\*j/k</sub>]]  
Zhangsan tell Wangwu Lisi hurt self  
'Zhangsan told Wangwu that Lisi hurt him/\*him/himself.'

Since the indirect object *Wangwu* does not have formal agreement features, it does not raise to [spec, VP] of the matrix verb and cannot serve as an antecedent nor can it block long-distance by a the matrix subject. As a result, both the matrix and local subjects may serve as antecedents for *ziji*.

If we assume that the analysis outlined above is essentially correct, two general conclusions follow from the discussion above. First, subject and object blocking effects, as illustrated in (20), (24a), (25a) and (29) above, result from the need to first satisfy local agreement feature checking requirements in the course of a derivation. In these cases, if *ziji* is inserted with non-local formal [+Person] agreement features and raised directly to a non-local [spec, VP] position, this violates the MLC and results in a failure to check local agreement features and yields a non-convergent derivation. In contrast, in cases like (18), (24b), (25b), and (30) above, where local agreement feature checking requirements are satisfied, long-distance binding is possible only if all the NP/DP's in successive higher [spec, VP] positions likewise agree with the local, formal agreement features of the reflexive. More specifically, long-distance binding is only possible when the reflexive, the local subject, and successive higher, non-local NP/DP's do not have formal [+Person] agreement features.

Second, notice that in cases like (27) above involving a ditransitive verb, *ziji* may be inserted with differential [+Person] agreement features and may take multiple antecedents (either the local subject and the indirect object pronoun) which do not agree in formal [+Person] agreement features only when *ziji* is not subject to agreement feature checking and assigned an antecedent in a [spec, VP] position in a subordinate clause.

In further support for the proposed analysis, consider how this makes the correct predictions concerning binding possibilities when *ziji* is the subject of a complement clause of a ditransitive verb as in (14) above, shown again here as (31) below. According to Chomsky (1995), elements cannot engage in feature checking operations in their merged (base) position but must undergo movement to check features. Since *ziji* is licensed as the subject, and not the object, its [+REFL] feature cannot raise to the local [spec, VP] position and check against a [+REFL] feature of the local predicate since it is licensed in this position. Consequently, *ziji* is not bound by a local antecedent in the subordinate clause and is not restricted by local agreement feature checking requirements. As a result, *ziji* may be inserted with or without formal [+Person] agreement features and raise to the [spec, VP] position in the matrix clause at LF. Thus, in cases like (31a), the matrix subject and the indirect object pronoun may serve as antecedents for *ziji* since these are also specifiers of the reflexive predicate.

- (31) a. Lisi<sub>i</sub> gaosu ni<sub>j</sub> [yiqian ziji<sub>i/j</sub> de xiangfabu yiding dui]  
 I tell you previous self's idea not necessarily correct  
 'Lisi told you that (his/your) previous ideas were not necessarily correct.'
- b. Wo<sub>i</sub> gaosu Lisi<sub>j</sub> [yiqian ziji<sub>i/?j</sub> de xiangfabu yiding dui]  
 I tell Lisi previous self's idea not necessarily correct  
 'I told Lisi that (my/?his) previous ideas were not necessarily correct.'

We also correctly predict that the indirect object proper name cannot serve as an antecedent in cases like (31b). Since it has no formal [+Person] agreement features, it does not raise to [spec, VP] in the matrix clause and cannot serve as an antecedent because it is not a specifier of a reflexive predicate.

#### 4. Deriving Locality Constraints on Complex Reflexives

As we have seen, the feature checking approach to reflexive binding may account for not only the long-distance binding and blocking effects of subjects, but objects as well. Now consider how the proposed analysis may be readily applied to binding relations involving complex reflexives in Chinese (e.g., *taziji* 'he + self', *woziji* 'I + self', etc.) and account for the locality requirements of the standard Principle A. As is well known, complex reflexives in Chinese generally behave much like reflexives in languages like English in that they are subject to a locality requirement and usually require a local antecedent. Consider the examples in (32). Notice that the reflexive requires not just any local antecedent, but one that agrees. If the reflexive does not agree with the antecedent, the result is an uninterpretable binding relation and a non-convergent derivation.

- (32) a. Zhangsan<sub>i</sub> xihuan [(ta/\*wo) + ziji]<sub>i</sub>  
 Zhangsan like (he/me) + self  
 'Zhangsan likes himself/\*myself.'
- b. Wo<sub>i</sub> hen [(ta/wo) + ziji]<sub>i</sub>  
 I hate (he/me) +self  
 'I hate \*himself/myself.'

Notice crucially that locality requirement of standard Principle A follows under the proposed analysis directly from the presence of formal [+Person] agreement features in the checking domain of a reflexive predicate. Since complex reflexives are always specified for grammatical Phi-features, they will generally require a local antecedent. Thus, if complex reflexives raise to [spec, VP] to check the formal [+REFL] feature of a reflexive predicate just like the simple reflexive *ziji*, the subject may serve as an antecedent only if it agrees with the object reflexive. Since both the subject and the complex reflexive are specifiers of a reflexive predicate, the result is an interpretable binding relation.

Now consider how the proposed analysis correctly predicts the impossibility of binding in a sentence like (33). Given that *taziji* raises to [spec, VP] in the subordinate clause and is a specifier of a reflexive predicate, it will require a local antecedent since it is overtly specified for third-person features. However, since neither the first-person subject *wo* or the second-person subject *ni* agrees with the reflexive, local agreement feature checking fails and the result is an uninterpretable binding relation and a non-convergent derivation.

- (33) [\**Ta*<sub>i</sub> shou [*wo*<sub>j</sub> /*ni*<sub>j</sub> xihuan *taziji*<sub>i/\*j</sub>]]  
 he say I/you like he-self  
 'He said that I/you liked himself.'

Furthermore, notice that raising of the reflexive directly to [spec, VP] of the matrix verb is not possible since raising over the local predicate will still result in a failure of local agreement feature checking.

By adopting the proposed analysis, we may readily explain why complex reflexives in Chinese generally do not allow long-distance binding without relying on a standard definition of Principle A based on the government relation. Since complex reflexives are specified for formal [+Person] features, raising a complex reflexive to a non-local predicate results in a failure of local agreement feature checking and a violation of the MLC. In contrast, long-distance binding is possible with simple reflexives like *ziji* since this may be inserted without formal [+Person] features so long as the local subject, and successively c-commanding subjects are similarly unspecified for formal [+Person] features. In this way, the blocking effects observed with simple reflexives and the locality requirements on complex reflexives follow from a common cause, the presence or absence of formal agreement [+Person] features in the checking domain of a local reflexive predicate.

Now consider how the proposed analysis may account for additional facts which are clearly problematic for the standard definition of Principle A. Interestingly, Pan (1995, 1997) points out that complex reflexives can in fact be long-distance bound in certain contexts. For instance, consider the case where the complex reflexive is contained within a BA nominal as in a sentence like (34) where the antecedent is not the local subject (*wo* or *ni*) but the matrix subject *Ta*.

- (34) [*Ta*<sub>i</sub> shou [*wo*<sub>j</sub>/*ni*<sub>j</sub> ba *taziji*<sub>i/\*j</sub> erbushi ba Lisi haiku le]]  
 he say I/you BA he-self not BA Lisi hurt-hard ASP  
 'He said that I/you hurt him but not Lisi very much.'

While such constructions are clearly problematic for any account based on standard Principle A (see Pan, 1995, 1997 for discussion), the revised Principle A proposed here offers a principled account for these constructions. If the BA nominal undergoes overt movement independently to local [spec, VP], the [+REFL] feature of the reflexive cannot raise to this position at LF and check the [+REFL] feature of the local predicate. However, notice that the reflexive may now undergo movement to [spec, VP] in the matrix clause in accordance with the MLC. Since the matrix subject agrees with the reflexive, and both are specifiers of a reflexive predicate, the non-local subject *Ta* may serve as the antecedent for *taziji*.

In summary, by adopting the proposed analysis, the explanatory scope of the locality requirements of standard Principle A may be derived from the MLC without relying on the notion of the governing category. Given that complex reflexives are specified for Phi-features, they generally cannot undergo movement at LF to the specifier position of a non-local predicate without inducing a violation of the MLC. Thus, since these requirements may be accounted for independently in terms of reflexive and agreement feature checking,

the government relation and the notion of the GC may be eliminated from the theory of grammar as a descriptive artifact and a redundancy.

Adopting the proposed analysis has numerous advantages over the revised head movement analysis and other standard Principle A based analyses. Not only does it allow for an account of instances of long-distance binding with complex reflexives like *taziji*, but it also allows for a uniform account of both simple and complex reflexives--all of these may be analyzed as XP elements which undergo XP-movement for the purposes of feature checking in a spec-head relation.

## 5. Conclusions

Cole and Wang (1996) argue that Chinese must have an AgrP projection between T/AspP and VP in order to account for the blocking effects of successively c-commanding subjects. In addition, to account for the possibility that BA and BEI nominals may serve as antecedents (but not blockers) for *ziji*, they require that BA and BEI project independently in Chinese clause structure such that an object nominal may c-command Agr and the reflexive and serve as an antecedent for *ziji*. In their own words, they conclude that "Although any c-commanding NP in its governing category can be the antecedent for *ziji* at LF, only those that are located in, or moved through, the specifier position of AgrP [subjects] are blockers, since the blocking effect is based on agreement" (382).

As we have seen however, the revised head movement analysis fails to account for the object blocking effects observed by Xue, Pollard and Sag (1994) and the asymmetry in object binding properties of indirect objects observed by Griffin (1997). An additional problem follows from their assumptions about BA and BEI nominals. If these project independently in the syntax between T/AspP and AgrP as they assume, it is unclear how their analysis will account for the basic grammatical relation between BA and BEI nominal objects and the verb since they are not licensed within a projection of the verb.

I have argued that the spec-head relation is the relevant structural configuration required for determining binding possibilities. If we adopt the feature checking approach to reflexivization outlined above, we may readily account for both the long-distance binding and blocking effects of subjects and these additional object binding and blocking facts--all these effects may be shown to follow from the presence or absence of agreement or Phi-features in the checking domain of a reflexive predicate. In addition, it may do so without requiring that Chinese instantiates syntactic Agr since the function of this projection may be accounted for by agreement feature checking in a spec-head relation. Furthermore, the proposed analysis does not require that BA and BEI project independently in the syntax. As a result, we may maintain a more traditional analysis of BA and BEI nominal objects in terms of XP-movement and account for the basic grammatical relation that objects are licensed within a maximal projection of a verb.

One additional and rather significant advantage of adopting the proposed analysis is that it allows for a unified account of the binding properties of simple and complex reflexives in Chinese--both may be analyzed as XP elements which undergo XP-movement for the purposes of feature checking in a spec-head relation. Since the proposed analysis enables us to distinguish between the conditions under which both simple and complex reflexives may take long-distance antecedents and the conditions under which long-distance

binding is blocked, it is clearly preferable to the revised head movement analysis and previous Principle A based analyses since these approaches do not allow for the possibility of long-distance binding with complex reflexives. Furthermore, the proposed analysis shows how the explanatory scope of the locality requirements of standard Principle A may be derived from independent feature checking operations such that Principle A violations may be reduced to violations of the MLC or Greed. As a result, the revised Principle A proposes here may account for the binding and blocking properties associated with simple and complex reflexives without relying on the government relation and the notion of the GC.

### References

- Battistella, Edwin. (1989). Chinese reflexivization: A movement to Infl approach. *Linguistics* 27, 987-1012.
- Chomsky, Noam. (1981). *Lectures on Government and Binding*. Studies in Generative Grammar (9). Dordrecht, Holland: Foris Publications.
- Chomsky, Noam. (1986). *Knowledge of Language: Its nature, origin, and use*. New York: Praeger.
- Chomsky, Noam. (1991). Some Notes on Economy of Derivation and Representation. In *Principles and parameters in comparative grammar*, Robert Freidin (ed.) Cambridge, MA: The MIT Press. 417-454
- Chomsky, Noam. (1995). *The Minimalist Program*. Cambridge, MA: The MIT Press.
- Chao, Yuan-ren. (1968). *A Grammar of Spoken Chinese*. Berkeley, CA: University of California Press.
- Chou, Hsiao-Li. (1992). *An Alternative Approach To Chinese Reflexives*. Ms. University of Texas, Austin.
- Cole, Peter, Gabriella Hermon and Li-May Sung. (1990). Principles and parameters of long-distance reflexives. *Linguistic Inquiry* 21, 1-22.
- Cole, Peter, Gabriella Hermon and Li-May Sung. (1993). Feature percolation. *Journal of East Asian Linguistics* 2, 91-118.
- Cole, Peter and Li-May Sung. (1994). Head movement and long-distance reflexives. *Linguistic Inquiry* 25, 355-406.
- Cole, Peter and Chengchi Wang. (1996). Antecedents and Blockers of Long Distance Reflexives: The Case of Chinese Ziji. *Linguistic Inquiry* 27, 357-390.
- Griffin, William E. (1997). On the Categorical Status and Syntactic Analysis of Chinese Ziji. Ms. University of Texas, Austin.
- Gleason, Henry A. (1965). *Linguistics and English Grammar*. New York: Holt, Rinehart and Winston.
- Huang, C.-T. James. (1982). Logical relations in Chinese and the Theory of Grammar. PhD Dissertation, MIT.
- Huang, C.-T. James and Tang, C.-C. Jane. (1989). The local nature of the long-distance reflexive in Chinese. In Proceedings of NELS 19. GLSA, University of Massachusetts, Amherst. 191-206
- Huang, Yan. (1991). A neo-Gricean pragmatic theory of anaphora. *Journal of Linguistics* 27, 301-335.
- Jespersen, Otto. (1933). *Essentials of English Grammar*. London: Allen and Unwin (1983).

- Koopman, Hilda and Dominique Sportiche. (1991). The Position of Subjects. *Lingua* 85, 211-258.
- Larson, Richard. (1988). On the Double Object Construction. *Linguistic Inquiry* 19, 335-390.
- Larson, Richard. (1990). Double Objects Revisited: Reply to Jackendoff. *Linguistic Inquiry* 21, 589- 632.
- Li, Charles N. and Sandra A. Thompson. (1981). *Mandarin Chinese: A Functional Reference Grammar*. Berkeley, CA: University of California Press.
- Li, Yen.-hui A. (1990). *Order and Constituency in Mandarin Chinese*. Dordrecht: Kluwer Academic Publishers.
- Pan, Haihua. (1995). *Locality, Self-ascription, Discourse Prominence, and Mandarin Reflexives*. Ph.D. Dissertation, University of Texas, Austin.
- Pan, Haihua. (1997). Constraints on Reflexivization in Mandarin Chinese. New York: Garland Publishing, Inc.
- Pica, Pierre. (1987). On the nature of the reflexivization cycle. In Proceedings of NELS 17 (vol. 2). GLSA, University of Massachusetts: Amherst. 483-499
- Pollard, Carl and Ivan Sag. (1992). Anaphors in English and the scope of the binding theory. *Linguistic Inquiry* 23, 261-302.
- Pollock, Jean-Yves. (1989). "Verb movement, Universal Grammar, and the structure of IP. *Linguistic Inquiry* 15, 75-102.
- Progovac, Ljiljana. (1992). Relativized SUBJECT: Long distance reflexives without movement. *Linguistic Inquiry* 23, 671-680.
- Progovac, Ljiljana. (1993). Long-Distance Reflexives: Movement-to-Infl versus Relativized SUBJECT. *Linguistic Inquiry* 24, 755-772.
- Reinhart, Tanya., and Reuland, Eric. (1993). Reflexivity. *Linguistic Inquiry* 24, 657-720.
- Tang, C.-C. Jane. (1989). Chinese reflexives. *Natural Language and Linguistic Theory* 7, 93-121.
- Wang, C.-T. Peter. (1970). *A Transformational Approach to Chinese ba and bei*. Ph.D. Dissertation, University of Texas, Austin.
- Xu, Liejiong. (1993). The Long-Distance Binding of Ziji. *Journal of Chinese Linguistics* 21, 123-141.
- Xu, Liejiong. (1994). The Antecedent of Ziji. *Journal of Chinese Linguistics* 22, 115-137.
- Xue, Ping, Ivan Sag and Carl Pollard. (1994). A new perspective on Chinese ziji. In Proceedings of WCCFL. The University of Chicago Press and CSLI Publications. 432-447.
- Yang, Dong-Whee. (1983). The extended binding theory of anaphors. *Language Research* 19, 169-192.
- Yu, William X. F. (1992). Challenging Chinese Reflexive Data. *The Linguistic Review* 9, 285-294.

Department of Linguistics  
The University of Texas at Austin  
Austin, TX 78713  
wgriffin@mail.utexas.edu