Chapter 3

Remarks on the Status of the Null Object

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In R. Freidin, ed. Principles and Parameters in Comparative Grammar. Cambridge, MA: MIT Press. 1991, . 56-76.

1 Introduction

Null objects present interesting problems for the theory of empty categories. According to the classical Government-Binding Theory presented in Chomsky 1981, 1982, empty NPs are categorized on a par with overt elements on the basis of the features [α anaphor], [β pronominal], either as their intrinsic features or functionally according to the status of the elements that locally bind them. Regardless of how it is defined, each empty category (EC) is subject to general conditions of well-formedness that apply to both overt and empty elements (such as the conditions of the binding theory), and to conditions of licensing and identification that are more specifically defined over ECs (such as principles of control and pro drop as well as the Empty Category Principle (ECP)). Since null objects were not considered in the formulation of this framework, questions arose about whether and how they might fall under the same general principles and parameters of Universal Grammar.

In Huang 1982, 1984 the existence of null objects in various languages was first presented as a problem for the theory of ECs. Given appropriate environments, null objects are allowed in many languages. In each of the Chinese examples below, a null object is used with the referential interpretation of an overt deictic pronoun:

The materials incuded in this paper were presented, in part, at the Princeton Workshop on Comparative Grammar in 1986 and at the Workshop on Japanese Syntax at Connecticut College in 1987. I am indebted to the organizes of these conferences, Robert Freidin, J. J. Nakayama, and Wako Tawa, for the opportunities to present these materials, and to Robert Freidin and an anonymous reviewer for very useful comments on an earlier draft.

In R. Freidin, ed., *Principles and Parameters in Comparative Grammar*, MIT Press, Cambridge, Massachusetts, 1991, pp. 56-76.

(1) Zhangsan renshi [e].
Zhansan know
'Zhangsan knows him/her/them/you...'

(2) Zhangsan shuo Lisi bu renshi [e].
Zhangsan say Lisi not know
'Zhangsan said that Lisi does not know him/her/them/you...'

It is obvious that null objects of this type do not immediately fall under the system proposed in Chomsky 1981, 1982. A null object cannot be a PRO, since it occurs in a governed (and Case-marked) position. Also, it has neither the appearance of an NP-trace, since it is not A-bound to a non-θ-position, nor that of a *wh*-trace or variable, since it is apparently also not $\bar{A}$-bound. By these considerations a null object looks most like a pro, the pure pronominal EC; but this possibility is also ruled out, since it does not meet the requirements of licensing and identification (that is, by a rich enough agreement system).

Once easy way to accommodate the null objects is to simply admit them into the inventory of ECs as a new, distinct type of EC. A more interesting strategy is to regard the null objects as pros and to revise the theory of licensing and identification so that although some pros (for example, subject pros) must be licensed and identified by a rich anaphoric agreement system, others (null objects) need not be licensed or identified in the same way. In Huang 1982, 1984 I argued, however, that the null objects exemplified in (1)–(2) should each be analyzed, not as a pro, but as a variable bound by a null topic, or more generally, by a null operator. The proper representation for (2) is therefore (3):

(3) e_i, [Zhangsan shuo [Lisi bu renshi t_i]]
Zhangsan say Lisi not know

The difference between Chinese and, say, English with respect to the existence of null objects therefore lies, not in whether or not the languages allow an object pro, but in whether or not they permit null topics.

A major reason for this postulation is the fact that the null object can only be interpreted deictically. Thus, in (2) the EC cannot be interpreted as being A-bound by the matrix subject *Zhangsan* (or the embedded subject *Lisi*). It must be interpreted as referring to a person whose reference has been established in discourse (that is, a discourse topic). In contrast, an overt pronoun in the position of the null object is capable of being used deictically or anaphorically, referring to the discourse topic or to the matrix subject, respectively:

(4) Zhangsan shuo Lisi bu renshi ta.
Zhangsan say Lisi not know him
'Zhangsan said that Lisi does not know him.'

The deictic interpretation of the null objects is aptly captured if (2) is represented as in (3), on a par with ordinary topic structures in which an overt topic binds an object variable. The fact that the null object cannot be interpreted as being A-bound by the matrix subject follows as a case of strong crossover, from the requirement of Condition C of the binding theory that variables (and R-expressions in general) must be A-free. If the null object were simply analyzed as a pro, its referential possibilities would be expected to be the same as those of the overt pronoun, and the interpretive contrast between (2) and (4) would be unexplained.

As for why the pro is excluded from the object position, it was made to follow from the interaction of the binding theory and a proposed generalized version of control theory. The latter theory requires that both PRO and pro are subject to the requirement that they be controlled in their control domain. A somewhat simplified statement of this requirement was given in Huang 1984 (see Huang 1989 for a more detailed formulation):

(5) *Generalized Control Rule* (GCR)
Coindex an empty pronominal with the closest nominal element.

If a pro occurred in object position, then according to the GCR it must be coindexed with its own subject, the closest nominal element. But this coindexing would violate Condition B. Therefore, a pro is excluded from the object position. On the other hand, a null object is not excluded from this position because it is a variable, which is subject to Condition C, but not to the GCR.

This EC-as-variable hypothesis has been supported by data from other languages, including Portuguese (see Raposo 1986), Spanish (Campos 1986), German (Huang 1984), KiNande (Authier 1988), Japanese (Hasegawa 1984/85), and American Sign Language (Lillo-Martin 1986). At the same time, the hypothesis has aroused controversy: some have argued the non-universality of the claim (see, for example, Chung 1984; Cole 1987; Rizzi 1986), whereas others have directly challenged aspects of the proposed analysis (see Xu 1986; Hoji 1985).

In this paper I will make four points concerning the status of the null object. Note that, although the EC-as-variable hypothesis provides an attractive account of certain central facts, what is crucial in this analysis is that the null object is analyzed as a R-expression.[1] In section 2 I will show that the null object shares important properties with the anaphoric

epithet and may be considered the null counterpart of an epithet. This idea looks particularly appearling in light of a new typology of overt categories along the lines suggested by Lasnik in chapter 1 of this volume. The hypothesis eliminates the need for a null operator as an abstract $\bar{A}$-binder, solving certain problems associated with the earlier hypothesis, though also raising new problems. In section 3 I will show that certain null objects exhibit properties null VPs typically associated with VP-ellipsis constructions and that such ECs may be better analyzed, not as genuine null objects, but as null VPs in disguise. In section 4 I will discuss bound pronouns in Chinese and show that their distribution receives a natural explanation under Montalbetti's (1984) Overt Pronoun Constraint (OPC), if the null object is not analyzed as a pro. Finally, in section 5 I will show that this same hypothesis about the object EC explains the distribution of the emphatic reflexive in Chinese. Thus, except for those apparent instances of the null object that are more properly analyzed as instances of elliptical VPs in disguise, the facts discussed in this paper give additional support for the general treatment of the null object as a referential expression, and not as a pure pronominal.

2 Null Epithets

The central idea that underlies the EC-as-variable hypothesis is that the object EC must be prevented from being identified as PRO, pro, or an anaphor, since it cannot be A-bound inside or outside its governing category. This means that the EC is an R-expression in the sense of the binding theory. Within the typology of NPs proposed in Chomsky 1982, the only candidate for the object EC is the variable, since it is the only empty R-expression recognized. This system also recognizes exactly one overt R-expression, which includes names, definite descriptions, and anaphoric epithets. As Lasnik points out in chapter 1, however, there is reason to distinguish two kinds of overt R-expressions: anaphoric epithets on the one hand, and names on the other. Lasnik's point is that anaphoric epithets behave like names in one way and like pronominals in another with respect to the binding theory, which requires pronominals to be free in their governing categories (Condition B), and R-expressions to be free throughout (Condition C). In English the difference between epithets and names is not evident, because Condition C effects override Condition B effects. In some languages, however, the effects of Condition C are very weak or invisible, whereas those of Condition B are not, and the difference between names and epithets can be seen very clearly. Thus, in English both names

and epithets obey Condition C, since they cannot be bound inside or ouside their governing categories:[2]

(6) *John likes John.

(7) *John likes the bastard.

(8) *John thinks that John is smart.

(9) *John thinks that the bastard is smart.

However, in Thai Condition C does not seem to apply, and as indicated in (10)–(11), both names and epithets in this language may be A-bound outside their governing categories:

(10) Cɔɔn khít wâa Cɔɔn chàlàat.
John think that John smart
'John thinks that John is smart.'

(11) Cɔɔn khít wâa ?âybâa chàlàat.
John think that nut smart
'John thinks that the nut is smart.'

In their governing categories, however, though names may also be bound as expected, epithets may not:

(12) Cɔɔn chɔ̂ɔp Cɔɔn.
John like John
'John likes John.'

(13) *Cɔɔn chɔ̂ɔp ?âybâa.
John likes nut
'*John likes the nut.'

This range of facts may be explained if epithets are taken to have the properties of both R-expressions and pronominals, whereas names are pure R-expressions. Assuming that epithets are R-expressions, the ill-formedness of (9) follows from Condition C, on a par with the ill-formedness of (6)–(8). The well-formedness of (10)–(12) is also explained if we assume that Condition C does not apply in Thai. On the other hand, if epithets are also assumed to be pronominals, (13) will be correctly excluded by Condition B.[3] That Condition B applies in Thai is independently shown in (14):

(14) *Cɔɔn chɔ̂ɔp khăw.
John like him
'*John likes him.'

The pronominal nature of epithets is further evidenced by the fact that, although names may bind names (as shown in (10) and (12)), epithets and

pronouns cannot (as shown in (15) and (16)). In this respect, epithets and pronouns behave alike, in contrast to names.[4]

(15) *Khăw khít wâa Cɔɔn chàlàat.
he think that John smart
'*He thinks that John is smart.'

(16) *?âybâa khít wâa Cɔɔn chàlàat.
nut think that John smart
'*The nut thinks that John is smart.'

Lasnik's idea that epithets should be characterized as both R-expressions and pronominals leads to a reformulation of the typology of lexical categories in terms of the two features [α pronominal] and [β referential]:[5]

(17) [−pronominal], [−referential]	lexical anaphors
[+pronominal], [−referential]	pronouns
[−pronominal], [+referential]	names
[+pronominal], [+referential]	epithets

We may now ask how ECs fit into this system. NP-traces and variables seem very naturally to fall under the same categories as lexical anaphors and names, respectively, whereas PRO and pro both fall under the category of pronouns.[6] This leaves us with a gap corresponding to the category of epithets:

(18) [−pronominal], [−referential]	NP-trace
[+pronominal], [−referential]	PRO/pro
[−pronominal], [+referential]	variable
[+pronominal], [+referential]	?

A possible candidate for the last category in (18) is the null object in Chinese. Besides filling an otherwise peculiar gap in the universal inventory of empty categories, the assumption that the object EC is a null epithet receives additional support from the following facts. Note that an epithet in English or Chinese has the following three properties: (a) it may not be A-bound, (b) it may be $\bar{A}$-bound, and (c) it need not be $\bar{A}$-bound:

(19) a. *Zhangsan yiwei [zhege bendan hen youqian].
Zhangsan think this idiot very rich
'*Zhangsan thinks that the idiot is very rich.'

b. Zhangsan, wo bu xihuan zhege wangbadan.
Zhangsan I not like this bastard
'Zahgsan, I don't like this bastard.'

c. Wo bu xihuan zhege wangbadan.
I not like this bastard
'I don't like the bastard.'

(20) a. *John thinks that the bastard is rich.
b. John, I saw the bastard.
c. Did you see the bastard?

Not all these properties of an epithet are shared by names or variables. For example, names do not share the second property because they resist $\bar{A}$-binding (compare (20b) with *??John, I like John*). Variables do not share the third property since they must be $\bar{A}$-bound. On the other hand, the null object in Chinese apparently has all three properties of an epithet: it cannot be A-bound, it can be $\bar{A}$-bound, and it need not have an overt $\bar{A}$-binder. Earlier we saw that the null object cannot be A-bound. The grammaticality of sentences like (1)–(2) also shows that null objects do not need an overt $\bar{A}$-binder. The following sentence shows that null objects can be $\bar{A}$-bound if an $\bar{A}$-binder is available:

(21) Neige ren$_i$, Zhangsan shuo Lisi bu renshi e$_i$.
that man Zhangsan say Lisi not know
'That man, Zhangsan said Lisi does not know.'

Furthermore, epithets and null objects share a fourth property in that they may be coindexed with an argument as long as the argument does not c-command them. That this is true of epithets is shown in (22)–(23):

(22) a. When I saw the sissy, John was cheating.
b. When I saw John, the sissy was cheating.
c. The woman who met John fell in love with the sissy.
d. The woman who met the sissy fell in love with John.

(23) Ruguo ni xiang jian Zhangsan, wo jiu pai ren qu zhao zhe xiaozi.
if you want see Zhangsan I then send man go look this sissy
'If you want to see Zhangsan, I will send someone to look for the sissy.'

That it is true of null objects in Chinese is shown in (24)–(25):[7]

(24) Ruguo ni bu xihuan zheben shu, jiu qing bie mai [e].
if you not like this book then please don't buy
'If you don't like this book, then please don't buy [it].'

(25) Ni yi kanwan zheben shu, jiu qing huan [e] gei wo.
you once read-up this book then please return to me
'Once you finish reading this book, please return [it] to me.'

Even more interestingly, although anaphoric epithets fit well in examples like (22) and (23), such an epithet cannot occur in an object position taking the possessor of its subject as its antecedent:

(26) *John$_i$'s mother saw the idiot$_i$.

(27) *Zhangsan$_i$ de mama kanjian-le neige hendan$_i$.
Zhangsan 's mother see-PERF that fool
"Zhangsan's mother saw the fool.'

Correspondingly, a null object in the place of the epithet also cannot be coindexed with the possessor, as Whitman (1986) has correctly observed:[8]

(28) *Zhangsan$_i$ de mama kanjian-le e$_i$.
Zhangsan 's mother see-PERF
'Zhangsan$_i$'s mother saw e$_{*i/j}$.'

An overt pronoun in the object position of (28) can readily take the possessor as its antecedent (as is also the case in English):

(29) Zhangsan$_i$ de mama kanjian-le ta$_i$.
Zhangsan 's mother see-PERF him
'Zhangsan's mother saw him.'

Null objects thus share quite a number of properties with epithets. This property sharing is explained if we assume that the null object is the null counterpart of an epithet, but not if it is analyzed as pro.

In sum, Lasnik's new typology of NPs opens up the possibility of treating the null object as an empty category that is both pronominal and referential. This possibility is quite similar in spirit to the EC-as-variable analysis, and the two may be regarded as two variants of the same analysis, in crucial contrast to the treatment of the null object as a pure pronominal.[9,10]

3 VP-Ellipsis

One interesting property of the null object in Chinese is that it often occurs in situations where, in languages like English, one would find a VP gap. Consider the following examples:

(30) Zhangsan xihuan zheben shu, Lisi bu xihuan.
Zhangsan like this book Lisi not like
'Zhangsan likes this books, but Lisi doesn't.'

(31) John kanjian-le tade mama, Mary ye kanjian-le.
John see-PERF his mother Mary also see-PERF
'John saw his mother, and Mary did, too.'

In the second clause of these sentences, the object is missing. But as one can see from the English translations, sentences like these are on a par with VP-ellipsis sentences in English. In the following English example, the second clause has a missing VP:

(32) John saw his mother, and Mary did [$_{VP}$ e], too.

But in the Chinese examples (30)–(31), the second clause repeats the verb of the preceding clause but does not contain an auxiliary corresponding to *do*. The repetition of the verb in the second clause in (30)–(31) appears to serve no more purpose than that of "*do*-support" in English. As Kuno (1978) points out, the apparent lack of VP-deletion in Japanese correlates with its lack of a process of "*do*-support" to license VP-deletion. (Both VP-deletion and VP-movement require the presence of an auxiliary in English. This may be due to the requirements of the ECP.) The same generalizaton can apply to Chinese. To capture this generalization, however, we can postulate that the second occurrence of the verb is, in fact, an instance of "*do*-support" and that there is actually a process of VP-deletion in the language. In particular, we may assume that the verb has been moved into an abstract INFL node in the second clause. This will lexicalize the INFL, enabling the latter to L-mark (and properly govern) the VP, thus allowing the latter to appear as an empty category. According to this hypothesis, what follows the repeated verb in the second clause is an empty VP, not merely a null object. Alternatively, one might assume that the second occurrence of the verb is a sort of "resumptive" pro-VP, which covers up an improperly governed [$_{VP}$ e] that would otherwise be excluded by the ECP. In either case what appears on the surface as a null object in fact does not exist as a null object. In such cases the question of whether the apparent null object is a pronominal or a nonpronominal does not arise.

It is of course possible to simply assume that the ECs in (30)–(31) are indeed null objects and that the phenomenon of VP-deletion simply does not happen in Chinese, since a VP is not properly governed in this language. There is reason to suppose that such sentences do involve VP-ellipsis, however. This has to do with the fact that such constructions may exhibit strict/sloppy ambiguity of the sort typical of VP-ellipsis. Thus, just as (32) in English is ambiguous between a strict (referential) reading and a sloppy (bound variable) reading of the deleted pronoun *his*, the Chinese sentence

(31) is ambiguous in a similar way. In both (31) and (32), either John and Mary saw the same woman (the strict reading), or they each saw their own respective mothers (the bound variable reading). There is no third reading: if John and Mary saw different women, then they must have seen their own mothers. This range of facts in English receives a natural explanation from the theory developed by Sag (1976) and Williams (1977). According to Sag's account, for example, (32) is characterized as well formed just in case the empty VP corresponds in LF to a lambda expression that is an "alphabetic variant" of the lambda expression associated with the antecedent VP. If the antecedent VP in (32) is translated into λx (*x saw his mother*), the pronoun *his* is taken to be referential. The empty VP will be translated into the same expression, and we have the strict reading. On the other hand, if the antecedent is translated into λx (*x saw x's mother*), then the pronoun is taken to be a variable bound to whoever the lambda predicate is a predicate of, and we have the sloppy reading. This account correctly predicts a locality requirement on the sloppy reading, namely, that the antecedent of the sloppy pronoun is restricted to the binder of the lambda expression (the subject of the empty VP). Thus, although (33) has a sloppy reading according to which Bill saw Bill's mother, it does not have another sloppy reading according to which Bill saw Mary's mother:

(33) John saw his mother, and Mary knew that Bill did, too.

Now, crucially, all this is achieved under the assumption that the availability of a sloppy reading depends on the existence of a category corresponding to a lambda expression. Turning now to the Chinese example (31), if it is hypothesized that the second clause contains a null VP whose verb has been raised to INFL, the strict/sloppy ambiguity of the sentence follows immediately, and so does the lack of a second sloppy reading (meaning Bill saw Mary's mother) in (34):

(34) John kanjian-le trade mama, Mary zhidao Bill ye kanjian-le.
John see-PERF his mother Mary know Bill also see-PERF
'John saw his mother, and Mary knew that Bill did, too.'

If, on the other hand, the second clause of (31) is assumed to have merely a null object, such an empty category would not be translated into a lambda predicate, since NPs denote individuals but not properties. In order to allow for one (but not more than one) sloppy reading in (31) and (34), it would be necessary to state ad hoc conditions on the null object that duplicate precisely Sag's and Williams's account, and this would miss a generalization otherwise captured by that account.

The discussion in this section is not meant to suggest that all null objects are null VPs in disguise. There are clearly null objects that cannot be so analyzed, but there is good reason to believe that such null objects are better analyzed not as pure pronominals but as null R-expressions, either as variables or as null epithets. In the rest of this paper I will cite two more pieces of evidence for the theory that excludes empty pronominals from the object position in Chinese.

4 Bound Pronouns

In recent years several scholars have called attention to a distinction between overt and empty pronouns with respect to their ability to be construed as bound variables. Saito and Hoji (1983) observe that in Japanese overt pronouns cannot be related to quantificational NPs as bound variables, though they can be anteceded by referential NPs. Montalbetti (1984) further observes that the same constraint applies to certain overt pronouns in Italian and Spanish, specifically when such pronouns occur in subject position. At the same time, it is clear that this constraint does not hold in English, Thus, although (35) is good in English with the pronoun being related to the matrix subject, the Spanish and Japanese sentences are bad under the same bound variable interpretation of the pronoun:

(35) Nobody$_i$ believes that he$_i$ is intelligent.

(36) *Nadie$_i$ cree que él$_i$ es inteligente.
nobody believe that he is intelligent

(37) *Daremo$_i$-ga [kare$_i$-ga Mary-o sukida] to omotte iru.
everybody he Mary like that think
'Everybody believes that he will like Mary.'

Montalbetti makes the important observation that this contrast between English on the one hand and Spanish-Japanese (and Italian, etc.) on the other is mirrored by the well-known fact that although English does not allow pro drop, Spanish, Japanese, and Italian do. Note that the Spanish and Japanese sentences (36)–(37) are well formed under the same interpretation once the overt pronoun is replaced by pro:

(38) Nadie$_i$ cree que pro$_i$ es inteligente.

(39) Daremo$_i$-ga [pro$_i$ Mary-o sukida] to omotte iru.

The relevant generalization is that the constraint against the use of an overt pronoun as a bound variable applies only where there is an empty pronoun

for the same purpose. The constraint does not apply to English precisely because English does not allow the option of an empty pronoun in the context of (35). Montalbetti directly expresses this generalization with his Overt Pronoun Constraint:

(40) *Overt Pronoun Constraint* (OPC)
Overt pronouns cannot link to formal variables if and only if the alternation overt/empty obtains.

The generalization that the OPC expresses is entirely reasonable and has an obvious functional explanation. In fact, the OPC may be collapsed with Chomsky's Avoid Pronoun Principle. The principle was originally intended to capture facts like those in (41):

(41) a. ??John$_i$ enjoyed [his$_i$ reading the poems].
b. John$_i$ enjoyed [PRO$_i$ reading the poems].

Note that although the proximate reading of *his* can be forced in (41a), with a quantificational antecedent the sentence is totally unacceptable:

(42) a. *Who$_i$ enjoyed [his$_i$ reading the poems]?
b. *Everybody$_i$ enjoyed [his$_i$ reading the poems].
c. *Nobody$_i$ enjoyed [his$_i$ reading the poems].

The sentences in (42) can evidently be explained by the OPC. A comparison of (42) with (41) shows that OPC effects are stronger than "Avoid Pronoun" effects. But this difference between the two principles may be explained by the fact that in (41a), although *his* cannot be bound to *John*, it can still refer to *John* as a result of accidental coreference. On the other hand, in (42) with quantificational antecedents, the possibility of coindexing by accidental coreference is ruled out, since quantificational NPs have no reference. Abstracting away from this difference, then, we might say that the OPC and the Avoid Pronoun Principle are two sides of the same coin.

Whatever the source of the OPC, an important prediction it makes is that in Italian and Spanish it excludes overt bound pronouns only from the subject position, but not from the object or other nonsubject positions, since pro drop occurs only in subject position in these languages. The following Spanish sentences are all well formed:

(43) Muchos estudiantes quieren que María se case con ellos.
'Many students want Mary to marry them.'

(44) Nadie quiere que María hable de él.
'Nobody wants Mary to talk about him.'

(45) Muchas mujeres dijeron que el libro fue escrito por ellas.
'Many women said that the book was written by them.'

That the OPC expresses a valid generalization (regardless of its ultimate explanation) thus seems to be beyond doubt. Now, let us turn to relevant facts in Chinese. Aoun and Li (1989) have observed (see also Montalbetti 1984; Xu 1986) that, for many speakers, the overt pronoun cannot be interpreted as a bound variable in sentences like (46) and (47):

(46) *Shei$_i$ xiwang [ta$_i$ neng kanjian Lisi]?
who hope he can see Lisi
'Who hopes that he can see Lisi?'

(47) *Meiyou ren$_i$ shuo [ta$_i$ hen xihuan Lisi].
no man say he very like Lisi
'Nobody says that he likes Lisi.'

This is entirely expected from the OPC, given the possibility of subject pro drop in this language:

(48) Shei$_i$ xiwang [pro$_i$ neng kanjian Lisi]?
'Who hopes that [he] can see Lisi?'

(49) Meiyou ren$_i$ shuo [pro$_i$ hen xihuan Lisi].
'Nobody says that [he] likes Lisi.'

Aoun and Li (1989) observe, in addition, that the constraint against using an overt pronoun does not apply when the pronoun occurs in object position.[11]

(50) Shei$_i$ xiwang [Lisi hui kanjian ta$_i$]?
who hope Lisi will see him
'Who hopes that Lisi will see him?'

(51) Meiyou ren$_i$ shuo [Lisi hen xihuan ta$_i$].
no man say Lisi very like him
'Nobody says that Lisi likes him.'

Given the OPC, this means that a pro cannot occur in object position in Chinese. This situtation is entirely expected under the hypothesis that the null object is a referential expression, but inconsistent with the hypothesis that it is a pro. The OPC and the contrast between (46)–(47) and (50)–(51) thus provide a new piece of evidence for the proposed analysis.[12]

5 Emphatic *Ziji*

As is well known, the English reflexive *himself* can be used either as an anaphor or as a marker for emphasis. As Bickerton (1987) shows, the

emphatic *himself* appears in either an adverbial position as in (52) or an adnominal position as in (53)–(54):

(52) John talked to Mary about the decision himself.

(53) John himself talked to Mary about the decision.

(54) John talked to Mary herself about the decision.

Expressions like *John himself*, *Mary herself* seem to occur freely in any position where an NP can occur. Bickerton further observes that if the head of the NP is a pronoun, as in *he himself* and the like, then such adnominal constructions are less natural in object positions:[13]

(55) He himself saw me.

(56) ?I saw him himself.

Tang (1989) has independently observed the following facts concerning the emphatic use of *ziji* 'self' in Chinese. Like the English reflexive, it can appear in adverbial position as in (57), or in adnominal position as in (58)–(59).

(57) Zhangsan hui ziji qu.
Zhangsan will self go
'Zhangsan will go himself.'

(58) Zhangsan ziji hui gen Lisi shuo.
Zhangsan self will with Lisi say
'Zhangsan himself will talk to Lisi.'

(59) Wo hui gen Lisi ziji shuo.[14]
I will with Lisi self say
'I will talk to Lisi himself.'

The adnominal construction *pronoun + ziji* is also acceptable, though sometimes less natural in object position:[15]

(60) Ta ziji kanjian-le Lisi.
he self see-PERF Lisi
'He himself saw Lisi.'

(61) Wo xiang gen ta ziji tan.
I want with him self talk
'I want to talk to him himself.'

(62) ?Wo zhi piping ta ziji.
I only criticize him self
'?I only criticize him himself.'

The availability of emphatic expressions in the form *overt pronoun + ziji*

leads one to expect that, in a pro drop language like Chinese, it is possible to have emphatic adnominal constructions in the form *pro* + *ziji*. That is, a bare *ziji* in Chinese should be analyzable either as an adnominal construction of the form *pro* + *ziji* or as a simple anaphor of the form *ziji*. According to the former analysis, *ziji* is used to emphasize a null pronoun argument; and according to the latter analysis, *ziji* is used itself as an argument. As pointed out by Battistella and Xu (1987), however, this expectation is fulfilled only partially. In particular, although the bare *ziji* can be used immediately after a missing subject to intensify the null subject, it cannot be used immediately after a null object to intensify the null object. The contrast between (63) and (64) is a manifestation of this subject-object asymmetry:

(63) Zhangsan shuo [ziji hui hui jia].
Zhangsan say self can return home
'Zhangsan said that he himself can go home.'
(No need for a ride, etc.)

(64) Zhangsan shuo [wo zhi piping ziji].
Zhangsan say I only criticize self
'Zhangsan said that I only criticized myself.'
(Not: 'Zhangsan said that I only criticized him himslef, and no one else.')

As indicated in the translation, the reflexive *ziji* can be used emphatically in (63) but not in (64). Assuming that the emphatic *ziji* is an adnominal following *pro*, this means that the form *pro* + *ziji* is possible in subject position (as in (63)), but not in object position (as in (64)).

Battistella and Xu (1987) further obseve that distribution of the so-called generic *ziji* exhibits a similar asymmetry.

(65) Lisi shuo ziji zuo shi, ziji dang.
Lisi say self do thing self be-responsible
'Lisi said that if one does a thing, then one (should) take responsibility for it oneself.'

(66) Lisi xihuan piping ziji.
Lisi like criticize self
'Lisi likes to criticize himself.'

In (65) neither occurrence of *ziji* needs to refer to *Lisi*; both can be understood as having generic reference. But in (66) the postverbal *ziji* must be understood as bound by *Lisi*, thus lacking generic reference. Tang (1987) has argued that the so-called generic *ziji* is really simply an instance of

emphatic *ziji* modifying a generic pro. On this analysis, the contrast between (65) and (66) can be reduced to the contrast between (63) and (64), namely, a subject-object asymmetry regarding the distribution of emphatic *ziji*.

These states of affairs again point to the generalization that the null object cannot be a pro and, as pointed out by Tang (1987), further support the theory that excludes pro from the object position. In particular, according to the Generalized Control Rule mentioned in section 1, a pro has to be coindexed with the closest nominal element. If a pro were to occur in object position, it would need to be bound by its own subject. But this would lead to a violation of Condition B, which requires it to be free from the subject. Hence, pro cannot occur in object position. If pro is excluded from object position in principle, then emphatic and generic *pro* + *ziji* are also excluded from that position.

6 Summary

In this paper I have shown that there are a number of ways to analyze the null object. In certain cases null object constructions are better analyzed on a par with VP-ellipsis constructions. In other cases true null objects exhibit properties similar to those of referential expressions. These properties are captured if the null object is analyzed as the null counterpart of an epithet or as a variable bound by a null operator, but not as a pure pronominal. The same hypothesis also provides a straightforward account of the distribution of overt bound pronouns and of the emphatic and generic reflexives in Chinese.

Notes

1. In Huang 1984 I adopted the functional definition of empty categories proposed in Chomsky 1982, according to which an EC is a variable if and only if locally $\bar{A}$-bound. The analysis assumed that an EC may start out as a pro and turn into a variable if it comes to be coindexed with a local $\bar{A}$-binder. In recent years the functional definition has been called into question (notably by Brody (1984) and Chomsky (1986)), and it may be that ECs are never allowed to change status in the course of a derivation. Note, however, that the analysis in Huang 1984 can be made quite independent of the functional definition. The crucial assumption is that the null object is $\bar{A}$-bound. If a null object is base-generated as a pro, then it must be an $\bar{A}$-bound pro. Moreover, both true variables and $\bar{A}$-bound pros must be defined as R-expressions in the sense of the binding theory, to be distinguished from A-bound pros, which are pure pronominals.

2. The sentences are starred on the coreferential reading only. This applies to other relevant examples that follow.

3. (7) can also be excluded by Condition B if epithets are assumed to be pronominals. But this assumption is not enough to rule out (9). To exclude (9), it is necessary to assume that epithets are also R-expressions.

4. Given the well-formedness of (10)–(12), sentences (15)–(16) clearly cannot be ruled out by Condition C. This means that Condition C, as formulated by Chomsky (1981) incorporating the results of Lasnik (1976) and Reinhart (1976), should be split into two conditions: one that prohibits R-expressions from being A-bound and one that prohibits R-expressions from being A-bound by pronominal expressions. The latter condition would recapture the spirits of earlier works like those of Langacker (1969) and Ross (1969), who were more specifically concenred with pronoun-antecedent pairs than Lasnik and Reinhart, who were concerned simply with A-bound R-expressions. Lasnik argues, correctly I think, that the latter condition (call it *Condition D*) should be formulated in more general terms as something like the following ((51) in chapter 1):

Condition D
A less referential expression may not bind a more referential one.

The notion of relative anaphoricity or referentiality can be defined in such a way as to rank names, epithets, pronouns, and anaphors in that order, where names are most referential and least anaphoric, and anaphors are least referential and most anaphoric. This condition, besides accouning for the facts given in the text, also correctly predicts that epithets can bind epithets in Thai, though pure pronouns cannot, assuming that although Condition C does not obtain in Thai, Condition D does (perhaps universally):

(i) ʔâybâa̰ khít wâa ʔaybâa̰ càlâa̰t.
'The nut thinks that the nut is smart.'

(ii) *khăw khít wâa ʔâybâa̰ càlâa̰t.
'*He thinks that the nut is smart.'

Incidentally, for many speakers of English the effects of Condition C also seem much weaker than those of Condition D, thus providing further support for the split of Condition C and the separation of epithets from names:

(iii) a. ??John thinks John is smart.
b. ??The nut thinks that the nut is smart.
c. *The nut thinks that John is smart.
d. *He thinks that John is smart.
e. *He thinks that the nut is smart.

5. This is essentially the proposal made in Lasnik 1982, though in chapter 1 of this volume Lasnik gives a more elaborate system.

6. There is good reason to believe that the PRO/pro distinction is unnecessary and that there is only one pure pronominal EC, Pro. Given the generalized control theory developed in Huang 1984, 1989, the distribution and reference of both PRO and pro can be accounted for without reference to any difference between them.

7. The well-formedness of sentences like (24)–(25) has also been pointed out for Japanese by Kuroda (1965) and for Portuguese by Chao (1983), suggesting the generality of the phenomenon.

8. A similar restriction in Japanese has been pointed out by Kuno (1985).

9. This discussion is not intended to suggest that the null object cannot be analyzed as a variable as well. Indeed, the facts discussed here can also be accommodated by the EC-as-variable analysis, once a null operator is assumed. Furthermore, there are cases in which the EC-as-variable analysis is clearly superior to the null epithet hypothesis. For example, the facts from German discussed in Huang 1984 argue strongly for treating the null object in that language as a variable bound by a null topic. There is also some evidence that the distribution of the null object is constrained by Subjacency and the Condition on Extraction Domains, as Raposo (1986) indicates for European Portuguese and Authier (1988) for KiNand. In such cases the null object is better analyzed as a variable created by the movement of a null operator.

10. The null object may also be likened to a "*donkey* pronoun" and analyzed as the null counterpart of the latter.

(i) Everone who owns a donkey beats it.

(ii) John saw a soldier. Then he shot him.

This is especially appealing in view of Evans's (1980) argument that *donkey* pronouns are definite descriptions (or epithets, which are special instances of definite descriptions). (See also Parsons 1978 and Cooper 1979.) Thus, *it* in (i) may be translated as 'the donkey he owns' and *him* in (ii) as 'the solder he saw'. Heim (1982) analyzes such pronouns as variables in a framework of "unselective binding." Again, the crucial assumption is that such pronouns are also referential expressions. This assumption predicts that there is an anti-c-command relationship between the *donkey* pronoun and its antecedent. This prediction is correct, since (iii) and (iv) cannot have the interpretation of *donkey* sentences:

(iii) Every donkey believes that I will beat it.

(vi) A soldier told John to shoot him.

(iii) cannot be paraphrased as 'Every donkey believes that I will beat the donkey', nor can (iv) be paraphrased as 'A soldier told John to shoot the soldier'. The pronouns in these sentences must be interpreted as bound pronouns, which are true anaphoric pronouns but not referential expressions. The anti-c-command requirement of the *donkey* pronoun is a property shared by the null object.

11. Not every speaker finds (46)–(47) ungrammatical under the bound variable reading. But the relevant point is that *all* speakers find (50)–(51) entirely grammatical.

12. Given that similar facts have been observed concerning the null object in Japanese, one wonders whether similar evidence is available from bound pronouns in Japanese for the analysis of the null object as a referential expression. It turns out that the facts in Japanese are not parallel to those of Chinese in this regard. As shown below, the overt pronoun *kare* cannot be construed as a bound variable in either the subject or the object position (see Saito and Hoji 1983 and Montalbetti 1984):

(i) *Daremo$_i$-ga [kare$_i$-ga Mary-o sukida] to omotte iru.
everybody he Mary like that think
'Everybody thinks that he likes Mary.'

(ii) *Daremo$_i$-ga [Mary-ga kare$_i$-o sukida] to omotte iru.
everybody Mary he like that think
'Everybody thinks that Mary likes him.'

This fact might favor the view that the null object in Japanese may be a pro, as Hoji (1985) has argued. On the other hand, if the asymmetries pointed out by Hasegawa (1984/85) represent a real generalization, one might still want to exclude pro from the object position and explain the impossibility of binding the overt pronoun in (ii) in some other way. It is worth noting that (ii) becomes entirely well formed if the reflexive *zibun* is used:

(iii) Daremo$_i$-ga [Mary-ga zibun$_i$-o sukida] to omotte iru.

Quite possibly, then, it is the availability of the option of using a reflexive that makes (ii) ill formed. This suggests that the Avoid Pronoun Principle or the OPC should be generalized so as to exclude an overt pronoun from a position where a pro or a reflexive is in general available as an option. (Since the use of a long-distance reflexive in Chinese is subject to fairly strict restrictions, but not *in general* available as an alternative to an overt bound pronoun, the latter is not excluded from the object position.)

13. (56) is natural if used as an answer to *Did you see anyone besides John?*

14. The use of adnominal *ziji* is not acceptable to all speakers, but many speakers do accept it. Speakers who do not accept adnominal expressions like *Zhangson ziji* tend to replace them which expressions like *Zhangsan ben ren* 'Zhangsan himself, not anyone else'.

15. This adnominal construction should be distinguished from the compound reflexive *taziji* 'himself/herself', *niziji* 'yourself', and so on. The compound reflexive can itself be used emphatically in an adnominal construction, as in *Wo zhi xihuan Zhangsan taziji* 'I only like Zhangsan himself'.

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