ABSTRACT

This paper investigates the status of the null object in Mandarin Chinese. It proposes that if an object is topicalized, the empty category in the object position should be analyzed as a variable. If it is not topicalized, it is a "pro." It is argued that a pro resembles an overt pronoun in obeying Condition B, but differs from the latter in being subject to the revised version of the Generalized Control Rule initially proposed by Huang (1989). These two requirements suffice to account for the properties of the null object which Huang (1991) lists in his latest arguments against object pro. (MDM)
Abstract: This paper investigates the status of the null object in Chinese. It proposes that if the object NP is topicalized, the empty category in object position should be analyzed as a variable; otherwise, it is a pro. It argues that a pro resembles an overt pronoun in obeying Condition B, but differs from the latter in being subject to the revised version of the Generalized Control Rule initially proposed in Huang (1989). These two requirements suffice to account for the properties of the null object which Huang (1991) lists in his latest arguments against object pro. The first part of this paper is a critique of Huang’s work (1991) while the second half provides additional arguments in support of the existence of an object pro.

This paper studies the null object in Mandarin Chinese. It argues that the null object in this language can be either a pro or a variable, depending on the environment. Specifically, it is a variable if an NP has moved from object position as in the case of topicalization; and it is a pro in the absence of overt NP dislocation.

1. Arguments Against the View that Object Pro Does Not Exist

The status of null object in Chinese has been a controversial issue in Chinese linguistics. Huang (1984, 1987, 1991) has consistently argued that there is no object pro while Xu and Langendoen (1985) and Cheng (1991) assume its existence. The central claim I am trying to establish is that there is pro in object position (cf. Hoji 1985, Saito 1992 for Japanese).¹ In this section, I will review Huang’s latest arguments (1991) against object pro, and then present my counterarguments in support of its existence.

(A). The Null Object: Only Deictic Reading: Huang claims that the null object should be a variable, and the 'major reason' for this postulation is the fact that it can only be interpreted deictically:

(1). John, shuo Bill, bu renshi e
c. John said Bill not know
  'John said that Bill does not know him/her/you/them…'
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:

(2). John, shuo Bill bu renshi ta.
John said Bill not know him
'John said that Bill does not know him.'

Huang (1991:58) argues that "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 the two sentences would be unexplained. He appeals to the interaction of the binding theory and a generalized version of control theory to show why pro is impossible in this position. His Generalized Control Rule (GCR) (1991:58) goes as follows:

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

'Bill' in (1) is the closest nominal, but coindexing it with the null object could only result in Condition B violation. If the null object is a variable, it will be subject to Condition C (not the GCR), and it therefore cannot refer to the matrix and embedded subjects.

My response to this argument is that the fact that the null object cannot be coindexed with the matrix subject does not necessarily indicate that it must be a variable, and the solution to the disjoint reference lies right in Huang’s (1991) GCR.

Let us first revise his GCR given the following example:

(4) John, gaosu Bill [ pro [ prou.s hen xiang jianjian Mary ]].
John tell Bill very like meet Mary
'John told Bill that he would like very much to meet Mary.'

Though "Bill", the indirect object, is the closest nominal, the embedded subject pro can only be co-indexed with the matrix subject 'John'. Given examples like (4), Huang’s GCR should be revised as follows:

(5) **The Revised Generalized Control Rule (GCR):**
Of the c-commanding NPs, only the closest subject can be co-indexed with an empty pronominal.

One of the effects of this revised GCR is that only a pro in the embedded
subject position can be lexically controlled, i.e. by the subject in the next higher clause. It then follows that the disjoint reference between the embedded null object and the matrix subject in (1) above is due to the fact that the latter is not the closest c-commanding subject, and therefore cannot be coindexed with the object. In other words, the pro in the embedded object position is subject to two conditions: Condition B prohibits it from being coindexed with the embedded subject, and our revised GCR prevents it from referring to the matrix subject since the latter is too far away to be its licenser or controller. But there is nothing to prevent this pro from having a deictic reading as is the case of an overt pronoun. Further, the reason why an overt pronoun in the embedded object position can refer to the matrix subject is that it is not subject to GCR: what constrains it is the binding theory ONLY.

(B). Object pro as a null epithet: Based on a new typology of lexical categories proposed by Lasnik (1991), Huang (1991:61-61) observes that the null object in Chinese apparently has the following four properties of an epithet ([+pronominal, +referential]):

(6) a. it cannot be A-bound;

John, yiwei [Bill, bu xihuan e_{w'y_k}].
John think Bill not like
'John thinks that Bill does not like him/her/you…'

cf. *John, thinks that the bastard is rich.

b. it may be A’-bound;

nage ren, Bill, shuo [John, bu renshi e_{w'y_k}].
that man Bill said John not know
'That man, Bill said that John does not know t.'

cf. John, I saw the bastard.

c. it need not be A’-bound.

John, yiwei [Bill, bu xihuan e_{w'y_k}].
John think Bill not like
'John thinks that Bill does not like him/her/you…'

cf. Did you see the bastard?

d. it may be coindexed with an argument that does not c-command the
epithet/the null object.

Ruguo ni bu xihuan zhege ren, jiu buyao qing e,.
if you not like that man then not invite
'If you do not like that man, then don't invite [him].

cf. The woman who met John, fell in love with this idiot.

However, despite the parallel properties listed above, there are reasons to believe that the null object does not have to be an empty epithet.

First, properties (a) and (c) are consistent with its status as a pro: it cannot be A-bound to the closest NP due to Condition B, neither to other c-commanding NPs due to the revised GCR. Further, a pro does not need an A'-binder, just like an overt pronoun with a deictic reading.

Second, suppose that the null object is a pro which is interchangeable with a pronoun unless this possibility is ruled out by independent principles (e.g. the GCR). In the sentence under property (d), the empty object can be replaced by an overt pronoun:

(7) Ruguo ni bu xihuan zhege ren, jiu buyao qing ta.
if you not like that man then not invite him
'If you do not like that man, then don't invite him.'

Here the GCR is ineffectual since the antecedent involved is NOT a c-commanding NP. In other words, the only condition governing the reference of pro in this case is Condition B, as in the case of an overt pronoun. And the easy interchangeability of these two lends strong empirical support to the pronominal nature of the null object.

Third, to say that the null object is a pro does not mean that it must be so in every case. If movement is involved, the empty category left in object position must be a variable, not a pro. And this is the case of Huang’s property (b):

(8) nage ren, Bill shuo [John burenshi e]_.
that man Bill said [John not know e]
'That man, Bill said that John does not know.'

The fact the e can be A'-bound is due to its variable status as a result of the NP dislocation. One piece of evidence comes from the subjacency effect:
153

(9) *nage laoshi, John renshi \[t_\text{p}\ jian-guo e_\text{k}\ ] de ren:]
that teacher John know meet-asp DE man
"That teacher, John knows the man [who has met t_k]."

For comparison, there is no subjacency effect for the null object pro embedded in an island in the absence of an overtly dislocated object NP:

(10) John renshi \[t_\text{p}\ jian-guo e_\text{k}\ ] de ren:.
John know meet-asp DE man
'John knows the man who has met [him/her/it].'

Here, the lack of the subjacency effect in the last sentence provides evidence that there is no movement involved, and that the null object is a pro, not a variable.

To sum up, properties (a), (c) and (d) enumerated by Huang are consistent with our claim that the null object is a pro, and property (b) should be treated as a case of variable binding due to the movement process. Further, subjacency consideration leads us to conclude that it must be a pro in the absence of an overtly 'topicalized' NP.

(C). VP-ellipsis: The third argument in Huang (1991) is that certain cases of null objects can be analyzed as VP-ellipsis:

(11) John xihuan zheben shu, Bill ye xihuan.
John like this book Bill too like
'John likes this book, and so does Bill.'

In Huang's account, the verb 'like' in the second conjunct has been moved to the abstract INFL node, enabling the latter to L-mark (and properly govern) VP and thus allowing it to appear as an empty category. In other words, what follows the second verb is not merely a null object, but an empty VP.

This VP-ellipsis analysis may be the correct possibility for conjoined structures, but it cannot account for the null object in non-conjoined constructions. Our pro analysis is applicable for null objects in both conjoined and non-conjoined cases.

(D). Bound pronouns: According to the Overt Pronoun Constraint (OPC), overt pronouns cannot link to formal variables if and only if the alternation overt/empty obtains:
Based on the OPC, Huang presents his fourth argument as follows: the fact that the overt pronoun as a bound variable is prohibited in subject position is predicted since pro is allowed in this position and it wins over its overt counterpart. In contrast, only an overt pronoun is allowed in the same capacity in object position as a bound variable:

(13) shi, xiwang [ John ne kanjian ta\(u_j\)\(\) (Qu: e\(u_i\)) ] ?
who hope John can see him
'Who hopes that John can see him?'

If there were an object pro, the overt pronoun should not be allowed by the OPC. In other words, the grammaticality of (13) with an overt pronoun just indicates that pro is not possible in this position.

Notice that this argument is based on the false premise that an overt pronoun and an empty pronoun are interchangeable with the same range of reference in the embedded object position. But as was discussed in section (A) above, an empty embedded object coindexed with the matrix subject is ruled out independently by the GCR since 'who' is too far away to be its possible controller, and therefore it cannot function as a bound variable (though there is nothing to prevent it from having a deictic reading). In other words, there is no real alternation between an empty/overt pronoun in the embedded object position since pro, due to the GCR, has fewer referential possibilities than an overt pronoun. And consequently, the OPC is irrelevant here, and the presence of an overt pronoun as a bound variable in this case is not a robust diagnostic test to preclude the presence of pro in this position.

But does the alternation obtain in the embedded subject position? The answer is yes as illustrated by (12) above: 'who' in the matrix subject position is the closest c-commanding subject, and is therefore the legitimate controller for the pro in the embedded subject position (per the GCR). Moreover, coindexing between the two does not violate Condition B either since they are in different clauses. Consequently, there is a real alternation between the overt and empty pronouns with the same range of referential possibilities, and only in this case then does the OPC apply: the overt pronoun gives in to its empty counterpart.3

(E). **Emphatic ziji 'self'**: Another argument raised by Huang against object pro is as follows:
"it is possible to have emphatic adnominal constructions in the form of pro+ziji. That is, a bare ziji in Chinese should be analyzable either as an adnominal constructions of the form pro+ziji, or as a simple anaphor of the form ziji. 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" (Huang 1991:70).

(14) a. (his (63)):
Zhangsan shuo [ziji hui  hui jia].
Zhangsan said self can return home
'Zhangsan said that he himself can go home.'
b. (his (64)):
Zhangsan shuo [wo zhi piping  ziji].
Zhangsan say I only criticize self
'Zhangsan said that I only criticize myself.'
(Not: 'Zhangsan said that I only criticized him himself, and no one else.')

Huang argues that assuming that the emphatic ziji is an adnominal following pro, this means that the form pro+ziji is possible in subject position (as in (14a)). but not in object position (as in (14b)). Therefore, there can not be object pro.

However, Huang’s assumption that a bare ziji can be an adnominal construction is not empirically motivated. It is based on the fact that an 'overt pronoun+ziji' can be an adnominal construction as is shown in the following sentence:4

(15) (His (62))
wo zhi piping taziji.
I only criticize himself
'I only criticized him himself.'

Huang’s argument is that since the 'overt pronoun+ziji' can be an adnominal structure as in (15), a bare ziji should assume the same structure as well since Chinese is a pro-drop language. Except for this argument, there is no empirical evidence in support of the ambiguous structure for a bare ziji.

What I propose is that ziji is either a simple anaphor as is commonly assumed or an adverb, and the contrast between (14a) and (14b) is precisely due to the different status of ziji involved. In (14a), ziji is used as an adverb with an embedded pro subject, for it can be located after the modal verb:
(14) a'.

Zhangsan shuo [ pro hui ziji hui jia].
Zhangsan said can self return home
'Zhangsan said that he himself can go home.'

In contrast, ziji in (14b) is used as a simple anaphor, not an adverb since adverbs in Chinese can never be used postverbally. Given this hypothesis, the interpretation of ziji in (14b) is correctly predicted by Condition A, i.e. it can only refer to the embedded subject, not the matrix one due to the intervention of the embedded subject different in person (i.e. first person) from the matrix subject (i.e. third person). Recall that Tang (1989) and Cole et al (1990) notice that an anaphor in embedded object position can refer to the matrix subject so long as the latter agrees in person with the subject of the embedded clause containing the anaphor:

(16) Zìgānsànyìwéi [Jìohn zhi piping ziji jì].
Zhangsan think John only criticize self
'Zhangsan think that John only criticizes himself.'

If ziji here were an adnominal construction as proposed by Huang, we would have no explanation for why it can refer to both the matrix and embedded subjects since a bare object pro cannot refer to either due to Condition B and the revised GCR respectively.

(F) Ziji in Idioms: The final piece of evidence Huang uses against object pro is the distribution of the so-called generic ziji. The following data are his:

(17) (his (65))
Lìsì shuo [ziji zuo zhi, ziji dang ].
Lisi say self do thing self be-responsible
'Lisi said that if one does a thing, then one (should) be responsible.'

(18) (his (66))
Lìsì xìhuan piping ziji.
Lisi like criticize self
'Lisi likes to criticize himself.'

To quote Huang (1991:70-71),

"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 *zi* is really an instance of emphatic *zi* modifying a generic pro. On this analysis, the contrast between (65) and (66) can be reduced to the contrast between (63) and (64) [my (14a-b), namely, a subject-object asymmetry regarding the distribution of emphatic *zi*].

Notice that the embedded clause with *zi* in his (65) is like an idiom while the one in (66) is not. It is potentially treacherous, if not misleading, to rely on idioms to establish the distribution of generic pro since idioms tend to have strong lexical idiosyncrasies. Granted that idioms can be used, the data provided by Huang/Tang only show part of the picture: other idioms do contain *zi* in object position:

(19) wo renwei zhe shi [zi* qipian ziji*].

'I think this is self cheat self
'I think that this is self-deceiving.'

Here, neither occurrence of *zi* needs to refer to 'I'; both can be understood as generic reference, even though the second *zi* is an object. If *zi* in subject position is analyzed as an instance of emphatic *zi* modifying a generic pro, I can see no reason why the object *zi* cannot be analyzed likewise.

To sum up, we have examined all the five arguments Huang (1991) raised against the existence of object pro, and we reject all of them on both empirical and theoretical grounds.

2. More Arguments for the Existence of Object Pro

In this section, I will provide more evidence to argue that there is object pro in Chinese.

(A). Empty Categories in Relative Clauses: Huang (1984:545) gives the following sentence to show that the empty category in object position is a variable while the one in subject is a pro (the indexes are his):

(20) [[ e_i Mai t_j] de e_i] bi [[ e_k zu t_k] de e_k] hao.

'What one buys is better than what one rents.'

In this sentence, the empty head of the HEADLESS relative clause is interpreted wrt the object, not the subject, and this, according to Huang, constitutes evidence for the variable status of the object empty category. But this sentence is not
robust enough as evidence for this conclusion. Consider the following sentence:

(21) \[ e_i \text{ Mai } t_j \text{ de } e_{i'} \] bi \[ e_k \text{ mai } t_i \text{ de } e_{k'} \] jing.
    buy DE than sell DE smart.
    'The one who sells (things) is smarter than the one who buys (things).'

Here, only the subject can be interpreted as coreferring to the empty head, presumably for semantic reasons. Following Huang's logic (1984:545), if one of the empty categories here is the variable, then the other must be a pro. This, I believe, is the case for the empty category in object position in (21): it must be an object pro since the subject is interpreted as a variable.

Considered as a whole, the relative clause data provided above, whether Huang's or mine, point to the conclusion that the chances for the object/subject empty categories to be interpreted as a variable/pro are equal so long as the resultant interpretation is acceptable.\(^5\)

(B). Alternation in Concessive Clauses: There is an alternation between a pronoun and an empty category bound as a variable in sentences containing a concessive clause, as is true for the Japanese counterpart (Nishigauchi 1990:197):

(22) buguan shei, lai, wo dou jian ta/e yixia.
    no matter who come I all meet him once
    'No matter who comes, I will meet with him.'

Here, the wh-phrase indirectly binds the object in the matrix clause which functions as a bound variable. What is interesting is that this object can alternate as either an overt pronoun or an empty category. Suppose that this empty category is pro. As 'who' does not c-command the matrix object, the revised GCR is inoperative. This shows that both pro and the pronoun have the same referential possibilities since both are constrained by Condition B only. Hence the licit alternation between the two. If the empty category were a variable, we would have to say that a pronoun and a variable can alternate, a highly implausible conclusion.\(^6\)

In conclusion, the significance of this alternation is that it provides another piece of positive evidence for the proposal that the empty object MUST be a pro in certain cases.
(C). Invalid Sources for Variables: Consider the following sentence:

(23) John kanjian-le e.
    John see-asp
    'John saw e.'

If 'e' were a variable, it would have two sources: either it is base-generated, or it is derived by movement of an empty operator. But neither of these options is problem free.

Problem One: No index at D-structure: Assume with Saito (1985:300) that the condition that traces (non-pronominal empty categories) must be bound applies at D-structure. It then follows that variables cannot be base-generated. For according to Saito (1985:305), free indexing of A-positions does not take place until S-structure, and variables, if base-generated, have no index at D-structure. Therefore they cannot be bound at D-structure, and consequently, violate the condition provided above.

Problem Two: No Subjacency Effect: If this were a variable left by the movement of an empty operator, it should not be found in an NP complement since it is an island. But sentences with such constructions are grammatical in Chinese:

(24) John xiang wo tigong le {ep [a_pBill kanjian guo e] de zhengming].
    John to me provide asp Bill witness asp DE evidence
    'John provided me with evidence that Bill had seen [it].'

The fact that there is no subjacency violation indicates that there is no movement involved. If the null element is a pro, its grammaticality follows naturally.

(D). Hoji’s (1985:381) Argument for Japanese: It was observed earlier that alternation exists only between pronouns and pros with the same range of referential possibilities. But there is one case where nothing prevents the two from having the same referential possibilities; curiously, a pronoun cannot be replaced by pro (cf. Hoji 1985:381 for Japanese):

(25) ?John, de mama hen xihuan ta.
    John DE mother very like him
    'John’s mother likes him very much.'

Compare with (26) below where the object is null:
(26) John, de mama hen xihuan e.
John DE mother very like
'John's mother likes [him] very much.'

But as Hoji points out for Japanese, this empty element can refer to 'John' if the latter is preceded by lian 'even':

(27) lian John, de mama dou hen xihuan ta./e./
even John DE mother even very like him
'Even John's mother likes him very much.'

The fact that sentences like (27) with either the overt pronoun or pro referring to the possessor are questionable does not affect our argument here. What is relevant is that the two kinds of pronominal can alternate in the presence of lian 'even', thus justifying the pro status of the null object.

3. Ambiguity

So far, I have been claiming that an empty category in object position is analyzed as a pro in the absence of a topicalized NP in the S-initial position. This, however, does not mean to deny its variable status in some other environments. In this section, I will argue that the null object is a variable in the presence of a topicalized NP.

Notice that Huang (1984, 1987) postulates pro in subject position, but there is nothing to prevent him from treating the empty category in that position as a variable in the presence of overt subject NP dislocation.

(28) John, shuo [ e, bu renshi Bill ].
John say not know Bill
'John said that [he] did not know Bill.'

e, is a pro, subject to the GCR and Condition B.

Compare with the following sentence which contains a topicalized subject NP:

(29) Mary, John, shuo [ eY, bu renshi Bill ].
Mary John say not know Bill
'Mary, John said that [she] did not know Bill.'

e, is a variable left by NP topicalization, subject to Condition C.
Just as an empty category in subject position can be either a pro or a variable depending on the environment, there is nothing surprising for an empty category in object position to be of either of the dual capacities given the right context:

(30)  John, shuo [ Bill bu renshi e_{v{^*}} ].  
     John say Bill not know  
     'John said that Bill did not know [him/her/you...].'

e, is a pro, subject to the GCR as well as Condition B.

Compare with the following sentence which contains a topicalized object NP:

(31)  Mary, John shuo [ Bill bu renshi e_{v{^*}} ].  
     Mary John say Bill not know  
     'Mary, John said that Bill did not know [her].'

e, is a variable left by NP topicalization, subject to Condition C.

My analysis further predicts that when there is one dislocated NP, the sentence with an empty category in both subject and object positions should be ambiguous with either one interpretable as a variable bound by the "topic" NP. This prediction is indeed borne out:

(32)  John, wo xiang [ e yijing jian-guole e ].  
     John I think already meet-asp  
     a. 'John, I think he has met [him/her].'
     b. 'John, I think I or sb. else have/has met him.'

In reading (a), the subject empty category is interpreted as the variable while the object one is a pro, referring to some entity in the discourse. In reading (b), the subject empty category is a pro, controlled by the matrix subject or some discourse entity, and the object empty category has the variable status.

Look at another example. In Chinese, we can simply say:

(33)  c jian-guo e.  
     meet-asp  
     'X has met Y.'

If this sentence is embedded in a relative clause, the sentence should be ambiguous given the dual nature of both empty categories. This is indeed the case:
To summarize, if there is a topicalized NP, the empty category in subject/object position should be interpreted as a variable; otherwise, it is a pro which is subject to the revised GCR as well as Condition B. Subjacency obtains in the former case if the variable is embedded in an island, but it does not with pros.

NOTES

1 Paul Law (1993) argues independently for the existence of object pro in Chinese, based on a different set of arguments. Zhang (1988) also argues for the existence of object pro in Chinese, but his argument is crucially based on judgement which is different from Huang’s and mine.

2 The revised GCR resembles anaphor identification proposed by Tang (1989) in that identification in both cases involves subject-orientedness.

3 There is one inadequacy of using OPC as a test for the exclusion of pro in Chinese. In this language, pro and reflexive are interchangeable as a bound variable in the embedded subject position while in the embedded object position only an overt pronoun and a reflexive are interchangeable as a bound variable (cf. Huang (1991, ft 12):

(i) shei, xiwang pro/ziji/*ta, neng jiandao John?
   who hope pro/self/him can meet John
   'Who hopes that he can meet John?'

(ii) shei, xiwang John, neng jiandao *pro_v/ziji/ta,?
   who hope John can meet pro/self/him
   'Who hopes that John can meet him'
As is shown in (i) and (ii), Chinese data are more complicated than the Romance languages where reflexives cannot alternate with pro or an overt pronoun as a bound variable. As the OPC is based on the simple two-way alternation between overt/empty pronouns in Romance languages, its application to the Chinese data where reflexives are also involved makes it less reliable as a test, and any conclusion drawn from this test should be received with caution.

4 But notice that an adnominal construction is not the only possible structure for the 'overt pronoun+zhiji'. It can also be a (compound) anaphor; otherwise, Condition B would be violated in the following example:

(i) ta zhi piping taziji.
    he only criticize himself
    'He only criticized himself.'

5 Law (1993) also points out that headless relatives of this kind in Chinese are ambiguous.

6 There is a mystery here: if the overt pronoun and pro alternate as a bound variable, why does the Overt Pronoun Constraint not apply, i.e. why is an overt pronoun still ok as a bound variable? I leave this question open for future research.

7 Huang (1991:63) judges similar sentences as grammatical.

REFERENCES


Cole, Peter, Gariella Hermon and Li-May Sung. 1990. Principles and Parameters of Long-Distance Reflexives, LI 21, 1-22.


Huang, C-T James. 1984. On the Distribution and Reference of Empty Pronouns,
LI 15, 531-574.


