Null Object and Sloppy Identity in Japanese

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Abstract
I demonstrate that the null object construction (NOC) in Japanese cannot be analyzed on a par with VP Ellipsis (VPE) in English, contrary to the suggestion made in Huang 1988, 1991 and Otani and Whitman 1991. I argue that what is considered to be "sloppy identity readings" in these works are not genuine sloppy identity readings, and argue that such readings arise quite independently of the alleged VPE status of the NOC.

Key words: sloppy identity reading, VP ellipsis (VPE), null object construction (NOC), comparative ellipsis, Japanese

1 Introduction
The status of the phonetically unrealized object argument in Japanese has long been a topic of considerable discussion. One view, suggested by Kuroda (1965), takes the empty object NP to be a phonetically unrealized pronoun. This view is challenged by Hasegawa (1984/85), who, following Huang (1984), argues that the null object is a variable, based on the functional determination of empty categories in Chomsky 1982, and that it is bound by a phonetically unrealized topic phrase. An interesting alternative analysis of some instances of the null object in Chinese is proposed by Huang (1988, 1991), who suggests that they may be "null VPs in disguise." This analysis is applied to Japanese in Otani and Whitman 1991 (henceforth O&W), according to which John-ga butta 'John hit' can be represented as in (1) after the overt raising of V to I.

(1) John-ga [VP[NP ec] tv] [v but]-[I ta]

The VP in (1) is taken to be analogous to the empty VP in VP-ellipsis (henceforth, VPE) in English, such as in (2).

(2) John threw away his letter; Mary did [vp ec] too.

Two arguments have been advanced for treating the null object construction (NOC) in Japanese as analogous to VPE in English. One concerns the availability of a "sloppy reading," as illustrated in (3b), the
Chinese analogue of which is discussed in Huang 1991, where \textit{ta de} 'his' is used instead of \textit{zijide} 'self's' as the possessive NP.

(3) (O&W's (4))

a. John-wa \[zibun-no tegami]-o sute-ta.
   John-TOP self-of letter-ACC discard-PERF
   'John discarded self's letter.'

b. Mary-mo [e] sute-ta
   Mary-also discarded
   = 'Mary also threw out self's letters.'
   = 'Mary also threw out John's letters.'

(3b) is compatible with the situation in which Mary discarded Mary's letter, just as the second conjunct of (2) is, and this is taken to be evidence that (3b) can be analyzed as analogous to the VPE in English, to be accounted for along the lines proposed by Sag (1976) and Williams (1977).

The other argument concerns the "locality effects" on the "sloppy reading," as illustrated in (4) and (5).

(4) John saw his mother, and Mary knew that Bill did \[vp e\] too.
(5) a. Mary knew that Bill saw Bill's mother.
   b. Mary knew that Bill saw Mary's mother.

Huang (1988, 1991) argues that the availability of the reading in (5a) and the unavailability of the reading in (5b) for the second conjunct of (4) can be attributed to the fact that the first conjunct of (4) can yield the interpretation (6a) but not the interpretation (6b).

(6) a. \(\lambda x [x \text{ saw x's mother}]\)
   b. \(\lambda x [x \text{ knew that Bill saw x's mother}]\)

The fact that the Chinese example (7) exhibits the same property, Huang argues, can be accounted for if \(\text{[vp kanjian e]} \ '\text{see ec}'\) is analyzed at the relevant level as being on a par with the empty VP in VPE.

(7) (Huang's (1991) (34))

John kanjian-le tade 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.'
The Japanese (8), which is analogous to the Chinese (7), seems to exhibit the same property.¹

(8) A: John-wa zibun-no gakusei-o suisensita.
  John-TOP self-GEN student-ACC recommended
  'John recommended self's student.'

B: Mary-wa [CP Bill-mo ec suisensita to] omotte-ita.
  Mary-TOP Bill-also recommended that thought
  'Mary thought [that Bill recommended ec too].'

The two empirical bases for analyzing the NOC in Japanese as analogous to VPE in English are summarized in (9).²

(9) The two empirical bases for the VPE analysis of the NOC
a. It yields the "sloppy identity reading," just as English VPE does.
   b. It exhibits the "locality effects" on the "sloppy reading," just as English VPE does.

The main purpose of this article is to demonstrate that the NOC in Japanese cannot be analyzed on a par with VPE in English. In section 2 I demonstrate that neither of the two empirical bases summarized in (9) is valid.³ Therefore, the main goal of the article is already attained at the end of section 2. However, the nature of the empirical observations that have been brought forth in support of (9) remains to be determined. In section 3 I propose that "sloppy readings" discussed in Huang 1988, 1991 and in O&W are not genuine sloppy identity readings, and I argue that such readings, which I call sloppy-like readings, arise quite independently of the alleged VPE status of the NOC. In section 4 I present confirming evidence for the proposed analysis of the sloppy-like readings. The analysis of sloppy-like readings in section 3 and its confirmation in section 4 therefore provide strong support for the conclusion in section 2 that the NOC cannot be analyzed on a par with VPE in English.

The data to be presented are from Japanese, rather than Korean or Chinese. As far as I am aware, the generalizations given below also hold in Korean. According to a few native speakers I have checked with so far, essentially the same also seems to hold of Chinese. However, in what follows I will refer mostly to O&W rather than to Huang 1988, 1991, only because I cannot evaluate the relevant data in Chinese in the way I have been able to evaluate the relevant data in Japanese.

2 Arguments against the VP Ellipsis Analysis of the Null Object Construction

2.1 The "Sloppy Identity Reading"

Consider the following examples:
(10) a. *Johni-ga {kare/eci}-o nagusameta (koto)
   John-NOM {he/ec}-ACC consoled
   'Johni consoled {himi/eci}'

   b. Johni-ga {kare-no/eci} hahaoya-o nagusameta (koto)
   John-NOM {he-GEN/ec} mother-ACC consoled
   'Johni consoled hisi mother'

(11) Johni-ga zibun(zisin)i-o nagusameta (koto)
   John-NOM self-ACC consoled
   'Johni consoled himselfi'

Coreference between the subject and object phrases is not possible in (10a), with the overt kare or the null argument in the object position. Now consider (12). If (12B) can be analyzed as an instance of VPE, it should be construable as (12B'), just as (13B) can be so construed.

(12) A: Johni-wa zibun(zisin)i-o nagusame-ta.
    'Johni consoled himselfi'.

    B: Bill-mo ec nagusame-ta.
    'Bill consoled ec too.'

    B': Bill-mo zibun(zisin)-o nagusame ta.
    'Billi consoled himselfi too.'

(13) A: John consoled himself.
    B: Bill did too.

Contrary to the prediction made by the VPE analysis of the NOC, however, (12B) cannot mean (12B').

Now consider (14):

(14) A: Subete-no nihonzin huuhu-ga otagai-o nagusameta.\(^4\)
    all-GEN Japanese couple-NOM each other-ACC consoled
    'Every Japanese couple consoled each other; i.e., for each Japanese couple, the husband and the wife consoled each other.'

    B: Subete-no amerikazin huuhu-mo ec nagusameta.
    'Every American couple consoled ec, too.'

Clearly, (14B) cannot mean what (15) can mean.
Subete-no amerikazin huuhu-mo otagai-o nagusameta.

'Every American couple consoled each other, too (i.e., for each American couple, the husband and the wife consoled each other).'

Again, if (14B) could be analyzed as an instance of VPE, the reading (15) should be possible for (14B), just as English (16B) can mean (15).

(16) A: Every Japanese couple consoled each other.
    B: Every American couple did, too.

The contrast between (14B) and (16B) thus confirms that the Japanese NOC cannot be analyzed on a par with VPE in English.

Paradigms with onazi 'same' and betubetu 'different' further corroborate the conclusion reached above. As illustrated in (17) and (18), sloppy readings are possible with same and different in English VPE.

(17) Every Japanese couple recommended the same student; and every American couple did too.
(18) Every Japanese couple recommended different students; and every American couple did too.

Thus, (17) and (18) can have (among others) the readings (19) and (20), respectively.

(19) For each Japanese couple, the husband recommended the same student as his wife; and for each American couple, too, the husband recommended the same student as his wife. But crucially, different students could have been recommended by different couples, hence there might have been as many students as there were couples involved in the event described.

(20) For each Japanese couple, the husband recommended a student different from the one that his wife recommended; and for each American couple, too, the husband recommended a student different from the one that his wife recommended. But crucially, the same two students could have been recommended by every couple, hence, only two students could have been involved in the whole event.

The readings in (19) and (20) of course obtain if the VP in the second conjunct is not elided.

(21) Every Japanese couple recommended the same student; and every American couple recommended the same student, too.
(22) Every Japanese couple recommended different students; and every American couple recommended different students, too.

Returning to Japanese, we observe that the readings in (19) and (20) are possible for the B’s replies in (23) and (24) but not in (25) and (26).

(23) A: Subete-no nihonzin huuhu-ga onazi gakusei-o suisensita.
   all-GEN Japanese couple-NOM same student-ACC recommended
   'Every Japanese couple recommended the same student.'

   B: Subete-no amerikazin huuhu-mo onazi gakusei-o suisensita.
   'Every American couple recommended the same student, too.'

(24) A: Subete-no nihonzin huuhu-ga betubetu-no gakusei-o suisensita.
   all-GEN Japanese couple-NOM different-GEN student-ACC recommended
   'Every Japanese couple recommended different students.'

   B: Subete-no amerikazin huuhu-mo betubetu-no gakusei-o suisensita.
   'Every American couple recommended different students, too.'

   'Every Japanese couple recommended the same student.'

   B: Subete-no amerikazin huuhu-mo ec suisensita.
   'Every American couple recommended ec, too.'

(26) A: Subete-no nihonzin huuhu-ga betubetu-no gakusei-o suisensita.
   all-GEN Japanese couple-NOM different-GEN student-ACC recommended
   'Every Japanese couple recommended different students.'

   B: Subete-no amerikazin huuhu-mo ec suisensita.
   'Every American couple recommended ec, too.'

If the NOC can be analyzed as an instance of VPE, (25B) and (26B) should be able to yield "sloppy readings" of the sort observed in (21) and (22), respectively. The unavailability of such readings in (25B) and (26B), unlike in (23B) and (24B), therefore constitutes confirming evidence against the VPE analysis of the NOC.

Now consider the examples in (27).5
          all-GEN American couple-DAT same student-ACC recommend-caused
'The chairperson made every American couple recommend the same student earlier than every Japanese couple.'

b. (Iintyoo-wo) [subete-no nihonzin huuhu-ni yori](-mo) sakini subete no amerikazin huuhu-ni betubetu-no gakusei-o suisensaseta.
 'The chairperson made every American couple recommend different students earlier than every Japanese couple.'

It is argued in Hoji 1990b:chap. 5 that Japanese comparative ellipsis as in (27) is analogous to VPE in English in allowing the "sloppy reading." Suppose that X-ni yori in (27) must be represented as involving an operator-variable structure at LF, for reasons having to do with the licensing of the overt case-marking. For concreteness, let us assume that subete-no nihonzin huuhu-ni yori 'than every Japanese couple' is represented as [CP [NP subete-no nihonzin huuhu]-ni [CP ec [C yori]]], before the copying operation takes place, along the lines of Pesetsky's (1982) analysis of gapping. After the relevant raising of subete-no amerikazin huuhu-ni 'every American couple-DAT' and other operations have taken place, a structure like (though not necessarily identical to) [CP x...x... [NP x-betubetu-no gakusei]-o...]] will be created in the derivation of the structure in (27b); see Carlson 1987 and Moltmann 1992 for analyses of same and different. This will be copied onto the empty IP in [CP[NP subete-no nihonzin huuhu]-ni [CP ec [C yori]]], yielding [CP[NP subete-no nihonzin huuhu]-ni [CP x...x... [NP x-betubetu-no gakusei]-o...]] [C yori]].

My analysis thus predicts that the "sloppy reading" is available in (27b), just as in the analogous comparative ellipsis constructions in English. Indeed, (27b) allows the reading that the chairperson made every American couple recommend different students (i.e., different with respect to the husband and the wife within each American couple) earlier than he or she made every Japanese couple recommend different students (i.e., different with respect to the husband and the wife within each Japanese couple). (27b) is thus true even when only two students altogether have been recommended, as long as it is not the case that none of the Japanese or American couples recommended the same student with respect to each other (i.e., couple-internally). Similarly, (27a) yields the "sloppy reading," which is akin to the reading depicted in (19) in the relevant respect, in clear contrast with the NOC examples given in (25B) and (26B).

Now, along with the comparative ellipsis construction Japanese has a form of comparative that I shall call comparative deletion. The difference between the two is that the predicate in the yori -clause/phrase is
missing in the former, but not in the latter. Thus, whereas the comparative ellipsis has the structure [XP-ni yori], for example, comparative deletion has the structure [XP-ni verb-INFL yori]. Since the object argument of the predicate in comparative deletion may be missing, comparative deletion could have a form in which the NOC is embedded in the yori-clause/phrase. Consider, for instance, the two examples of comparative deletion given in (28).¹⁰

(28) a. lntyooi-wa [[ ec; subete-no nihonzin huuhu̇k-ni [PROk [VP ec suisens]]-ase-ru] chairperson-TOP all-GEN Japanese couple-DAT PRO recommend-cause yori](-mo) sakini subete-no amerikazin huuhu̇-ni onazi gakusei-o suisens-ase-ta. than early all-GEN American couple-DAT same student-ACC recommend-caused 'The chairperson made every American couple recommend the same student earlier than he or she made every Japanese couple recommend ec.'

b. lntyooi-wa [[ ec; subete no nihonzin huuhu̇k-ni [PROk [VP ec suisens]]-ase-ru] yori](-mo) sakini subete no amerikazin huuhu̇-ni betubetu-no gakusei-o suisens-ase-ta 'The chairperson made every American couple recommend different students earlier than he or she made every Japanese couple recommend ec.'

Note that the internal argument of suisens 'recommend' is not lexically realized. The only difference between (27) and (28) is the absence in the former and the presence in the latter of suisens-ase-ru 'recommend-cause-INFL' inside the yori-clause/phrase. It thus seems reasonable to assume that the latter but not the former contains an NOC. If the NOC could be analyzed as analogous to VPE in English, then the examples in (28) should be able to yield the "sloppy readings," just as the examples in (27) can, as we have just seen. Contrary to this expectation, the examples in (28) do not seem to allow "sloppy readings," confirming again that the NOC cannot be treated on a par with VPE in English.¹¹

Given the difference we have just observed between comparative ellipsis and comparative deletion, the latter of which contains an NOC, we predict that the "sloppy reading" with otagai 'each other' is possible in the former but not in the latter. This prediction is confirmed by the following examples.

(29) a. lntyoo-wa [subete-no nihonzin huuhu̇-ni yori](- mo) sakini chairperson-TOP all-GEN Japanese couple-DAT than early subete-no amerikazin huuhu̇-ni otagai-o nagusame-sase-ta. all-GEN American couple-DAT each other-ACC console-caused (the "sloppy reading" possible)
'The chairperson made every American couple console each other earlier than every Japanese couple.'

b. jintyoui-wa [[ ecι subete-no nihonzin huuhuK-ni [PROK [VP ec nagusame]]-sase-ru] -
chairperson-TOP all-GEN Japanese couple-DAT console-cause-INFL
yori mo] sakini subete-no amerikazin huuhu-ni otagai-o nagusame-sase-ta.
than early all-GEN American couple-DAT each other-ACC console-caused
(the "sloppy reading" not possible)
'The chairperson made every American couple console each other earlier than he, made every
Japanese couple console ec.'

The "sloppy reading"—that is, the reading 'The chairperson made every American couple console each other earlier than he or she made every Japanese couple console each other'—is possible for (29a). If it were possible for the NOC to be analyzed as analogous to English VPE, we would predict that (29b), which contains an NOC, should also be able to yield the "sloppy reading." The clear unavailability of the "sloppy reading" in (29b) thus provides further, and in fact compelling, confirmation that the NOC in Japanese cannot be analyzed on a par with English VPE.

2.2 "Locality Effects" on the "Sloppy Identity Reading"

Given that the NOC in Japanese cannot be analyzed as an instance of VPE, it follows that the "locality effects" on the "sloppy reading", as illustrated in (8), repeated here, must be independent of the properties of VPE.

(8) A: John-wa zibun-no gakusei-o suisensita.
John-TOP self-GEN student-ACC recommended
'John recommended self's student.'

B: Mary-wa [CP Bill-mo ec suisensita to] omotte-ita.
Mary-TOP Bill-also recommended that thought
'Mary thought [that Bill recommended ec, too].'

The following observation indeed supports this conclusion. Consider (30), which results from replacing mo 'also' in (8B) by the so-called nominative marker ga.

(30) A: John-wa zibun-no gakusei-o suisensita.
John-TOP self-GEN student-ACC recommended
'John recommended selfi's student.'
B: Mary-wa [CP Bill-ga ec suisensita to] omotte-ita.
Mary-TOP Bill-NOM recommended that thought
'Maryi thought [that Bill recommended ec (=her student)].'

I maintain that the "nonlocal sloppy reading" is allowed in (30B), in contrast to (8B). Although the relevant reading in (30B) may not be readily available for some speakers, it seems to become more readily available in (31), given a context such as this: John and Mary have been competing with each other in placing their students for good teaching positions. Ordinarily, whenever John recommends John's student for a position, Mary also recommends Mary's student for the same position. Now, Bill, Mary's colleague, who used to be her student, does various things for Mary. He sometimes even recommends Mary's students on behalf of Mary, so that Mary does not have to do anything.

(31) (Demo) Maryi-wa [CP Bill-ga ec suisensita to] omotteita
(but) Maryi-TOP Bill-NOM recommended that thought
(Dakara ecī zibun de-wa nani-mo sinakatta)
(so ecī on her part anything did not do)
'(But) Maryi thought [that Bill recommended ec (= her student)] and so she did not do anything herself.'

Note that if the "locality" of the "sloppy reading" in (8B) is due to the properties of VPE, then the "nonlocal sloppy reading" should be excluded in (30B) and (31), just as in (8B). The elimination of too in English does not make the "nonlocal sloppy reading" possible, as illustrated by (32), which cannot mean that Mary thought that Bill had recommended Mary's student, in contradistinction to (31), confirming once again that the NOC in Japanese and VPE in English are not to be treated on a par with each other.

(32) (in the context given above for (31))
Johni recommended hisi student, but (since) Mary thought that Bill did [VP e], (she did not do anything (about recommending her own student)).

The persisting "locality effects" in (32) in the absence of too are expected if they are due to the properties of VPE itself. On the other hand, the availability of the "nonlocal sloppy reading" in (30B) and (31) indicates that what is responsible for the "locality effects" in (8) is the presence of mo 'too', rather than the alleged VPE status of the NOC.

The validity of the analysis presented in O&W whereby the Japanese NOC is analogous to English VPE is contingent upon the validity of the two empirical claims in (9), repeated here.
The two empirical bases for the VPE analysis of the NOC:

a. It yields the "sloppy identity reading," just as English VPE does.

b. It exhibits the "locality effects" on the "sloppy reading," just as English VPE does.

In this section I first demonstrated that the empirical claim in (9a) is incorrect. It is significant that Japanese does have a construction that yields "sloppy identity readings," namely, the comparative ellipsis construction. The failure of the NOC to yield "sloppy identity readings," in sharp contrast with the comparative ellipsis construction (in Japanese) and VPE in English, is thus compelling evidence that the NOC cannot be treated as analogous to VPE in English. I then demonstrated that the "locality effects" mentioned in (9b) are independent of the alleged VPE status of the NOC, by showing that the mere substitution of the so-called nominative marker $ga$ for $mo$ 'also' eliminates the relevant "locality effects" in the NOC, again in sharp contrast with the VPE in English. Having thus shown that both of the empirical bases for the VPE analysis of the NOC are invalid, I take it to be established that the NOC in Japanese cannot be analyzed as an instance of VPE in disguise, contrary to O&W.

3 The Source of the Sloppy-Like Readings

Given the conclusion reached in section 2, we must seek an alternative account of the "sloppy reading" illustrated in section 1, independently of the VPE analysis of the NOC. In this section I will argue that what is regarded in O&W as "sloppy readings" are not genuine sloppy readings, under the standard assumption that sloppy readings are based on an LF representation that gives rise to bound variable anaphora. I will hereafter call the "sloppy readings" discussed by O&W sloppy-like readings, distinguishing them from sloppy readings.

3.1 Sloppy-Like Readings Due to the Referential Use of the Null Argument.

First of all, I contend that the null argument in (33B) can be used referentially and that the sloppy-like reading in (33B) can be nothing but a coreferential reading involving the subject $Bill$ and the null object.

(33) A: John-ga zibunzisin-o suisensita.
   'John recommended himself.'
B: $Billi$-mo $ec_i$ suisensita.
   '$Billi$ also recommended $ec_i$.'

I thus claim that the sloppy-like reading in (33B) can be of the same nature as the coreferential reading in (34B).
(34) A: John-ga zibunzisin-o suisensita.
    'John recommended himself.'
B: Billi-mo Billi-o suisensita.
    'Billi also recommended Billi.'

One might wonder why (33B) is not ruled out by Principle B of the binding theory. I wish to assume, as I have argued in Hoji 1995, that Principle B is not violated here since bound variable anaphora is not at stake, following the spirit of Reinhart 1983, according to which the binding theory regulates only the distribution of bound variable anaphora, and not the possibilities of coreference. The unacceptability of (10a), repeated here, therefore cannot be attributed to Principle B.

(10a) *Johni-ga {kare/eci}-o nagusameta (koto)
    John-NOM {he/ec}-ACC consoled
    'Johni consoled {himi/eci}''

This, it should be emphasized, does not affect the argument given in section 2 that the NOC cannot be analyzed on a par with English VPE, since the crucial fact is that the NOC does not yield sloppy readings in the contexts where English VPE and comparative ellipsis (in Japanese) do.

3.2 Sloppy-Like Readings Due to the Concept Use of the Null Argument.

Now consider (35).

(35) A: John-ga zibun-no kuruma-o aratta.
    'John washed self's car.'
B: Bill-mo ec aratta.
    'Bill washed ec too.'

One may argue that (35B) is compatible with the situation in which Bill washed Bill's car because the null argument in (35B), used as a referential phrase, can be used to refer to Bill's car. Under this view, we would understand (35B) to be analogous to (36), and it might appear that all instances of sloppy-like readings can be reduced to coreference.

(36) Bill-mo Bill-no kuruma-o aratta.
    'Bill washed Bill's car too.'

The sloppy-like reading in (37B), however, indicates that this is not the case.
(37) A: John-ga zibun-no kuruma-o aratta.
       'John washed self's car.'

   B: John igai-no subete-no hito-mo (minna) ec aratta.
       'Everyone other than John also washed ec.'

Now, just as (35B) can mean—or, more precisely, can imply—that Bill washed Bill's car, so (37B) can mean—or, more precisely, can imply—that [everyone other than John] washed his or her own car. In other words, the sloppy-like reading is possible not only in (35B) but also in (37B). Note that, unlike the sloppy-like reading in (35B), the sloppy-like reading in (37B) cannot be due to coreference since the null argument does not refer to a particular car, on the reading under discussion.

The sloppy-like reading in (37B) seems similar to the sloppy-like readings in (38B) and in the English example (39B), in contradistinction to those in (40B) and (41B), where the bound reading (i.e., the one in which the possessor zibun / his (own) is bound to the quantified phrase in the subject position) is clearly available.

(38) A: John-ga zibun-no kuruma-o aratta.
       'John washed self's car.'

   B: John igai no subete no hito mo (minna) kuruma-o aratta.
       '[Everyone other than John] also washed a car.'

(39) A: John washed his own car.
   B: Everyone else also washed a car.

(40) A: John-ga zibun-no kuruma-o aratta.
       'John washed self's car.'

   B: John igai no subete no hito mo (minna) zibun-no kuruma-o aratta.
       '[Everyone other than John] also washed his or her own car.'

(41) A: John washed his (own) car.
   B: Everyone else did too.

I maintain that (37B), (38B), and (39B) do not yield the distributed reading of the sort found in (40) and (41), for what would be the possessor in the object argument is not available; but they are not incompatible with the situations depicted by (40B) and (41B).
Similarly, the sloppy-like reading in (42B) seems to have a status that is more analogous to that of (43B) than to that of (44B).\textsuperscript{16}

(42) A: Subete no itinensei-ga soitu-\text{n}o booru-o ketta.
   'Every first year studenti kicked hisi or heri ball.'

   all-\text{GEN} first year student-NOM that guy-\text{GEN} ball-\text{ACC} kicked

B: Subete no ninensei-mo ec ketta.
   'Every second year student also kicked ec.'

(43) A: Subete no itinensei-ga soitu-no booru-o ketta.
   'Every first year student kicked his/her ball.'

B: Subete no ninensei-mo booru-o ketta.
   'Every second year student also kicked a ball.'

(44) A: Subete no itinensei-ga soitu-\text{j} no booru-o ketta.
   'Every first year studenti kicked hisi or heri ball.'

B: Subete no ninensei-\text{j} mo soitu-\text{j} no booru-o ketta.
   'Every second year studentj also kicked hisj or herj ball.'

Although it may not be easy to distinguish (43B) and (44B) in the relevant respect, I maintain that they are distinct, in a way analogous to the difference between the two English translations for (43B) and (44B).\textsuperscript{17}

3.3 The Structure of the Null Argument.

If the analogy between (37B) on the one hand and (38B) and (39B) on the other is significant, as I believe it is, the sloppy-like reading in (37B) will be accounted for by whatever accounts for the sloppy-like reading in (38B) and (39B). Although it is beyond the scope of this article to offer such an account, I wish to suggest a possible syntactic basis for it, in order to make the discussion in this section more concrete.

The foregoing discussion indicates that the null argument, functionally speaking, behaves either like a definite (including Names) or an indefinite (in English). Given the plausible heuristic that the structure of empty categories mirrors that of their overt counterparts, one might wish to examine the structure of overt nominal expressions in Japanese, to obtain insight into the syntactic bases for the semanticofunctional properties of the null argument. As is well known, a bare nominal in Japanese such as kuruma 'car' can translate any of a car, the car, cars, the cars, and possibly more; see Kuroda 1992:chap. 1. One plausible assumption is that a nominal projection whose sole content is its head N can be interpreted in various ways as just indicated.\textsuperscript{18} I wish to suggest that the content of the N head of the null argument is supplied by the

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context of discourse.\(^19\) If the N head that is supplied by the context (henceforth the supplied N head) is a Name, then it can participate in a coreference relation with another Name, as in (33B); see also (34B). The supplied N head can be *kuruma* 'car', as in (35B) and (37B), and can function on a par with an indefinite in English.\(^20\) In this case, an indeterminacy may arise regarding the value of the possible possessor of the car, just as in (39B) in English. I thus assume that the null arguments in (33B) and (37B) are analogous to [*NP Bill*] and [*NP kuruma*], respectively, thereby accounting for the sloppy-like readings in these examples. As noted above, [*NP kuruma*] 'car' can have the definite meaning, in which case (35B) also allows the strict reading.

Strictly speaking, the content of the supplied N head is most likely a feature bundle, excluding phonological features.\(^21\) Suppose the supplied N head can be a feature bundle that corresponds to 'car' (in the case of (35B) and (37B)) or 'man' (in the case of (33B)), for example. Then the following observations made by Ayumi Ueyama (personal communication, November, 1994) are as expected: (33B) can be followed by *Dare(da)-ka siranai kedo* 'But I don't know who',\(^22\) (35B) can be followed by *Dare-no kuruma(da)-ka siranai kedo* 'But I don't know whose car'. Similarly, (37B) can be followed by *Tadasi sorezore dare-no kuruma-o aratta ka-wa siranai kedo* 'However, I don't know whose car each of them washed'. Ueyama's observations would be puzzling if the NOC is analyzed on a par with English VPE since the VPE analogues of (33B), (35B), and (37B) clearly fail to yield the interpretations indicated by her examples; that is, *Bill did too* in (33B) cannot mean that Bill recommended someone other than John or Bill, *Bill did too* in (35B) cannot mean that Bill washed a car that belongs to someone other than John or Bill, and *Everyone else did too* in (41B) cannot mean *[everyone other than John]* washed a car that belongs to someone other than John or *[himself or herself]*.

We have thus seen another clear difference between the Japanese NOC and English VPE. This time, the difference concerns the availability of the reading that is neither strict nor sloppy. The NOC allows such readings whereas VPE in English does not.

In section 2 I observed that comparative ellipsis in Japanese exhibits properties much like those of English VPE. In the comparative ellipsis example in (45), the sloppy reading clearly obtains; see also (29a).

\[(45)\text{ Sensei-wa [subete-no itinensei-ni yori](-mo) sakini }\]
\[\text{ teacher-TOP all-GEN first year student-DAT than early}\]
\[\text{ [subete-no ninensei]-ni soitu,-no booru-o ker-ase-ta.}\]
\[\text{ all-GEN second year student-DAT that guy-GEN ball-ACC kick-caused}\]
The teacher made [every second year student], kick his, or her, ball earlier than (the teacher made) [every first year student], (kick his, or her, ball).'

Given the similarities between the English VPE and Japanese comparative ellipsis, we might expect that the sloppy reading in (45) is obligatory, contrary to NOC examples such as (42B). This expectation too is indeed confirmed; as also pointed out by Ayumi Ueyama (personal communication, November, 1994), (45) cannot be followed by Tadasi itinensei-ga sorezore dare-no booru-o ketta ka-wa siranai kedo 'But I do not know whose ball each of the first year students kicked'.

As observed earlier, although comparative ellipsis yields the sloppy identity reading, the analogous comparative deletion construction, which contains an NOC, fails to do so; see (29). Note that the comparative ellipsis construction in (45) obligatorily yields a sloppy identity reading. Given the contrast between the two comparative constructions illustrated in (29), we predict that the sloppy reading is not obligatory in the comparative deletion construction that differs minimally from the comparative ellipsis construction in (45). Consider the comparative deletion example in (46), minimally different from the comparative ellipsis example in (45) by virtue of ker-ase-ru 'kick-cause-INFL' in the yori-clause/phrase.

(46) Sensei-wa [subete-no itinensei-ni ec ker-ase-ru yori](- mo) sakini teacher-TOP all-GEN first year student-DAT kick-cause-INFL than early subete-no ninensei-ni soitu-no booru-o ker-ase-ta. all-GEN second year student-DAT that guy-GEN ball-ACC kick-caused

'The teacher made every second year student kick his or her ball earlier than (the teacher made) every first year student kick a ball.'

It is indeed the case, as predicted, that—unlike (45)—(46) can be followed by Tadasi itinensei-ga sorezore dare-no booru-o ketta ka-wa siranai kedo 'But I do not know whose ball each of the first year students kicked', confirming that the comparative deletion construction in (46), hence the NOC it contains, unlike the comparative ellipsis in (45), need not yield a sloppy reading. Given that Japanese comparative ellipsis behaves very much like the English VPE in the relevant respects, this observation provides yet another reason for not treating the NOC as analogous to VPE in English.

The basis for the sloppy-like reading in (46) is obvious, given the proposed account of the null argument, according to which the ec in (46) can be treated on a par with [NP booru] 'ball'. As indicated by its translation, (46) allows the reading in which the ec is interpreted as 'a ball', giving rise to the indeterminacy in regard to the identity of the possible possessor of the ball.
I first observed in section 2 that comparative ellipsis in Japanese contrasts sharply with comparative deletion. Whereas the former allows the sloppy reading, the latter does not; see (29). In this section I have made a related observation that the sloppy reading is obligatory in the comparative ellipsis example (45), whereas it is not obligatory in the comparative deletion example (46), containing an NOC. Since English VPE patterns (in the relevant respects) precisely with Japanese comparative ellipsis, rather than with the NOC or comparative deletion, which contains an NOC, the contrast between (45) and (46) provides striking confirmation that the NOC in Japanese cannot be analyzed on a par with VPE in English. To the extent that the account of the sloppy-like reading in (46) is contingent upon the proposed analysis of the null argument, the contrast between (45) and (46) can be considered as supporting evidence for that analysis.

4 Confirmation

I demonstrated in section 2 that the Japanese NOC cannot be analyzed on a par with English VPE and that what is analyzed in O&W as "sloppy readings" therefore cannot be so analyzed. In section 3 I termed such readings "sloppy-like" and argued that they arise owing to the properties of the null argument itself. The proposed analysis of the sloppy-like readings makes a number of predictions. In this section, I consider four of these, whose verification will constitute confirming evidence for the proposed analysis of the sloppy-like readings.

4.1 The Lexical Properties of the Bindee are Irrelevant to the Availability of the Sloppy-Like Reading

Given that sloppy-like readings do not involve bound variable anaphora, it is predicted that the lexical properties of the "bindee" are irrelevant to the availability of such readings. This prediction is borne out, as indicated in (47) and (48).

   'John recommended John.'
B: Billi-mo ec; suisensita.
   'Bill also recommended ec.'

(48) A: John-ga John-no kuruma-o aratta
   'John washed John's car.'
B: Bill-mo ec aratta.
   'Bill washed ec.'

Despite the use of the Name John in place of zibun in (47A) and (48A), (47B) and (48B), with the intended readings, seem to have a status comparable to that of (33B) and (35B) (repeated below), respectively.
(33) A: John-ga zibunzisin-o suisensita.
   'John recommended himself.'
B: Bill-mo ecı suisensita.
   'Billı also recommended ecı.'

(35) A: John-ga zibun-no kuruma-o aratta.
   'John washed self's car.'
B: Bill-mo ec aratta.
   'Bill also washed ec.'

Given the analysis proposed above, the null arguments in (47B) and (48B) with the intended readings are understood to be analogous to [NP Bill] and [NP kuruma], respectively; see the discussion in section 3.3. In the former case the sloppy-like reading arises as an instance of coreference between the subject and the object arguments; in the latter case the sloppy-like reading results from the possibility of "interpreting" the "possessor" of the car to be Bill, just as it is possible to "interpret" the "possessor" of the car in Bill washed a car to be Bill.

4.2. The C-Command Requirement Is Irrelevant to the Availability of Sloppy-Like Readings

The second prediction is that the familiar c-command requirement for bound variable anaphora is not a necessary condition for the sloppy-like reading. This prediction is also borne out.

(49) A: [NP [ eck mukasi Johni-o osieta] senseik]-ga karei (no koto)-o homete iru.
   years ago John-ACC taught teacher-NOM him (about)-ACC is praising
   '[The teacher who taught Johnı years ago] is praising himı.'
B: [NP [ ec mukasi Billj-o osieta] sensei]-mo ecj homete iru.
   '[The teacher who taught Billj years ago] too is praising ecj.'

The sloppy-like reading indicated in (49B) is straightforward if it is considered to be due to coreference between the embedded object Bill and the matrix null object. That John in (49A) is not in a position to bind the matrix object can be seen from the failure of the bound variable reading in (50a), in contrast to (50b).

(50) a. *[NP [ eck mukasi subete-no gakuseii-o osieta] senseik]-ga
   years ago all-GEN student-ACC taught teacher-NOM
   soitui (no koto)-o homete iru.
that guy (about)-ACC is praising

'The teacher who taught every student-years ago is praising himi or heri.'

b. subete-no gakusei-ga [NP [ eck mukasi soitu-i-o osieta] sensei-k]-o homete iru.

'all-GEN student-NOM years ago that guy-ACC taught teacher-ACC is praising

'Every student is praising [the teacher who taught himi or heri-years ago].'
and Bill did, too, the sloppy reading is either obligatory or at least much preferred over the strict reading. The situation in (52) is in fact the opposite; the strict reading is preferred over the "sloppy reading." Furthermore, (12), repeated here, allows only the strict reading, as observed earlier; see also the discussion in section 3.1 and especially footnote 14.

(12) A: Johni-wa zibun(zisin)i-o nagusame-ta.
   'Johni consoled himself'.

B: Bill-mo ec nagusame-ta.
   'Bill consoled ec too.'

Suppose that the available interpretations for (52B) and (12B) depend upon the content of the supplied N head of the null argument, as suggested in section 3.3. In order for the sloppy-like reading to be possible for (52B) and (12B), the supplied content of (the N head of) the ec must correspond either to that of Bill or to (the feature bundle that corresponds to) zibun. If the feature bundle that corresponds to zibun could be supplied by the discourse context, (12B) should readily allow the sloppy-like reading, owing to this concept use of the ec, contrary to fact. We are thus led to conclude that the feature bundle that corresponds to zibun cannot be supplied by the discourse context, unlike the feature bundles that correspond to definite or indefinite NPs.27 Given this, it follows that the availability of the sloppy-like reading for (52B) and (12B) is contingent upon whether the supplied content of (the N head of) the ec can correspond to (that of) Bill.

Recall that the strict reading is preferred over the "sloppy reading" in (52B) and that the "sloppy reading" is not available in (12B). Given the fact that Bill-ga Bill-o suisensita 'Bill recommended Bill' readily allows the relevant coreference, preference for the strict reading over the sloppy-like reading for (52B) must be due to the marginality of identifying the content of the ec in (52B) as Bill. Such marginality, it seems natural to assume, arises since the utterance of (52A) by itself does not make Bill salient in the context. The readily acceptable strict reading in (52B) is as expected, since the content of the ec in (52B) can easily be identified as John since John seems to have been made salient in the context of discourse by the utterance of (52A). The "sloppy reading" in (12B), we can now conclude, is unavailable for two reasons: first, the feature bundle that corresponds to zibun cannot be supplied by a discourse context, and second, Bill-ga Bill-o nagusameta 'Bill consoled Bill' does not allow the relevant coreference (even if Bill has been made salient in the context); see note 14.
4.4 The "Locality Effects" Discussed in Section 1 Are Detectable Even When a Name Replaces Zibun

Finally, given that bound variable anaphora is not at issue for the sloppy-like reading, it is predicted that the "locality effects" discussed in section 1 are detectable even when zibun is replaced by a Name, a category that clearly fails to be construed as a bound variable. This prediction too is borne out. Consider (53).

(53) A: John-ga John-no gakusei-o suisensita
  'John recommended John's student.'
B: Mary-wa [CP Bill-mo ec suisensita to] omotteita
  'Mary thought that Bill also recommended ee.'

(53B) can mean either (54a) or (54b), but not (54c).

(54) a. Mary thought that Bill also recommended John's student.
    b. Mary thought that Bill also recommended Bill's student.
    c. Mary thought that Bill also recommended Mary's student.

Given the proposed analysis of the "content" of the null argument, the supplied N head in (53B) can be the feature bundle corresponding to, or consistent with, that for gakusei 'student'; hence, the null argument there may be analogous to [NP gakusei]. If this NP "functions" like a definite NP, such as the student, we may obtain the reading (54a), just as in the case of the referential use of the null argument. Either the reading (54a) or the reading (54b) obtains if the NP "behaves" like a student or students, and their "possessor" is identified in the discourse context, presumably within the confines of various discourse principles, including the constraints imposed by the use of mo 'also'. The persistence of the "locality effects" even with a Name instead of zibun (i.e., the unavailability of the (54c) reading for (53B)) would be quite unexpected if such effects were attributed, as in O&W, to the VPE status of the NOC and the sloppy (hence bound variable) reading. By contrast, if the "locality effects" under discussion are due to the use of mo and are independent of VPE and bound variable anaphora, as I argued in section 2.2, this is expected. Indeed, the account proposed there predicts that if mo is replaced with ga, the reading corresponding to (54c) becomes available for (53B). This is precisely what happens, confirming the account of the absence of the "nonlocal sloppy reading" given in section 2.2.

The verification of the four predictions illustrated above thus provides strong confirmation for the proposed account of the sloppy-like readings in the NOC context, thereby constituting further evidence for the conclusion reached in section 2 that the NOC cannot be analyzed as an instance of VPE.
5 Conclusion

We have seen that the NOC in Japanese cannot be treated as analogous to VPE in English. I have argued that what is regarded in O&W as "sloppy readings" are not genuine sloppy readings and that such readings, referred to here as "sloppy-like readings," arise because of the way the content of the null argument is recovered.

In the foregoing discussion I have assumed, as has widely been done since Sag 1976 and Williams 1977, that sloppy identity readings– or, more precisely, what might be called genuine sloppy identity readings–are based on bound variable anaphora. As briefly noted in section 4.2, and as independently pointed out by Richard Kayne (personal communication, May, 1994), Norbert Hornstein (personal communication, August, 1994), and an anonymous LI reviewer, the phenomenon of sloppy identity in VPE context is murkier than is widely assumed (also see Hardt 1993). Indeed, Fiengo and May (1994:109), proposing their Dependency Theory, conclude that "the conditions on bound variable anaphora are not coextensive with those on sloppy identity," inspiring much subsequent discussion, including the criticisms of their analyses found in Tancredi 1992, Kitagawa 1995, and Tomioka 1996; see also Hoji 1997b, to appear b, and the references there.

Although the degree of the correspondence between the conditions on bound variable anaphora and sloppy identity is thus not uncontroversial, there are clear generalizations regarding the distribution of the sloppy and strict readings in elliptical constructions such as VPE in English that can still be quite useful in assessing the validity of the VPE analysis of the Japanese NOC, given a good deal of overlap between the conditions on bound variable anaphora and those on sloppy identity (Lasnik 1976, Reinhart 1983 and subsequent works). Two such generalizations are given in (55) and (56).

(55) The sloppy reading is always possible in examples like these:
   a. Every teacher recommended himself; every student did too.
   b. Every Japanese couple recommended each other; every American couple did too.

(56) The sloppy reading is never possible in examples like this:
   John recommended John's student; Mary thought that Bill did.
   (≠ Mary thought that Bill recommended Mary's student.)

Crucial in the foregoing discussion is that the Japanese NOC counterparts of the second conjuncts of the examples in (55) fail to yield the sloppy readings, unlike the Japanese comparative ellipsis examples. This, I have argued, unequivocally establishes that the NOC should not be analyzed as analogous to the VPE in English, quite independently of the ultimate fate of the correspondence between the conditions on bound
variable anaphora and sloppy identity. Recall also that the Japanese NOC analogue of the second conjunct of (56) (see the discussion of (53)) does allow the reading impossible for (56), again pointing to some fundamental difference between the NOC and English VPE, thereby corroborating the main claim of the article that the NOC cannot be analyzed as analogous to English VPE.

References


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1 Some Japanese NOC examples are claimed in O&W (sec. 3) to exhibit the contrast analogous to that between (i) and (ii) in English. (I provide Sag's (1976: 131) examples in (i) and (ii), with *ec* replacing his *ϕ*, instead of O&W's English examples.)

(i) John said that Mary hit him, and Bill said *ec* too.

(ec = said Mary hit him, *k*)

(ii) John said that Mary hit him, and Bill said she did *ec* too.

(ec = hit him, *k*)

Fiengo and May (1994:106), however, cast doubt on the relevant judgment on examples like (ii). Furthermore, even if examples like (ii) do show the "locality effects"—disallow the *ec* = hit him reading—O&W's Japanese example (their (26b)) does not seem to show such "locality effects," contrary to their claim, as pointed out independently in Kim 1995 in regard to the analogous data in Korean.

The "locality effects" illustrated in (4) and (5) in the text, by contrast, have not been disputed, as far as I am aware, and the similar "locality effects" in their Japanese NOC analogue given in (8) seem fairly clear. It is for these reasons that I provide (8) in the text instead of O&W's (26).

2 The arguments in (9a) and (9b) motivate the VPE analysis of the NOC in different ways. The former is meant to argue that some instances of the NOC can be analyzed as VPE; the latter is meant to argue that some instances of the NOC must be analyzed as VPE. The examples that motivate (9a) (e.g., (3)), are intended to show the possibility of the relevant "sloppy reading," thereby making it necessary for the NOC they contain to be able to be analyzed as an instance of VPE. By contrast, the examples that motivate (9b) (e.g., (7) and (8)) show the absence of the "nonlocal sloppy reading," attributing it to the VPE status of the NOC. If the NOC in these examples need not be analyzed as an instance of VPE, and if the null argument they contain can be pro, for example, such an account is no longer available for the absence of the "nonlocal sloppy reading"; that is, an independent account of its absence is needed. See Huang 1991:65.

Huang (1988:83) explicitly states that not all null objects are null VPs in disguise. It is, however, not clear how the optionality of the analysis of the NOC as an instance of VPE can be ensured if the VPE status of the NOC is a result of the raising of V to I, as suggested in Huang 1988, 1991 and in O&W. Note that such V to I raising, once adopted into one's theory, is most likely obligatory, rather than optional, given the common assumption regarding how such raising is triggered. It is not clear to me how it would be possible, on principled grounds, to derive the optionality of the VPE status of the NOC, if it results from the V to I raising. (It seems to me that the "resumptive" pro-VP possibility, suggested in Huang 1991:64, also faces a problem of essentially the same sort.) Given the conclusion below, the optionality problem does not even
arise.

There are also other analysis-internal problems with the proposal in O&W, as discussed in Hoji 1993 and Kim 1995. However, I will not discuss them here, since the later demonstration that the empirical bases for the VPE analysis of the NOC are not valid will constitute sufficient grounds for rejecting the analysis.

On the basis of (9), O&W argues that Japanese has overt V-raising. Given that these empirical bases for the VPE analysis of the NOC turn out to be invalid, the relevant observations obviously do not constitute evidence for overt V-raising in Japanese. Needless to say, it is equally obvious that this conclusion does not preclude the possibility that evidence for overt V-raising in Japanese may be found and that arguments for it may be constructed, quite independently of the "sloppy identity reading" in the NOC.

The English rendition of *otagai* as 'each other' is strictly for convenience. In Hoji 1997a, I provide evidence that *otagai* is not a local reciprocal anaphor.

Looking at (27) and subsequent examples, one may wonder why I invoke complications such as the universally quantified phrases and the causative form of the verb inside the yori-clause/phrase. I do so to control unwanted factors so as to conduct the relevant experiments more purely than otherwise, much as in the discussion of similar phenomena in Hoji 1990b (space limitation prevents me from going into detail about this here). The use of the causative verb per se should not affect the arguments summarized in (9); that is, the relevant examples that are cited to motivate (9) still give the same results, even if they contain the causative verb.

There are other ways of achieving what needs to be achieved here. See Fiengo and May 1994 and references cited there for discussion. The main argument of the article will not be affected by one's choice regarding the precise analysis of comparative ellipsis in Japanese, as long as it is analyzed on a par with VPE and comparative ellipsis in English in the relevant respect. What gets copied onto (i.e., what gets "reconstructed") may be a VP rather than an IP; but the choice here would involve intricate considerations and I leave it open for now. For the LF representations of the Japanese comparatives in general, I follow the essentials of Watanabe's (1993) analysis, which is based on Larson 1988.

I assume, without giving arguments here, that *onazi* 'same' and *betubetu* 'different' contain a null argument, as indicated by $x$ in [x-betubetu]. I assume the same for *otagai* and *zibun*, as in Hoji 1997a.

The raising of the IP *yori(-mo) sakini* 'earlier than IP' clause may be necessary to avoid infinite regress, in part depending upon where the landing site of the quantified NP turns out to be.

The choice of the terms *comparative ellipsis* and *comparative deletion* here is intended to hint at some parallelism between these Japanese constructions and the English constructions to which Bach, Bresnan and Wasow (1974) give the same names. They observe that whereas comparative ellipsis as in (i) allows a sloppy identity reading, comparative deletion as in (ii) does not.
Bach, Bresnan and Wasow therefore observe that comparative ellipsis does, but comparative deletion does not, behave like VPE with regard to the possibility of the sloppy identity reading; this is reminiscent of the contrast observed between comparative ellipsis and comparative deletion in Japanese.

10 I use PRO in (28) for ease of exposition; its appearance there should not be construed as my endorsement of the analysis of the Japanese causative construction that one may infer based on the schematic structure given in (28).

11 As S.-Y. Kuroda (personal communication, February, 1995) points out, if the predicate part of the NOC is replaced by *soo su 'do so', as illustrated in (i), B's reply can mean—or, to be precise, can be compatible with the situation depicted by—the second conjunct of the first sentence in (20). (The examples that involve the NOC in (25), (26), and (28) all contrast sharply with their counterparts with *soo su 'do so'.)

(i)  A:  Subete-no nihonzin huuhu-ga betubetu-no gakusei-o suisensita.
     all-GEN     Japanese couple-NOM different-GEN student-ACC recommended
     'Every Japanese couple recommended different students.'

     B:  Subete-no amerikazin huuhu-mo soo sita.
     all-GEN     American couple-also so did
     'Every American couple did so, too.'

On the basis of this observation, one may conclude that Japanese *soo su corresponds to English VPE. I do not discuss whether such a conclusion is sustainable, however, since this article is concerned with the status of the NOC, rather than with that of *soo su. Here I note only that considerations taken up in Hoji 1997b indicate that *soo su is an instance of deep anaphora, rather than surface anaphora, in the sense of Hankamer and Sag (1976).

12 The "sloppy reading" in (29a), I thus maintain, is analogous to that in (i), in the relevant respects.

(i)  Every American couple recommended each other earlier than every Japanese couple did.

13 In Hoji 1997b, to appear b, I argue that Principle B is a condition on Formal Dependency, rather than on the distribution of bound variable anaphora (or on the coindexation that would yield bound variable anaphora). The indices supplied in (33B) and other relevant examples are for ease of exposition.
Regarding the nature of the contrast between *suisens* 'recommend' and *nagusame* 'console', here I simply quote the following passage from Hoji 1995:268-269:

It seems that the relevant factor regarding the 'recommend' vs. 'console' contrast is how easy it is to assign different guises to the coarguments that share the same denotation. Apparently, it is easier to do so with *suisens* 'recommend' than with *nagusame* 'console', presumably due to their semantico-functional properties. We can indeed see that pragmatic considerations affect the coreference possibility, by keeping the predicate constant, as in (58).

(58) a. kare-ga kare-o bengosita 'he defended him'  
  b. John-ga John-o bengosita 'John defended John'

The examples in (58) are more or less acceptable when used in a courtroom situation, as is described in (59), for example.

(59) John was arrested. John was the best attorney to represent this case. After hours of discussion with the judge, a special arrangement was made. It was decided that John would defend John. Indeed John defended John (wonderfully).

By contrast, they are basically unacceptable when used in a marital crisis situation, as in (60).

(60) John's wife found out about John's affair. She was upset and become hysterical. John defended John (desperately).

In fact, the last sentences of (59) and (60) seem to show the same contrast as their Japanese counterparts.

15 The bare noun *kuruma* 'car' can be translated as 'a car', 'the car', 'cars', and 'the cars'; as will be noted below. Its translation as 'a car' in (38B) is just for convenience. See the discussion below.

16 The basic meaning of *soitu* is 'that person' or 'the person', with a (somewhat) derogatory connotation, and it can be used to refer to a male or a female. The English rendition 'that guy' is given here to represent this derogatory connotation, at the risk of losing the neutrality of gender. See Hoji 1990a, 1991 for discussion of what overt nominal categories in Japanese, other than what appear to be anaphors, can be construed as bound variables. Hoji 1990b contains some discussion of the so-called stripping construction in Japanese, in regard to the issues taken up here. It is argued in Hoji 1990a, 1991 that the fact that *kare* cannot be construed as a genuine bound variable is related to the well known fact that *ka* in *kare* is closely related to *a* in *are* 'that thing', in contrast to *so* in *sore* 'that thing or the thing'. The problem of explaining why *kare* cannot be construed as a genuine bound variable is thus related there to the problem of explaining...
why the members of the demonstrative a 'that' series, in contrast to the members of the so 'that' series, must be used referentially. As far as I am aware, Kuroda's (1979) analysis of so and a seems to offer the most plausible basis to date for an ultimate explanation of the latter problems. Hoji, to appear a, Kinsui, to appear, Takubo 1997, and Ueyama 1997 contain much relevant discussion.

17 If we use haahaoya 'mother' in place of booru 'ball', we obtain slightly different results. Thus, (iB), unlike (44B), seems to allow what may be a genuine sloppy reading.

(i) A: Subete no itinensei-ga soitu-no haahaoya-o semeta
'Every first year student criticized his or her mother.'

B: Subete no ninensei-mo haahaoya-o semeta
'Every second year student also criticized {a/the}mother.'

If kinship terms such as haahaoya have an internal argument, as is often assumed, this is not unexpected.

18 Of course, an alternative is to postulate (an) empty head(s) and its/their projection(s) taking the NP as complement. Let us take D(eterminer) as one such candidate; then, under this alternative, kuruma 'car' is a DP, with its D head (and [Spec, DP], if any) being phonetically unrealized. The different interpretations for the bare nominal phrase kuruma 'car' can then be attributed to different types of empty categories for (or perhaps features on) the D (and [Spec, DP], if any). Given the general correspondence between overt and covert categories assumed here and given the plausible assumption that the structure for a covert category is minimal, the null argument should, according to this alternative, have the structure \[ \text{DP} \text{Dec} \] or, more likely, \[ \text{DP}, \text{ec} \] (see Chomsky 1994). However, in Hoji 1995 I argue that this has an undesirable consequence with regard to local disjointness effects. Further questions arise, such as how this alternative can be made consistent with the observations made above regarding the interpretations of the null argument; but I do not pursue them here.

19 Covariant interpretation for a null argument \( \beta \) with respect to an overt argument \( \alpha \) then obtains, only if \( \beta \), whose content is thus recovered, is in a certain structural relation with (the trace of) \( \alpha \); see Hoji 1995 for more discussion.

20 Ishii (1991:200) proposes that \[ \text{NP}, \text{ec} \] can "stand for an empty indefinite NP." The suggested analysis here can thus be construed as an attempt to elaborate on Ishii's proposal.

21 Obviously, the relevant features here must be "semantic features" of some sort, rather than grammatical \( \phi \)-features on D, for the reasons given above.

22 The discourse that Ueyama provides, which is more natural than the one in the text, is as follows:

(i) A: Konogoro ii hito-ga inai no ka nee; tittomo suisen-ga denai nee.
'I wonder if there are any qualified people around; no recommendations have been made lately.'
B: John-wa zibun-o suisensita n da yo.
'John recommended himself.'

C: Bill-mo ec suisensita yo; dare(da)-ka siranai kedo.
'Bill also recommended ec; but I don't know who.'

23 Some speakers might find the relevant continuation to be marginally acceptable. In Hoji, to appear b, I attribute this to the marginal possibility of reanalyzing comparative ellipsis as comparative deletion and I discuss a method of excluding this possibility.

24 See Hoji 1997 b, to appear b, for further discussion of the relation among sloppy readings, bound variable anaphora and Formal Dependency.


26 I first became acquainted with the readily available status of the strict reading with zibun(zisin) through Hasegawa 1978.

27 I assume that this property of zibun is shared by otagai; see footnote 7.

28 It is not immediately clear whether, and how, the concept use, as a definite, of the null argument is to be distinguished from the referential use; I leave this question open.

29 On the reading (54a) thus obtained, Bill need not have recommended the same student(s) that John had recommended, as long as Bill recommended a student/students of John's. On the reading (54a) based on the referential use of the null argument, on the other hand, it is necessary for John and Bill to have recommended the same student(s).

30 For the example in (56), the effects of the C clause of the binding theory must be suppressed. In other words, the significant point here is that the example more or less readily allows the reading 'John recommended John's student; Mary thought Bill recommended John's student', with whatever marginality may be associated with such effects, but it never allows the reading 'John recommended John's student; Mary thought that Bill recommended Mary's student'.