

# Bound variables in Japanese\*

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## 1. Introduction

The fact that a pronoun in English can be construed as a bound variable, as in (1), has been applied to account for the availability of a sloppy identity reading in a VP ellipsis context (Sag 1976; Williams 1977), as illustrated in (2).

- (1) a. Every boy<sub>i</sub> thinks Anna likes him<sub>i</sub>.
- b.  $(\forall x: \text{boy}(x))$  (x thinks Anna likes x)
  
- (2) a. Elinor likes her shoes, and Paula does, too.
- b. Elinor  $\lambda x$  (x likes Elinor's shoes) & Paula  $\lambda x$  (x likes Elinor's shoes)  
       $\Rightarrow$  strict reading
- c. Elinor  $\lambda x$  (x likes x's shoes) & Paula  $\lambda x$  (x likes x's shoes)  
       $\Rightarrow$  sloppy reading

In contrast to English, however, it has been claimed that Japanese third person pronouns *kare* 'he' and *kanozō* 'she' cannot to be construed as bound variables (Saito and Hoji 1983; Hoji 1991; Noguchi 1997). Example (3) illustrates this point.<sup>1</sup>

- (3) a. Akio-ga kare-no sensei-o sonkei si-te i-ru.  
      Akio-NOM his-GEN teacher-ACC respect do-NF be-NPST  
      'Akio respects his teacher.'
- b. \*Daremo<sub>i</sub>-ga kare<sub>i</sub>-no sensei-o sonkei si-te i-ru.  
      everyone-NOM his-GEN teacher-ACC respect do-NF be-NPST  
      'Everyone respects his teacher.'

In (3a) a referential NP *Akio* is used as the subject of a sentence, in which case coreference between *Akio* and *kare* is possible. However, when a quantifier phrase (QP) appears in the subject position, as in (3b), the sentence (with the intended reading) becomes ungrammatical, which implies that *kare* may not be construed as a bound variable. To obtain a bound variable interpretation, one has to use either an anaphor *zibun* 'self' or an empty category:

- (4) Daremo<sub>i</sub>-ga zibun<sub>i</sub>-no/eq<sub>i</sub> sensei-o sonkei si-te i-ru.  
 everyone-NOM self-GEN teacher-ACC respect do-NF be-NPST  
 ‘Everyone respects self’s teacher.’

How about the availability of a sloppy identity reading, then? Surprisingly, *kare* does allow a sloppy reading, as noted in Hoji (1997a, b). Thus, sentence (5) can have a sloppy as well as a strict reading.

- (5) (Hoji 1997a:218)  
 Mary-ga John-ni yorimo sakini Bill-ni kare-no hon-o  
 Mary-NOM John-DAT than earlier Bill-DAT he-GEN book-ACC  
 suisen s-ase-ta.  
 recommendation do-CAUS-PAST  
 ‘Mary made Bill recommend his book earlier than (Mary made) John.’

This seems to pose a problem for the claim that a bound variable construal of a pronoun is responsible for the availability of a sloppy reading. However, I wish to argue that in principle *kare* can be construed as a bound variable, as evidenced in (5), and that the reason why it cannot be readily bound by a quantifier like *daremo* ‘everyone’ is due to an independent factor, namely that *daremo* is not ‘specific enough’ in the sense clarified below.

The organisation of the paper is as follows: in the following section I will discuss the specificity condition that the antecedent for *kare* needs to meet for a felicitous bound variable construal. In Section 3 I will critically review the notion of D-pronouns and N-pronouns proposed in Noguchi (1997) and demonstrate that his central claim that only D-pronouns can be construed as bound variables cannot be maintained. Section 4 concludes the paper.

## 2. *Kare* Bound by a QP

First, let us observe the following dialogue.

- (6) (Takubo and Kinsui 1997:746)  
 A: Boku-no yuuzin-ni Yamada-to-iu isya-ga i-ru.  
 I-GEN friend-DAT Yamada-QM doctor-NOM exist-NPST  
 ‘I have a friend who is a doctor and his name is Yamada.’  
 B: \*Kare dokusin?  
 he single  
 ‘Is he single?’

Example (6) shows the insightful observation made by Takubo and Kinsui (1997:746) that one cannot use *kare* to refer to an individual newly introduced into the discourse. However, despite their strong claim that one must know the referent prior to the discourse to refer to him with *kare*, it is possible to use *kare* if the

conversation continues for several exchanges, as illustrated in the following dialogue.

- (7) A: Boku-no yuuzin-ni Yamada-tte-iu isya-ga i-ru-nda-kedo,  
I-GEN friend-DAT Yamada-QM doctor-NOM exist-NPST-SFP-but  
saikin amerika ryuugaku-kara kaet-te ki-ta-nda.  
recently America studying.abroad-from return-NF come-PAST-SFP  
'I have a friend who is a doctor and his name is Yamada. He recently return-  
ed from studying in America.'
- B: Hee, amerika ryuugaku-kara?  
hmm America studying.abroad-from  
'Hmm, returning from studying in America?'
- A: Un, kare-no ie-wa kokusaiteki-de, ootoo-mo  
yeah he-GEN family-TOP cosmopolitan-COP younger.brother-too  
oranda-ni ongaku-o benkyoo si-ni it-te-ta-yo.  
Holland-to music-ACC study do go-NF-PAST-SFP  
'Yeah, his family is cosmopolitan, and his younger brother has been to Hol-  
land to study music, too.'
- Kondo ikkai Yamada-ni at-te mi-ru?  
next.time once Yamada-DAT meet-NF try-NPST  
'You want to meet Yamada sometime?'
- B: Un, soo-da-ne. Yamada-tte-iu hito-mo soo-da-kedo, boku-wa  
yeah so-COP-SFP Yamada-QM person-too so-COP-but I-TOP  
ongaku-o benkyoo si-te i-ta-tte-iu kare-no ootoo-ni-mo  
music-ACC study do-NF be-PAST-QM he-GEN younger.brother-DAT-too  
at-te mi-ta-i-na.  
meet-NF try-want-NPST-SFP  
'Yeah, that sounds nice. I want to meet Yamada, but I also want to meet his  
younger brother who was studying music.'

In this dialogue speaker A introduces his friend *Yamada* to speaker B. Contrary to Takubo and Kinsui's claim, after a couple of exchanges speaker B can use *kare* to refer to *Yamada*, as shown in the last utterance of B. Thus, it is not necessarily true that one cannot use *kare* to refer to someone unless that person has been known to the speaker prior to the discourse. Instead, I wish to claim that the felicity condition required on the use of *kare* depends on whether its antecedent is envisaged as being specific or not. To be precise, I propose the following condition for specificity:

- (8) An antecedent of a pronoun is regarded as being specific if and only if there (comes to) exist some world knowledge regarding the referent(s) of the antecedent in the speaker's memory and as a result a certain image about the referent(s) can be moulded within the mind of the speaker.

Thus, in dialogue (7) speaker B acquires some knowledge about an individual called *Yamada*, such as he is a friend of speaker A, he is a doctor who has studied in the

U.S., his family is cosmopolitan, and he has a younger brother who has been to Holland to study music. I would like to suggest that such information concerning *Yamada* is moulded into a certain image within the mind of speaker B, and that the use of *kare* is made possible because of this image moulded in his mind. By contrast, in dialogue (6) the information concerning *Yamada* provided by speaker A is not yet specific enough to mould a concrete image about him in speaker B's mind, hence unnaturalness of the coreference between *Yamada* and *kare* results.

Now, given that there is such an independent discourse/pragmatic constraint on the use of *kare*, it seems reasonable to assume that the reason why *kare* cannot be bound in a sentence like (3b) is because the quantifier antecedent is not specific enough. Ábel and Maleczki (1994:211) claim that "specificity cannot properly be grasped in terms of a dichotomy: it is in fact a gradual notion". Thus, they argue that for a group of sentences which share a predicate like (9) below a QP in (9a) is the least specific among the three, while the one in (9c) is the most specific, for the linguistic context in the latter narrows down the class of the relevant individuals:

- (9) (Ábel and Maleczki 1994:212)
- a. Every girl is silly.
  - b. Every girl in our class is silly.
  - c. Every red-haired girl in our class is silly.

If that is the case, we predict that if we force some semantic restriction on the part of the antecedent QP so that it becomes more specific, a bound variable interpretation should be easier to obtain, if not completely felicitous. As indicated in (9), one of the ways to restrict the semantic range of a quantifier is to modify it linguistically so that it denotes a restricted set. Let us consider the following.

- (10) [Sono ondai-ni            hait-ta]    zyosi gakusei-no daremo<sub>1</sub>-ga  
       that music.college-to enter-PAST female student-GEN every<sub>1</sub>-NOM  
       [kanozyo<sub>1</sub>-no sainoo-o mottomo yoku hikidasi-te kure-ru]  
       she-GEN    talent-ACC most        fully bring.out-NF take.the.trouble-NPST  
       sensei-ni    dea-e-ta.  
       teacher-DAT meet-can-PAST  
       'Every female student who entered that music college was able to meet a  
       teacher who could bring out her talent to the full extent.'

In contrast to (3b), the range of the universal quantifier in (10) is semantically more restricted: it quantifies over the set of female students who entered some particular music college. As we have predicted, it is indeed possible to have a bound variable interpretation in this case. In the above example we used linguistic modification to restrict the range of a universal quantifier; yet as long as one can envisage what a quantifier quantifies over, a felicitous sentence can be constructed:

- (11) Akio, Hisashi, Kouichi-no daremo<sub>i</sub>-ga kare<sub>i</sub>-no sensei-o sonkei si-te  
 Akio Hisashi Kouichi-GEN everyone-NOM his-GEN teacher-ACC respect do-NF  
 i-ru.  
 be-NPST  
 ‘Everyone, i.e. Akio, Hisashi, and Kouichi, respects his teacher.’

In fact, it is not indispensable to have linguistic modification or specification to a quantifier for a felicitous bound variable interpretation; as long as a specific context can be envisaged, even a sentence like (3b), which has been standardly assumed to be ungrammatical in the literature, turns out to be okay (at least for many speakers). I conducted a questionnaire survey on the availability of a bound variable construal for *kare/kanozoyo*. Of the 31 native speakers of Japanese I have asked, 17 people responded that they could have a bound variable reading for (3b), while the remaining 14 people said they could not. Does this mean that there is an idiolectal variation for the availability of a bound variable construal for the third person pronouns in Japanese? Though such a possibility cannot be eliminated entirely, it seems highly unlikely (or at least native speakers of Japanese who do not have a bound variable reading for *kare/kanozoyo* constitute a minority), since of the 14 people who said that they could not get a bound variable reading for (3b), 12 people responded that they could in other cases like (10).<sup>2</sup>

An important question that needs to be raised at this point is whether or not *kare/kanozoyo* used in these examples is indeed a bound variable. It might be that the third person pronouns in (10) and (11) are instances of an E-type pronoun, as is the case in the following English example.

- (12) (Evans 1980: 342)  
 If a man enters this room, he will trip the switch.

Evans (1980) claims that although an E-type pronoun has a quantifier expression as its antecedent, it is not bound by the quantifier but is interpreted as referring to the object(s), if any, which can be reconstructed on the basis of the quantifier antecedent. Thus, what is denoted by *he* in (12) is (for every case we examine) ‘the man in question who enters this room.’ Now, Evans (1980: 341) notes that a *c*-command configuration determines the difference between an E-type and a bound pronoun. Hence, if *kare* and *kanozoyo* in (10) and (11) are instances of an E-type pronoun, we should be able to construct a felicitous sentence even when *kare/kanozoyo* appears in a position which is not *c*-commanded by the quantifier antecedent. A well-suited candidate for this investigation is a coordinate construction, where a quantifier expression within the first conjunct does not have scope over the second. Let us consider the following.

- (13) a. Sono dansikoo-de-wa [Matsumoto sensei-ni eigo-o  
that boys.school-at-TOP Matsumoto teacher-from English-ACC  
narat-ta] seito-no daremo-ga <sup>?</sup>kare-no eigo-no  
learn-PAST student-GEN everyone-NOM he-GEN English-GEN  
zituryoku-o age, \*kare/karera-wa [[siboo su-ru] daigaku-ni  
proficiency-ACC improve he/they-TOP wish do-NPST university-to  
nyuugaku su-ru]-koto-ga deki-ta.  
matriculation do-NPST-COMP-NOM be.able.to-PAST  
'At that boys' school every student who learned English from Mr Matsu-  
moto improved his English proficiency, and he/they were able to enter a  
university (he/they) wished to.'
- b. Akio, Hisashi, Kouichi-no daremo-ga tatiagari, \*kare/karera-wa  
Akio Hisashi Kouichi-GEN everyone-NOM stand.up he/they-TOP  
iken-o nobe hazime-ta.  
opinion-ACC express begin-PAST  
'Everyone, i.e. Akio, Hisashi, and Kouichi, stood up, and he/they began to  
express (his/their) opinion.'

(13) shows that *kare* in the second conjunct cannot be associated with a quantifier expression in the first. Particularly striking is the contrast we observe between the two instances of *kare* in (13a); *kare* in the first conjunct can be construed as a bound variable, whereas the one in the second cannot. Examples in (13) clearly indicate that we are indeed dealing with bound pronouns here, not instances of an E-type pronoun.

Our hypothesis that the antecedent for *kare* needs to be specific readily provides an answer to the puzzle we observed in Section 1, namely that although *kare* may not be easily bound by a quantifier like *daremo*, it allows a sloppy identity reading, as in (5), repeated here as (14). Example (14) can be represented as in (15).

- (14) (Hoji 1997a:218)  
Mary-ga John-ni yorimo sakini Bill-ni kare-no hon-o  
Mary-NOM John-DAT than earlier Bill-DAT he-GEN book-ACC  
suisen s-ase-ta.  
recommendation do-CAUS-PAST  
'Mary made Bill recommend his book earlier than (Mary made) John.'
- (15) a. Mary  $\lambda x$  (x made Bill  $\lambda y$  (y recommend his book) earlier than x made  
John  $\lambda z$  (z recommend his book))  $\Rightarrow$  strict reading  
b. Mary  $\lambda x$  (x made Bill  $\lambda y$  (y recommend y's book) earlier than x made  
John  $\lambda z$  (z recommend z's book))  $\Rightarrow$  sloppy reading

In (15b) *kare* is represented as a variable bound by a  $\lambda$ -operator, which, after  $\lambda$ -conversion, comes to have the value of *Bill* and *John*, respectively. Since both *Bill* and *John* are specific individuals represented in the speaker's mind, we can obtain a felicitous sloppy reading.

### 3. D-Pronouns and N-Pronouns

In this section I will critically review the notion of D-pronouns and N-pronouns proposed in Noguchi (1997). Noguchi argues that personal pronouns in Japanese are syntactically distinct from those in English, and that only the latter type of pronouns or D-pronouns can be construed as a bound variable. We will see, however, that his claims are untenable.

Noguchi's claim that personal pronouns in Japanese are syntactically nouns is based on the following four observations (Noguchi 1997:777–78). First, Noguchi notes that personal pronouns in Japanese can be preceded by an adjective, a possessive or a demonstrative pronoun, whereas those in English usually cannot. The following examples are taken from Noguchi (1997:777).

- |      |    |            |      |    |                |      |    |           |      |
|------|----|------------|------|----|----------------|------|----|-----------|------|
| (16) | a. | tiisa-i    | kare | b. | watasi-no      | kare | c. | kono      | kare |
|      |    | small-NPST | he   |    | I-GEN          | he   |    | this      | he   |
|      |    | 'small he' |      |    | 'my boyfriend' |      |    | 'this he' |      |

Examples in (16) can be readily explained if we assume that personal pronouns in Japanese are syntactically nouns, for if that is the case, they can be modified by an adjective, etc. As Noguchi himself realises, however, in some restricted cases personal pronouns in English can also be modified by an adjective or an indefinite article, as evidenced in (17).

- (17) (Noguchi 1997:778–79)
- a. I like the real me.
  - b. That's not a he; that's a she.

Noguchi (1997:778–79) treats cases like these as peripheral, suggesting that the noun-like status of English personal pronouns is the result of category conversion from D to N. But if category conversion is possible for English pronouns, it seems plausible to assume that the same mechanism is applicable to Japanese as well, and that one of the differences between the two languages is the relative flexibility for category conversion.

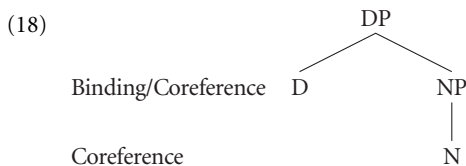
Second, as indicated by the translation given in (16b), Japanese *kare* and *kanozō* can be used to denote 'boyfriend' and 'girlfriend' respectively (even without a possessive), which Noguchi claims is in sharp contrast to English pronouns. This would not be surprising, however, if Japanese pronouns are a lexical, rather than a functional category, for the former can undergo semantic change. But notice that since English pronouns can sometimes function as a noun rather than a determiner, semantic change of the sort similar to Japanese *kare/kanozō* might be expected as well. Indeed, when *he* or *she* is used as a noun, it can mean a male or female animal; for instance, (17b) can be felicitously used when describing the gender of a cat. Therefore, the semantic change observed for the Japanese third person pronouns

does not necessarily support the claim that they are syntactically different from English pronouns in a fundamental way.

Third, although pronouns in English possess the whole range of grammatical  $\phi$ -features and as such constitute a paradigm, such is not the case for Japanese personal pronouns, which are thus non-paradigmatic. Noguchi notes that being a member of a paradigm seems to be a sufficient condition to be a functional category, though it is not a necessary one, as the English definite article *the* does not constitute a paradigm (at least at present), and yet it is standardly assumed to be a functional item. Again, if being a member of a paradigm is not a necessary condition for a functional category, as Noguchi himself recognises, the claim that personal pronouns in Japanese do not constitute a paradigm does not decisively argue for its syntactic status.

The final argument is concerned with the fact that personal pronouns in Japanese are stylistically conditioned. Thus, *kare/kanozyo* cannot be used to refer to a very young child or an adult of a higher social status. Furthermore, there are a number of stylistic variants for the first and second person pronouns. According to Noguchi, the fact that there are various forms for the first and second person pronouns suggests that personal pronouns in Japanese are open-class items. Hence, it seems natural to assume that they are syntactically nouns, for the nouns constitute an open class. However, the claim that *kare/kanozyo* is stylistically conditioned does not necessarily mean that they cannot be a functional category, for the second person pronouns in many European languages are also distinguished for formal versus informal uses. Moreover, it is not entirely clear whether personal pronouns in Japanese belong to an open class. It is true that many of these pronouns derive from other lexical items like deixes, and yet the class of pronouns is not as open as that of nouns or adjectives, for which new lexical items are more readily added to the existing ones.

Based on these four observations, Noguchi contends that pronouns in English and Japanese are syntactically distinct, referring to the former as *D-pronouns* and the latter *N-pronouns*. He further proposes that binding applies only to functional items, as schematised in (18).



This hypothesis is meant to capture the difference between English and Japanese pronouns: English *he*, a D-pronoun, can enter into binding as well as coreference, while Japanese *kare*, which is regarded as an N-pronoun, can only enter into coreference.



However, Noguchi's claim that N-pronouns cannot be construed as bound variables is crucially based on the assumption that *kare* cannot be bound by a quantifier. Yet as we saw in Section 2, *kare* can be bound when the semantic range of the quantifier antecedent is restricted somehow. Moreover, *kare* in a comparative ellipsis construction allows a sloppy reading, which independently suggests that *kare* can be construed as a variable. These facts run counter to Noguchi's claim that binding applies only to functional items. Furthermore, the behaviour of *zibun* adds an additional problem. Recall from Section 1 that *zibun* can be bound by a quantifier and thus can be construed as a bound variable. According to Noguchi, this should mean that *zibun* is a D-pronoun.<sup>3</sup> But three of the four observations which led Noguchi to argue that Japanese *kare* is syntactically a noun can in fact be applied to *zibun* as well. Thus, just like *kare*, *zibun* can be preceded by a prenominal modifier:

- (19) Hiroko<sub>i</sub>-wa kagami-no naka-no utukusi-i zibun<sub>i</sub>-o mitume-ta.  
 Hiroko-TOP mirror-GEN inside-GEN beautiful-NPST self-ACC stare.at-PAST  
 'Hiroko stared at the beautiful self in the mirror.'

The second argument for the noun-like status of *kare* is regarding semantic change. In this respect, too, *zibun* can be considered on a par with *kare*, for it can also be used as the first or second person pronoun (depending on a dialect). Noguchi argues that personal pronouns in Japanese are syntactically nouns; but if that is the case, the fact that *zibun* can be used as a personal pronoun seems to suggest that it is a noun as well. Finally, the fact that *zibun* does not constitute a paradigm may be taken to indicate that it is not a functional item.

Noguchi contends that when a pronoun is preceded by a prenominal modifier, the pronoun functions as an N, as we saw in (16) and (17). This predicts that when *kare* or *zibun* is preceded by a prenominal modifier, it cannot be construed as a bound variable and hence a sloppy reading should be unable to obtain. Let us consider this point in detail, for whether or not a sloppy reading is available in cases where *kare* or *zibun* is preceded by a prenominal modifier constitutes a possibly strongest test case for Noguchi's claim that binding applies only to functional items. First, observe the following.

- (20) Mary-ga John-ni yorimo sakini Bill-ni amerikazin-no kare/zibun-no  
 Mary-NOM John-DAT than earlier Bill-DAT American-COP he/self-GEN  
 hon-o suisen s-ase-ta.  
 book-ACC recommendation do-CAUS-PAST  
 'Mary made Bill recommend a book of him/self, an American, earlier than  
 (Mary made) John.'

In this sentence the word *amerikazin-no* 'American' modifies *kare* or *zibun* and means something like an appositive 'he/self, an American'. In this case the sentence does not seem to have a sloppy reading, even if we take both John and Bill as Americans. Thus, example (20) appears to be in accordance with Noguchi's claim.

In the following sentence, however, a sloppy reading does obtain even though *kanozyo/zibun* is preceded by a prenominal modifier.

- (21) Yasuko-wa Seiko-ni yorimo sakini Chiaki-ni utukusi-i  
 Yasuko-TOP Seiko-DAT than earlier Chiaki-DAT beautiful-NPST  
*kanozyo/zibun-no syasin-o tor-ase-ta.*  
 she/self-GEN picture-ACC take-CAUS-PAST  
 ‘Yasuko let Chiaki take a picture of pretty her/self earlier than (Yasuko let) Seiko.’

The situation envisaged in (21) is that both Seiko and Chiaki were dressed up beautifully and Yasuko let Chiaki take a picture of her who were dressed up beautifully earlier than Yasuko let Seiko take a picture of her who were dressed up likewise. In this case, a sloppy reading is possible.

One may wonder if the (un)availability of a sloppy reading we observe in (20) and (21) may be accounted for by postulating different syntactic positions for a prenominal modifier, that is, some modifiers are D-modifiers and others are N-modifiers. However, note that both *amerikazin-no kare/zibun* and *utukusi-i kanozyo/zibun* can be regarded as a relative clause modifying a head noun (see Ogoshi (1989) for the former and Whitman (1981) and Nishiyama (1999) for the latter construction). If that is the case, appealing to the distinct syntactic positions for the (un)availability of a sloppy reading in (20) and (21) seems highly unlikely. Rather, I wish to claim that the correct generalisation concerns the stage-level versus individual-level distinction of a prenominal modifier. That is, when a prenominal modifier is of an individual-level predicate type, as in (20), a sloppy reading is not available, and yet a stage-level predicate modifying a head noun, as in (21), allows a sloppy identity reading. Additional examples are provided below.

- (22) a. Yasuko-wa Seiko-ni yorimo sakini Chiaki-ni [se-ga taka-i]  
 Yasuko-TOP Seiko-DAT than earlier Chiaki-DAT height-NOM tall-NPST  
*kanozyo/zibun-no syasin-o tor-ase-ta.*  
 she/self-GEN picture-ACC take-CAUS-PAST  
 ‘Yasuko let Chiaki take a picture of tall her/self earlier than (Yasuko let) Seiko.’  
 b. Yasuko-wa Seiko-ni yorimo sakini Chiaki-ni [kodomo-no koro-no]  
 Yasuko-TOP Seiko-DAT than earlier Chiaki-DAT child-GEN days-GEN  
*kanozyo/zibun-no syasin-o motteko-sase-ta.*  
 she/self-GEN picture-ACC bring-CAUS-PAST  
 ‘Yasuko let Chiaki bring a picture of childhood her/self earlier than (Yasuko let) Seiko.’

Although (22a) does not seem to allow a sloppy reading, such reading is readily available for (22b) where a prenominal modifier denotes a temporary state of affairs (though *kodomo-no koro* is not really a predicate). In sum, the fact that a sloppy reading is available in cases where *kare/zibun* is preceded by a prenominal modifier

denoting a temporary state of affairs constitutes a strong piece of evidence against Noguchi's claim that only D-pronouns can be construed as bound variables.

#### 4. Conclusion

In this paper I have argued that contrary to the standard observation, *kare* can be bound by a QP under a certain condition, namely that when the semantic range of the antecedent QP is restricted somehow. We have also seen that Noguchi's (1997) claim that only D-pronouns can be construed as bound variables cannot be maintained. A strong piece of evidence against Noguchi's claim comes from the availability of a sloppy reading in cases where *kare/zibun* is preceded by a prenominal modifier. This cannot be reduced to different syntactic positions for a prenominal modifier, and the correct generalisation seems to be the stage-level versus individual-level distinction of the modifier, only the former allowing a sloppy reading.

#### Notes

\* I wish to thank Richard Larson, Tohru Noguchi, Eric Reuland, and an anonymous reviewer for valuable comments.

1. In this paper I use the following abbreviations for the glosses: ACC: accusative; CAUS: causative; COMP: complementiser; COP: copula; DAT: dative; GEN: genitive; NF: non-finite; NOM: nominative; NPST: non-past tense; PAST: past tense; QM: quote marker; SFP: sentence-final particle; TOP: topic.
2. One potential drawback of the questionnaire survey I conducted is that most of the native speakers of Japanese available to me have lived overseas for many years. Though the issue of L2 influence on L1 with respect to the grammaticality judgement is completely ignored in the generative literature, this might have influenced the results I report here.
3. In response to the draft of this paper, Tohru Noguchi (personal communication) informed me that he regards *zibun* as an N-pronoun, which, due to the paucity of grammatical  $\phi$ -features, moves to D at LF in order to be properly interpreted. However, appealing to the deficiency of  $\phi$ -feature specifications does not work for *kare*, as it is fully specified as [3rd person, singular, male] and hence there is no need for movement. Thus, the behaviour of *kare* presented in this paper is still a problem for Noguchi's analysis if he maintains his original claim that *kare* is an N-pronoun. Moreover, as we will see in the text, when *zibun* is preceded by a prenominal modifier, in some cases the sentence does not allow a sloppy identity reading. This presupposes, however, that *zibun* does not raise to D. If it does not raise to D, then according to Noguchi *zibun* should be uninterpretable, as its  $\phi$ -features are not filled in. Yet examples like (20) and (22a) are clearly interpretable with a strict reading. Hence, the claim that *zibun* raises to D for the sake of interpretation does not seem to hold anyway.

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