

A Note on Japanese Anaphoric R-expressions

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1. Introduction: Bound R-expressions

According to Chomsky's (1981) formulation of Binding Condition C, R-expressions such as names cannot be bound by any other elements. However, in some languages including San Lucas Quiavini Zapotec (SLQZ), R-expressions which are bound by another occurrence of the identical R-expression are allowed. Examples in (1) from Lee (2003) are those of SLQZ bound R-expressions.

- (1) a. R-yu'lààa'z Gye'eihlly Gye'eihlly. (Lee (2003: 84))
Hab-like Mike Mike
'Mike_i likes himself_i.'
- b. A w-nalààa'z bxuuhahz g-uhcnèe Lia Paamm bxuuhahz.
Already Perf-remember priest Perf-help Fem Pam priest
'The priest_i remembered that Pam helped him_i.'

In examples in (1), the second occurrence of the R-expression is bound by the first occurrence of the same R-expression. In (1a), the object R-expression *Gye'eihlly* "Mike" is bound by *Gye'eihlly* in the subject position. In (1b), *bxuuhahz* "priest" in the embedded object position is bound by the identical R-expression in the matrix subject. Lasnik (1991) argues, based on the same kind of data in Thai and other languages, that Binding Condition C does not hold for those languages which allow bound R-expressions.

On the other hand, Lee (2003) claims that examples in (1) are not exceptions to Binding Condition C. Lee argues that these bound R-expressions are actually bound variables which are spelled out as overt copies (bound copies), and have anaphoric status; they are not pure R-expressions and are not constrained by Binding Condition C. R-expressions which are bound by their coarguments such as (1a) are called "local

bound copies,” and R-expressions bound by non-coarguments such as (1b) are called “non-local bound copies.” Lee claims that local bound copies are base-generated in argument positions, while non-local bound copies are residues of movement.

In this note, I would like to examine the behavior of Japanese R-expressions and consider the following question: do Japanese bound R-expressions behave as bound copies?

Let us consider basic properties of Japanese bound R-expressions. As seen in (2a), Japanese does not allow R-expressions which are bound by their coarguments.

- (2) a. *?Taro-wa Taro-o tatai-ta.
 Taro-Top Taro-Acc hit-past
 ‘Taro hit Taro.’
 b. Taro-wa TARO-O tatai-ta.
 ‘Taro hit TARO (and not anyone else).’

In (2a), the object *Taro* is bound by the subject *Taro*. Although (2a) is not completely ungrammatical, it is highly awkward unless the second occurrence of the R-expression has a contrastive focus, which is indicated by capitalization, as in (2b).^{1,2}

On the other hand, R-expressions which are bound by identical R-expressions in non-coargument positions are allowed without problems.

- (3) a. Taro-wa [Taro-no okaasan]-o tatai-ta.
 Taro-Top Taro-Gen mother-Acc hit-past
 ‘Taro hit Taro’s mother.’

¹ For some speakers, (2a) might sound natural in a pragmatically marked situation. For example, (2a) could mean that the man named Taro hit the statue of himself in a statue museum. In such a context, the two *Taros* are assumed to have different guises and Condition C violation is allowed cross-linguistically (Heim (1998)).

² R-expressions with a contrastive focus also behave semantically as bound variables; they allow sloppy readings under ellipsis as the non-local bound R-expressions do (See Section 2). (ia) and (ib) are the strict reading and the sloppy reading of the second conjunct of (i).

- (i) Taro-wa TARO-O tatai-ta si, Jiro-mo soo da.
 Taro-Top TARO-ACC hit-past and Jiro-also such be
 ‘Taro hit TARO (and no one else), and Jiro did, too.’
 a. Jiro also hit TARO and no one else.
 b. Jiro hit JIRO and no one else.

If the focused R-expression undergoes focus movement at LF, we could assume it is no longer a local bound R-expression; the analysis might be possible under which focused R-expressions are treated in the same way as the non-locally bound R-expressions in (3). I will put this problem aside for future research.

- b. Taro-wa [Hanako-ga Taro-o tatai-ta to] it-ta.
 Taro-Top Hanako-Nom Taro-Acc hit-past that say-past
 ‘Taro said [Hanako hit Taro].’

In (3a), the name *Taro* in the genitive position of the object is bound by the subject; in (3b), *Taro* in the embedded object position is bound by the matrix subject. These examples sound much more natural than those in (2). These data indicate that, Japanese only has non-local bound R-expressions and not local bound expressions.

2. Japanese R-expressions as Bound Copies

There arises a question as to whether Japanese (non-local) bound R-expressions are bound copies in Lee’s term at all. I would like to show that they indeed behave as bound copies and they should not be treated as purely referential expressions.

2.1. Diagnostics for Bound Copies

Based on the SLQZ data, Lee (2003) brings forward four diagnostics for bound copies: (i) the Identical Antecedent Requirement (IAR), (ii) Strong Crossover (SCO) effect, (iii) sloppy reading under deletion, and (iv) restriction against quantified bound copies.

First, IAR states that R-expressions can be bound by identical elements, but they must not be bound by non-identical coindexed elements. Examples in (4), where the R-expression *Mike* is bound by the coindexed pronoun *he* (locally in (4a) and non-locally in (4b)), are not grammatical.³

- (4) a. *B-gwi’ih-ëng lohoh Gye’eihlly. (Lee (2003: 85))
 Perf-look-3sg.Prox at Mike
 ‘He_i looked at Mike_i.’
 b. *Naan-ëng nnsini’cy Gye’eihlly.
 Neut-know-3sg.Dist Neut-be.smart Mike
 ‘He_i knows Mike_i is smart.’

(5) shows that R-expressions cannot be bound by another non-identical, coindexed

³ The SLZQ pronominal element is realized as an affix on the verb. For simplicity, coindexation is only indicated in English glosses.

R-expressions, either.

- (5) a. *Ryu'lààa'z Gye'eihlly me's. (Lee (2003: 86))
Hab-like Mike teacher
'Mike_i likes the teacher_i.'
b. *Naan Gye'eihlly nnsini'cy bxuahahz.
Neut-know Mike Neut-be.smart priest
'Mike_i knows the priest_i is smart.'

Second, strong crossover (SCO) effect is seen in SLQZ as shown in (6).

- (6) *Tu r-ralloh la'anng r-yu'lààa'z t Li'eb t? (Lee (2003: 88))
who Hab-think 3sg.Prox Hab-like Felipe
'Who_i does he_i think Felipe likes?/ Who_i does he_i think likes Felipe?'

This shows that *wh*-traces in SLQZ are subject to Binding Condition C. In sum, these two observations show that it is not simply the case that Condition C can be freely violated in SLQZ.

Third, bound R-expressions allow only sloppy readings under VP-deletion as shown in (7).

- (7) B-gwi'ih Gye'eihlly lohoh Gye'eihlly zè'cy cahgza' Li'eb. (Lee (2003: 89))
Perf-look Mike at Mike likewise Felipe
'Mike looked at himself, and Felipe did, too.' (*strict/sloppy)

This shows that bound copies behave semantically as bound variables. If the lower occurrence of *Gye'eihlly* "Mike" were a truly referential R-expression, it would not yield the sloppy reading in the second conjunct.

Fourth, quantified expressions cannot be bound R-expressions in SLZQ, as illustrated in (8).

- (8) *B-guhty cho'nn ra bxuuhahz cho'nn ra bxuuhahz. (Lee (2003: 89))
Perf-kill three pl. priest three pl. priest
'Three priests killed themselves.'

Unlike the name *Gye'eihlly* in the previous examples, *cho'nn ra bxuuhahz* "three

priests” in (8) is a quantified NP with a numeral. The unavailability of the reflexive reading of (8) indicated that quantified NPs cannot be bound R-expressions.⁴

2.2. Japanese Bound R-expressions as Bound Copies

Japanese (non-local) bound R-expressions show the same properties as SLQZ bound copies with respect to the above four diagnostics. First, IAR also holds for Japanese R-expressions; Japanese R-expressions cannot be bound by non-identical coindexed elements as shown in (9) and (10).

- (9) *Kare_i-wa [Taro_i-no okaasan]-o tatai-ta.
 he-Top Taro-Gen mother-Acc hit-past
 ‘He_i hit Taro_i’s mother.’
- (10) a. *Taro_i-wa [[ano baka]_i-no okaasan]-o tatai-ta.
 Taro-Top that idiot-Gen mother-Acc hit-past
 ‘Taro_i hit that idiot_i’s mother.’
 b. *[Ano baka]_i-wa [Taro_i-no okaasan]-o tatai-ta.
 that idiot-Top Taro-Gen mother-Acc hit-past
 ‘That idiot_i hit Taro_i’s mother.’

The name *Taro* in (9) cannot be bound by the coindexed pronoun. (10) shows that one of the two non-identical, coindexed R-expressions (the name and the epithet) cannot bind the other.⁵

⁴ Lee explains this constraint in terms of semantic type-mismatch. If the predicate in (8) is a reflexive predicate in Reinhart and Reuland’s (1991, 1993) sense, it will have the semantic representation in (i), which takes x whose semantic type is e .

(i) [[kill oneself]]: = [$\lambda x \in D. \lambda x \in D. x$ kill x] (Lee (2003: 91))

Two-place predicates such as *kill* are considered to have the semantic type $\langle e, \langle e, t \rangle \rangle$ and take two arguments with the semantic type e . However, if the selected argument is a quantified DP, whose semantic type is $\langle \langle e, t \rangle, t \rangle$, a type clash occurs. That is why the quantified bound R-expression in (8) cannot get the reflexive reading.

⁵ Epithets such as *the idiot* in English can be coindexed with another R-expression as long as they do not c-command each other.

(i) a. When John_i arrived, the idiot_i sat in the wrong chair.

b. *John_i regretted that the idiot_i sat in the wrong chair.

Japanese epithets such as *ano baka* “that idiot” also allow coindexation with another R-expression in a non-c-commanding environment. (ii) contrasts with examples in (10).

(ii) Taro_i-ga saihu-o otosi-ta toki, ano baka_i-wa sore-ni kiduka nakat-ta.

Taro-Nom wallet-Acc drop-past time that idiot-Top it-Dat notice not-past

‘When Taro_i dropped the wallet, that idiot_i didn’t notice it.’

Second, strong crossover effect is observed in Japanese. (11) is an example of SCO violation.

- (11) *Dare_i-o kare_i-ga t_i aisi-teiru no ?
who-Acc he-Nom love-prog Q
'Who_i does he_i love?'

This shows that *wh*-traces in Japanese at LF are subject to Binding Condition C.

Third, Japanese bound R-expressions allow sloppy readings in VP-deletion contexts as shown in (12), which proves they are not purely referential.⁶

- (12) Taro-wa [Taro-no okaasan]-o tata-ta si, Jiro-mo soo da.
Taro-Top Taro-Gen mother-Acc hit-past and Jiro-too such be
'Taro hit Taro's mother, and Jiro does, too.'
a. Jiro also hit Taro's mother.
b. Jiro hit Jiro's mother.

Fourth, when quantified phrases are used as bound R-expressions, they cannot get reflexive interpretations, unlike normal bound copies in (3).

- (13) a. Daremo-ga [daremo-no okaasan]-o tatai-ta.
everyone-Nom everyone-Gen mother-Acc hit-past
'Everyone hit everyone's mother.'
'*Everyone hit his/her own mother.'
b. [Sannin-no syoonen]-ga [[sannin-no syoonen]-no okaasan]-o tatai-ta.
three-Gen boy-Nom three-Gen boy-Gen mother-Acc hit-past
'Three boys hit three boys' mothers.'
'*Three boys hit their own mother(s).'

(13a) means that everyone loves everyone else's mothers, in addition to his/her own mother; (13b) means that three boys love the mother(s) of (possibly other) three boys.⁷

⁶ As Lee (2003: 96) notes, the possibility of the strict reading of the bound copy under ellipsis does not necessarily indicate its purely referential nature. On the other hand, the fact that the sloppy reading is possible serves as a piece of evidence for its anaphoric nature. See Koopman and Sportiche (1989).

⁷ (13b) gets the reflexive reading if we attach a definite article on the second occurrence of *sannin-no syoonen* "three boys" as in (i).

The two occurrences of the identical quantified DP in (13) are not considered to be coindexed elements.⁸ These four characteristics support the idea that Japanese bound R-expressions are bound copies, as those in SLQZ.

3. Summary

Japanese allows R-expressions to be bound non-locally, but not locally. Japanese (non-local) bound R-expressions show four characteristics of bound copies which are observed by Lee (2003). According to Lee's analysis, local bound copies are base-generated and non-local bound copies are residues of illicit movement. The fact that Japanese only allows non-local bound copies can be supporting evidence for Lee's analysis, where local and non-local bound copies are treated differently.

If local and non-local bound copies are different phenomena, four types of languages are typologically distinguished with respect to whether both or either type of bound copies are allowed, as in (14).

(14) *Classification of languages with respect to the possibility of bound copies*

	local	non-local	language(s)
a.	yes	yes	SLQZ, etc.
b.	yes	no	?
c.	no	yes	Japanese
d.	no	no	English, etc.

We have seen that languages such as SLQZ allow both types of bound copies ((14a)), and Japanese only allows non-local bound copies ((14c)). In English, R-expressions cannot be bound either locally or non-locally ((14d)). At this point, a question arises as to whether there are any languages which only allow local bound copies (to fall under

(i) [Sannin-no syoonen]_i-ga [[sono sannin-no syoonen]_i-no okaasan]-o tatai-ta.
 three-Gen boy-Nom the three-Gen boy-Gen mother-Acc hit-past
 'Three boys hit the three boy's mother(s).'

With the attachment of the article, however, the two R-expressions are not identical anymore, and we do not consider *sono sannin-no syoonen* "the three boys" in (i) as a bound copy; it is just an example of coreference of non-identical R-expressions.

⁸ Unlike the corresponding SLQZ example (8), examples in (16) are not ungrammatical; they are acceptable under non-reflexive readings. This difference, however, does not affect the claim here that quantified phrase cannot be bound copies. To pursue the difference between quantifiers in the two languages is beyond the scope of this note, and I would like to leave this issue for now.

(14b)). Whether such languages are attested or not, it is important to investigate why such a cross-linguistic variation exists; we need to clarify what property of a particular language correlates with the possibility of local and non-local bound copies. I would like to investigate these issues in future research.

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