

## A Subject/Object Asymmetry with Floating Quantifiers in Japanese

Haig (1980) and Kuroda (1980) observe that among the sentences (1)-(3), only (3) is ungrammatical in Japanese: (CL = classifier)

- (1)      *gakusei-ga san-nin sake-o nonda.*  
 student-NOM 3-CL sake-ACC drank  
 “Three students drank sake.”
- (2)      *sake-o gakusei-ga san-bon nonda.*  
 sake-ACC student-NOM 3-CL drank  
 “The students drank 3 bottles of sake.”
- (3)      \**gakusei-ga sake-o san-nin nonda.*  
 student-NOM sake-ACC 3-CL drank  
 “Three students drank sake.”

Saito (1985) argues that the ungrammaticality of (3) follows from the hypothesis that subject cannot be scrambled. However, (4), minimally different from (3), is grammatical:

- (4)      *gakusei-ga sake-o imamade-ni san-nin nonda.*  
 student-NOM sake-ACC so far 3-CL drank  
 “Three students have drunk sake so far.” (Gunji and Hasida 1998)

This example appears to be problematic for Saito’s proposal.

Adopting Miyagawa’s (2001, 2004) EPP-based analysis of scrambling, Miyagawa and Arikawa (2004: M&A hereafter) attempt to accommodate both (3) and (4). M&A propose that the structure of (4) is (5), leaving aside the position of the adverb *imamadeni* ‘so far’:

- (5)      [TP *gakusei*<sub>1</sub>-ga [TP *sake*<sub>2</sub>-o [<sub>VP</sub> t<sub>1</sub> NQ [<sub>VP</sub> t<sub>2</sub> V]]]]

They claim that the occurrence of *imamadeni* signals that the subject *gakusei-ga* has undergone focus scrambling. In (5), the trace of the raised subject can maintain its c-command relation with the floating quantifier (FQ) (Miyagawa 1989). In contrast, in (3), the nuclear stress is on the object NP *sake-o* ‘sake-ACC’, and the nuclear stress rule (Cinque 1993) forces an element following this object NP to be a part of the object NP. Since this is not the intended interpretation in (3), this example is ruled out.

Notice that under M&A’s proposal, the *ga*-marked NPs in (3) and (4) are both thematic subjects. Based on evidence from the Kumamoto dialect, spoken in western Kyushu, we argue against this position. In the Kumamoto dialect, thematic subjects can have either *-ga* or *-no*, whereas non-thematic subjects (i.e. major subject) can only occur with *-ga* (Yoshimura 1994). Interestingly, in this dialect, the *ga*-marked NP in (3), but not the one in (4), allows this particle conversion, as shown in (6a, b):

- (6) a. *gakusei-ga/no san-nin sake-o nonda.*  
 student-NOM/GEN 3-CL sake-ACC drank  
 “Three students drank sake.”
- b. *gakusei-ga/\*no sake-o imamadeni san-nin nonda.*  
 student-NOM/GEN sake-ACC so far 3-CL drank  
 “Three students drank sake so far.”

This indicates that only the *ga*-marked NP in (3) is a thematic subject. This, in turn, indicates that there is a covert thematic subject in (4).

Additional evidence for the existence of the covert thematic subject in (4) is based on the lack of reconstruction effect (Boskovic and Takahashi 1998). Suppose that the NP *MIT-no-gakusei* ‘MIT student’ is a thematic subject in (7a, b). Then, we first predict that (7a) should be grammatical since this NP should be able to reconstruct into its original position, and therefore, the FQ should be licensed. Second, (7b) is expected to be degraded because the reconstruction in point is unavailable due to the anaphor inside the adverb.

- (7) a. ?MIT-no-gakusei<sub>1</sub>-ga tyomusukii-no-tanzyoobi-made-ni ronbun-o  
 -GEN-student-NOM Chomsky-GEN birthday-by paper-ACC  
 e<sub>1</sub> san-nin LI-ni okuranakereba naranai.  
 3-CL -to send must  
 “Three MIT students must send a paper to LI by Chomsky’s birthday.”
- b. ?MIT-no-gakusei<sub>1</sub>-ga zibunzisin<sub>1</sub>-no-tanzyoobi-made-ni ronbun-o  
 -GEN-student-NOM oneself-GEN-birthday -by paper-ACC  
 e<sub>1</sub> san-nin LI-ni okuranakereba naranai.  
 3-CL -to send must  
 “Three MIT students must send a paper to LI by his own birthday.”

So, the fact that the expected contrast between these two examples is absent indicates that reconstruction is not relevant, which, in turn, shows that there is a covert thematic subject in these examples, thus in (4) as well.

We then propose that (8a) and (8b) are the structures of (3) and (4) respectively, and conclude that *gakusei-ga* in (4) has not undergone any focus movement.

- (8) a. [<sub>TP</sub>gakusei-ga<sub>1</sub> [<sub>VP</sub>sake-O<sub>2</sub> [<sub>VP</sub>(t<sub>1</sub>) san-nin t<sub>2</sub> nonda]]]  
 b. [<sub>TP</sub>gakusei-ga<sub>1</sub> [<sub>TP</sub>sake-O<sub>2</sub> [<sub>VP</sub>imamadeni [<sub>VP</sub>pro<sub>1</sub> san-nin (t<sub>2</sub>) nonda]]]]]

Notice that the contrast between (3) and (4) is no longer problematic for Saito 1985. Crucially, only in (8a) (= [3]) has the thematic subject been scrambled. If this Saito-type approach turns out to be correct, we no longer have to claim that adverbs like *imamadeni* force the subject NP to be focused, independent evidence of which is very difficult to find.

Now the remaining question is why structures of the type given in (8b) are not available to (3). If such structure were available for this example, (3) would be incorrectly predicted to be grammatical as well. Notice, however, that only the exhaustive interpretation is allowed in the multiple *ga*-construction (see Kuno 1973, Mihara 1994, and Doron and Heycock 1999, 2003). Given this, we now have good reason why (8b) is not available for (3), in which the most natural interpretation is a neutral/eventive one. The existence of adverbs like *imamadeni* ‘so far’ makes the exhaustive interpretation preferable over the simple neutral/eventive interpretation. Thus, the multiple-*ga* construction is available only in (4).

Interestingly, our proposal provides additional evidence for Miyagawa’s (2001, 2004) EPP-based analysis of Japanese scrambling. In their paper, M&A also show that the object NP in (4) necessarily exhibits A-movement properties. The question is why? Doron and Heycock 1999 claim that major subjects, thus the *ga*-marked NP in (8b)[=(4)], cannot satisfy the EPP. If so, under Miyagawa’s proposal, the covert thematic subject or the object NP must be raised to TP SPEC in this example. However, if this covert subject is raised there, then the FQ will not be able to maintain the proper relationship with this intended antecedent since it has been argued that A-movement does not leave a trace (Lasnik 1999, Saito and Hoshi 2000, among others). Then, the only choice available in (4) to satisfy the EPP is to raise the object NP there. Thus, the object NP necessarily shows A-movement properties in this example.

Notice that if FQs do not require a strict local relation with its antecedent, the covert subject can also be raised to TP SPEC, followed by the scrambling of the object NP in (8b). We then predict that the object NP should not necessarily exhibit A-movement properties in (4). Thus, under our proposal M&A’s finding regarding the properties of the object NP under consideration indicates that FQs must observe strict locality with its antecedent. This, in turn, suggests that Japanese FQs are not simply VP-adverbs (c.f. Ishii 1998, Hoji and Ishii 2004).

In sum, this paper provides evidence that a clausal structure is dependent on the exhaustive/neutral interpretation of the *ga*-marked NP in Japanese. This dependency is naturally captured under Doron and Heycock’s (1999, 2003) analysis of major subjects via abstraction (Ladusaw 2000). Thus, this study provides additional support for their proposal.

## References

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