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### **NP-Movement in Japanese\***

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#### **1. Introduction**

That Japanese phrase structure is configurational is now well established. That Japanese does have Move alpha is also equally well established with such instantiations of it as Scrambling (as syntactic movement) and LF-movement of QP/WH. (Cf. Whitman (1982), Saito (1985), Hoji (1985) and Takezawa (1987) to mention a few.) Thus Japanese looks more and more like a language that arises from Universal Grammar. A major item that remains to be established in Japanese syntax is the existence of NP-Movement. In this paper we will argue that Japanese does have NP-Movement, i.e., movement into an A-position forced by the Case Filter of Stowell (1981) and Chomsky (1981).

#### **2. Properties of Scrambling**

Our arguments for this hypothesis runs as follows. There are certain properties that Scrambling exhibits, which is argued and Saito (1985) to be an S-structure adjunction operation. The properties of Scrambling (or the effects of the existence of the trace of Scrambling) that are relevant to the present discussion are listed in (A).<sup>1</sup>

(A)

- a. It licenses the long distance association between a numeral quantifier and an NP. (Kuroda (1980) and Haig (1980))
- b. It induces quantifier scope ambiguity. (Kuroda (1971))
- c. It induces the violation of the Proper Binding Condition. (Saito (1985, 1987))

We will demonstrate that there are certain constructions that exhibit all these properties while apparently not involving Scrambling. The constructions we have in mind are ergative, passive and intransitivising resultative constructions. The existence of ergative verbs in Japanese is first advocated in Terada (1987) and other arguments are subsequently given in Miyagawa (1988a and 1989a).<sup>2</sup> The movement analysis of the Japanese passive, which is assumed in Kuno (1973), has recently been argued for by



Miyagawa (1986) and Ueda (1987). The intransitivising resultative construction has been studied in Miyagawa (1986). These three constructions are brought together in support of the existence of NP movement in Japanese in Miyagawa (1988a and 1989a).<sup>3</sup>

### 3. "Floating Numeral Quantifiers"

It has been observed in Kuroda (1980) and Haig (1980) that Scrambling licenses the otherwise impossible association between a numeral quantifier and an argument NP across another subcategorized phrase. Thus while the numeral quantifier (NQ) cannot be associated with gakusei 'student' in (1a), the NQ can be associated with sake 'sake.'

- (1) a. \*gakusei-ga sake-o 3-nin nonda  
student-NOM  
'three students drank sake'  
b. sake-o<sub>i</sub> gakusei-ga t<sub>j</sub> 3-bon nonda  
sake-ACC  
'three (bottles of) sake, (the) students drank'

Under the assumption that the QP and the "modified NP" must be adjacent to each other at the relevant level of representation, the contrast in (1) can be accounted for by positing the trace of the object NP as in (1b).<sup>4</sup>

In this section, we will review Miyagawa's arguments for NP movement in Japanese based on the effect of movement with respect to the numeral quantifier, as described in (1).

#### 3.1. The Ergative Construction

Miyagawa (1988a, 1989a) demonstrates that in sentences like (2) the QP can be associated with an NP across another argument.<sup>5</sup>

- (2) Gakusei-ga [yp UBC-ni t<sub>j</sub> 3-nin hair]-ta  
student-nom UBC-into three entered  
'Three students entered UBC.'

Miyagawa argues that the non-local "floating quantifier" in (2) can be accounted for if we assume that a verb such as hair 'enter' can be ergative (unaccusative) in the sense of Perlmutter (1978) and Burzio (1986), i.e., if the subject NP can originate inside the VP and raise to the subject position, to satisfy the Case Filter, as indicated in (2).<sup>6</sup> As shown also by Miyagawa, unergative sentences do not allow such "non-local floating numeral quantifiers."<sup>7</sup>



- (3) \*Gakusei-ga John-ni 3-nin hanasi-ta  
 student-NOM  
 'Three students talked to John.'

### 3.2. The Passive Construction

Miyagawa (1986) and Ueda (1986), independently of each other, observe the "non-local floating numeral quantifier" in the so-called direct passive construction as in (4).<sup>8</sup>

- (4) Gakusei-ga keisatu-ni(yotte) tj 3-nin taihos-rare-ta  
 student-nom police-by three were arrested  
 'Three student were arrested by the police.'

### 3.3. The Intransitivising Resultative Construction (te aru)

As Miyagawa (1986, 1988a, 1989a) demonstrates, the so-called intransitivising resultative construction also exhibits the same pattern.

- (5) ringo-ga teeburu-ni tj 2-tu oitearu  
 apple-NOM  
 'two apples are placed on the table'

Based on this observation, Miyagawa (1988a, 1989a) suggests that sentences like (5) involve NP movement.

### 3.4. Summary

Miyagawa (1988a and 1989a) thus argues, contrary to Miyagawa (1988b), that these three constructions involve NP movement. If NP movement induces effects of Scrambling, we predict that it induces the other effects listed in (A) as well. In the following sections, we will demonstrate that this prediction is indeed born out, thereby providing confirmation for the existence of NP movement in Japanese.<sup>9</sup>

## 4. Quantifier Scope

As observed in Kuroda (1971), the Japanese counterpart of a sentence like "someone loves everyone" is (basically) unambiguous, with the subject QP taking wide scope the object NP, as long as the liner order is that of the subject-object. As observed also in Kuroda (1971), scope ambiguity arises when the object QP is preposed across the subject QP.<sup>10</sup> (Cf. Hoji (1985, 1986).)

### 4.1. The Ergative Construction



As noted in Tada (1988), sentences like (6) are ambiguous, confirming the syntactic movement of the subject NP across the other argument NP in the ergative sentences.<sup>11</sup>

- (6) dareka-ga subeteno heya-ni t hair-ta  
 someone-nom every room entered  
 'Someone entered every room.' (scopally ambiguous)

#### 4.2. The Passive Construction

Tada (1988) and Oka (1988) note that passive sentences like (7) exhibit scope ambiguity.<sup>12</sup>

- (7) dareka<sub>i</sub>-ga subeteno hito-ni t<sub>j</sub> syookais-rare-ta  
 someone-nom every person-dat was introduced  
 'Someone was introduced to everyone.'

The scope ambiguity in (7), more specifically the possibility of the wide scope reading for the subject QP over the object QP in (7), thus confirms the syntactic movement in the passive construction.

#### 4.3. The Intransitivising Resultative Construction (te aru)

The scope ambiguity of sentences like (8), provided also by Tada (1988), illustrated the the movement effect in (Ab) with respect to the te aru construction.

- (8) (Tada's (16b)) 2-tu-no ringo-ga subete-no teeburu-ni oitearu  
 2 apple-NOM all table-on is placed  
 'two apples are placed on every table'

The scope ambiguity in (8) thus renders further confirmation that the intransitivising resultative (te aru) construction involves syntactic movement.

#### 5. The Violation of the Proper Binding Condition

Saito (1985, 1987) argues that ungrammaticality of certain scrambled sentences is due to the violation of the Proper Binding Condition, which basically states that a trace must be bound. (Cf. Fiengo (1977) and May (1977).) Thus sentences of the form (18c), discussed in Whitman (1979), Saito argues, are derived from (9a) by the iterative application of Scrambling, i.e., the adjunction to the matrix S first of C-o then of the S'. They are ruled out since the offending trace in (9c), written in bold face,



violates the Proper Binding Condition. Cf. Saito (1987, pp.309-311) for actual examples.

- (9) a. [<sub>S</sub>A-ga [<sub>S</sub> [B-ga C-o Verb] Comp] Verb]  
 b. [<sub>S</sub> C-o<sub>i</sub> [<sub>S</sub> A-ga [<sub>S</sub> [B-ga t<sub>j</sub> Verb] Comp] Verb]]  
 c. \*<sub>S</sub> [<sub>S</sub> [B-ga t<sub>j</sub> Verb] Comp]<sub>j</sub> [<sub>S</sub> C-o<sub>i</sub> [<sub>S</sub> A-ga t<sub>j</sub> Verb]]]

### 5.1. VP-Preposing

Contrary to the widely held view, it is argued in Hoji (1987) that Japanese has VP preposing as an instance of Scrambling, of which (10) is an example.<sup>13</sup>

- (10) [<sub>VP</sub> susi-o tabe]-sae<sub>j</sub> John-ga t<sub>j</sub> sita  
 sushi-acc eat-even John-nom did  
 Lit. 'even eat sushi, John did'

As argued in Hoji (1987), the type of preposing in (10) is possible only when the entire VP is preposed, i.e., (a) part(s) cannot be preposed.<sup>14</sup>

- (11) a. \*tabe-sae<sub>j</sub> John-ga [<sub>VP</sub> susi-o t<sub>j</sub>] sita  
 eat-even  
 Lit. 'even eat, John sushi did'  
 b. \*[susi-o oki]-sae<sub>j</sub> John-ga [<sub>VP</sub> sono sara-ni t<sub>j</sub>] sita  
 sushi-ACC  
 Lit. 'even place sushi, John on that dish did'

Compare (11a) with (10) and (11b) with (12b) below.<sup>15</sup>

- (12) a. John-ga [<sub>VP</sub> sono sara-ni susi-o oki]-sae sita  
 John-NOM  
 Lit. 'John did even [place sushi on that plate]'  
 b. [<sub>VP</sub> sono sara-ni susi-o oki]-sae<sub>j</sub> John-ga t<sub>j</sub> sita  
 Lit. 'even place sushi on that plate, John did'

That the scrambled VP cannot have an unbound trace in it, in accordance with the Proper Binding Condition, is illustrated in (13), which is derived from (12a) by first scrambling the direct object NP susi-o and then scrambling the VP to the sentence-initial position.

- (13) \*<sub>S</sub> [<sub>VP</sub> sono sara-ni t<sub>j</sub> oki]-sae<sub>j</sub> [<sub>S</sub> susi-o<sub>j</sub> [<sub>S</sub> John-ga t<sub>j</sub> sita]]]  
 Lit. 'even place on that plate, sushi John did'



Examples like (14) indicate that the direct object NP can scramble out of the preposed VP as long as it binds its trace susi-o.

- (14) [<sub>S</sub> susi-o<sub>j</sub> [<sub>S</sub> Mary-ga [<sub>S</sub> [<sub>S</sub> [<sub>VP</sub> sono sara-ni t<sub>j</sub> oki]-sae<sub>i</sub> [<sub>S</sub> John-ga t<sub>j</sub> sita]] to] omotta]]

Lit. 'sushi<sub>j</sub>, Mary thought that [even place t<sub>j</sub> on that plate] John did'

## 5.2. The Proper Binding Violation induced by NP Movement

The discussion in sections 3 to 4 indicate that the ergative, passive and te aru constructions involve NP movement and that there is an NP-trace inside the VP in these constructions. The postulation of syntactic movement (hence of the NP trace) provides a straightforward account of effects (a) and (b) in the list given in (A) at the outset of the paper. In other words, the trace is required to be in the VP in these constructions for the straightforward account of such movement effects. Thus if we prepose the VP in these constructions, which exhibit such effects of the (NP)-trace, the preposed VP would contain the trace that will not be bound. This then should result in the violation of the Proper Binding Condition. Thus our prediction is that VP-preposing is not possible with the three constructions under discussion that yield the effects of the (NP)-trace. This state of affairs is illustrated in (15).

- (15) a. D-structure    [<sub>S</sub> ec [<sub>VP</sub> ...NP...V] ]  
       b. NP movement    [<sub>S</sub> NP<sub>i</sub> [<sub>VP</sub> ...t<sub>j</sub>...V] ]  
       c. VP-Preposing \* [<sub>S</sub> [<sub>VP</sub> ...t<sub>j</sub>...V]<sub>j</sub> [<sub>S</sub> NP<sub>i</sub> [<sub>VP</sub> ...t<sub>j</sub>...V]]

The offending trace is in bold face.

The prediction is in fact born out, as indicated by (16), which has the clearly ergative verb hur 'fall.'

- (16) a. ame<sub>i</sub>-ga [ t<sub>j</sub> huri]-sae sita  
       rain-NOM    fall-even did  
       Lit. 'rain did even fall.' (it even rained)

- b. \* [<sub>S</sub> [<sub>VP</sub> t<sub>j</sub> huri]<sub>k</sub>-sae [<sub>S</sub> ame<sub>i</sub>-ga t<sub>k</sub> sita]]

Furthermore, VP-preposed version of (2), is ungrammatical, as we expect. (Recall that (2) allows the "non-local numeral quantifier" by virtue of the NP-trace.)



- (17) [s [yp UBC-ni t<sub>k</sub> 3-nin hairi]-sae; [s gakusei<sub>k</sub>-ga t<sub>j</sub> sita]]  
 UBC-into 3 enter-even student-NOM did  
 Lit. 'even enter UBC, three students did'

By contrast, sentences with unergative verbs such as osiir 'break into' it is possible to have VP-preposing, as indicated by (18).

- (18) [s [yp UBC-ni osiiri]-sae; \_\_\_\_\_ [s gakusei-ga 3-nin t sita]]  
 UBS-into break into-even student-NOM 3 did  
 Lit. 'Even break into UBC, three students did.'

Similarly, the te aru constructions do not allow VP-preposing, although we do not provide the relevant example for the space considerations.<sup>16</sup>

### 5.3. Further Predictions

Since we cannot, due to space limitation, provide the relevant examples to verify further predictions our analysis makes, we will simply describe the predictions, which are in fact borne out. We report on the verification of these predictions with actual examples in a separate work in Hoji, Miyagawa and Tada (1989).

With respect to quantifier scope ambiguity, our prediction is that the scope ambiguity of (6), (7) and (8) will disappear. In fact, ambiguous (6) ceases to be ambiguous once the VP in these sentences (with sae 'even,' mo 'also,' wa (contrastive) attached to the VP and with the "dummy" verb following it) is preposed. The resulting sentence for (6) allows (i) only the reading in which the subject QP has wide scope and (ii) only the agentive reading for the verb hairi 'enter.' Cf. footnote 6. Similarly, the VP-preposed versions of (7) and (8) do not yield scope ambiguity anymore. The resulting (unambiguous) sentence in the case of (7) must have the sense of 'someone's intentionally getting arrested,' if the sentence is acceptable at all. The resulting sentence in the case of (8) is not acceptable.<sup>17</sup>

### 6. Conclusion

We have demonstrated that the three constructions in Japanese, the ergative, the passive and the intransitivising resultative, exhibit all the properties that are associated with syntactic movement listed in (A). To the extent that the properties in (A) are unequivocally associated with syntactic movement, as we assume they are, the observations contained in this paper provide confirmation that these constructions involve syntactic movement. This in turn constitutes verification of the existence of syntactic movement in Japanese, as advocated by Saito (1985) and others in many subsequent works. Furthermore, the fact that the generalizations and/or conditions noted in (A) hold not only of scrambled sentences but also



of the range of constructions that are claimed to involve NP movement renders confirmation of these generalizations and/or conditions themselves as properties associated with syntactic movement.

One remaining question with respect to our main claim in this paper is whether this movement is genuinely distinct from Scrambling. Based on the considerations in footnotes x and xx, we maintain that it is. However, a number of competing proposals have appeared in the recent years as to the nature of scrambling itself, in particular, with regard to its landing site, e.g., Saito (1985), Fukui (1987), Kitagawa (1986) and Kuroda (1988). in conjunction with different proposals on the X'-theoretic properties of the Japanese language, this question clearly deserves future research.

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\* This is a portion of a larger research that is reported in Hoji, Miyagawa and Tada (1989). Yuki Kuroda, Peter Culicover,

<sup>1</sup> There are other properties of Scrambling that corroborate the conclusion of the present study. They are listed in (i).

- (i) a. It yields the effects of syntactic connectedness. (Muraki (19xx) and Hoji (1985))  
 b. It makes certain sentences with a quantifier and a wh-phrase grammatical. (Hoji (1985, 1986))

It is demonstrated in Tada (1988) and Oka (1988) that NP movement in Japanese under discussion here seems to exhibit the property in (ia). Hoji, Miyagawa and Tada (1989) claim that the property in (ib) is observed with respect to NP movement in Japanese as well.

<sup>2</sup> Further arguments for ergativity in Japanese is given by Miyagawa (1989b) and Tsujimura (1989) based on the existence of ergative/unaccusative nouns.

<sup>3</sup> Takezawa (1987) argues that sentences of the ni ga case pattern, with such predicates as wakar 'understand' and potentials, are base-generated in the ni ga order and that the ga ni order is the result of Scrambling. While such sentences with the ga ni order exhibit all the properties in (A), among which the properties in (a), (b) and (d) are demonstrated by Takezawa (1987), we, following Takezawa (1987) do not consider these sentence as involving NP movement in the sense of the present study. Thus we are assuming a finer distinction among the constructions that apparently involve NP movement, unlike Kim and Larson (1987) and Oka (1988)

"NP movement", as discussed in Kuroda (1987), has to do with the so-called tough construction in Japanese. Takezawa (1987) argues that the movement in the Japanese tough construction involves an empty operator, as in the English tough construction, in part based on the observation of the possibility of long distance dependency in the Japanese tough construction. In this paper, we follow Takezawa (1987) and assume that the movement involved in the tough construction in Japanese is not NP movement in the sense of this paper, either.



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The Japanese psych construction, which typically involve syntactic or lexical causatives, is another candidate that involve NP movement. We will not attempt to establish this in this paper.

<sup>4</sup> Saito (1985) further argues that in order for this analysis to be valid the subject NP cannot be scrambled and derives this result from independent considerations.

<sup>5</sup> Evidence for NP movement based on numeral quantifiers was originally given in Miyagawa (1986). In Miyagawa (1988b), an alternative to this analysis was attempted, but in subsequent works (Miyagawa 1988a, 1989a) NP movement is argued to be the correct analysis of passives, ergatives, and intransitivizing resultatives in Japanese.

<sup>6</sup> Crucially, verbs such as hair 'enter' in Japanese can either be ergative or unergative. The difference correlates with the agentive reading v.s. non-agentive reading of such verbs. When there is "non-local" association between the NQ and an NP, as in (2), however, the non-agentive reading, if not the only reading available, is much preferred. We will return to the syntactic disambiguation between the two readings in section 5.

<sup>7</sup> For previous studies of the numeral quantifier in Japanese, see Harada (1976), Kamio (1977), Okutsu (1969), and Shibatani (1977), among others.

<sup>8</sup> Miyagawa (1986) also notes that the so-called indirect passive constructions do not allow such "non-local floating numeral quantifier."

<sup>9</sup> We differentiate NP movement from Scrambling based on case marking differences. The phrase that is scrambled can have any morphological case marking, suggesting that it originates in an Case-marked position. The phrase that is assumed to undergo NP movement, on the other hand, is always marked by ga, which we consider, as in Miyagawa's works, to be evidence that the D-structure position of the phrase in question is not an Case-marked position and the movement of this NP is forced by Case Filter. Thus our analysis of NP movement is closely related with how the case-marking system in Japanese is to be analyzed. In a system like Kuroda (1988), for example, the NP movement under discussion here could not be obligatory. We cannot, however, pursue this issue any further in this paper due to space and time limitation.

Another crucial difference between NP movement and Scrambling is that while the former is clause-bound the latter is not. (Cf. Saito (1985) and the last paragraph of the first footnote.)

<sup>10</sup> Oka (1988) and Saito (1989) suggest the possibility that this generalization is of "preferred readings." To the extent that syntactic movement affects the "preferred readings," however, we can still use the generalization as an operational test for syntactic movement, as Saito also notes.



11 As noted earlier in footnote 6, the verb hair 'enter' can either be ergative or unergative. With subeteno heya 'every room' taking wide scope over dareka 'someone,' however, the verb hair 'enter' in (6) can be interpreted only as an ergative verb, i.e., as "non-agentive." This is analogous to the situation with respect to "non-local numeral quantifier floating", as described in that footnote.

12 As indicated by the translation, the ni-phrase in (7) is not an agent but an indirect object. The Japanese passive does not seem to induce scope ambiguity between the preposed subject and the agentive NP, unlike Chinese; cf. Aoun and Li (1989) for the discussion of scope ambiguity induced by NP movement in Chinese. Crossing over another argument seems to be a requirement for the scope ambiguity in Japanese.

13 Hoji (1987) points out that the movement under discussion exhibits properties of movement listed in (b) and (c) in (A) as well as the properties (ia) in footnote 1.

14 Examples like (10a) are noted in Whitman (1987), who argues, erroneously, in our view, that there is no VP-preposing in Japanese. Whitman (1987) fails to mention well-formed examples such as (11b) below.

15 Constructions like (11a) are discussed in Kuroda (1965), in connection with scope-bearing particles such as wa, mo, sae and sika, in which si in sita is taken to be a dummy verb, just as in the English dummy DO of Do Support. Kang (1988) contains a very illuminating discussion of the Korean counterpart of (11a).

16 There are a number of issues and problems that need to be addressed. For example, it is not clear that VP-preposing is completely impossible in the Japanese passives. The fact that English passives seems to allow VP preposing relatively easily independently demands an explanation. It might, for example, be possible that the passive can either be a control structure or a raising structure, as is argued by Saito (1987) for the subject-to-subject raising. At any rate, the passive sentences that allow the "non-local numeral quantifier" clearly cannot undergo VP-preposing.

17 The pre-VP-preposing version of the relevant sentences, namely (6), (7), and (8) with a necessary particle attached to its verb and the "dummy" verb su following it, are acceptable. Interestingly, they are acceptable only insofar as the scope of such particles as sae 'even,' mo 'also,' and wa (contrastive) is sentential. In sentences with transitive verbs or with unaccusative verbs, by contrast, it is possible for these scope bearing elements to have their scope only over the VP.