On the Dative-Nominative Construction in Japanese

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1. Introduction

There have been a number of studies concerning the dative-nominative construction in Japanese, although an adequate account is yet to be provided. In this paper, I will argue that the dative subject should be treated in a different manner from the previous analyses. In section 2, we will review the previous analyses for the dative-nominative construction, and suggest that they should be revised in consideration of the binding relation concerning the reciprocal anaphor. In the following section, I will consider A and A'-properties of scrambling in a simplex sentence. Then, I will explain, together with the anaphoric relation in the dative-nominative construction, where the dative subject is generated.

2. Dative-Nominative Construction

2.1. GA/NI Conversion

It is widely accepted that in a simple clause in Japanese, the subject marked with GA alternates with the dative *NI* under some circumstances, as shown in (1):

(1) a．John-ga　　nihongo-ga　　　hanas-er-u
　　　John-Nom　Japanese-Nom　speak-can-pres
　　　'John can speak Japanese'
　　b．John-ni　　nihongo-ga　　　hanas-er-u
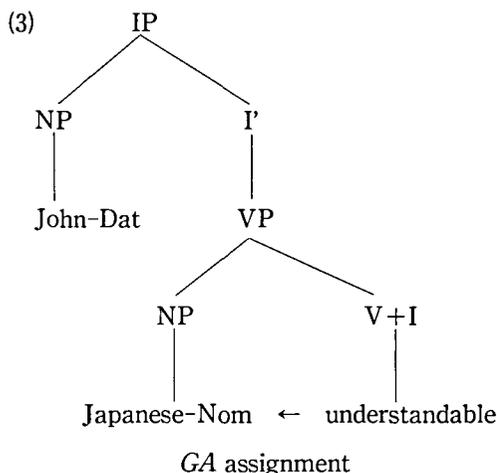　　　John-Dat　Japanese-Nom　speak-can-pres

One of the characteristics of the alternation is that although the nominative subject in such a sentence as (1a) can occur with an accusative object, the dative NI always appear with a nominative object (e.g., Koizumi (1994, 1995):[1]

(2) a．John-ga　　nihongo-o　　　hanas-er-u
　　　John-Nom　Japanese-Acc　speak-can-pres

b. *John-ni　 nihongo-o　　 hanas-er-u

John-Dat　Japanese-Acc　speak-can-pres

2.2. Previous Analyses

　　　Takezawa (1987) points out that the GA/NI alternation is similar to *of*-insertion in English. Takezawa (1987: 84) provides the following construction relating to the nominative Case assignment to an object, which is slightly modified for explanatory convenience:

(3)
```
              IP
            /    \
          NP      I'
          |       |
       John-Dat   VP
                 /  \
               NP    V+I
               |      |
         Japanese-Nom ← understandable
              GA assignment
```

Since INFL in (3) is lowered to V, NP in [Spec, IP] is not governed by INFL, hence not Case-marked, violating the Case filter.　Takezawa suggests that the higher NP is marked with *NI* by *NI*-insertion.　In his analysis, therefore, *NI* is assigned to NPs in [Spec, IP].

　　　On the other hand, Naito (1994a, b), following Chomsky (1992), proposes that the dative subject is licensed in the specifer of AgrD(ative)P, while the nominative object in the specifier of AgrO(bject)P, as shown in (4) :[2]

(4) $[_{IP} [_{Agr}DP_i$ -ni $[_{AgrOP} DP_j$ -ga $[_{AgrO'} [_{VP} t_i [_{V'} t_j V] AgrO] AgrD] I]$

Their approaches encounter a difficulty with respect to a peculiar anaphoric relation in Japanese, as we will see in next section.

3. Quirky Case Subjects

The dative-nominative construction is observable not only in Japanese but also in other languages (e.g., Korean and Icelandic among others):[3]

(5) a. Suni-hanthey/ka koyangi-ka/*lul musewu-n] iyu (Korean)

Suni-Dat/Nom cat-Nom/*Acc afraid-Rel reason

'the reason why Suni is afraid of cats'

b. Barninu batna i veikin (Icelandic)

the-girl-Dat bettered the-disease-Nom

'The child recovered from the disease'

It is assumed that in both Korean and Icelandic, the subject is assigned dative Case, which is called quirky (or lexical) Case. I suggest that the dative marked subject in Japanese should be regarded as a quirky Case marked subject. With this in mind, consider the following sentences:[4]

(6) a. [John-to Mary]$_i$ -ga [otagai]$_i$ -no sensei-o hihansi-ta

John-and Mary-Nom each other-Gen teachers-Acc criticize-Past

'John and Mary criticized each other's teacher'

b. [[otagai]$_i$ -no sensei-o]$_j$ [John -to Mary]$_i$ -ga t$_j$ hihansi -ta

c. *[otagai]$_i$ -no sensei-ga [John -to Mary]$_i$ -o hihansi-ta

d. [[John-to Mary]$_i$ -o]$_j$ [otagai]$_i$ -no sensei-ga t$_j$ hihansi -ta

e. [John-to Mary]$_i$ -ni [otagai]$_i$ -no sensei-no koto-ga

John-and Mary-Dat each other-Gen teacher-Gen about-Nom

kuwasiku hanas-er-u

in detail talk-can-Pres

'John and Mary can talk about each other's teachers in detail'

f. [[otagai]$_i$ -no sensei-no koto-ga]$_j$ [John -to Mary]$_i$ -ni tj kuwasiku hanas-er-u

g. *[otagai]$_i$ -no sensei-ni [John-to Mary]$_i$ -no koto-ga kuwasiku hanas-er-u

h. ??/*[[John-to Mary]$_i$ -no koto-ga]$_j$ [otagai]$_i$ -no sensei-ni t$_j$ kuwasiku hanas -er-u

Scrambling of the nominative object in (6f) is a legitimate operation, as pointed out by

Miyagawa (1993) and Nemoto (1993). What intrigues us here is the acceptability difference between (6d) and (6h). If the nominative subject and the dative subject are in the same position, say, [Spec, IP], and scrambling is an adjunction to IP, it is difficult to explain the acceptability difference:

(7) a. [$_{IP}$ [[John -to Mary]$_i$ -o]$_j$ [$_{IP}$ [otagai]$_i$ -no sensei-ga t$_j$ hihansi -ta]]

  b. ??/*[$_{IP}$ [[John -to Mary]$_i$ -no koto-ga]$_j$ [$_{IP}$ [otagai]$_i$ -no sensei-ni t$_j$ kuwasiku hanas-er-u]]

Both (7a, b) should be treated in the same manner if the elements scrambled in (7a, b) were objects.

It is widely assumed that scrambling in a simplex clause is either A or A'-movement. That is why in (7a), *John-to Mary-o,* which is assumed to be in an A-position, can bind the reciprocal anaphor, satisfying Condition A. Why, then, is not the adjoined position in (7b) treated in the same way as in (7a)? I hold that the grammatical difference between (7a) and (7b) concerns the property of the quirky Case marked subject.[5] Before proceeding to consider the quirky Case, it is necessary to examine that the A and A'-properties of scrambling in Japanese.

4. A and A'-Scrambling

Scrambling is thought to be an A'-movement, as shown in (8):[6]

(8) [zibun-zishin$_i$ -o]$_j$ John$_i$ -ga   t$_j$ semeta (koto)
    self-self-Acc   John-Nom   blamed (fact)
    'Himself, John blamed'

The reflexive in (8) is scrambled to the sentence initial position. To meet Condition A, the scrambled element must be reconstructed. The reconstruction effect, therefore, indicates that (8) exhibits the property of A'-movement.

Recent studies (e.g., Mahajan (1990), Saito (1992), Nemoto (1993), and Kikuchi, Oishi and Yusa (1994) among others), however, show that scrambling in a simplex clause exhibits both A and A'-properties, as shown below:[7,8]

(9) a. [karerai-o]ⱼ   Masao-ga   otagaiᵢ -no   sensei-ni tⱼ   syookai-sita

     them-Acc   Masao-Nom   each other-Gen   teachers-Dat   introduced

     'them, Masao introduced to each other's teachers'

  b. Michael-ga   Kate-to Joeᵢ -ni   otagaiᵢ -o   syookai-sita

     Michaael-Nom   Kate and Joe-Dat   each other-Acc   introduced

     'Michael introduced each other to Kate and Joe'

  c. *Michael-ga   [otagaii-o]ⱼ   Kate-to Joeᵢ-nᵢ   tⱼ   syookai-sita

     Michael-Nom   each other-Acc   Kate and Joe-Dat   introduced

The grammatical difference between (9a, b) and (9c) is explicable in terms of L(exical)-related position.[9]   Furthermore, Chomsky (1993) distinguishes a narrowly L -related position from a broadly one: the former has the properties of A-positions, while the latter the properties of adjoined positions. As pointed out in Ura (1994), a broadly L-related position, an AgrSP adjoined position, can count as an A-position in Japanese.[10]

The ungrammaticality of (9c) can be explained by assuming that the scrambled object moves into [Spec, AgrOP]. ·Since the reciprocal phrase in (8c) is in a narrowly L-related position, it binds an R-expression, resulting in violation of Condition C. Consider the structures in (10a, b) assigned to (9a, c), respectively:

(10) a. [$_{AgrSP}$ [karera$_i$ -o]$_j$ [$_{AgrSP}$ Masao -ga otagai$_i$ -no sensei-ni t$_j$ syookai -sita]]

    b. * [$_{AgrSP}$ Michael -ga [$_{AgrOP}$ [otagai$_i$ -o]$_j$ [$_{AgrO'}$ Kate -to Joe$_i$ -ni t$_j$ syookai -sita]]]

In (10a, b), *karera*-o and *otagai*-o have been moved to a broadly L-related position and a narrowly L-related position, respectively, both of which can be considered A-positions in Japanese.

Bearing this in mind, and, moreover, following Chomsky (1993, 1994, 1995), let us consider examples (6g, h), which are assigned structures (11a, b), respectively:[11, 12]

(11) a. *[$_{AgrSP(AgrDP)}$ otagai$_i$ -no sensei-ni [$_{AgrOP}$ John -to Mary$_i$ -no koto-ga [$_{vP}$ kuwasiku [$_{vP}$ t$_{subj}$ [$_{VP}$ t$_{obj}$ hanas -er-u]]]]]

    b. ??/*[$_{AgrSP(AgrDP)}$ John -to Mary$_i$ -no koto-ga [$_{AgrSP(AgrDP)}$ otagai$_i$ -no sensei-ni [$_{AgrOP}$ t$_i$ [$_{vP}$ kuwasiku [$_{vP}$ tsubj [$_{VP}$ t$_{obj}$ hanas -er-u]]]]]

In (11a), the reciprocal phrase is in the specifier of AgrSP (AgrDP), i.e., a narrowly L-related position, and therefore it binds an R-expression, resulting in violation of Condition C; hence the deviance of (6g). In (11b), on the other hand, the nominative object adjoins to AgrSP (AgrDP). The adjoined position, that is, a broadly L-related position can be counted as an A – position. If so, the nominative object in (11b) can A-bind the reciprocal, although this is not a correct prediction. This consideration leads us to assume that the quirky Case marked subject is somewhere other than the specifier of AgrSP or AgrDP. In the following section, I will examine where the dative subject is generated.

5. Dative Subject as an Adjunct

In the preceding section, I have argued that the dative subject cannot be in the specifier position of AgrSP or AgrDP. In this section, I suggest that the dative subject is in an adjoined position. Furthermore, the dative marked subject is assigned quirky Case, which is assumed to be inherent Case. Thus, I assume that the quirky Case marked subject is assigned dative Case in the lexicon, not configurationally.

Let us now proceed to consider the dative-nominative construction. It is well known that only a certain set of stative predicates can occur with nominative objects: they include 'suki/kirai' (like/dislike), '-hosii/-sitai' (want/want to), 'wakaru' (understandable), 'de-kiru' (capable), 'kowai' (be frightened with) and 'V+-(r)eru' (can V) (see Kuno (1973) for further details). Furthermore, the dative subject appears with the potential predicate.

To see the difference between the dative marked subject and the nominative marked one, let us compare the argument structure in the nominative-nominative construction with the one in the dative-nominative construction:

(12) a. John-ga   nihongo-ga   hanas-er-u
        John-Nom   Japanese-Nom   speak-can-pres

    b. John-ni   nihongo-ga   hanas-er-u
        John-Dat   Japanese-Nom   speak-can-pres

The nominative subject in (12a) is an experiencer, whereas the dative subject in (12b) may be taken as a location.[13] To see this, consider the following sentences, in which 'hanas-er-u'

(can speak) is replaced by 'wakaru' (can understand):

(13) a. John-ga   nihongo-ga   wakaru

         John-Nom   Japanese-Nom   understandable

         'John can understand Japanese'

  a' (x   (y))

     Experiencer Theme

  b. John-ni   nihongo-ga   wakaru

        John-Dat   Japanese-Nom   understandable

  b' (x   (y))

     Location   Theme

One might suppose that in (13b), the external argument is suppressed. In this connection, the potential stative morpheme seems to be analogous to the passive morpheme. As regards the passive construction, Grimshaw (1990) provides the following argument structure:[14]

(14) a. The enemy destroyed the city

     destroy (x   (y))

          Agent   Theme

  b. The city was destroyed by the enemy

     destroyed (x- ϕ (y))

            Agent   Theme

In (14b), x- ϕ indicates that the external argument is suppressed, and the *by*-phrase is an a(rgument)-adjunct. The a-adjunct, as Grimshaw observes, is not only an argument but also an adjunct in that (i) an a-adjunct is licensed by the argument structure, hence an argument, and (ii) an a-adjunct is not θ-marked and not in an a-structure position, and furthermore optional, hence an adjunct.

With this in mind, compare (13a') and (13b') with (14a) and (14b). As seen from (13b'), the external argument is not suppressed but replaced by the location. So the potential stative morpheme is not similar to the passive morpheme. This can be seen

from the examples below:

(15) a ． [[John-to Mary]ᵢ -no koto-ga]ⱼ   [otagai]ᵢ -no sensei-ni tⱼ   kuwasiku

    John-and Mary-Gen about-Nom   each other's   teacher-Dat in detail

    hanas-are-ta

    tell-PP-past

    'the story about John and Mary was told by each other's teacher in detail'

    (x-o   (y))

    Agent   Theme

   b ． ??/*[[John-to Mary]i-no koto-ga]ⱼ   [otagai]ᵢ -no sensei-ni   tⱼ   kuwasiku

    John-and Mary-Gen   about-Nom   each other's   teacher-Dat in detail

    hanas-er-u

    talk-can-Pres

    (x   (y))

    Location   Theme

Sentence (15a) is a passive construction, whereas sentence (15b) is a dative-nominative construction, in which the nominative object is scrambled. In both (15a) and (15b), the theme argument is assigned nominative Case. The difference between (15a) and (15b) depends on whether the nominative NP is moved to an A-position or an A'-position: [Spec, IP] or an adjoined position. As seen from (13), the external argument is not suppressed. Instead, the experiencer turns out to be a location when the experiencer NP is assigned dative Case. I suggest here that the potential stative morpheme in Japanese optionally changes the argument structure, as seen in (13), and hence, as pointed out by Grimshaw (1990: 118), "verbs [with quirky Case-marked subjects] lack external arguments."[15] Example (13b) accords well with Grimshaw, since, according to Grimshaw, the external argument should be the most prominent argument.[16] There really exists the most prominent argument, i.e., an experiencer realized as in (13a').

Adopting the clause structure in (16) suggested by Chomsky (1995), let us proceed to consider where the dative subject is positioned:

(16) $[_{TP} [_{T'} [_{vP}$ Subj $[_{v'} v [_{VP}$ Obj V$]]]]]$

Since the specifier of vP is filled with an external argument, it follows that the nominative subject is in [Spec, vP]. In which position is the dative subject? It has to be somewhere lower than [Spec, vP]. Given that the dative subject is an a-adjunct, I suggest that it is adjoined to VP, as in (16):[17]

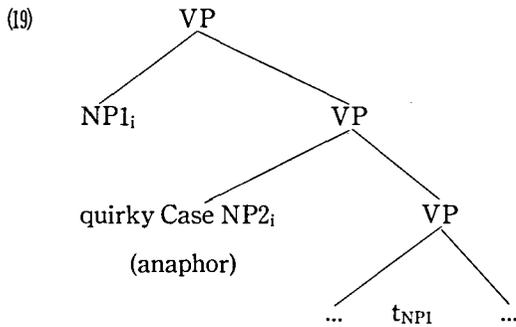(17) [$_v$P Subj -Nom [$_{v'}$ v [$_{VP}$ Subj -Dat [$_{VP}$ Obj -Nom V]]]]]

With (17) in mind, let us consider sentences (6a-h), which are assigned structures (18a-h):[18]

(18) a. [$_v$P [John -to Mary]$_i$ -ga [$_{v'}$ v [$_{VP}$ [otagai]$_i$ -no sensei-o hihan-si-ta]]]

b. [$_v$P [[otagai]$_i$ -no sensei-o]$_j$ [$_v$P [John -to Mary]$_i$ -ga [$_{v'}$ v [$_{VP}$ t$_j$ hihan -si-ta]]]]

c. *[$_v$P [otagai]$_i$ -no sensei-ga [$_{v'}$ v [$_{VP}$ [John -to Mary]$_i$ -o hihan-si-ta]]]

d. [$_v$P [[John -to Mary]$_i$ -o]$_j$ [$_v$P [otagai]$_i$] [no sensei -ga [$_{v'}$ v [$_{VP}$ t$_j$ hihan -si-ta]]]]]

e. [$_{VP}$ [John -to Mary]$_i$ -ni [$_{VP}$ [otagai]$_i$ -no sensei-no koto-ga kuwasiku hanas-er-u]]

f. [$_{VP}$ [[otagai]$_i$ -no sensei-no koto-ga]$_j$ [$_{VP}$ [John -to Mary]$_i$ -ni [$_{VP}$ t$_j$ kuwasiku hanas-er-u]]]

g. *[$_{VP}$ [otagai]$_i$ -no sensei-ni [$_{VP}$ [John -to Mary]$_i$ -no koto-ga kuwasiku hanas-er-u]]

h. ??/*[$_{VP}$ [[John -to Mary]$_i$ -no koto-ga]$_j$ [$_{VP}$ [otagai]$_i$ -no sensei-ni [$_{VP}$ t$_j$ kuwasiku hanas-er-u]]]

The important point to note is that an NP in an a-adjunct position, *John-to Mary-ni* in (18e), is in an A-position, as indicated by the grammaticality of (18e) in accordance with Condition A.[19] What intrigues us here is the grammatical contrast between (18d) and (18h).[20]
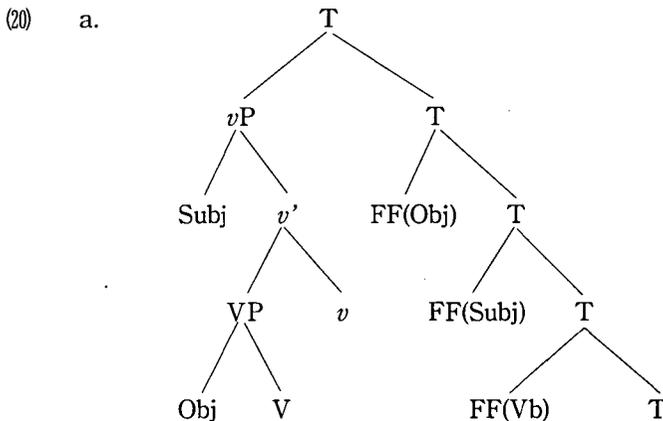
Recall that a broadly L-related position in Japanese can be taken to be an A-position. That is why (18d) meets Condition A. This account, however, cannot hold for the dative-nominative construction. To see this, let us consider (18f). If the outermost adjoined position in (18f) counts as an A-position, (18f) is wrongly ruled out, since the reciprocal anaphor binds the R-expression, violating Condition C. The grammaticality of (18f), therefore, indicates that the outermost adjoined position must be an A'-position. If so, the NP containing the reciprocal anaphor in (18f) is reconstructed at LF. Then, at LF, the
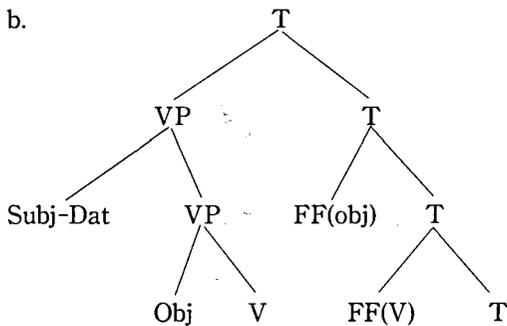
reciprocal is bound by the antecedent; hence the grammaticality of (18f). If the outermost adjoined position to the lower VP is an A'-position, the reciprocal anaphor in (18h) is not bound. Notice further that even if *John-to Mary-no koto-ga* is reconstructed, the operation does not improve the ungrammaticality, since the reciprocal anaphor is not bound by its antecedent. That is, the assumption that the outermost adjoined position to the lower VP is an A'-position allows us to account for the deviance of (18h). So, in (19) , *NP1* cannot A-bind *NP2*.

(19)

```
                VP
              /    \
         NP1ᵢ       VP
              \    /   \
   quirky Case NP2ᵢ     VP
        (anaphor)      /  \
                     ... tNP1  ...
```

NP2 in (19) is base-generated at an adjoined position to VP, hence an a-adjunct.

Let us now consider how the nominative object has its Case checked. Although it is unclear whether the Case-checking in Japanese occurs at overt syntax or covert syntax, I tentatively assume that Case-checking in Japanese occurs at LF. Then, the Case-checking of the nominative object in the dative-nominative construction seems problematic. In languages where Spec-Head agreement is not observed, F(ormal) F(eature)s of DPs adjoin to T in order to check Case features (Chomsky (1995)). Consider the following configuration concerning Case-checking:[21]

(20) a.

```
                    T
                 /     \
              vP        T
             /  \      /   \
          Subj   v'  FF(Obj)  T
                /  \        /   \
              VP    v    FF(Subj)  T
             /  \            /   \
           Obj   V       FF(Vb)   T
```

b.

```
                        T
                     /     \
                  VP         T
                /    \      /   \
         Subj-Dat    VP   FF(obj)   T
                    /  \          /   \
                 Obj    V    FF(V)     T
```

Configuration (20a) representing a nominative-accusative construction requires no explanation. In (20b), however, the dative subject intervenes between T and the object. The question to ask here is whether or not the dative subject blocks the raising of the FFs of the nominative object.

It should be noticed that a position adjoined to VP is included within the minimal domain of V (cf. Chomsky (1993)). So, if V raises to T, the dative subject and the nominative object are equidistant from a position in TP.[22] The dative subject, therefore, does not prevent the object from raising.

The final point to note is that as we have seen in section 1, neither a dative subject nor an accusative object can occur with a stative predicate, while a nominative subject and an accusative object can. Recall that there is no external argument in the dative-nominative construction, as shown in (20b). In this connection, it should be noted that the potential stative predicate is analogous to an unaccusative verb.

6. Conclusion

To summarize, I have shown that close examination of the peculiar anaphoric relation indicates that the dative subject in the dative-nominative construction cannot be in the specifier of AgrSP or AgrDP. Following the view that the dative subject is an a-adjunct (Grimshaw (1990)), I have suggested that it is adjoined to VP. I have also suggested that the outermost adjoined position should be regarded as an A'-position, even if a broadly L-related position can count as an A-position. It has been shown that the suggested analysis accounts for a relevant range of data.

Notes

1. As argued in Ura (1994: 27), the dative marker *NI* can occur with an accusative marker *O* in an embedded sentence:

    (i) Boku-wa John-*NI*   piano-o/ga   hik-er-u   to   omow-u

        I-Top   John-Dat   piano-Acc/Nom play-can-pres   comp   think-pres

          'I think that John can play the piano'

2. It is assumed that the inflected verb, which assigns a nominative Case to the object, raises to AgrD via AgrO. See Naito (1994a, b) for detailed discussion.

3. Examples (5a) and (5b) are adapted from Lim (1996: 333) and Andrews (1990: 169), respectively.

4. The acceptability judgements reported here are based on my questionnaires taken from 12 native speakers of Japanese, both linguists and nonlinguists.

5. The *NI* phrases in (6e-h) may be taken subjects, as seen from the following example:

    (i) John-to Mary-*NI*   jibun-tati-no   sensei-no   koto-ga   hanas-er-u

        John-and Mary-Dat   self-Plu-Gen   teachers   about-Nom   talk-can-Pres

          'John and Mary can talk about their teachers'

    Since the reflexive jibun (self) is subject-oriented, the grammaticality of this example indicates that the dative marked phrases in (6e-h) are subjects.

6. Sentence (8) is from Nemoto (1993: 20).

7. The present discussion is restricted to scrambling within a simple clause, excluding long distance scrambling which is always an A'-movement.

8. Example (9a) is from Kikuchi, Oishi and Yusa (1994: 142), and Examples (9b-c) are adapted from Nemoto (1993: 64-92).

9. Chomsky (1993) defines "L-related position" as a position being within a local relation to a lexical category.

10. With regard to the distinction, see also Kajiwara (1996a).

11. These structures are based on the assumption that the dative subject and the nominative object are moved overtly in order to check the respective Case features.

12. The adverbial phrase, *kuwasiku* (in detail) is adjoined to the light verb. See Kajiwara (1996b) for adverbial positions.

13. Sadakane and Koizumi (1995: 22) suggest that the indirect subject is a quasi-possessor:

    (i) Emi-ni sono muzukasii mondai-ga tokeru

        -NI the difficult problems-Nom can solve

    On the other hand, Mihara (1994: 113) assigns Experiencer to the dative subject (this is pointed out to me by Yuji Kumagai):

    (ii) a. θ-grid [Ex Th]

        b. Case-grid [Dat ...]

14. Examples (14a–b) are adapted from Grimshaw (1990: 108).

15. This notion is incompatible with Baker's Uniformity of Theta Assignment Hypothesis:

    (i) Identical thematic relationships between items are represented by identical structural relationships between those items at the level of D-structure. (Baker 1988: 46)

    I leave this issue to future research.

16. Grimshaw (1990: 8) provides the a-structure prominence relations as follows:

    (i) (Agent (Experiencer (Goal/Source/Location (Theme))))

    In this thematic hierarchy, Location is lower than Experiencer.

17. See Lim (1996) for the same approach in Korean.

18. Following Fukui (1986, 1995) and Takano (1996), I assume the nominative subject stays *in* situ at overt syntax.

19. There are some speakers who find (18e, f) a little awkward. In dialects of those who find the sentences awkward, the dative subject is taken as an adjunct, not an a-adjunct, and hence, the reciprocals are not bound, violating Condition A.

20. The ungrammaticality of (18h) is not attributed to the fact that *John-to Mary* does not c-command the reciprocal. This can be seen from the following example:

    (i) $[_{r}P$ [[John -to Mary]$_i$ -no koto-o]$_j$ $[_{r}P$ [otagai]$_i$ -no sensei-ga $[_{v'} v$ $[_{VP}$ t$_j$ hihan -si-ta]]]]

        John-and Mary-Gen fact-Acc each other's teacher-Nom criticize

    In (i), *John-to Mary* does not c-command the anaphor, and still (i) is fully grammatical. The ungrammatical status of (18h), therefore, is due to something other than a c-

commanding relation.

21. FF (Vb) in (20a) is the formal features of the complex consisting of v and V.

22. Chomsky (1993 :17) defines "equidistant" as in (i), defining the relevant notions as in (ii):

    (i) If α,β are in the same minimal domain, they are equidistant from γ.

    (ii) a. α dominates β if every segment of α dominates β.

       b. the category α conains β if some segment of α dominates β.

       c. For a head α, take Max (α) to be the least full-category maximal projection dominating α.

       d. the domain of a head α is the set of nodes contained in Max (α) that are distinct and do not contain α.

       e. the complement domain of α is the subset of the domain reflexively dominated by the complement.

       f. the residue of α is the domain of α minus of the complement domain of α.

       g. Min (S) is the smallest subset K of S such that for any $\gamma \in$K, some β reflexively dominates γ.

       h. the checking domain is the minimal residue of α.

References

Andrews, A. D. 1990. "Case Structure and Control in Modern Icelandic," in J. Maling and A. Zaenen, eds., *Syntax and Semantics* 24, 187-232. Academic Press.

Chomsky, N. 1993. "A Minimalist Program for Linguistic Theory," in K. Hale and S. J. Keyser, eds., *The View from Building* 20, 1-52.

_____. 1994. "Bare Phrase Structure," *MIT Occasional Papers in Linguistics* 5.

_____. 1995. "Categories and Transformations," *The Minimalist Program,* 219-394. Cambridge, Mass.: MIT Press.

Fukui, N. 1986. *A Theory of Category Projection and its Applications.* Doctoral dissertation, MIT, Cambridge, Mass.

_____. 1995. "The Principles and Parameters Approach: A Comparative Syntax of English and Japanese," in M. Shibatani and T. Bynon, eds., *Approaches to Language Typology,* 327-371. Oxford: Clarendon Press.

Grimshaw, J. 1990. *Argument Structure.* Cambridge, Mass.: MIT Press.

Kajiwara, E. 1996a. "Nihongo no Kakimaze no Chakuchiten nitsuite," *NIDA VA 25,* 187-196.

_____. 1996b. "Clause Structures and Adverbial Positions," *Oubeibunkakenkyuu* 3 (Graduate School of Social Science, Hiroshima University), 33-44.

Kikuchi, A., M. Oishi, and N. Yusa. 1994. "Scrambling and Relativized L-Relatedness," *MIT Working Papers in Linguistics* 24, 141-158

Koizumi, M. 1994. "Nominative Objects: The Role of TP in Japanese," *MIT Working Papers in Linguistics* 24, 211-230.

_____. 1995. *Phrase Structure in Minimalist Syntax.* Doctoral dissertation, MIT.

Kuno, S. 1973. *The Structure of the Japanese Language.* Cambridge, Mass.: MIT Press.

Lim, J. 1996. "Case Alternations on the Object: Externalization or Internalization of the Subject," *Morphosyntax in Generative Grammar,* 333-344.

Mahajan, A. 1990. *The A/A-bar Distinction and Movement Theory.* Doctoral dissertation, MIT.

Mihara, K. 1994. *Nihongo no Toogokoozoo.* Shohakusya Publishing.

Miyagawa, S. 1993. "LF Case-Checking and Minimal Link Condition," *MIT Working Papers in Linguistics* 19, 213-254.

Naito, H. 1994a. "Case Conversions in Japanese," Paper presented at the 12th National Conference of Linguistic Society of Japan, held at University of Tokyo, Hongo.

_____. 1994b. "Case Conversions and Their Dependencies," *Explorations in English Linguistics* 10, 61-80.

Nemoto, N. 1993. *Chains and Case Positions: A Study from Scrambling in Japanese.* Doctoral dissertation, University of Connecticut.

Sadakane, K. and M. Koizumi. 1995. "On the Nature of the "Dative" Particle *ni* in Japanese," *Linguistics* 33, 5-33.

Saito, M. 1992. "Long Distance Scrambling in Japanese," *Journal of East Asian Linguistics* 3, 195-240.

Takano, Y. 1996. *Movement and Parametric Variation in Syntax.* Doctoral dissertation, University of California, Irvine.

Takezawa, K. 1987. *A Configurational Approach to Case-Marking in Japanese.* Doctoral dissertation, University of Washington.

Ura, H. 1994. "Varieties of Raising and the Feature-Based Bare Phrase Structure Theory," *MIT Occasional Papers in Linguistics* 7.