

Multiple Nominative Constructions in Japanese and Their Theoretical Implications

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Abstract

This paper studies the derivation of multiple nominative constructions (MNC) in Japanese. First, discussing the MNC-sentences in which there is a relation of inalienable possession between nominative noun phrases, I will argue that the set of local economy principles that choose among potentially possible steps at a single stage of a derivation contains a principle that minimizes the size of moved elements. Second, considering the derivation of the MNC-sentences in which there is no relation of inalienable possession between nominative noun phrases, I will show a new piece of evidence for the *Merge-over-Move* principle.

1 Introduction

In a derivational theory of syntax, problems of choice arise when there are two or more potentially possible steps at a single stage of a derivation. Chomsky (1995, 2000) proposes that, if *Attract/Move* and *Merge* are both potentially possible, *Merge* is chosen (*Merge-over-Move*). It has also been proposed in the literature that, when there are two or more elements that can potentially be moved, the element closer to the target than the other(s) is moved (*Attract/Move the Closest*). Discussing multiple nominative constructions in Japanese, I argue that the set of principles of this kind contains a principle that minimizes the size of moved elements, and show a new piece of evidence for *Merge-over-Move*.

Multiple-nominative sentences in Japanese are classified into (at least) two types: those that involve a relation of inalienable possession between the nominative DPs ((1), MNC1), and those that do not ((2), MNC2).

- | | | | | | |
|--------|--|----------------|----------------|----------------------|---------------|
| (1) a. | Taro-ga | te-ga | naga-i | | |
| | Taro-NOM | arm-NOM | long-PRES | | |
| | 'Taro's arms are long.' | | | | |
| b. | Taro-ga | mabuta-ga | hare-ta | | |
| | Taro-NOM | eyelid-NOM | swell-PAST | | |
| | 'Taro's eyelids swelled.' | | | | |
| c. | Taro-ga | imooto-ga | byooki-de | nakunat-ta | |
| | Taro-NOM | sister-NOM | illness-by | die-PAST | |
| | 'Taro's sister died of illness.' | | | | |
| d. | Taro-ga | imooto-ga | terebi-ni | de-ta | |
| | Taro-NOM | sister-NOM | television-DAT | appear-PAST | |
| | 'Taro's sister made her appearance on television.' | | | | |
| (2) a. | Haru-ga | tai-ga | uma-i | | |
| | spring-NOM | sea breams-NOM | tasty-PRES | | |
| | 'Sea breams are tasty in spring.' | | | | |
| b. | Nihon-de | itiban | Tokyo-ga | kootuu-jiko-ga | oo-i |
| | Japan-LOC | most | Tokyo-NOM | traffic accident-NOM | many-PRES |
| | 'In Japan, Traffic accidents most often occur in Tokyo.' | | | | |
| c. | Kono | bangumi-ga | yuumei-na | haiyuu-ga yoku | shutuen-su-ru |

this program-NOM famous actor-NOM often appearance-do-PRES
 'Famous actors often make appearance on this program.'

I consider only sentences with two nominative DPs for simplicity and refer to the first one as the NDP1 and the second one as the NDP2.¹ I assume that the MNC1 and the MNC2 are derived differently (Takahashi 1994; Tateishi 1994): the MNC1 is derived from a source in which the NDP1 is contained in the [Spec, D] of the NDP2, like genitive possessors; the MNC2 is derived by inserting the NDPs each into different positions. I consider (i) what the overt structure of the MNC1 and that of the MNC2 are like and (ii) why only the proposed structure can be derived from their respective underlying source with the other potentially possible options being blocked.

2 The MNC1 and *Attract/Move the Smallest*

2.1 The Positions of the Two NDPs

The NDPs in the MNC1 have been shown to be subjects by previous studies. Here I discuss only a piece of evidence for their subjecthood that has not been discussed in the literature. In Japanese, a subject can control the embedded pro subject while a genitive DP cannot ((3a)). In the MNC1, either the NDP1 or the NDP2 can do so, which shows their subjecthood ((3b, c)).²

- (3) a. [[Taro-no_i] musuko]-ga_j [[pro_(*i/j) ryuugaku-si-tei-ru] aida-ni
 [Taro-GEN son]-NOM study abroad-do-ASP-PRES while
 sin-da
 die-PAST
 'Taro's_i son_j died while he_(*i/j) was studying abroad.'
- b. Taro-ga_i musuko-ga_j fukoo-ni-mo [[pro_(?i/j) ryuugaku-si-tei-ru]
 Taro-NOM son-NOM unfortunately study abroad-do-ASP-PRES
 aida-ni] sin-da
 while die-PAST
 'Unfortunately, Taro's_i son_j died while he_(i/j) was studying abroad.'
- c. Taro-ga fukoo-ni-mo [pro_(i/j) ryuugaku-si-tei-ru aida-ni] musuko-ga_j sin-da

Given the subjecthood of the NDPs, previous studies (Tateishi 1994; Ura 1993, 1996) have proposed that they are both immediately dominated by a projection of T/Agr. Unlike these studies, I propose that only the NDP1 is overtly in [Spec, T] with the NDP2 being predicate-internal ((4)).

- (4) a. [T_r [NDP1 Taro]-ga [T_r [AP [NDP2 te]-ga naga] i]] (Cf. (1a))
 b. [T_r [NDP1 Taro]-ga [T_r [VP [NDP2 mabuta]-ga hare] ta]] (Cf. (1b))

The evidence for this comes from facts about VP-Preposing and the predicate-proform *soo* 'so'.

In Japanese, a VP can be preposed if it is followed by a focus-particle and the light verb *suru* 'do' is inserted to support T ((5b)).

- (5) a. Taro-ga [VP okasi-o tabe]-sae {su-ru/si-ta}
 Taro-NOM sweets-ACC eat-even do-PRES/do-PAST
 'Taro even eats/ate sweets.'
- b. (?) [VP Okasi-o tabe]-sae Taro-ga {su-ru/si-ta}

There is a constraint on VP-Preposing in Japanese to the effect that it is marginal when the subject left behind is not an agent ((6)). I refer to this as the Agent-Subject constraint (see Ohkado (1991)).

- (6) a. ?? [Butai-kara ochi]-sae Taro-ga si-ta
 stage-from fall-even Taro-NOM do-PAST
 'Taro even fell from the stage.'
- b. ?? [Eigo-ga hanas-e]-sae Taro-ga si-ta

¹ I do not consider the roles of the NDPs in the information structure or the functional constraint on the MNCs. See Kuno (1973) and Takami and Kamio (1996).

² For other arguments for the subjecthood of the NDP1, see Doron and Heycock (1999), Heycock (1993) and Kuno (1978, 1983) and Shibatani (1977).

English-NOM speak-can]-even Taro-NOM do-Past
 'Taro even can speak English.'

Let us turn to the MNC1 ((7, 8)). VP-Preposing cannot leave behind the two NDPs in the MNC1 ((7, 8b)), while it can 'pied-pipe' the NDP1 ((7, 8c)).

- (7) a. Taro-ga imooto-ga byooki-de nakunari-sae si-ta (Cf. (1c))
 Taro-NOM sister-NOM illness-by die-even do-Past
 'Taro's sister even died of illness.'
- b. *Byooki-de nakunari-sae Taro-ga imooto-ga si-ta
 c. ??Imooto-ga byooki-de nakunari-sae Taro-ga si-ta
- (8) a. Taro-ga imooto-ga terebi-ni de-sae si-ta (Cf. (1d))
 Taro-NOM sister-NOM television-DAT appear-even do-Past
 'Taro's sister even made her appearance on television.'
- b. *Terebi-ni de-sae Taro-ga imooto-ga si-ta
 c. ??Imooto-ga terebi-ni de-sae Taro-ga si-ta

My proposal that the NDP1 is in [Spec, T] and the NDP2 is in the predicate phrase (i.e. VP) ((9)) correctly predicts the facts in (7, 8).

- (9) [T^r [NDP1 Taro]-ga [T^r [VP [NDP2 imooto]-ga nakunari]-sae si-ta]]

Since the NDP2 is contained in VP, VP-Preposing cannot leave it behind ((7, 8b)). Although (7b) violates the Agent-Subject constraint, its complete unacceptability cannot be attributed solely to it, given the mild deviance of (6a, b) (and (7c)). The NDP2 contained in VP can be moved with the rest of VP by VP-Preposing ((7, 8c)). The mild deviance of (7, 8c) is due to the Agent-Subject constraint, because the NDP1 in the MNC1 is the possessor of the NDP2 and not an agent.

In Japanese, the proform *soo* 'so' (followed by the copula *da* if tense is required) can replace a predicate headed by an A ((10a, c)), an A(djectival) N(oun) ((10b, d)) or a predicative N ((10e)). In (10a, b), *soo* replaces the AP/ANP complement of the verb *naru* ((10f)). In (10c-e), *soo* replaces the AP/ANP/NP complement of T ((10g)).

- (10) a. Mary-ga *kasikoku* nat-ta,
 Mary-NOM clever become-PAST
 dare-mo [[ano ko-ga *soo* naru] to] omow-anakat-ta-keredo
 anyone that girl-NOM so become C think-NEG-PAST-though
 'Mary became clever, although no one thought that she would.'
- b. Mary-ga *kirei-ni* nat-ta,
 Mary-NOM beautiful become-PAST
 dare-mo [[ano ko-ga *soo* naru] to] omow-anakat-ta-keredo
 anyone that-girl-NOM so become C think-NEG-PAST-though
 'Mary became beautiful, although no one thought that she would.'
- c. Zitu-wa Mary-ga *kurasu-de itiban kasiko-i*,
 in fact Mary-NOM class-LOC most clever-PRES
 dare-mo [Mary-ga *soo*-da] to] omot-tei-na-i-keredo
 anyone Mary-NOM so-COPULA C think-ASP-NEG-PRES-though
 'In fact, Mary is the cleverest in the class, although no one thinks that she is.'
- d. Zitu-wa Mary-ga *kurasu-de itiban kirei-da*,
 in fact Mary-NOM class-LOC most beautiful-COPULA
 dare-mo [Mary-ga *soo*-da] to] omot-tei-na-i-keredo
 anyone Mary-NOM so-COPULA C think-ASP-NEG-PRES-though
 'In fact, Mary is the most beautiful in the class, although no one thinks that she is.'
- e. Zitu-wa Mary-wa *gakusei-da*,
 in fact Mary-TOP student-COPULA
 dare-mo [Mary-ga *soo*-da] to] omot-tei-na-i-keredo
 anyone Mary-NOM so-COPULA C think-ASP-NEG-PAST-though
 'In fact, Mary is a student, although no one thought that she is.'

f. [TP ano-ko ga [VP [AP/ANP ...] naru]]

g. [TP Mary-ga [T' [AP/ANP/NP ...] T]]

Let us now turn to the MNC1 ((11)). The replacement of AP with *soo* cannot strand the two NDPs in the MNC1 ((11a, b-ii)) unless the NDP2 is marked by a pitch rise (see Note 3), while it can strand the NDP1 only ((11a, b-iii)).

(11) a. Saikin-no chousa-ni yor-eba, dansei-ga jumyou-ga
 recent research-DAT according male-NOM life span-NOM
 naga-i rasi-i-ga ...
 long-PRES seem-PRES-though

'Although the recent research says that males' life span is long'

i. [[dansei-ga jumyou-ga naga-i] to] dare-mo
 male-NOM life span-NOM long-PRES C anyone

omot-tei-nakat-ta

think-ASP-NEG-PAST

'no one thought that male's life span is long.'

ii. ?*[[dansei-ga jumyou-ga *soo*-da] to] dare-mo omot-tei-nakat-ta
 so-COPULA

'no one thought that males' life span is.'

iii. [[dansei-ga *soo*-da] to] dare-mo omot-tei-nakat-ta
 so-COPULA

'no one thought that males' is.'

b. Uwasa-de-wa, Taro-ga te-ga asi-yori naga-i
 rumor-according Taro-NOM arm-NOM leg-than long-PRES
 rasi-i-ga ...
 seem-PRES-though

'Although the rumor says that Taro's arms are longer than his legs'

i. [honto-ni Taro-ga te-ga asi-yori naga-i ka]
 actually Taro-NOM arm-NOM leg-than long-PRES Q

dare-mo sir-ana-i
 anyone know-NEG-PRES

'no one knows whether Taro's arms are actually longer than his legs.'

ii. ?*[honto-ni Taro-ga te-ga *soo*-da ka] dare-mo sir-ana-i
 so-COPULA

'no one knows whether Taro's arms are actually so.'

iii. [honto-ni Taro-ga *soo*-da ka] daremo sir-ana-i
 so-COPULA

'no one knows whether Taro's are actually so.'

The contrast between the ii-examples and the iii-examples supports my analysis, under which only the NDP1 is overtly in [Spec, T] and the NDP2 is in the predicate phrase ((12a)). This means that the entire AP/ANP that contains the NDP2 must be replaced by *soo* ((12b)).³

³ Examples like (11a, b-ii) become more acceptable if the NDP2 is contrastively focused and/or marked by a pitch rise.

(i) a. Taro-ga te-ga naga-i ippou, Jiro- {wa/?ga}
 Taro-NOM arm-NOM long-PRES on the other hand Jiro-TOP/NOM
 asi-ga naga-i
 leg-NOM long-PRES

'Taro's arms are long. On the other hand, Jiro's legs are long.'

b. Taro-ga te-ga naga-i ippou, Jiro- {wa/?ga} {asi-ga/ASI-ga} *soo*-da

so-COPULA

'Taro's arms are long. On the other hand, Jiro's legs are so.'

It is well known that the contrastive focus (characteristically marked by a pitch rise) affects constituency. For

- (12) a. [T^r NDP1-ga [T^r [AP/ANP NDP2-ga A/AN] T]]
 b. [T^r NDP1-ga [T^r soo-da]]

2.2. The Source of the MNC1

This section shows the evidence that the NDP1 in the MNC1 is overtly moved from within the NDP2 (from [Spec, D]). First, the [Spec, D] of the NDP2 cannot be filled with a genitive DP that can potentially be coindexed with the NDP1 ((13a, b)). Since a DP can contain only one possessor ((13c)), this suggests that the NDP2 contains an empty category coindexed with the NDP1 (i.e. [_{NDP2} e_i te]-ga):

- (13) a. Taro-ga_i [[[*{zibun/zibun-zisin}-no_i] te-ga] naga-i (Cf. (1a))
 Taro-NOM {self/self-self}-GEN arm-NOM long-PRES
 b. Taro-ga_i [[[*{zibun/zibun-zisin}-no_i] mabuta-ga] hare-ta (Cf. (1b))
 Taro-NOM {self/self-self}-GEN eyelid-NOM swell-PAST
 c. *[Taro-no_i {zibun/zibun-zisin}-no_i te]
 Taro-GEN {self/self-self}-GEN arm

The empty category is a DP-trace (of the NDP1), but not (a) a variable, (b) a pro or (c) a PRO. Since there is only an A-binder (the NDP1) that can bind the alleged variable, the option (a) is rejected. The option (b) is also rejected. Japanese allows a pro to appear as the embedded subject, for example, and to be bound by the matrix subject. Such occurrences of pro can be replaced by the anaphor *zibun* ((14)). If the empty category in the NDP2 were a pro, *zibun* could replace it, contrary to fact ((13a, b)).

- (14) Taro-ga_i [DP [T^r {pro/zibun-ga_i} kai-ta] hon]-o boku-ni
 Taro-NOM pro/self-NOM write-PAST book-ACC I-DAT
 kure-ta
 give-PAST

'Taro_i gave the book he_i had written to me.'

Let us turn to the option (c). The controller of a PRO is an argument with an independent θ -role, which means that NDP1, the controller of the alleged PRO, should receive such a θ -role. This is implausible,

example, consider (ii) (Takezawa and Whitman 1998).

- (ii)a. Taro-ga Hanako-ni purezento-o age-ta
 Taro-NOM Hanako-DAT present-ACC give-PAST
 'Taro gave a present to Hanako.'
- α. Ippou, Jiro-{wa/ga} Natsuko-ni purezento-o age-ta
 on the other hand Jiro-TOP/NOM Natsuko-DAT present-ACC give-PAST
 On the other hand, Jiro gave a present to Natsuko.'
- β. Ippou, Jiro-{wa/?ga} {Natsuko-ni/NATSUKO-ni} soo-si-ta
 so-do-PAST
 '(*)On the other hand, Jiro did so to Natsuko.'
- b. Taro-ga Hanako-ni purezento-o age-ta,
 α. dare-mo [Taro-ga Hanako-ni purezento-o age-ru to]
 anyone Taro-NOM Hanako-DAT present-ACC give-PRES C
 omot-tei-nakat-ta-keredo
 think-ASP-NEG-PAST-though
 'although no one thought that he would give a present to Hanako.'
- β. ?*dare-mo [Taro-ga Hanako-ni soo-su-ru to] omot-tei-naka-ta-keredo
 so-do-PRES

In (ii), *ageru*, a three-place predicate, is involved. The dative argument cannot be stranded by the VP-proform *soo-suru* if it is not contrastively focused ((ii-b)) but it can be, if it is contrastively focused (with a pitch rise) ((ii-a)). This contrast can be explained, if the contrastively focused element is moved to a left-peripheral position (Rizzi 1997) or a clause-internal focus position (Yanagida 1996). The same will be true of (i-b).

because the omission of the NDP1 does not result in ungrammaticality ((*Taro-ga te-ga naga-i*).⁴ As for the status of the empty category in the NDP2, there can thus be no choice other than “DP-trace.”

Second, consider (15, 16). (15, 16a), in which the NDP2s in (1a, b) are short-scrambled, are unacceptable, unless the scrambled NDP2s are focused with a pitch rise (see Note 7). (15, 16c), in which the NDP2s in the embedded clauses of (15, 16b) are long-distance scrambled, are more acceptable. The contrast becomes sharper if the NDP2 that undergoes long-distance scrambling is a wh-phrase ((15d, e) and (16d, e)).⁵

(15) a. **Te-ga Taro-ga t naga-i* (Cf. (1a))

b. *Boku-wa [Taro-ga te-ga naga-i to] omot-ta*
 I-TOP Taro-NOM arm-NOM long-PRES C think-PAST
 ‘I thought that Taro’s arms are/were long.’

c. ?*Te-ga boku-wa [Taro-ga t naga-i]-to omot-ta*

d. *Kimi-wa [Taro-ga [karada-no dono bubun]-ga naga-i*
 you-TOP [Taro-NOM [body-GEN which part]-NOM long-PRES
 to] omot-ta-no
 C think-PAST-Q
 ‘Which part of Taro’s body did you think is/was long?’

e. [*Karada-no dono bubun]-ga kimi-wa [Taro-ga t naga-i] to omot-ta-no*

(16) a. **Mabuta-ga Taro-ga hare-ta* (Cf. (1b))

b. *Boku-wa [Taro-ga mabuta-ga hare-ta to] omot-ta*
 I-TOP Taro-NOM eyelid-NOM swell-PAST C think-PAST
 ‘I thought that Taro’s eyelids swelled...’

c. ??*Mabuta-ga, boku-wa [Taro-ga t hare-ta to] omot-ta*

d. *Kimi-wa [Taro-ga [karada-no dono bubun]-ga hare-ta*
 you-TOP Taro-NOM [body-GEN which part]-NOM swell-PAST
 to] omot-ta-no
 C think-PAST-Q
 ‘Which part of Taro’s body did you think swelled?’

e. ?*[Karada-no dono bubun]-ga, kimi-wa [Taro-ga t hare-ta to] omot-ta-no*

If the NDP1 is moved to [Spec, T] from within the NDP2, (15a, c, e) and (16a, c, e) involve short or long-distance scrambling of an element containing a DP-trace over the antecedent of the trace: movement of the remnant over the element that has been extracted from it ((17)).

(17) a. [_{t₁} {*te/mabuta*}]_{-ga₂} *Taro-ga₁ t₂ {naga-i/hare-ta}*

b. [_{t₁} {*te/mabuta*}]_{-ga₂} *boku-wa [_{TP} Taro-ga₁ t₂ {naga-i/hare-ta} to] omot-ta*

c. [_{t₁} *karada-no dono bubun*]-ga₂ *kimi-wa [_{TP} Taro-ga₁ t₂ {naga-i/hare-ta} to] ... no*

According to Müller (1996) and Tsujioka (2001), the movement of the remnant containing a trace over the antecedent of the trace is allowed only when the movement of the antecedent and the movement of the remnant are of different types: A'-movement of the remnant over an A'-moved antecedent and A-movement of the remnant over an A-moved antecedent are disallowed ((18)).

(18) a. * ... [_X ... t_Y ...] (A') ... Y (A') ... t_X ...

b. * ... [_X ... t_Y ...] (A) ... Y (A) ... t_X ...

It is recognized in the recent literature that, in Japanese, short scrambling is an instance of A-movement and long-distance scrambling is an instance of A'-movement (Grewendorf and Sabel 1998; Tsujioka 2001).⁶ The latter can even count as an instance of wh-movement, if the scrambled element is a

⁴ Ura (1996: 107) shows that the NDP1 can be an idiom-chunk. If his observation is correct, it is problematic to the option (c). See Sakai (1994: 189), for a related issue.

⁵ The ungrammaticality of examples like (15, 16a) was reported by Fukuda (1991), though he does not recognize the improved status of (15c, e) and (16c, e).

⁶ It has been believed in the literature on Japanese scrambling (e.g. Saito 1992) that short scrambling can be either an instance of A-movement or an instance of A'-movement. The (alleged) evidence for its A'-status is provided by

wh-phrase (Takahashi 1993). The facts in (15, 16) can be explained by my claim that the NDP2 contains the trace of the NDP1, which is A-moved to [Spec, T]. Because short scrambling is A-movement, (15, 16a) involve A-movement of a remnant over an A-moved antecedent, which is predicted to be unacceptable. Since long-distance scrambling is A'-movement, (15, 16c) and (15, 16e) involve A'-movement of a remnant over an A-moved antecedent, which is predicted to be acceptable. The contrast in (15, 16) thus supports the claim that the NDP1 is A-moved from within the NDP2.⁷

Third, consider (19). A noun phrase (DP1) contained in a genitive possessor (DP2) cannot be coreferential with the entire possessed noun phrase (DP3, (19a)). (19a) is acceptable when they are not coreferential. The ungrammaticality of (19a) under coindexation of DP1 and DP3 can be explained by the *i*-within-*i* condition (Chomsky 1981: 212), since the DP3 in (19a) contains the DP1. With this in mind, let us consider (19b), in which DP2 and DP3 in (19a) appear as the NDP1 and the NDP2 in the MNC1, respectively. In (19b) also, DP1 and DP3 cannot be coreferential. Let us now assume that the *i*-within-*i* condition is applied in the course of a derivation. The parallelism between (19a) and (19b) can be explained in terms of the *i*-within-*i* condition with recourse to my claim that the NDP1 in the MNC1 was contained in the NDP2 at early stages of the derivation.

- (19) a. *_{[DP3 [DP2 [DP1 {Kare/Soitu/Taro}]_i-no titioya]-no choonan]_{*i/j}-ga sin-da}
- {he/he/Taro}-GEN father-GEN oldest son-NOM die-PAST
- ‘*[[{His/Taro’s}_i father’s] oldest son]_i died.’
- b. *_{[DP2 [DP1 {Kare/Soitu/Taro}]_i-no titioya]-ga [DP3 choonan]_{*i/j}-ga sin-da⁸}

reconstruction facts. However, even under the assumption that short scrambling is A-movement, those facts can still be explained in the following ways: (i) the principles of the Binding Theory can be applied in the course of a derivation (Epstein *et al.* 1995); (ii) (short-)scrambling is covertly undone (Saito 1989). For this reason, I can conclude that every instance of short-scrambling can be analyzed as A-movement, except those cases to be discussed in Note 7.

⁷ (15, 16a) become more acceptable if the NDP1 is focused and followed by a pause ((i, ii-a)). This can be explained if a focused element is A'-moved to a left-peripheral position above TP (Rizzi 1997), which, at present, lacks independent evidence but does not seem implausible. Incidentally, (15, 16a) are improved also by replacing the nominative marker on the NDP1 with the topic/contrast-marker *wa* ((i, ii-b)). This can be expected if a topic or a contrasted element undergoes A'-movement.

- (i) a. TE-ga, Taro-ga naga-i (Cf. (15b))
 b. Te-wa(.) Taro-ga naga-i (Cf. (15b))
 (ii) a. MABUTA-ga, Taro-ga hare-ta (Cf. (16b))
 b. Mabuta-wa(.) Taro-ga hare-ta (Cf. (16b))

⁸ The discussion of (19) is important because it shows that, at the underlying structure, the NDP1 is dominated by the NDP2. As shown by (19a), a noun phrase in a genitive possessor induces an *i*-within-*i* violation if it is coindexed with the entire possessed noun phrase. Now let us consider (i).

- (i) a. [_{TP} e_i gakkou-ni dekake-ta] {Taro/sono gakusei}_i
 school-DAT leave-PAST Taro/that student
 ‘{Taro/that student}, who left for school’
- b. *_{[CP [_{TP} e_i sugu-ni hanron-s-are-ru] to]{-no/-iu} shuchoo]_i}
- soon argue-against-do-PASS-PRES C claim
- ‘the claim that the claim itself will soon be argued against’

(i-a) involves a TP (or CP) embedded as a non-restrictive relative clause; (i-b), a CP embedded as the complement of an N (*shuchoo* ‘claim’). As is always the case with relative clauses, the empty noun phrase in the embedded clause in (i-a) can (only) be interpreted as coreferential with the entire noun phrase. On the other hand, in (i-b), the empty noun phrase in the embedded clause cannot be coreferential with the entire noun phrase. Reinterpreting and modifying Jackendoff’s (1977) analysis of non-restrictive relative clauses under the DP-analysis, let us suppose that a non-restrictive relative clause is adjoined to DP ((ii)). Second, let us assume that a complement clause is merged as the complement of N ((iii)), although whether it overtly remains in that position is unclear.

- (ii) [_{DP} [_{TP} e_i gakkou-ni dekake-ta] [_{DP} {Taro/sono otoko}]]_i
 (iii) [_{DP} [_{NP} [_{CP} [_{TP} e_i sugu-ni hanron-s-are-ru] to]-no shuchoo]]_i

Fourth, consider the examples in (20).

- (20) a. [DP Sensei-no (o-)kao]-ga kirei-da
 teacher-GEN HON-face-NOM beautiful-COPULA
 'The teacher's face is beautiful.'
- b. John-ga [DP sensei-no (o-)kao]-o nagut-ta
 John-NOM teacher-GEN HON-face-ACC hit-PAST
 'John hit the teacher's face.'
- c. [DP Ano doroboo-no (#o-)kao]-ga kirei-da
 that thief-GEN
- d. John-ga [DP ano doroboo-no (#o-)kao]-o nagut-ta
- e. [DP3 [DP2 [DP1 Sensei]-no baka-na desi]-no (#o-)kao]-ga
 teacher-GEN foolish apprentice-GEN HON-face-NOM
 kirei-da
 beautiful-COPULA
 'The teacher's foolish apprentice's face is beautiful.'
- f. [DP3 [DP2 [DP1 Ano baka-na gakusei]-no yuumei-na sensei]-no
 that foolish student-GEN famous teacher-GEN
 (o-)kao]-ga kirei-da
 HON-face-NOM beautiful-COPULA
 'That foolish student's famous teacher's face is beautiful.'

A genitive possessor of a DP can induce the honorific *o*-prefixation on the possessed noun as shown by (20a, b) (Harada 1976). In (20a), the subject noun phrase contains the genitive possessor *sensei-no* 'the teacher's', whose referent is socially considered to be worthy of respect in Japan. The same is true of the object noun phrase in (20b). The *o*-prefixation is far from acceptable when the referent of the genitive possessor is not worthy of respect ((20c, d)). This suggests that honorific *o*-prefixation is based on the Spec-head relation between a possessor and the D associated with the N to which the prefixation is applied. Let us consider more complex cases in (20e, f). In (20e), the subject noun phrase headed by *kao* 'face' contains the genitive possessor *sensei-no* 'the teacher's', which can potentially induce the *o*-prefixation ((20a, b)). However, in (20e), *sensei-no* is so deeply embedded that it cannot induce the *o*-prefixation on *kao*. On the other hand, in (20f), the possessor headed by *sensei-no* occupies the Spec of the D associated with *kao* and thus the *o*-prefixation can be applied

With this in mind, let us turn to the MNC1 ((21)).

- (21) a. Sensei-ga (o-)kao-ga kirei-da
 teacher-NOM HON-face-NOM beautiful-COPULA
 'The teacher's face is beautiful.'
- b. Ano doroboo-ga (#o-)kao-ga kirei-da
 that thief-NOM

Then the contrast between (i-a) and (i-b) can be explained by the *i*-within-*i* condition, if we revise it as in (iv).

- (iv) A cannot be coindexed with (or interpreted as coreferential with) B, if B dominates A.

In (ii), *e* is not dominated by the entire DP, given the segment-category distinction, hence they can be coindexed. In (iii), *e* is dominated by the entire DP, and thus they cannot be coindexed. If the above argument is on the right track, the ungrammaticality of (19a) shows that a genitive possessor is dominated by the entire possessed noun phrase. Similarly, (19b) shows that, at the underlying structure of the MNC1, the NDP1 is dominated by the entire NDP2.

Incidentally, the fact that the empty noun phrase in a restrictive relative clause can be coindexed with the head noun phrase can be correctly dealt with (a) by assuming that a restrictive relative clause is adjoined to DP and DP is the antecedent of the empty noun phrase ((v-a)) or (b) by assuming that a restrictive relative clause is adjoined to NP (or N') and that NP (or N'), but not DP, is the antecedent of the empty noun phrase ((v-b), see Hirose (1997), for discussion indirectly relevant to this issue).

- (v) a. [DP [TP Taro-ga e_i kat-ta] [DP hon]]_i
 Taro-NOM buy-PAST book
- b. [DP [NP/N' [TP Taro-ga e_i kat-ta] [NP/N' hon]]_i D]

- c. [DP₂ [DP₁ Sensei]-no baka-na desi]-ga
 teacher-GEN foolish apprentice-NOM
 [DP₃ t_{DP2} (#o-)kao]-ga kirei-da
 HON-face-NOM beautiful-COPULA
 'The teacher's foolish apprentice's face is beautiful.'
- d. [DP₂ [DP₁ Ano baka-na gakusei]-no yuumei-na sensei]-ga
 that foolish student-GEN famous teacher-NOM
 [DP₃ t_{DP2} (o-)kao]-ga kirei-da
 HON-face-NOM beautiful-COPULA
 'That foolish student's famous teacher's face is beautiful.'

The honorific *o*-prefixation can be applied to the head N of the NDP2 if the referent of the NDP1 is socially regarded as worthy of respect ((21a)). The prefixation is awkward when the referent of the NDP1 is not worthy of respect ((21b)). Furthermore, consider the complex cases in (21c, d). Similarly to (20e), when *sensei* is embedded as the possessor of the NDP1 (DP2 in (21c)), the *o*-prefixation cannot be applied to the head N of the NDP2 (DP3 in (21c)). On the other hand, when *sensei* is the head N of the NDP1 (DP2 in (21d)), it can induce the *o*-prefixation on the head N of the NDP2 (DP3 in (21d)), which is similar to what occurs in (20f). These facts can be expected if we assume that the NDP1 in the MNC occupies the [Spec, D] of the NDP2 at early stages of the derivation and can thereby induce the honorific prefixation on the head N of the latter, as do ordinary genitive possessors.

2.3. The Derivation of the MNC1 and *Attract/Move the Smallest*

What we have observed so far partially falls into place in the following way: (a) the entire NDP2 is merged into the predicate-internal subject position ((22a)); (b) NDP1 is overtly moved to [Spec, T] to satisfy the E(xtended) P(rojection) P(rinciple) ((22b)); (c) NDP2 overtly remains in-situ, since the EPP has been satisfied.⁹

- (22) a. [TP [XP [NDP2 NDP1 [ND'2 ...]] ... X] T]
 b. [TP NDP1 [T' [XP [NDP2 t_{NDP1} [ND'2 ...]] ... X] T]]

What remains unanswered is the following question: Why is overt movement of the entire NDP2 containing the NDP1 impossible? This issue is an instance of a general one: the MNC1 offers a case where there are two or more elements that can be moved for the same reason at a single stage. It has been proposed that the choice in such cases is mostly made by *Attract/Move the Closest* (Chomsky 1995). Is that principle responsible for the choice of movement of the NDP1 in the MNC1? Under the definitions of *closer* that have been proposed, in order for A to be closer to the target than B, A must c-command B (Chomsky 1995, 2000). Since the NDP1 is dominated by the NDP2 in (22a), neither of them c-commands the other. The answer to the above question is thus negative. Then, what makes the decision?

An answer comes from the fact that, other things being equal, natural languages tend to minimize the size of moved elements (See Boskovic 1995, 1997 and Stateva 2002, for relevant

⁹ I propose that the NDP2 is covertly moved, for the case-reason, to [Spec, T] (the inner [Spec, T] under Richards's (1999) analysis of multiple specifiers). A piece of evidence for this comes from the scope relation between the NDP2 and sentential negation. Negative sentences in Japanese are marked in most cases by the negative marker *(a)na(k)*, which immediately follows a main/copular V or an A, and immediately precedes an adjectival tense-ending *(-i/-atta)*. The relevant morpheme order is expected if the negative marker selects a VP or an AP, and heads a projection NegP selected by T ((i)). Suppose that, if A asymmetrically c-commands B, A takes scope over B in the salient reading. If the NDP2 is covertly moved to [Spec, T], where it asymmetrically c-commands Neg, it is predicted that the NDP2 takes scope over negation in the predominant reading ((ii)). The salient reading of (ii) is that, for each of Taro's fingers, it is true that it is not longer than Ziro's (corresponding finger ($\forall > \text{Neg}$)).

- (i) [TP ... [NegP ... [AP/VP ... V/A] -(a)na(k)]-{i/atta}]
 (ii) Taro-ga [subete-no yubi]-ga Ziro-yori nagaku-na-i
 Taro-NOM [all-GEN finger]-NOM Ziro-than long-NEG-PRES
 'All Taro's fingers are not longer than Ziro's.'

evidence). Here I assume that UG contains the local economy principle (23), where the notion *smaller* is defined in (24) (Stateva 2002).

(23) *Attract/Move the Smallest*: A target T can attract α if there is no β , β smaller than α , such that T attracts β .

(24) β is smaller than α , if α contains β .

When there are two or more elements that can potentially be moved, and one of them is contained in the other(s) and thus smaller than the other(s), *Attract/Move the Smallest* (A/MS) chooses the movement of the smaller/smallest element. The NDP1 is contained in the NDP2 in (22a). Therefore, A/MS chooses the movement of the NDP1, which yields the desirable overt structure (22b).¹⁰

3 The MNC2 and Merge-over-Move

Let us finally turn to the MNC2. Essentially following Takahashi (1994) and Tateishi (1994), I assume that in the MNC2, the NDP1 and NDP2 are each inserted into different syntactic positions. The NDP2 in the MNC2 can be moved by Short-scrambling in some cases ((25)). This shows that, unlike in the MNC1 ((15, 16a)), the NDP2 in the MNC2 does not contain the trace of the NDP1.

(25) a. Tai-ga haru-ga uma-i (Cf. (2a))
 b. ?Kootuu-jiko-ga Tokyo-ga oo-i (Cf. (2b))

I propose that, in the MNC2 too, the NDP1 is in [Spec, T] while the NDP2 is in the predicate-internal (subject) position ((26a, b)). The evidence for this proposal comes again from the facts about VP-Preposing and the facts about the replacement with *soo*.

(26) a. [_{TP} [_{DP} haru]-ga [_T [_{AP} [_{DP} tai]-ga uma] i]] (Cf. (2a))
 b. [_{TP} [_{DP} kono bangumi]-ga [_T [_{VP} [_{DP} yuumei-na haiyuu]-ga yoku shutuen-su] ru]] (Cf. (2c))

First, VP-Preposing cannot leave behind both the two NDPs ((27b)) while it can marginally ‘pied-pipe’ the NDP2 ((27c)). The mild deviance of (27c) is due to the Agent-Subject constraint. Given our proposal that the NDP2 in the MNC2 is overtly predicate-internal (i.e. contained in VP in this case), the ungrammaticality of (27b) can be easily explained: VP-Preposing cannot leave behind the NDP2 contained in VP. Because of the agentivity of the subject of the verb *shutuen-suru* ‘make appearance’, the complete ungrammaticality of (27b) is not due to the Agent-Subject constraint.

(27) a. ? [_{TP} Kono bangumi-ga [_T [_{VP} yuumei-na haiyuu-ga
 this program-NOM famous-COPULA actor-NOM
 yoku shutuen-si]-sae su-ru]]
 often appearance-do-even do-PRES
 ‘Even famous actors often make appearance on this program.’

b. *Yoku shutuen-si-sae kono-bangumi-ga yuumei-na haiyuu-ga su-ru
 c. ?? Yuumei-na haiyuu-ga yoku shutuen-si-sae kono bangumi-ga su-ru

Second, *soo*-replacement cannot leave behind the two NDPs ((28, 29b)) while it can leave behind the NDP1 only ((28, 29c)). My proposal that the NDP2 in the MNC2 is contained in the predicate phrase (AP, in this case) while the NDP1 is in [Spec, T] correctly explains the contrast between (28, 29b) and (28, 29c).

(28) [_{TP} Haru-ga [_T [_{AP} tai-ga uma] i]] koto-wa yoku
 spring-NOM sea bream-NOM tasty PRES fact-TOP well
 sir-are-tei-ru-ga
 know-PASS-ASP-PRES-though

‘Although it is well known that sea breams are tasty in spring,’

a. kodomo-no koro-wa, [haru-ga tai-ga uma-i to]
 child-GEN time-TOP spring-NOM sea bream-NOM tasty-PRES C

¹⁰ There arise some questions about A/MS: its interaction with *Attract/Move the Closest* is not considered in the present paper; it is unclear whether it can cope with the optionality of pied-piping in wh-movement, etc. However, answering all such questions is beyond the scope of this paper (see Akiyama 2002, 2003).

- omot-tei-nakat-ta
think-ASP-NEG-PAST
- b. *kodomo-no koro-wa, [haru-ga tai-ga soo-da to] omot-tei-ana-katta
so-COPULA
'#I did not think spring, sea breams are/is so when I was a child.'
- c. ?kodomo-no koro-wa, [haru-ga soo-da to] omot-tei-ana-katta
'#I did not think spring is so when I was a child.'
- (29) Nihon-de itiban Tokyo-ga kootuu-jiko-ga oo-i
Japan-LOC most Tokyo-NOM traffic accident-NOM many-PRES
rasi-i ga
seem-PRES though
'Although I heard that, in Japan, traffic accidents most often occur in Tokyo...'
- a. [Tokyo-ga kootuu-jiko-ga oo-i to] dare-mo
Tokyo-NOM traffic accident-NOM many-PRES C anyone
omot-tei-nakat-ta
think-ASP-NEG-PAST
'no one thought that traffic accidents (most) often occur in Tokyo.'
- b. *[Tokyo-ga kootuu-jiko-ga soo-da to] dare-mo omot-tei-nakat-ta
so-COPULA
'#no one thought that Tokyo, traffic accidents is/are so.'
- c. [Tokyo-ga soo-da to] dare-mo omot-tei-nakat-ta
'#no one thought that Tokyo is so.'

Let us consider the derivation of the MNC2. Because the NDP2 is the (external) argument of the predicate, it is merged in the predicate-internal position ((30)). The NDP1 is formed by Merge independently of (30). After T is introduced, the EPP must be satisfied. There are two options that meet this requirement: (a) the movement of the NDP2, (which will be followed by the insertion of the NDP1) ((31a)) and (b) the insertion of the NDP1 ((31b)). The facts show that (b) is chosen ((27-29)). But why is the movement of the NDP2 prohibited? An answer comes from *Merge-over-Move*: Attract/Move is blocked in favor of Merge.

- (30) [AP [NDP2 tai]-ga ... uma]
(31) a. [T^r [NDP2 tai]-ga [T^r [AP t_{NDP2} ... uma] i]]
b. [T^r [NDP1 haru]-ga [T^r [AP [NDP2 tai]-ga ... uma] i]]

4 Conclusion

I have shown that, in both the MNC1 and the MNC2, the NDP1 is in [Spec, T] and the NDP2 is predicate-internal. This structural asymmetry is attributed to the general tendency to minimize moved element (A/MS (23)), in the MNC1, and to *Merge-over-Move* principle, in the MNC2. I thus have argued that A/MS is one of the principles that choose among the possible derivational steps at a single stage of a derivation and also shown further evidence for the *Merge-over-Move* principle.

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