CNPC violations and Possessor Raising in Japanese

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1. Introduction

The relative clause construction in Japanese has been studied extensively, and there is considerable controversy with respect to its analysis (Kuno 1973, Kameshima 1989, Murasugi 2000, Sakai 1994, among many others). The controversy stems from a well-known fact observed by Kuno (1973) that Japanese appears to allow relativization from a relative clause, in violation of the Complex Noun Phrase Constraint (CNPC, hereafter; *per* Ross 1967). Examples are presented below:[1]

1) a. [[$_{RC1}$ [[$_{RC2}$ ~~sinsi-ga~~ ~~huku-o~~ Ki-tei-ru] huku]-ga yog-ore-tei-ru] sinsi]
wear-ASP-PRES clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the* [*gentleman$_i$ who the* [*clothes that$_j$ (he$_i$) is wearing*] *t$_j$ are dirty*]*'*

b. [[$_{RC1}$ [[$_{RC2}$ ~~hahaoya-ga~~ ~~musuko-o~~ Aishi-tei-ru] musuko]-ga sin-da] hahaoya]
love-ASP-PRES son-NOM die-PAST mother
Lit. $_{DP}$*'the* [*mother$_i$ who the* [*son that$_j$ (she$_i$) loves t$_j$*] *died*]*'*

This poses a serious challenge to the overall theory of locality and makes a movement analysis of Japanese relative clause construction questionable. In fact, this phenomenon motivates many linguists, such as Murasugi (2000), Perlmutter (1972), and Fukui and Takano (2000), to argue for a base generation approach to Japanese relative clauses. In this widely-accepted view, it is assumed that the relativized head noun is merged as an element of the matrix clause and the gap inside the relative clause is *pro,* which refers to the relativized head noun.

Yet Japanese relative clauses do exhibit movement properties, such as reconstruction effects in anaphor binding (Ishii 1991, Hoshi 2004, and Ishizuka 2008). Japanese reflexives, such as *kare-zisin* 'himself' in (2-a), require a local c-commanding antecedent; for example, the bound reading of *zibun* 'self' in (2-b) requires it to be c-commanded by the quantified antecedent within the relative clause:

2) a. [[Ken$_i$-ga t$_j$ mituke-ta] [kare-zisin$_i$-no syasin]$_j$]-wa yabu-rare-tei-ta.
Ken-NOM find-PAST him-self-GEN picture-TOP rip-PASS-ASP-PAST
'The picture of himself$_i$ that Ken$_i$ found was ripped.'

b. [[Dare-mo$_i$(-ga) mada t$_j$ sira-nai] [zibun$_i$-no kekkonaite]$_j$]-no e
INDET-Q-(NOM) yet know-NEG self-GEN spouse-GEN picture
$_{DP}$*'the picture of self's$_i$ spouse whom no one$_i$ knows yet'*

The availability of reconstruction effects shows that Japanese relativization involves movement.[2] If this is the case, it is not surprising that Japanese relatives are indeed subject to the CNPC in many contexts as noted by Inoue (1976), Hasegawa (1981), Takezawa (1987), and Sakai (1994). (3) illustrates a CNPC violation with an illicit extraction of an object a relative clause island:[3]

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[1] The following abbreviations are used in the glosses: ASP=aspect, ACC=accusative, CAUS=causative, COP=copula, DAT=dative, GEN=genitive, GER=gerund, INDET=indeterminate, MID=middle morpheme, NEG=negation, NOM=nominative, Q=question particle/marker, PAST=past tense, PRES=non-past tense, PERF=perfective, TOP=topic.

[2] Hoji (1985) argues that Japanese relatives do not show reconstruction effects regarding anaphor binding. The variability might be due to the choice of anaphors: Hoji uses *zibun* 'self' instead of *kare-zisin* 'himself' in a sentence similar to (2-a), whereas Ishii (1991) and Hoshi (2004) use *kare-zisin.* (See Hoshi (2004) for more on this issue).

[3] I conducted a five-point scale grammaticality judgment questionnaire (1=impossible, 5=totally acceptable) on Japanese passives with 54 native speakers in Tokyo, and some of the examples presented in this paper were included as

3) *[[$_{RC1}$ [[$_{RC2}$ ~~sinsi-ga~~ ~~huku-o~~ Kiteiru] sinsi]-ga koron-da] huku]-wa ana-ga aita.
is.wearing man-NOM fall-PAST clothes-TOP hole-NOM make-PAST.
Int. 'The [*clothes$_i$ that the* [*gentleman who was wearing (them$_i$)*] *fell*] *got a hole.'*

The availability of reconstruction effects and the contrast between subject and object long relativizations out of a complex NP (cf. (1-a) vs. (3)) cannot be explained under the base-generation approach. Since the gap in (3) corresponds to the argument, Murasugi's proposal (2000) to the effect that *pro* is only possible in argument position, but not in adjunct position, does not account for the ill-formedness of (3).

If Japanese relativization involves movement, the question is how to analyze cases that are alleged to violate the CNPC. Han and Kim (2004) have analyzed such cases as local (or short) relativization of a sentence-initial nominative DP—the major subject—in the Multiple Nominative Construction (MNC, hereafter) with a *pro* inside the relative clause island, as illustrated in (4a).[4] The MNC is a construction that contains more than one nominative subject in a clause (see (4b)). It has been well-established in the literature that the major subject is in A-position since it licenses an anaphor in the matrix clause (see Sakai 1994, Heycock 1993 and references therein) and can undergo relativization, as shown in (4c).

4) a. [$_{RC1}$~~sinsi-ga~~ [[$_{RC2}$ *pro*$_i$ ~~huku-o~~ Ki-tei-ru] huku]-ga yog-ore-tei-ru] sinsi$_i$
he$_i$ wear-ASP-PRES clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the gentleman$_i$ who the clothes$_j$ that he$_i$ is wearing t_j are dirty'*

b. Sinsi-ga huku-ga yog-ore-tei-ru
gentleman-NOM clothes-NOM dirty-MID-ASP-PRES
Lit. 'The gentleman, the clothes are dirty.'

c. [~~sinsi-ga~~ Huku-ga yog-ore-tei-ru] sinsi
clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the gentleman who the clothes are dirty.'*

Following Han and Kim (2004), this paper analyzes cases like (1-a) and (1-b) as short relativization of a major subject that is related to a *pro* inside the relative clause island. However, the analysis proposed here differs from theirs in arguing that possessor raising underlies the MNC. Specifically, the major subject *sinsi* 'man' is merged as a genitive argument of the relativized *surface* subject of the outer relative (e.g, in (5) *sinsi-no* [*kiteiru huku*] 'gentleman's [clothes he is wearing]'), then undergoes A-movement (possessor-raising) and lands in the major subject position, yielding the MNC. The proposed structure is given below:

5) [$_{RC1}$ ~~*sinsi-ga*~~ [$_{DP}$ ~~*sinsi-no*~~ [$_{RC2}$ *pro*$_i$ ~~*huku-o*~~ Kiteiru] huku]-ga **yog-ore-tei-ru**] sinsi$_i$
he clothes-ACC is.wearing clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the* [*gentleman who$_i$ t_i the* [*clothes that he$_i$ is wearing*] *are dirty*]*'*

The proposed analysis is motivated by three novel observations: (i) the gap inside the inner relative clause exhibits a distribution like *pro,* not like a trace created by short relativization (see section 4.1); (ii) the relativized head and the subject of the outer relative must stand in a genitive relation in the frame of 'possessor-GEN possessee' (e.g., *sinsi-no huku*, 'gentleman's clothes' in (5)) (see section 4.2); (iii) the predicate contained in the outer relative clause must be an unaccusative-type (*or be*-type) predicate (e.g., *yog-ore-tei-ru* 'dirty-MID-ASP-PRES' in (5)) (see section 4.3). The *be*-type predicate includes unaccusatives, middles, passives, and adjectival and nominal (i.e., copulative) predicates, whose arguments are merged low in the complement domain of the auxiliary *be,* but not *have* in languages like Italian. The first

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fillers. (1-a) with a matrix predicate *(-wa) isoi-de ie-ni kaetta* 'hurried to his home' and (3) were tested. The mean score for (1-a) was [3.59]. In contrast, the mean score for (3) was [1.67], thus unacceptable to many speakers.

[4] Sakai (1994) also proposes an analysis that involves short relativization of the major subject. However, his analysis differs from Han and Kim's (2004) and the one proposed here in that the major subject is originally merged as a subject of the inner relative clause. Then it moves out of the inner relative and becomes the possessor of the outer relative through an operation that he calls GA-NO conversion, in violation of the CNPC.

(i) [$_{RC1}$ ~~sinsi-ga~~ [$_{DP}$ ~~sinsi-no~~ [$_{RC2}$ ~~sinsi-ga~~ t_j Ki-tei-ru] huku$_j$]-ga **yogo-re-tei-ru**] sinsi
is.wearing clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the* [*gentleman who$_i$ the* [*clothes that$_j$ t_i is wearing t_j*] *are dirty*]*'*

observation provides additional support for Han and Kim's (2004) analysis, showing that the gap in the relative island is not the source of the relativized head. The latter two observations motivate a possessor-raising analysis. In many languages, such as Chamorro, Chichewa, Acehnese, and Swahili, possessor raising is only possible from (underlying) internal arguments (see Massam 1985:283, Baker 1988:274, Ura 1996, Landau 1999 and references therein).[5] Taking observation (iii), the restriction on the predicate type, as a manifestation of the well-attested condition on possessor raising, I pursue the idea that the outer relative in cases seemingly violating the CNPC is a MNC, which is derived through possessor-raising.

2. Relativization in Japanese

The relative clause in Japanese is prenominal (i.e., it precedes the head noun) but finite, unlike other languages with prenominal relatives, which are robustly non-finite (cf. Keenan 1985). It lacks relative pronouns but can relativize a wide range of arguments: nominative subjects, accusative objects, dative goals, and adjuncts, such as locative, manner, reason and time phrases, as exemplified below:

6) a. [[t_i Seijika-o koogekisi-ta] repoota$_i$]-ga hisyo-o home-ta. [Nom]
statesman-ACC attack-PAST reporter-NOM secretary-ACC praise-PAST
'The reporter who attacked the statesman praised the secretary.'

b. [[Seijika-ga t_i koogekisi-ta] repoota$_i$]-ga hisyo-o home-ta. [Acc Obj]
statesman-NOM attack-PAST reporter-NOM secretary-ACC praise-PAST
'The reporter who the statesman attacked praised the secretary.'

c. [[Seijika-ga t_i tomodachi-o syookaisi-ta] repoota$_i$]-ga hisyo-o home-ta. [Dat Goal]
statesman-NOM friend-ACC introduce-PAST reporter-NOM secretary-ACC praise-PAST
'The reporter who the statesman introduced to his friend praised the secretary.'

[Loc/Reason]

d. [[Ken-ga t_i hon-o yoku ka-u] mise$_i$-ga t_j tubure-ta] riyuu$_j$-wa wakara-na-i.
Ken-NOM book-ACC often buy-PRES shop-NOM bankrupt-PAST reason-TOP know-NEG-PRES
'I don't know the reason the store where John often bought books went bankrupt.'

As for possessors, relativization is restricted to inalienable ones—possessors in *part-whole* or *body-part* relations. Alienable possessors cannot directly undergo A-bar movement, as shown below.[6]

7) a. Naomi-ga [t_i kawa]-o mui-ta ringo$_i$-ga kusati-tei-ta. [Inalienable]
Naomi-NOM skin-ACC peel-PAST apple-NOM rotten-ASP-PAST
'The apple whose skin John peeled was rotten.'

b. *Naomi-ga [t_i aisukuriimu]-o tabe-ta tomodachi$_i$-ga okot-ta. [Alienable][7]
Naomi-NOM ice.cream-ACC eat-PAST friend-NOM get.angry-PAST
Int. 'The friend whose ice cream Naomi ate got angry.'

The picture of possessor relativization is quite complex. Alienable possessors can be relativized but need to land in an A-position external to the DP (i.e., nominative position) and receive structural case before undergoing A-bar movement (see (4-b) and (4-c)) (c.f., Ishizuka 2009). The rest of the paper deals with alienable possessors only, and the term 'possessor' is used to refer to alienable possessors.

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[5] However, there are exceptions. For example, Broadwell (1990) points out that possessor-raising from a subject of an unergative verb is possible in Chickasaw.

[6] Ura (1996) also points out asymmetries between alienable and inalienable possessors, but the asymmetry he discusses is different from the one I point out here. Moreover, the way he divides alienable and inalienable possessors in Japanese differs from the dichotomy I propose here: he treats kinship as inalienable relation, whereas in my data kinship possessors behave more like alienable possessors (i.e., they don't directly feed into A-bar movement). See Ishizuka (2009) about asymmetries between alienable and inalienable possessors.

[7] (7-b) was included in the questionnaire reported in fn.3. The mean score was [1.44] out of 5, thus unacceptable to many speakers.

A difficulty in analyzing Japanese relatives is that the relativized head does not retain the original case, instead carrying the case determined in the matrix clause: neither double-marking of structural case (e.g., *NP-acc-nom) nor stranding of case in the extraction site is possible in Japanese. This property obscures the source of the relative head. In fact, relative clauses like (7) are alleged to lack a gap corresponding to the head noun and have been taken as a piece of evidence for the base-generation approach (Murasugi 2000).

8) a. [[Musuko-ga [syuusyoku-ga muzukasi-i] bunya]-ni susun-da.
son-NOM getting.a.job-NOM difficult-PRES field-DAT join-PAST
'The son joined the field in which getting a job is difficult.'

b. [Sakana-ga yak-e-ru] nioi
fish-NOM grill-MID-PRES smell
≈ $_{DP}$*'the smell when the fish is grilled'*

However, similar to the ideas pursued by Teramura (1982) and Kameshima (1989), I analyze (7-a) and (7-b) as instances of relativizing adjuncts as indicated in the English translations.

Another difficulty in analyzing Japanese relatives is the presence of *pro*. It is not easy to identify whether a gap is a *pro* or a trace created by movement. In fact, a relative clause can contain two gaps, a trace and a *pro*, yielding sentences like (9-a). The subject of (9-a) can be further relativized, yielding (9-b).

9) a. Sono syoonen$_i$-ga [[*pro*$_i$ kinoo ~~huku-o~~ ki-ta] huku]-o kyoo arat-ta.
that boy-NOM he yesterday wear-PAST clothes-ACC today wash-PAST
'That boy washed the [*clothes* [*that he wore yesterday*]] *today.'*

b. [$_{RC1}$ ~~syoonen-ga~~ [[$_{RC2}$ *pro*$_i$ kinoo ~~huku-o~~ ki-ta] huku]-o kyoo arat-ta] syoonen$_i$
he yesterday wear-PAST clothes-ACC today wash-PAST boy
$_{DP}$*'the boy who*$_i$ *washed the* [*clothes* [*that he*$_i$ *wore yesterday*]] *today'*

The only reason we know that the subject gap inside the relative island in (9-b) is not the source of the relativized head 'boy' is because there is a subject gap corresponding to the head noun in the outer relative.

The next section discusses one non-movement-like property of Japanese relative constructions: apparent violation of the CNPC.

3. Apparent violation of the CNPC

Japanese is alleged to allow violation of the CNPC. However, the distribution of such cases is quite restricted (cf. (3)). Inoue (1976) and Hasegawa (1981) propose the following descriptive generalizations:

10) **Inoue—Hasegawa's conditions (modified):**
The relativization of a phrase in a relative clause is allowed, if
(i) the relativized NP is the subject of the inner relative
(ii) the head of the inner relative serves as the subject of the outer relative

Inoue-Hasegawa's generalizations capture the grammaticality of many sentences, including ones like (3), which is an instance of long relativization of an object out of the inner relative clause; and (11), where an inner relative clause modifies the object in the outer relative clause.

11) *[Inu-ga [[~~kodomo-ga~~ ~~e-o~~ kai-ta] e]-o yabut-ta] kodomo]-ga nai-ta.
dog-NOM draw-PAST picture-ACC rip-PAST child-NOM cry-PAST
Int. 'The [*child*$_i$ *who the dog ripped the* [*picture*$_j$ *which (he*$_i$*) drew t*$_j$]] *cried.'*

The ill-formedness of (11) is not due to a temporary ambiguity of processing *dog* as a subject of the embedded verb 'drew,' since scrambling the relativized object before *dog* does not make (11) well-formed.

The analytical question is why Inoue-Hasegawa's generalizations should hold. This is not an easy question; as far as I know, no accounts have been proposed to explain this distribution. If (1-a), repeated

below as (12-a), and (1-b) really involve relativization from a relative clause (i.e., long relativization), it is difficult to explain its distributional difference from short relativization out of a simple clause. As shown in (6-b), there is no problem with short relativization of an object. The reason long relativization is restricted to subjects cannot be easily explained if both short and long relativization involve the same mechanism. Even if subject relativization were to involve *pro* and object relativization movement (cf. Huang 1984), it would remain unclear why object *pro* is an option for short relativization but not for long relativization. Alternatively, even if short relativization were to involve movement and long relativization were to involve base-generation with *pro*, and the absence of object long relativization were due to the lack of object *pro* in Japanese, the puzzle is the well-formedness of sentences like (12-b), which consists of the outer relative clause and the relativized NP of (12-a):

12) a. [$_{RC1}$ [$_{RC2}$ ~~sinsi-ga~~ ~~huku-o~~ ki-tei-ru] huku-ga yogo-re-tei-ru] sinsi
wear-ASP-PRES clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the gentleman$_i$ who the clothes$_j$ that (he$_i$) is wearing t$_j$ are dirty'*

b. [$_{RC1}$ huku-ga yogo-re-tei-ru] sinsi
clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the gentleman who the clothes are dirty'*

If the source of the relativized NP *sinsi* 'gentleman' is a constituent of the inner relative as illustrated in (12-a), we would not expect (12-b) to be well-formed without an appropriate source of the relativized NP. Importantly, (12-b) is not an instance of direct relativization of a possessor but is derived from the MNC given in (4-b). As we have seen in (7-b), alienable possessors in Japanese cannot directly undergo A-bar movement but need to pass through an A-position, the major subject position.

The second generalization in Inoue-Hasegawa's conditions is also puzzling. Why does the inner relative need to modify a subject? This is not a restriction on short relativization, as shown in (13):

13) Inu-ga [[kodomo-ga t$_i$ kai-ta] e$_i$]-o yabut-ta.
dog-NOM child-NOM draw-PAST picture-ACC rip-PAST
'A dog ripped the picture that a child drew.'

In (13), the relative clause modifies the object of the matrix clause, *e* 'picture', and the sentence is well-formed. The asymmetry between short and long relativizations is something that needs to be accounted for.

The analysis proposed in this paper, on the other hand, accounts for Inoue-Hasegawa's generalizations in a principled way. Recall the proposed structure in (5), repeated below as (14):

14) [$_{RC1}$ ~~sinsi-ga~~ [$_{DP}$ ~~sinsi-no~~ [$_{RC2}$ *pro*$_i$ ~~huku-o~~ Kiteiru] huku]-ga **yog-ore-tei-ru**] sinsi$_i$
he is.wearing clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the* [*gentleman who$_i$ t$_i$ the* [*clothes that he$_i$ is wearing*] *are dirty*]*'*

Under the proposed analysis, the gap in the relative island is a *pro*. Accordingly, the subject-object asymmetry in long relativization can now be translated as an asymmetry in terms of the distribution of the embedded *pro*, that is, whether the embedded *pro* can be bound by the argument of a higher clause. I will show in section 4.1 that the subject-object asymmetry reported in Inoue-Hasegawa's condition (10-i) mirrors the distribution of the embedded *pro*. The second condition (10-ii), namely an inner relative clause need to modify a subject, can be understood as a property of the outer relative clause, which is the MNC under the proposed analysis. I will show in section 4.3 that the MNC is only compatible with *be*-type predicates, which are all intransitives. The intransitivity of the predicate in the outer relative clause is responsible for the absence of cases where the inner relative clause modifies an object (i.e., intransitives lack an object). The following section provides more explanations for Inoue-Hasegawa's conditions.

4. New generalizations with respect to apparent violation of the CNPC

Although Inoue-Hasegawa's conditions capture many sentences that seemingly violate the CNPC, they turn out to be incomplete. This section introduces three novel observations that give counter-examples to Inoue-Hasegawa's generalizations and motivate the proposed possessor-raising analysis.

4.1. *Pro*-like distribution of the gap inside the relative island

Subject-object asymmetries regarding embedded *pro* have been well-documented in the literature: embedded object *pro* cannot be bound by the matrix argument in many languages including Japanese, Chinese, Korean, and Brazilian Portuguese (see Huang 1984, Hasegawa 1981, and Kuroda 1965). The following examples are adopted from Hasegawa (1981:290):

15) a. John$_i$-ga [*pro*$_{i/j}$ Mary-o nagut-ta-to] it-ta.
John-NOM *he* Mary-ACC hit-PAST-C say-PAST
'John$_i$ said that he$_{i/j}$ hit Mary.'

b. John$_i$-ga [Mary-ga *pro* $_{?*i/j}$ nagut-ta-to] it-ta.
John-NOM Mary-NOM *him* hit-PAST-C say-PAST
'John$_i$ said that Mary hit him$_{?*i/j}$.'

In (15-a), the subject *pro* in the embedded clause can be bound by the matrix subject *John*, as index *i* indicates. It can also refer to another person identifiable in the discourse, which is indicated by index *j*. On the other hand, (15-b) shows that the object *pro* cannot be bound by the matrix subject, even though it can refer to someone previously mentioned in the discourse (see Huang 1984 for more on this topic).

The new observation is that adding a compound verbal *kure-ru* 'give (from a receiver's perspective)' to the gerundive embedded verb allows object *pro* to be bound by the matrix subject, as illustrated in (16):

16) John$_i$-ga [Mary-ga *pro*$_{i/j}$ nagut-te kure-ta-to] it-ta.
John-NOM Mary-NOM *him* hit-GER give-PAST-C say-PAST
≈*'John$_i$ said that Mary gave (him$_i$ the favor of) hitting him$_{i/j}$.'*

In (16), the embedded object *pro* may be bound by the matrix subject *John* or somebody else identifiable from context (e.g., *John's son*).

What is this compound verbal, *kure-ru*? According to Kuno (1973:29),

> "action verbs are often followed by *yar-u* 'give' and *kure-ru* 'give (to the speaker)'. In the former compounds, the actions represented by the main verbs are understood to be a favor given by the subjects. In the latter, actions represented by the main verbs are understood to be a favor received by the speaker."

The following examples are taken from Kuno (1973:29)

17) a. John-ga Mary-ni hon-o yon-de yar-u.
John-NOM Mary-DAT book-ACC read-GER give-PRES
≈ *'John gives Mary (the favor of) reading a book.'*

b. John-ga hon-o yon-de kure-ru.
John-NOM book-ACC read-GER give-PRES
≈ *'John gives (me the favor of) reading a book.'*

This distinction between *yar-u* 'give' and *kure-ru* 'give (to the speaker)' is similar to the distinctions between *come* vs. *go* or *take* vs. *bring* in English.

Setting aside the analysis of how *kure-ru* allows object *pro* to be bound by a matrix subject, what is interesting is that the above distribution of embedded *pro* is exactly the same as that of the gap inside the relative island. Namely, object gap inside the relative island can refer to the relativized NP if *kure-ru* is added to the embedded verb. In other words, contra Inoue-Hasegawa's generalization, the presence of *kure-ru* 'give' allows apparent long relativization of the object (e.g., *inu* 'dog' in (18)), as shown below:

18) [$_{RC1}$ ~~inu$_j$-ga~~ [~~inu$_j$-no~~ [$_{RC2}$~~kainusi$_i$-ga~~ *pro*$_j$ kawaigat-*(te-**kure**)-ta] kainusi$_i$]-ga sinde-simat-ta]
it nurture-GER-give-PAST owner-NOM die-PERF-PAST
inu$_j$-wa byooki-ni nat-ta.
dog-TOP sick-DAT become-PAST

Lit. 'The [*dog*$_j$ [*that the owner who {*nurtured* t_j */ gave (it the favor of) nurturing* t_j*} died*]] *became sick.'*

Without *kure-ru* 'give', the sentence is much degraded. This is not the case with short relativization of an object; short relativization of an object is always possible regardless of the presence of *kure-ru*:

19) [kainusi-ga ~~inu-o~~ kawaigat-(te-kure)-ta] inu
owner-NOM nurture-GER-give-PAST dog
Lit. $_{DP}$*'the dog*$_i$ *that the owner {has nurtured* t_i */ gave (it*$_i$ *the favor of) nurturing* t_i*}'*

Neither the embedded object *pro* nor the gap inside the relative island may be bound by the matrix subject, unlike their subject counterparts. Further, they both show sensitivity to the presence of the compound verbal *kure-ru*: thus, I conclude that the gap inside the relative island is a *pro* but not a trace (i.e., the source of the relativized NP). This straightforwardly accounts for the first generalization (10-i) of Inoue-Hasegawa's conditions: it looks as if only the subject of a relative clause can be relativized, but this is just the distributional property of the embedded *pro*. Object *pro* in general cannot be bound by the matrix argument (unless the compound verbal *kurer-ru* is added to the embedded verb).

4.2. Genitive relationship between two relative heads

The second new observation is that not only the structural position of the two relativized heads, but also the thematic relation between them plays a determining role in well-formedness of the sentence, as illustrated in the following examples:

20) a. [t_i [*pro*$_i$ t_j aishiteru] musuko$_j$-ga obore-ta] titioya$_i$]-wa isoi-de umi-ni tobi-kon-da.
have.loved son-NOM drown-PAST father-TOP hurry-GER sea-DAT jump-into-PAST
Lit: 'The [*father who*$_i$ *the* [*son who*$_j$ *(he*$_i$*) loves*] *drowned*] *jumped quickly into the sea.'*

b. *[t_i [*pro*$_i$ t_j hajimete mita] inu$_j$-ga obore-ta] sinsi$_i$]-wa isoi-de umi-ni tobi-kon-da.
first.time saw dog-NOM drown-PAST man-TOP hurry-GER sea-DAT jump-into-PAST
Int:'The [*gentleman who*$_i$ *the* [*dog which*$_j$ *(he*$_i$*) saw for the first time*] *drowned*] *jumped quickly into the sea.'*

c. *[t_i [*pro*$_i$ t_j sira-nai] syoonen$_j$-ga obore-ta] sinsi$_i$]-wa isoi-de umi-ni tobi-kon-da.
know-NEG boy-NOM drown-PAST man-TOP hurry-GER sea-DAT jump-into-PAST
Int: 'The [*gentleman who*$_i$ *the* [*boy who (he*$_i$*) didn't know*] *drowned*] *jumped quickly into the sea.'*

These three examples have the syntactic structure meeting Inoue-Hasegawa's generalizations: the two relativized heads in each of the examples are the subject of the inner relative and the subject of the outer relative respectively. Yet there is a sharp contrast in terms of well-formedness: (20-a) is well-formed, whereas (20-b) and (20-c) are not.[8] The crucial difference between (20-a) and (20-b,c) is that the two relativized heads in the former sentence stand in a genitive relationship (i.e., *father-no son* 'father HAVE son'), while those in the latter two sentences do not (i.e., *#gentleman-no dog* 'gentleman HAVE dog', *#gentleman-no boy* 'gentleman HAVE boy'). In (20-b) and (20-c), the predicate in the inner relative clause makes it clear that there is no prior relation between the gentleman and the dog/boy, thus it is difficult to license a genitive relationship to them. The new generalization here is that the two relativized heads have to stand in a genitive relation (loosely speaking, a possessive relationship), crucially with the head of the outer relative being a possessor, and the head of the inner relative being a possessee.[9]

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[8] (20-a) and (20-c) were also included as fillers in the questionnaire mentioned in fn. 3. The mean score of (20-a) was [3.59] and that of (20-c) was [1.67]. Note that the ungrammaticality of (20-c) is not due to the negation contained in the inner relative (cf. (2-b)). (20-b) does not contain a negation but is also ill-formed.

[9] This is not a bijective relation. The two relativized heads have to stand in a possessive relation that can be independently expressed as 'DP-no NP' for this type of sentence to be acceptable. Nevertheless, not all the possessors in the 'DP-no NP' frame can serve as relativized heads of this type of construction. In Ishizuka (2008, in progress) I analyze the possessor marker *-no*, which is usually taken as a genitive case marker, as a D introducing a reduced relative clause with a primitive silent predicate. The possessors that can undergo relativization are restrictive ones but not non-restrictive ones, such as *singer-NO Naomi* 'Naomi, who is a singer.'

4.3. Restriction on predicate types

When we look at the predicate in the outer relative of well-cited examples that are alleged to violate the CNPC, we generally find unaccusatives (e.g., *sinu* 'die', and *nyuuinsuru* 'be-hospitalized') or middles (e.g., *yogo-ore-ru*, 'dirty-MIDDLE-PRES'; the middle morpheme *–(r)are–* is realized as *–ore–* due to vowel harmony). The relevant predicate is bolded in the following well-cited example from Kuno (1973):

21) **Middles**

[[$_{RC1}$ ~~sinsi-*ga*~~ [$_{DP}$ ~~sinsi-*no*~~ [$_{RC2}$ *pro*$_i$ ~~huku-*o*~~ ki-teiru] huku] -ga **yog-ore-tei-ru**] sinsi$_i$]
he wear-ASP clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the* [*gentleman*$_i$ *who the* [*clothes*$_j$ *that (he*$_i$*) is wearing t*$_j$] *are dirty*]*'*

A close inspection reveals that violation of the CNPC is not possible with just any type of predicate contained in the outer relative, but rather are restricted to *be*-type predicates. *Be*-type predicates include unaccusatives, middles, passives, and adjectival and nominal predicates. For example, all the well-formed sentences violating the CNPC presented in Han and Kim (2004) contain *be*-type predicates in the outer relative clause. The sentences are not well-formed if the predicate of the outer relative is a transitive or an unergative verb. The examples are given below:[10]

22) **a. Unaccusative predicate**

[$_{RC}$ ~~syoonen-*ga*~~ [$_{DP}$ ~~syoonen-*no*~~ [*pro*$_i$ ~~inu-*o*~~ kawaigateiru] inu]-ga **sin-da**] syoonen-wa awateta.
he have.nurtured dog-NOM die-PAST son-TOP panicked
Lit. 'The [*boy*$_i$ *who the* [*dog that*$_j$ *(he*$_i$*) has nurtured t*$_j$*] died] panicked.'*

b. Passive predicate

[$_{RC}$ t$_i$ [$_{DP}$ t$_i$ [*pro*$_i$ t$_j$ kawaigateiru] inu$_j$]-ga ookami-ni **koros-are-ta**] syoonen$_i$]-wa gakoo-o yasun-da.
he have.nurtured dog-NOM wolf-DAT kill-PASS-PAST boy-TOP school-ACC was.absent
Lit:'The [*boy*$_j$ *who the* [*dog which*$_j$ *(he*$_i$*) has nurtured t*$_j$] *was killed by a wolf*] *was absent from school.'*

c. Adjectival Predicate

[$_{RC}$ t$_i$ [$_{DP}$ t$_i$ [*pro*$_i$ t$_{j\ j}$ kiteiru] huku$_j$]-ga itsumo **kitanai**] syoozyo$_i$]-wa tomodachi-ga i-na-i.
she is.wearing clothes-NOM always is.dirty girl-TOP friend-NOM exist-NEG-PRES
Lit: 'The [*girl*$_i$ *who the* [*clothes which*$_j$ *(she*$_i$*) is wearing*] *are always dirty*] *doesn't have friends.'*

d. Nominal Predicate

[$_{RC}$ t$_i$ [$_{DP}$ t$_i$ [*pro*$_i$ t$_j$ sonkeisuru] hahoya$_j$]-ga **zyoyuu-dat-ta**] syoozyo$_i$]-wa eiga.kantoku-ni natta.
she respect mother-NOM actress-COP-PAST girl-TOP movie.director-DAT became
Lit:'The [*girl*$_i$ *who the* [*mother who*$_j$ *(she*$_i$*) respects t*$_j$] *used to be an actress*] *became a movie director.'*

e. Unergative verb

*[$_{RC}$ t$_i$ [$_{DP}$ t$_i$ [*pro*$_i$ t$_j$ kawaigateiru] inu$_j$]-ga tonarin-no hito-ni **hoe-ta**] syoonen$_i$]-wa awateta.
he have.nurtured dog-NOM next-GEN person-DAT bark-PAST boy-TOP panicked
Int: 'The [*boy*$_i$ *who the* [*dog that*$_j$ *(he*$_i$*) has nurtured t*$_j$] *barked at a person next door*] *panicked.'*

f. Transitive verb

*[$_{RC}$ t$_i$ [$_{DP}$ t$_i$ [*pro*$_i$ t$_j$ kawaigateiru] inu$_j$]-ga tonari-no hito-o **kan-da**] syoonen$_i$]-wa awate-ta.
he have.nurtured dog-NOM next-GEN person-ACC bark-PAST boy-TOP panicked
Int: 'The [*boy*$_i$ *who the* [*dog that*$_j$ *(he*$_i$*) has nurtured t*$_j$] *bit a person next door*] *panicked.'*

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[10] Nevertheless, there seem to be interspeaker variabilities in terms of acceptability of the MNC with transitive and unergative predicates; this is not surprising given that possessor raising constructions in Romance languages show a considerable amount of interspeaker variability (Vergnaud & Zubizarreta 1992, among others). Ura (1996) reports that the MNC is compatible with any type of predicate (but this seems to be incompatible with the questionnaire results reported in fn. 11). On the other hand, Kuroda (1986) argues that the MNC is only compatible with statives, which are a subset of *be*-type predicates. Statives do not include passives; see Kuroda (1986:272) for his definition of stativity. It might be the case that speakers like Ura allow possessor-raising out of an external argument; in that case, we would expect those speakers to accept all the related constructions in which possessor raising underlies the derivation.

This leads to the following generalizations about contexts in which CNPC violations are possible:

23) New generalizations regarding apparent violation of the CNPC:
Apparent violation of the CNPC is possible as long as:
(i) The two relativized heads stand in a genitive relation, with the outer relative head being a possessor and the inner relative head being a possessee.
(ii) The predicate of the outer clause must be a *be-type* predicate.

Since the predicate of the outer relative cannot be a transitive (or an unergative) verb, this forces the relativized head of the inner relative to be the subject of the outer relative due to intransitivity. Therefore, the second generalization (23-ii) essentially captures part of Inoue-Hasegawa's generalization: the head of the inner relative serves as the subject of the outer relative clause.

We now turn to the question of how these facts in (23) can be derived from the principles of the explanatory theory. The next section provides an answer to this question.

4. Proposal: when possessor raising feeds into relativization

Relativization in Japanese is not restricted to *be-type* predicates (see (6)). Therefore, it must be the structure of the outer relative that requires *be-type* predicates. Under the proposed analysis, the outer relative is a MNC. Note that the grammaticality judgments of all the sentences in (22) remain the same without the inner relatives. For example, (22-e) without the inner relative, presented below as (24-a) is still ill-formed;[11] (24-b) is the MNC underlying (24-a).

24) a. *[~~syoonen-ga~~ [~~syoonen-no~~ inu-ga tonarin-no hito-ni **hoe-ta**] syoonen]-wa awate-ta.
dog-NOM next-GEN person-DAT bark-PAST boy-TOP panick-PAST
Int:'The boy whose dog barked at a person next door panicked.'

b. * syoonen-ga [$_{DP}$ ~~syoonen-no~~ inu]-ga tonarin-no hito-ni **hoe-ta**
boy-NOM dog-NOM next-GEN person-DAT bark-PAST
Int:'The boy, his dog barked at a person next door.'

The generalizations presented in (23) are both about the elements in the outer relative, thus we can interpret (23) as generalizations with respect to the MNC, as given below:

25) Generalizations regarding the MNC
For the MNC to be well-formed:
(i) The two nominative DPs must stand in a genitive relation, with the first DP being a possessor and the following one being a possessee.
(ii) The predicate is restricted to a *be-type* predicate.

As briefly discussed in section one, the subject of *be-type* predicates are merged low (in the complement domain of the auxiliary '*be'*). This property is shared with *ne*-cliticization in Italian, which has a strong tendency for possessor raising (Belletti and Rizzi 1981). The well-acknowledged generalization is that possessor raising is in general only possible from (underlying) internal arguments (Baker 1988:274, Massam 1985:283, among others); the restriction on the predicate type in the MNC can be taken as a manifestation of this well-attested condition on possessor raising. In addition, possessor raising constructions in Romance languages are known to exhibit a considerable amount of interspeaker variability (Vergnaud & Zubizarreta 1992, among others), which is also the case with the MNC in Japanese (see fn. 10). Accordingly, I conclude that the MNC is derived through possessor raising: the major subject is

[11] (24-a) was also included as a filler in the questionnaire. The mean score for this sentence was [1.35] out of 5, thus it was unacceptable to many speakers. These results do not seem compatible with Ura's claim reported in fn.10.

merged as a possessor of the argument of the *be-type* predicate, and undergoes possessor raising to land in an available case position (i.e., A-movement).[12]

One question that might arise is why the MNC is incompatible with the *transitive* predicate. In other words, why is possessor raising not possible from the internal argument of the transitive predicate? This is due to the A-position landing site of the possessor. Let me illustrate this point with examples from Kuno (1970:70):

26) **a. Transitive predicate**

*John$_i$-ga sensei-ga [t_i kodomo]-o sikat-ta.
John-NOM teacher-NOM child-ACC scold-PAST
'John, the teacher scolded (his) child.'

b. Passive predicate

John$_i$-ga [t_i kodomo]-ga sensei-ni sikar-are-ta.
John-NOM child-NOM teacher-DAT scold-PASS-PAST
'John, (his) child was scolded by the teacher.'

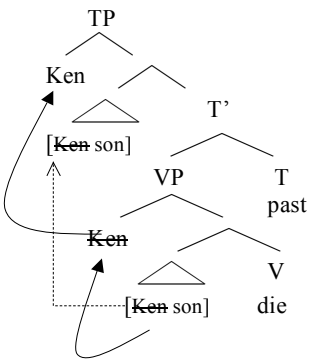
Both (26-a) and (26-b) denote the same event about *John's child*. The intended derivation is that *John* is merged as a possessor of the internal argument *child* and raises to the nominative position in both cases. However, only (26-a) is well-formed. This is because the movement to the nominative position is A-movement: no A-position can intervene because of relativized minimality. In (26-a) the external argument *teacher* intervenes. Therefore, the MNC is incompatible with transitives, which license an intervening external argument. This leaves accounting for the incompatibility of the MNC with the unergative predicate. Relativized minimality does not explain why possessor raising is not possible from external arguments. How can we make sense of this restriction?

Based on possessive dative data in Hebrew and Romance languages, Landau (1999:10) proposes that possessor raising is case-driven and only possible from internal arguments because the available A-position for the external possessor is low, i.e., the dative case position. The derivation Landau proposes takes the following steps: (i) a possessor is generated with dative case features in a case-less Spec position within the possessee; (ii) the possessor then raises to check its case features with V (Landau, 1999:9). Nevertheless, the Japanese facts show that regardless of the A-position landing site (nominative in Japanese), extraction of a possessor is only possible from (underlying) internal arguments. Therefore, Landau's proposal does not account for the incompatibility with the unergative predicate in the MNC in Japanese.

My working hypothesis is that extraction of a possessor requires an escape hatch for the possessor to locally bind its trace and make the extraction licit. The escape hatch is located at the edge of VP (Spec,VP in (27-b)) hence is not accessible by the possessor of an external argument. The derivation of the MNC I propose is a case-driven possessor raising analysis similar to the one proposed by Landau (1999) for possessive datives. The derivation of the multiple nominative construction is given below:

27) a. Ken-ga musuko-ga sin-da.
Ken-NOM son-NOM die-PAST
Lit: 'Ken, his son died.'

b.



[12] Due to space limitations, I am unable to highlight the differences between the proposed analysis and the previous analyses proposed for the MNC. The well-adopted analysis is the base-generation approach, where the major subject is licensed through syntactic predication or *aboutness* relation with the rest of the clause (e.g., Saito 1982, Heycock 1993, Vermeulen 2005), but it does not account for the restriction to *be*-type predicates. Possessor-raising analyses have also been proposed (e.g., Kuno 1973, Fukuda 1991, and Tateishi 1994), but they uniformly assume possessor raising out of the surface subject and fail to account for the restriction on the predicate type reported here.

The derivation involves the following steps: first, the possessor *Ken* is generated with nominative case features in a case-less Spec position within the possessee *son*. Second, an unaccusative predicate *die* is merged. Third, the possessor moves to Spec,VP, an escape hatch located at the edge of VP. Lastly, tense projection is merged and both the possessor *Ken* and the remnant possessive DP raise to check their nominative case features with T respectively (multiple agree in Hiraiwa's sense (2001)).

The derivation is case-driven, since the possessor moves out of the possessive DP to check off its case features with T. Recall that relativization of the MNC also shows sensitivity to *be-type* predicates (cf. (7b) and (24-a)). This means that (alienable) possessors cannot directly undergo A-bar movement from the escape hatch, but rather have to pass through an A-position. This suggests that not only vP but also VP works as a phase (cf. Chomsky 2000, 2001), with the resulting requirement that any elements in the complement of V that need to move outside of the phase must move to the phase edge before Spell-Out.

Keeping the proposed derivation for the MNC in mind, let us return to the apparent violation of the CNPC. The proposed structure and derivation are presented below:

28) a. [$_{RC}$ ~~sinsi$_i$ *-ga*~~ [$_{DP}$ ~~sinsi$_i$ *-no*~~ [$_{RC}$ *pro*$_i$ ~~huku$_j$ *-o*~~ ki-teiru] huku $_j$] -ga **yog-ore-tei-ru**] sinsi$_i$
he$_i$ wear-ASP clothes-NOM dirty-MID-ASP-PRES gentleman
Lit. $_{DP}$*'the* [*gentleman$_i$ who the* [*clothes$_j$ that (he$_i$) is wearing t$_j$*] *are dirty*]*'*

b. **The derivation** (Japanese words are rendered in English):
- The object *clothes* is relativized, forming the relativized NP *clothes that (he) is wearing*.
- The possessor *gentleman* is merged with the relativized NP *clothes that (he) is wearing,* forming a possessive DP *gentleman's clothes that (he) is wearing.*
- The outer predicate *are dirty* is merged with the possessive DP.
- Possessor-raising takes place, yielding the MNC (following the steps given in (27-b)).
- The major subject *gentleman* is relativized, deriving the apparent violation of the CNPC.

Inoue-Hasegawa's conditions in (10), as well as the new generalizations in (23), fall out directly from the proposed derivation. The fact that long relativization is in general restricted to subjects, as stated in (10-i), is due to the distributional properties of the embedded *pro*. The inner relative must modify a subject of the outer relative, as stated in (10-ii), because the outer predicate is restricted to intransitives, namely *be-type* predicates. The outer relative head stands in a possessive relation with the inner relative head, as stated in (23-i), because it is merged as a genitive argument of the inner relative head. The outer predicate is restricted to *be-type* predicates, as stated in (23-ii), because possessor raising is only possible from internal arguments.

5. Conclusion

This paper has established new generalizations with respect to the multiple nominative construction (MNC) and one of the related constructions into which the MNC feeds, namely, apparent violation of the CNPC. One major generalization is that the MNC and cases seemingly violating the CNPC are restricted to *be-type* predicates, whose subjects are merged low in the complement domain of the auxiliary *be* (but not *have*) in languages like Italian. Taking this property as a manifestation of the well-attested condition on possessor raising that possessor raising is only possible from (underlying) internal arguments, I propose that possessor raising underlies the derivation of the MNC. Following Han and Kim 2004, I analyze apparent violations of the CNPC as short relativization of the major subject in the MNC with *pro* inside the relative clause island. The proposed analysis accounts for Inoue-Hasegawa's conditions in a principled way. Specifically, (i) the long relativization is restricted to subjects because the gap inside the relative clause island is pro, and only the embedded subject *pro* can refer to the argument in the matrix clause; and (ii) the inner relative clause must modify the subject in the outer relative clause since the predicate in the outer relative clause is restricted to intransitives (or *be*-type predicates).

The proposed analysis likens Japanese to many other languages in terms of relativization as well as conditions on possessor raising. First, sentences that are alleged to violate the CNPC are no longer a threat to the movement approach to Japanese relativization. In fact, the paper adds more evidence in favor of the movement approach, such that (i) Japanese relativization is in fact subject to the CNPC and (ii) the gap created by short relativization does not show the distribution of the embedded *pro*. Second, the fact that possessor raising is restricted to *be-type* predicates means that possessor raising in Japanese is also only

possible from (underlying) internal arguments, contrary to the widely-acknowledged view that Japanese allows possessor raising from surface subjects (Ura 1996, among others).

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