

Syntax of Possessor Passive in Japanese*

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0. Introduction

This paper provides an optimal account of the syntactic derivation of the so called possessor passive construction in Japanese. I characterize the construction as a kind of "inalienable possession" construction as is found in such languages as Korean and Romance languages, and argue that the surface subject of the construction is in fact an argument having θ -relation with the verb, not a "genitive possessor" in the object NP at D-Structure (henceforth, DS).

1. Passive Paradigm: Derivation of the Surface Subject

Terada (1990) and Kubo (1990) have pointed out syntactic differences between the direct passive and the possessive passive on one hand and the indirect passive on the other.¹ As one piece of such evidence, they have pointed out that the dative particle of the NP that is understood as the agent of the verb can alternate with a postposition *niyotte* 'by' or *kara* 'from' only in the direct and the possessive passive:

(1) Direct passive:

Emi-ga Ken-ni/-niyotte/-kara home-rare-ta
Emi-NOM Ken-DAT/by/from praise-PASS-PAST
'Emi was praised by Ken'

(2) Possessor passive:

Emi-ga Ken-ni/-niyotte/-kara kodomo-o home-rare-ta
Emi-NOM Ken-DAT/by/from child-ACC praise-PASS-PAST
'Emi had her child praised by Ken'

(3) Indirect passive:

Emi-ga Ken-ni/*-niyotte/*-kara deteik-are-ta
Emi-NOM Ken-DAT/by/from go out-PASS-PAST
'Emi had Ken go out'

We find another respect in which the above classification is motivated. N. McCawley (1972) and Kuno (1973) observe that the agent-denoting NP-*ni* can be the antecedent of *zibun* 'self' in the indirect passive, but not in the direct passive:

(4) Direct passive:

Emi_i-ga Ken_j-ni zibun_i/_{*j}-no heya-de home-rare-ta
 Emi-NOM Ken-DAT self-of room-LOC praise-PASS-PAST
 'Emi was praised by Ken in the room of self'

(5) Indirect passive:

Emi_i-ga Ken_j-ni zibun_i/_j-no heya-kara deteik-are-ta
 Emi-NOM Ken-DAT self-of room-from go out-PASS-PAST
 'Emi had Ken go out of the room of self'

Terada (1990) employs this property to argue for her proposed syntactic structure of the possessor passive. As we see in (6), *zibun* cannot take NP-*ni* as its antecedent, on a par with NP-*ni* in the direct passive:

(6) Possessor passive:

Emi_i-ga Ken_j-ni zibun_i/_{*j}-no heya-de kodomo-o
 Emi-NOM Ken-DAT self-of room-LOC child-ACC
 home-rare-ta
 praise-PASS-PAST
 'Emi had her child praised by Ken in SELF's room'

It seems to be agreed by a number of Japanese linguists that the surface subject of the direct passive is derived via NP-movement from a VP-internal position ((7)), on a par with the English passive as in (8), while the subject of the indirect passive is base-generated in its surface-position ((9)).²

(7) Direct passive:

[_{IP} Emi_i-ga [_{VP} [_{PP} Ken-*ni*] [_{VP} t_i home-rare]]-ta]

(8) English passive (*Mary was praised by John.*):

[_{IP} Mary_i was [_{VP} praised t_i] by John]

(9) Indirect passive:

[_{IP} Emi-ga [Ken-ni [(PRO) deteik-are]]-ta]

Miyagawa (1989) provides a piece of empirical support for the derivational difference between the direct passive ((7)) and the indirect passive ((9)). As he claims, the distribution of floating numeral quantifiers in Japanese is subject to the following constraint:

(10) A floating numeral quantifier and (the trace of) its host NP must c-command each other.

Assuming the constraint in (10) and the derivational difference between (7) and (9) allows us to account for the difference in grammaticality between (11) and (12):

(11) *gakusei*_i-ga [_{VP} [_{PP} *otoko-ni*] [_{PP} *kooen-de*] [_{VP} *t*_i
 student-NOM man-DAT park-LOC
go-nin nagu-rare]]-ta
 five-CL hit-PASS-PAST
 'Five students were hit in the park'

(12) **gakusei-ga* [_{VP} [_{PP} *onna-ni*] [_{PP} *kooen-de*] [_{VP} *go-nin*
 student-NOM woman-DAT park-LOC 5-CL
nak-are]]-ta
 cry-PASS-PAST
 'Five students had a woman cry in the park'

In (11), the numeral quantifier *go-nin* c-commands, and is c-commanded by, the NP-trace left by the movement of the surface subject *gakusei*, while in (12) there is no such trace as is in a mutual c-command relation with the numeral quantifier. The numeral quantifier does not c-command the surface subject that is intended to be construed with the numeral.

This test allows us to determine whether the surface subject of the possessor passive is derived from a VP-internal position or not. Consider:

- (13) a. *gakusei-ga Ken-niyotte kooen-de go-nin atama-o*
 student-NOM Ken-by park-LOC five-CL head-ACC
tatak-are]]-ta
 pat-PASS-PAST
 'Five students were patted on the head by Ken'
- b. *hahaoya-ga Yamada-sensei-niyotte gakkoo-de san-nin*
 mother-NOM Yamada-teacher-by school-LOC three-CL
kodomo-o home-rare-ta
 child-ACC praise-PASS-PAST
 'Three mothers had their children praised by Prof. Yamada'

As we see from the grammaticality of the sentences in (13), there must be a trace of the surface subject in VP in the possessive passive construction. The structure of (13a), for example, is represented as in (14):

- (14) [_{IP} *gakusei_i-ga* [_{VP} [_{PP} *otoko-ni*] [_{PP} *kooen-de*] [_{VP} *t_i*
go-nin atama-o tatak-are]]-ta]

Thus we can conclude that the possessor passive forms a natural class with the direct passive in the derivational respect as well, in the sense that the surface subject is derived via NP-movement from a VP-internal position.³

2. "Possessor Raising" Analysis and Its Problems

We have argued in the last section that the surface subject of a possessor passive sentence is derived via NP-movement from a VP-internal position. However, this alone does not tell us at all where in VP the subject is generated at DS. There are two different approaches coming at hand. In one approach, which has been made by Kubo (1990) and Terada (1990), the surface subject moves from within the object NP denoting a possession of the person denoted by the subject. The other approach may have it that the surface subject is an independent argument of the verb base-generated in VP and moves to its surface position. These two different approaches are schematically shown as (15a) and (15b):

- (15) a. [_{IP} *Ken_i-ga* [_{VP} [_{NP} *t_i atama*]-o *tatak-are*]-ta]
 b. [_{IP} *Ken_i-ga* [_{VP} *t_i* [_{NP} *atama*]-o *tatak-are*]-ta]

In this section we point out some empirical problems with the former analysis. We argue for the latter analysis in Section 3.

2.1 Possessor Raising Analysis

Kubo (1990) and Terada (1990) try to relate derivationally the possessor passive sentence in (16a), its direct passive counterpart in (16b), and its active counterpart in (16c), by assuming the DS in (17) for (16a):

- (16) a. Ken-ga Aya-niyotte atama-o tatak-are-ta
 Ken-NOM Aya-by head-ACC pat-PASS-PAST
 'Ken had his head patted by Aya'
- b. Ken-no atama-ga Aya-niyotte tatak-are-ta
 Ken-of head-NOM Aya-by pat-PASS-PAST
 'Ken's head was patted by Aya'
- c. Aya-ga Ken-no atama-o tatak-ta
 Aya-NOM Ken-of head-ACC pat-PAST
 'Aya patted Ken's head'

- (17) The DS of (16a):
 [IP e [VP [PP Aya-niyotte] [VP [NP Ken(-no) [N' atama]]
 tatak-are]]-ta

As we see from (17), the surface subject NP *Ken* is generated in the possessor position in the NP denoting a possession of Ken. If the genitive Case is not assigned to this position (for whatever reason), the NP moves to the subject position to get Nominative Case. This process is illustrated in (18):

- (18) [IP Ken_i-ga [VP [PP Aya-niyotte] [VP [NP t_i [N' atama]]-o
 tatak-are]]-ta

If the structure does not have the passive morpheme *rare* so that neither the Case absorption nor the Agent absorption takes place, the derivation yields sentence (16c). If the passive particle absorbs the Agent role and the Accusative Case, (16b) is derived.

Kubo tries to support her analysis by focusing on the presence of an NP-trace in the NP denoting a possession. She points out the contrast between the (b) and the (c) sentence in the following:

- (19) a. Ken-ga kuruma-ni inu-o hane-rare-ta
 Ken-NOM car-DAT dog-ACC hit-PASS-PAST
 'Ken had his dog hit by a car'
 b. inu-o Ken-ga kuruma-ni hane-rare-ta
 c. *inu-wa Ken-ga kuruma-ni hane-rare-ta
- (20) a. Aya-ga kyoozyu-ni term paper-o nakus-are-ta
 Aya-NOM professor-DAT term paper-ACC lose-PASS-PAST
 'Aya had her term paper lost by her professor'
 b. term paper-o Aya-ga kyoozyu-ni nakus-are-ta
 c. *term paper-wa Aya-ga kyoozyu-ni nakus-are-ta

(Kubo (1990))

In the (b) sentences the object possession NP has been scrambled to the sentence initial position, while the NP in the (c) sentences is the topic of the sentence. The structures of (19b) and (19c) are given as follows:

- (21) a. (structure of (19b))
 [IP [NP t_i inu]-O_j [IP Ken_i-ga [VP kuruma-ni t_j hane-rare]-ta]]]
- b. (structure of (19c))
 *[[NP t_i inu]-wa_j [IP Ken_i-ga [VP kuruma-ni pro_j hane-rare]-ta]]]

Kubo appeals to the difference in the derivation of a scrambled NP and a topic NP in accounting for the contrast. Although the trace t_i in (21a) is not c-commanded by the subject NP at S-Structure (henceforth, SS), the possession NP will undergo the LF operation that moves it back to its DS position (Reconstruction). Then the trace will be c-commanded by its antecedent subject NP at LF. In contrast, such an operation could not apply to the topic NP in (21b) since the topic NP must be base-generated in its surface position, as Kuno (1973) and Hoji (1985) argue. Thus the structure in (21b) will violate the Proper Binding Condition (henceforth, PBC) (Fiengo (1977))

since the NP trace t_i will not be c-commanded by its antecedent at any level of representation.⁴

2.2 Problems of the "Possessor Raising" Analysis

Although the analysis of the possessor passive that crucially exploits the "possessor raising" (henceforth, PR) may have an appeal in its elegance in derivationally relating it to its active counterpart and in its empirical adequacy of being able to account for the contrast in (19) and (20), there are several reasons for us to seek an alternative analysis. The argument that follows centers around the alleged presence of an NP-trace inside the possession NP.

2.2.1 Overt Possessor

As (22) shows, an NP-trace cannot alternate with an overt reflexive:

- (22) Ken_i-ga Aya-niyotte (*zibun_i-o/*zibun-zisin_i-o)
 Ken-NOM Aya-by self-ACC/self-self-ACC
 tatak-are-ta
 pat-PASS-PAST
 'Ken was patted by Aya'

However, the following possessor passive sentence with an overt reflexive is acceptable:

- (23) a. Emi_i-ga sensei-niyotte (?zibun_i-no) seiseki-o
 Emi-NOM teacher-by (self-of) grade-ACC
 home-rare-ta
 praise-PASS-PAST
 'Emi had her grade praised by her teacher'
 b. Emi_i-ga Ken-niyotte (?zibun_i-no) omotya-o
 Emi-NOM Ken-by (self-of) toy-ACC
 kowas-are-ta
 break-PASS-PAST
 'Emi had her toys broken by Ken'

If the possession NP contained an A-bound trace in it, it would remain unclear why the sentences in (23) are grammatical with an overt reflexive.⁵

2.2.2 Unbound Trace?

As we reviewed in an earlier section, Kubo (1990) accounts for the contrast between the following examples by making crucial reference to the NP-trace inside the possession NP:

- (24) a. (= (19b))
 [_{NP} t_i inu]-o_j Ken_i-ga kuruma-ni t_j hane-rare-ta
 dog-ACC Ken-NOM car-DAT hit-PASS-PAST
- b. (= (19c))
 * [_{NP} t_i inu]_j-wa Ken_i-ga kuruma-ni pro_j hane-rare-ta

The scrambled NP in (24a), although it is not properly bound at SS, will be reconstructed to its DS position at LF, so that the trace in it will be c-commanded by its antecedent at that level, avoiding a violation of the PBC, while the topic NP in (24b) will not be so moved back since it is base-generated in its SS position.

However, as Hoji, Miyagawa, and Tada (1989) show, an NP-trace will violate the PBC if it is not c-commanded by its antecedent at SS. Consider:

- (25) a. gakusei_i-ga [_{VP} UBC-ni t_i 3-nin hairi]-sae sita
 student-NOM UBC-DAT 3-CL enter-even do-PAST
 'Three students even entered UBC'
- b. * [_{VP} UBC-ni t_i 3-nin hairi]-sae_j gakusei_i-ga t_j sita
- (26) a. John-ga [_{VP} susi-o tabe]-sae sita
 John-NOM sushi-ACC eat-even do-PAST
 'John even ate sushi'
- b. [_{VP} susi-o tabe]-sae_j John-ga t_j sita

In the ergative construction in (25b), the VP containing the NP-trace left by A-movement of *gakusei-ga* is scrambled to the sentence initial position. The trace, then, is not c-commanded by its antecedent, violating the PBC. This violation does not occur in (26b) since the scrambled VP does not contain a trace of the subject.

If SS is a level where the PBC applies, as the ungrammaticality of (25b) tells us, then it is not clear why the same is not true of (24a): (24a) should be ruled out if the scrambled NP contains an NP-trace.

Furthermore, the sentences with the possession NP in the topic position as in (24b) will show a significant improvement in grammaticality if we put them into generic sentences. Consider:

- (27) a. ?inu-wa hutyuui-na hito-ga kuruma-niyotte
 dog-TOP careless-COP person-NOM car-by
 hane-rare-ru
 hit-PASS-PRES
 'As for dogs, careless people have them hit by cars'
- b. term-paper-wa dekinowarui gakusei-ga tokidoki
 term paper-TOP dull student-NOM sometimes
 kyoozyu-niyotte nakus-are-ru
 professor-by lose-PASS-PRES
 'As for term papers, underachievers sometimes have
 them lost by their professors'

More examples show us that the contrast between possessor passive sentences with past tense and those with simple present (generic) tense is systematically clear:

- (28) a. *atama-wa Ken-ga Aya-niyotte tatak-rare-ta
 head-TOP Ken-NOM Aya-by pat-PASS-PAST
 'As for the head, Ken had it patted by Aya'
- b. atama-wa dekinowarui seito-ga yoku
 head-TOP dull pupil-NOM often
 sensei-niyotte tatak-are-ru
 teacher-by hit-PASS-PAST
 'As for the head, dull pupils often have it hit
 by their teachers'
- (29) a. *kodomo-wa Emi-ga Aya-niyotte home-rare-ta
 child-TOP Emi-NOM Aya-by/-from praise-PASS-PAST
 'As for the child, Emi had him/her praised by Aya'

- b. kodomo-wa yoi hahaoya-ga yoku sensei-niyotte
 child-TOP good mother-NOM often teacher-by
 home-rare-ru
 praise-PASS-PRES
 'As for the child, good mothers often have them
 praised by teachers'

These examples show that if the topic NP in the (b) sentences contains an NP-trace, there seems no way to account for their acceptability: the (b) sentences should be as bad as the (a) sentences.

2.2.3 Lack of Bijectivity

As is well established, there must be a one-to-one correspondence between a trace and its antecedent. Thus the following is ill-formed since the antecedent has two traces corresponding to it:

- (30) *John_i was shown t_i to t_i.
 (with the intended reading *John was shown to himself.*)

One exception to this constraint is the multiple occurrence of traces in an "Across-the-Board" environment such as the following:

- (31) John_i was [VP₁ hit t_i] and [VP₂ arrested t_i].

Then consider the following:

- (32) Ken-ga Aya-niyotte asi-ni ude-o sibarituke-rare-ta
 Ken-NOM Aya-by leg-DAT arm-ACC tie-PASS-PAST
 'Ken had his arms tied to his legs by Aya'

The most natural interpretation of this example is to take both *asi* 'leg' and *ude* 'arm' as the (inalienable) possessions of *Ken*. Then the SS representation along the lines of the PR analysis would have to be something like the following:

- (33) Ken_i-ga Aya-niyotte [VP [NP t_i asi]-ni [NP t_i ude]-o
 sibarituke-rare]-ta

Thus there would have to be a one-to-two relation between the subject and its two NP-traces. Notice that the two traces are not in an Across the Board environment, since the two containing NPs [$NP t_i asi$]-*ni* and [$NP t_i ude$]-*o* are not conjoined. Moreover, neither of the two traces could be analyzed as a parasitic gap, since A-movement cannot license a parasitic gap:

(34) Which book_{*i*} did you file t_i without reading e_i ?

(35) *The book was filed t_i without reading e_i .

Thus the PR analysis again faces a problem.

2.2.4 Lack of Locality

Consider the following examples:

- (36) a. Ken_{*i*}-ga kyoozyu-niyotte [[e_i itiban kuroo
 Ken-NOM professor-by most hardship
 si-te kak-ta] repooto]-o nakus-are-ta
 doing write-PAST term paper-ACC lose-PASS-PAST
 'Ken had the term paper that he had made his best
 efforts in lost by his professor'
- b. Aya_{*i*}-ga sensei-niyotte [[e_i itiban kawaigar-te
 Aya-NOM teacher-by most love
 i-ta] kodomo]-o home-rare-ta
 be-PAST child-ACC praise-PASS-PAST
 'Aya had her child who she loved most praised by
 the teacher'

These examples are not cases of indirect passive, since the agent of the sentences is expressed in the form of NP-*niyotte*. The question we want to raise concerns the lack of locality that should have held between the subject NP and its corresponding gap. As we see from (36), the alleged NP traces lie deep inside the possession NPs: they both occupy the subject position of the finite relative clause headed by the possession noun. If the subject NP were to derive right from that position, A-movement of the subject NP in the possessor passive should be permitted to violate the Subjacency Condition, since the subject NP would have to be extracted out of a complex NP. This

state of affairs is highly unlikely, since movement to an A-position is even more heavily constrained than A'-movement: A-movement is even impossible from a finite complement clause:

- (37) **Emi_i-ga Ken-niyotte [Aya-ga t_i sonkeisi-te iru-to]*
Emi-NOM Ken-by Aya-NOM respect be-COMP
iw-are-ta
say-PASS-PAST
 '**Emi_i was said that Aya respects t_i by Ken*'

One might argue that the locality constraint is indeed observed in (38a) since it could be derivationally related to (38b):

- (38) a. *Emi_i-ga doroboo-niyotte [e_i nor-te i-ta kuruma]-o*
Emi-NOM thief-by drive was car-ACC
nusum-are-ta
steal-PASS-PAST
 '*Emi had the car she drove stolen by a thief*'
 b. *doroboo-ga [Emi-no [e nor-te i-ta] kuruma]-o nusum-da*
thief-NOM Emi-of drive was PAST-ACC stole
 '*A thief stole the car that Emi drove*'

In (38b) the subject of the verb *nor* 'drive' is assigned the genitive Case-marker *no* instead of the nominative *ga*. Bedell (1972) and Saito (1982) propose that this "restructured" subject is syntactically outside the relative clause, where it is assigned the genitive Case. Now that extraction out of a relative clause is impossible, one could argue that the subject NP *Emi-ga* in (38a) is base-generated in the "restructured" genitive position and moves to its surface position from that position, as illustrated in (39):

- (39) *Emi_i-ga doroboo-niyotte [_{NP} t_i [_{CP} e_i notte i-ta]*
kuruma]-o nusum-are-ta

This solution seems untenable, however, since the surface subjects in (40) have no corresponding genitive source:⁶

- (40) a. Emi_i-ga doroboo-niyotte [[e_i Ken-kara e_j moraw
 Emi-NOM thief-by Ken-from receive
 -ta] yubiwa_j]-o nusum-are-ta
 -PAST ring-ACC steal-PASS-PAST
 'Emi had the ring she was given by Ken stolen by
 a thief'
- b. Ken_i-ga Aya-niyotte [[e_i Chomsky-ni e_j home-rare-
 Ken-NOM Aya-by Chomsky-DAT praise-PASS-
 ta] ronbun]-o hihans-are-ta
 PAST paper-ACC criticize-PASS-PAST
 'Ken had his paper that had been praised by Chomsky
 criticized by Aya'
- (41) a. *doroboo-ga [Emi-no Ken-kara moratta yubiwa]-o
 thief-NOM Emi-of Ken-from received ring-ACC
 nusum-da
 steal-PAST
 'A thief stole the ring Emi received from Ken'
- b. *Aya-ga [Ken-no Chomsky-ni home-rare-ta
 Aya-NOM Ken-of Chomsky-DAT praise-PASS-PAST
 ronbun]-o hihansi-ta
 paper-ACC criticize-PAST
 'Aya criticized the paper that Ken had praised by
 Chomsky'

If one were to maintain the PR analysis, the surface subject NPs in (40) would have to have moved from inside the relative clause. But then it would be unwantedly necessary to stipulate that A-movement is exempt from being constrained by the Subjacency Condition.

3. "External Possessor" Analysis

3.1 The Surface Subject is an Argument of the Verb

Having pointed out several inadequacies with the PR analysis of the possessor passive, I now turn to propose an alternative analysis that provides an optimal account of the construction. Our critical examination of the PR analysis centered

around the difficulties of the alleged derivation in which the surface subject undergoes A-movement from the genitive position inside the possession NP. I propose as an alternative that the surface subject is in fact an argument of the verb, generated at DS outside the possession NP. Thus the DS representation of sentence (42), for example, is given as (43):

- (42) Ken-ga Aya-niyotte atama-o tatak-are-ta
 Ken-NOM Aya-by head-ACC pat-PASS-PAST
 'Ken had his head patted by Aya'

- (43) [IP e [[PP Aya-niyotte] [VP [NP Ken] [V' [NP atama]
 tatak]]-are]-ta]

In the DS in (43) the VP-internal argument *Ken* is θ -marked compositionally by the V' consisting of the verb *tatak* 'pat' and its object NP *atama* 'head'. I assume that the relevant θ -role assigned to the NP *Ken* in (43) is identified as what may be called the "Affectee" role. At SS the NP moves to the subject position to receive Nominative Case from INFL. The SS representation is given as follows:

- (44) [IP [NP Ken]_i-ga [[PP Aya-niyotte] [VP t_i [V' [NP atama]-o
 tatak]]-are]-ta]

This assumption seems to be supported by the contrast in acceptability between (42) and (45). Consider:

- (45)??Ken-ga Aya-niyotte atama-o mir-are-ta
 Ken-NOM Aya-by head-ACC see-PASS-PAST
 'Ken had his head seen by Aya'

The active counterpart of (45) with a genitive possessor is perfectly acceptable:

- (46) Aya-ga [NP Ken-no atama]-o mi-ta
 Aya-NOM Ken-of head-ACC see-PAST
 'Aya saw Ken's head'

In (42) Aya's patting the head somehow affects Ken. This suggests that the verb *tatak* has the Affectee role to be discharged (via V') by an NP. In contrast, Aya's

seeing the head is not likely to affect Ken anyhow, which in turn suggests that *Ken's* having the Affectee role is incompatible with the semantics of the *V* (*atama-o mir* 'look at the head').⁷

If the PR analysis were to account for the grammatical contrast between (42) and (45), it would have to stipulate that some class of verbs blocks NP-movement from the possessor position in the possession NP in an unmotivated way. In (47) the same verb does not block NP-movement of the direct object:

- (47) [NP Ken-no atama]-ga Aya-niyotte mi-rare-ta
 Ken-of head-NOM Aya-by see-PASS-PAST
 'Ken's head was seen by Aya'

The proposed DS in (43) is not a mere stipulative solution that is designed only to account for the Japanese possessor passive. Rather, it is one of the possible argument alignments at DS that the Universal Grammar allows. The way in which internal arguments are aligned as in (43) is shared by at least two constructions in other languages. First, let us look at the double accusative construction in Korean, exemplified in (48):

- (48) Mary-ka John-ul phal-ul pwutcap-ess-ta
 Mary-NOM John-ACC arm-ACC grasp-PAST-DEC
 'Mary grasped John by the arm'

In (48), the NP *John-ul* is understood to be the (inalienable) possessor of the object denoted by *phal-ul*. A noticeable point about this construction is that the possessor NP bears the same Case (Accusative Case) as the possession NP, instead of being marked Genitive, as in (49):

- (49) Mary-ka John-uy phal-ul pwutcap-ess-ta
 Mary-NOM John-of arm-ACC grasp-PAST-DEC
 'Mary grasped John's arm'

Cho (1992) proposes the DS in (50) for (48), where the possessor NP is an independent argument that is assigned the Affectee role by the verb, instead of taking sides with the PR analysis which might have it that the possessor NP is raised from the genitive position inside the possessor NP as in (51):⁸

(50) [IP Mary [VP [NP John] [v' [NP phal] pwutcap]]-ess-ta]

(51) a. DS: [IP Mary [VP [v' [NP [NP John] phal] pwutcap]]
-ess-ta]

b. SS: [IP Mary [VP [NP John]_i-ul [v' [NP t_i phal]-ul
pwutcap]]-ess-ta]

The pieces of evidence he presents to support his analysis include the following. First, he points out that the genitive position inside the possession NP can be filled with a Genitive-marked lexical pronoun:⁹

(52) a. Mary-ka John-ul tali-lui cha-ess-ta
Mary-NOM John-ACC leg-ACC kick-PAST-DEC
'Mary kicked John's leg'

b. ?Mary-ka John_i-ul [NP ku_i-uy tali]-lui cha-ess-ta
Mary-NOM John-ACC he-of leg-ACC kick-PAST-DEC
'Mary kicked John's leg' (Cho (1992))

Second, he cites the following example to show that the possessor NP is θ -assigned by the verb. Compare (53) with (50a):

(53) *Mary-ka John-ul tali-lui po-ess-ta
Mary-NOM John-ACC leg-ACC see-PAST-DEC
'Mary saw John's leg'

As with the example of Japanese possessor passive in (45), the Affectee role on *John* in (53) is not compatible with the semantics of V *tali-lui po* 'see (his) leg', an activity that is unlikely to affect John.

Although I propose that the possessor passive in Japanese and the double accusative in Korean share the identical alignment of internal arguments at DS, Japanese and Korean are different in that Japanese lacks the syntactic device for the Affectee NP to appear at SS in its DS position, which Korean has, presumably because of the parametric difference in the Case-marking system in these languages. The following sentence, analogical to its Korean counterpart, is unacceptable:¹⁰

- (54) *Aya-ga Ken-o atama-o tatak-ta
 Aya-NOM Ken-ACC head-ACC pat-PAST
 'Aya patted Ken's head'

While the "Affectee" argument cannot survive in an active sentence, it can in a passive sentence. If the passive morpheme *rare* attaches to the verb, it absorbs the Agent role that would otherwise be assigned to an NP in the subject position. The demoted Agent is assigned to an NP in PP headed by the postposition *-ni / -niyotte / -kara*. The "Affectee" NP then moves to the subject position to be assigned Nominative Case. Notice that, as in Jaeggli (1986), Case-absorption and Agent demotion by the passive morpheme are independent processes in the grammar so that they do not have to take place, or be kept from taking place, simultaneously. I take the possessor passive in Japanese as a result of only Agent demotion taking place. If both of these processes are carried out by *rare*, the derivation yields a direct passive sentence. If neither of them takes place, the structure will yield an indirect passive sentence (cf. Washio (1990)). The passive morpheme *hi* in Korean can choose to carry out only Agent demotion, with Case absorption kept from taking place, yielding a sentence corresponding to a possessor passive in Japanese:

- (55) John-ka Mary-eykey phal-ul pwutcap-hi-ess-ta
 John-NOM Mary-by arm-ACC grasp-PASS-PAST-DEC
 'John had his arm grasped by Mary' (Cho (1992))

The proposed analysis of the possessor passive in Japanese also applies to the inalienable possession (henceforth, IPoss) construction in French (and in other Romance languages), as exemplified in (56):¹¹

- (56) a. Le médecin a examiné l'estomac aux enfants
 the doctor has examined the-stomach to-the children
 'The doctor examined the children's stomach'
 (Vergnaud and Zubizarreta (1992))
 b. On lui a coupé les cheveux
 they to-him have cut the hair
 'They cut his hair' (Kayne (1975))

In this construction, the "theme" possession NP is the direct object of the verb and the "affected" possessor NP is marked Dative. Kayne (1975) argues for the

independence of the direct object possession NP and the dative possessor NP at DS, showing that the IPoss construction is impossible with such "unaffectedive" verbs as *penser* 'think' and *rêver* 'dream'. If the grammatical "internal possessor" sentences in (58) were the derivational source from which the "external possessor" counterpart in (57) is derived, it would be unclear why (57a, b) are ungrammatical:

- (57) a. *Elle lui pensait aux oreilles.
 she to-him was-thinking to-the ears
 'She was thinking of his ears'
- b. *Jean lui rêvait des yeux
 Jean to-him was-dreaming of-the eyes
 'Jean was dreaming of her eyes'
- (58) a. Elle pensait à ses oreilles.
 she was-thinking to his ears
 'She was thinking of his ears'
- b. Jean rêvait de ses yeux
 Jean was-dreaming of her eyes
 'Jean was dreaming of her eyes'

This fact suggests, in our terms, that the affected possessor NP has a θ -marking relation with the V' consisting of the verb and its complement: the sentences in (57) are not grammatical since *penser aux oreilles* 'think of the ears' and *rêver des yeux* 'dream of the eyes' do not assign the Affectee role to the dative possessor argument.

Kayne (1975) also observes the grammatical contrast between (59a) and (59b) to point out an inadequacy of derivationally relating the internal possessor construction and the external possessor construction:

- (59) a. Tu as photographié leur bouches/*bouche.
 you have photographed their mouths/mouth
 'You photographed their mouths'
- b. Tu leur as photographié la bouche/*les bouches.
 you to-them have photographed the mouth/the mouths'
 'You photographed their mouths'

As we see from the sentence with an internal possessor in (59a), the possession noun must take its plural form if the possessor is plural. In contrast, the possession noun

in the external possessor sentence in (59b) can only be singular even though the dative possessor clitic *leur* is plural. If we were to take (59a) as the derivational source for (59b), it would remain unclear why there should be a difference in grammatical number in the two constructions.

These considerations naturally lead to positing the DS in (60b) for sentence (60a), where the NP *les enfants* ‘the children’ is arguably assigned the Affectee role compositionally from the verb *examiné*:¹²

- (60) a. La médecin a examiné l'estomac aux enfants. (= (56a))
 b. [_{IP} la médecin a [_{VP} [_{V'} examiné [_{NP} l'estomac]]
 [a+les enfants]]]

The above considerations on the Korean double accusative construction and the French IPoss construction do allow us to be convinced that the proposed analysis of the possessor passive construction in Japanese is not an ad hoc solution to the problems that we pointed out in Section 2. Rather, the proposed DS for the possessor passive is one of the possible configurations that the UG permits.

3.2 Possessor *pro*

I proposed in the preceding section that the surface subject of the possessor passive in Japanese is generated at DS as an argument of the verb that is assigned the Affectee role compositionally from the verb. Now one may ask what syntactic element, if any, occupies the genitive position in possession NPs. I rejected earlier the analysis wherein the genitive position is occupied by an NP trace. Then what is it that is there? I propose, approximately along the lines of Authier (1988), that the genitive position of possession NPs is occupied by a null pronominal NP, *pro*. Thus the structure of sentence (61a), for example, is represented as (61b):

- (61) a. Aya-ga Ken-niyotte kodomo-o home-rare-ta
 Aya-NOM Ken-by child-ACC praise-PASS-PAST
 ‘Aya had her child praised by Ken’
 b. [_{IP} Aya_i-ga [[Ken-niyotte [_{VP} t_i [_{NP} *pro* [_{N'} kodomo]]
 -o home-rare-ta]]]]

The null pronominal in the genitive position is assigned the Possessor role from the head noun and takes as its antecedent the trace of the surface subject “Affectee” NP.

Such body-part nouns as *atama* ‘head’, *kao* ‘face’, *ude* ‘arm’, and *asi* ‘leg’ and such kinship nouns as *kodomo* ‘child’, *hahaoya* ‘mother’, and *imooto* ‘younger sister’ obligatorily assign the Possessor role to an NP in the genitive position, since they necessarily imply the existence of their possessor. This means that the NPs headed by a body-part or a kinship noun necessarily contain *pro* in its genitive position, if they do not contain an overt possessor NP. By extension, other nouns such as *kuruma* ‘car’, *ronbun* ‘academic paper’, and *inu* ‘dog’ can optionally assign the Possessor role to the genitive position. Thus the bare NP *inu* ‘dog’ has either of the following two structures:

- (62) a. [NP *pro inu*]
 b. [NP *inu*]

The following examples tell us of the optionality of the assignment of the Possessor by such nouns as *inu*:

- (63) a. Ken-ga inu-o tureteki-ta
 Ken-NOM dog-ACC bring-PAST
 ‘Ken brought a dog (dogs)/his dog(s)’
 b. Ken-ga imooto-o tureteki-ta
 Ken-NOM younger sister-ACC bring-PAST
 ‘Ken brought his younger sister’

As we see from the English translations of the examples, the object NP *inu-o* in (63a) has both an indefinite reading (‘a dog’ or ‘dogs’) and a possession reading (‘his (Ken’s) dog/dogs’). The object NP in (63b) minimally contrasts with (63a) in that it lacks an indefinite reading (‘a sister’ or ‘sisters’). This is because the NP headed by *inu* may or may not contain the possessor *pro*, whereas the NP headed by the kinship noun *imooto* must contain *pro*, which in turn takes the subject NP as its antecedent.

An immediate consequence of the above proposal is that it can account for the parallelism shown by a null pronominal on one hand and a body-part and a kinship NP on the other with respect to “anaphora.” Hoji (1985) shows that *pro* is subject to the following condition on anaphora and thus exhibits a weak crossover effect:

- (64) A bound variable pronominal must be c-commanded by its antecedent QP.

- (67) a. (Intended reading of (66a))
 For every x : x is a person, x fell in love with the woman that x 's mother brought.
- b. (Intended reading of (66b), impossible)
 For every x : x is a person, the woman that x 's mother brought fell in love with x .

While (66a) has the intended bound variable reading of *hahaoya* as in (67a), (66b) lacks the reading in (67b). The proposed analysis can straightforwardly account for the observed contrast in the bound variable reading in (67). The sentences in (66) are each represented as follows:

- (68) a. Ken_i-ga/daremo_i-ga [[[NP pro_i hahaoya]-ga e tureteki-ta] zyosei]-o hitome-de sukininar-ta
- b. [[[NP pro_i hahaoya]-ga e tureteki-ta] zyosei]-ga Ken_i-o/daremo_i-o hitome-de sukininar-ta

The possessor null pronominal *pro* in (68a) is c-commanded by its antecedent QP *daremo-ga*. On the other hand, *pro* in (68b) is not c-commanded by *daremo-o*, failing to be construed as a bound variable of its antecedent QP.

Notice that the above observation also provides a piece of support for not assuming *PRO*, instead of *pro*, in a possession NP.¹³ As the following example tells us, *PRO* is exempt from a condition against weak crossover:

- (69) [PRO_i/*His_i washing his car] bothers everyone_i.

PRO contrasts with the lexical pronoun *his* in that it can be construed as a bound variable of its antecedent QP *everyone*, so that the sentence can have the following interpretation:

- (70) $\forall x$: x is a person, [x 's washing x 's car] bothers x .

If *PRO* served as the possessor argument inside a possession NP in Japanese, it would remain unclear why sentence (66b) should exhibit a weak crossover effect.

4. Solutions for the Problems

I have proposed in the preceding section an analysis of the possessor passive in Japanese in which I crucially assume (i) that the surface subject of a possessor passive is the Affectee argument of the verb, and (ii) that the NP denoting a possession of the subject contains *pro* coindexed with the subject in the genitive position. In order to see the adequacy of this proposal, let us now see how the present analysis can account for the data that would not be successfully accounted for by any analysis along the lines of PR.

4.1 Overt Possessor

Alternation with an overt possessor, as exemplified in (71), is easy to account for in our analysis:

(71) (= (23))

- a. *Emi_i-ga sensei-niyotte (?zibun_i-no) seiseki-o*
 Emi-NOM teacher-by (self-of) grade-ACC
 home-rare-ta
 praise-PASS-PAST
 'Emi had her grade praised by her teacher'
- b. *Emi_i-ga Ken-niyotte (?zibun_i-no) omotya-o*
 Emi-NOM Ken-by (self-of) toy-ACC
 kowas-are-ta
 break-PASS-PAST
 'Emi had her toys broken by Ken'

We have claimed that *pro* appears as the possessor argument of the possession noun. This means that the position that *pro* appears in is a Case-marked position. Thus it is just natural that, as a Case-marked position, the position that *pro* occupies can also accommodate a lexical pronominal device. This null/lexical alternation can also be observed in a number of other cases, although sentences with *pro* and those with a lexical pronominal device may have different connotations:

- (72) a. *Ken-wa [pro_i/zibun_i-ga toosensita to] omotteiru*
 Ken-TOP pro/self-NOM was-elected COMP think-PRES
 'Ken believes that he was elected'

- b. [[[[pro_i/zibun_i-ga katte ita] inu]-ga sinde
 pro/self-NOM keep be-PAST dog-NOM die
 simatta] hito_i]-wa kinodoku-da
 PERF-PAST person-TOP pitiful-be-PRES
 'A person whose dog has died is pitiful'

4.2 Generic vs. Nongeneric Contrast

We observed in 2.2.2 that when the possession NP is the topic of a possessor passive sentence, the sentence must have the generic tense, a fact that the PR analysis could not capture. Consider the contrast between the sentences in (73) and (74), which are in the past tense and the generic tense, respectively:

- (73) a. (= (19c))
 *[_{NP} inu]_j-wa Ken-ga kuruma-ni pro_j hane-rare-ta
 b. (= (20c))
 *[_{NP} term-paper]_i-wa Aya-ga kyoozyu-ni pro_i
 nakus-are-ta
- (74) (= (27))
 a. ?inu-wa hutyuui-na hito-ga kuruma-niyotte hane-rare-ru
 b. term-paper-wa dekinowarui gakusei-ga tokidoki
 kyoozyu-niyotte nakus-are-ru

The above four examples would all be predicted to be ungrammatical under the PR analysis: the trace in the topic possession NP would be unbound at any level. Now the burden we have on our shoulders is to look for a way in which we can successfully deal with these facts.

Authier (1988) observes that French IPoss NPs can appear only in generic contexts when there is no overt NP understood as the possessor:¹⁴

- (75) a. Quand on n'est pas soldat de métier, il est
 when one NEG-is NEG soldier of profession it is
 normal que les rangers entaillent les pieds après
 normal that the boots cut-into the feet after
 une vingtaine de bornes
 a twenty of clicks
 'If arb is not a professional soldier, it is common
 that boots cut into arb's feet after about
 twenty clicks'
- b. *Les rangers ont entaillé les pieds après une
 the boots have cut-into the feet after a
 vingtaine de bornes
 twenty of clicks
 'The boots cut into arb's feet after about
 twenty clicks'

As an account of this fact, he proposes the following:

- (76) In order to be interpreted as a non-expletive NP, object *pro* must be identified by one (and only one) of two elements:
- (a) an overt pronominal clitic on the verb (definite interpretation)¹⁵
 - (b) an unselective binder (arbitrary interpretation)

What is important for the present issue is the (b) part of the condition. As proposed in Heim (1982), the null unselective binder and an adverb of quantification each serve as a quantifier ranging over a set of possible worlds. In (75a), the null unselective binder appears and binds the possessor *pro* in the possession NP, as illustrated in the following:¹⁶

- (77) □ [IP les rangers entaillent [NP *pro* [NP les pieds]]
 |_____unselective binding_____|

(75a) can have the unselective binder since its tense does not refer to any specific point of time in the actual world. The structure in (77) will eventually end up with the semantic representation in (78):

(78) [$\forall x: x = \text{a person}$] (the boots cut in x 's feet)

Sentence (75b), on the other hand, cannot accommodate an unselective binder since it contains the tense that refers to a specific point of time in the actual world, hence a contradiction between the unselective binder and the referential property of the tense. Thus *pro* in (75b) ends up with having no licenser.

Returning to the contrast between (73) and (74), we can now successfully account for why there should be such a contrast. The sentences in (74) can have an unselective binder since they both do not refer to a specific temporal location in the actual world. The structures of (74a) and (74b) are then represented as follows:

- (79) a. \square [[_{NP} *pro*_i *inu*]_j-wa [_{IP} *hutyuuina hito*_i-ga *kuruma-niyotte pro*_j *hane-rare-ru*]]
 b. SOMETIMES (=tokidoki) [[_{NP} *pro*_i *term paper*]_j-wa [_{IP} *dekinowarui gakusei*_i-ga *kyoozyu-niyotte pro*_j *naku-are-ru*]]

In these constructions, the occurrence of *pro* in the topic NP is licensed by the unselective binder (\square and SOMETIMES). However, the sentences in (73) are not compatible with the unselective binder, since the tense refers to some specific point of time and cannot have access to possible worlds.

I suggest that the structures in (79) are assimilated to that of *donkey*-sentences such as the following:

- (80) a. If a man owns a donkey, he likes it.
 b. Every man who owns a donkey likes it.

What is characteristic of the *donkey*-construction is that a pronoun is understood to be a bound variable of an indefinite NP coindexed with it. This is possible when an unselective binder binds both the pronoun and the indefinite NP. This relation is illustrated as follows:¹⁷

- (81) a. \square_i [if a *man*_{j/i} owns a *donkey*_{k/i}] [*he*_{j/i} likes *it*_{k/i}]
 b. [every *man*_i who owns a *donkey*_{j/i}] likes *it*_{j/i}.

In these configurations, the unselective binders (the invisible unselective binder in (81a) and the QP *every man* in (81b)) bind both the indefinite NPs (*a man* and *a*

donkey) and the pronouns (*he* and *it*). (81a) and (81b) are mapped onto the following semantic representations, respectively:

- (82) a. $\forall x, y: x = \text{a man}, y = \text{a donkey (if } x \text{ owns } y) (x \text{ likes } y)$
 b. $\forall x, y: x = \text{a man}, y = \text{a donkey ((} x \text{ who owns } y) \text{ likes } y)$

The subject NP and the possessor *pro* in the topic NP in (79) are coindexed by the same mechanism. In (79a), the indefinite subject NP and *pro* are both bound by the invisible unselective binder and thus are coindexed with each other. Likewise, the subject NP and *pro* in (79b) are bound by the adverbial unselective binder *tokidoki* 'sometimes'. The sentences have the following interpretations:

- (83) a. $\forall x: x = \text{a careless person (} x \text{ has } x\text{'s dog hit by a car)}$
 b. $\exists x: x = \text{an underachiever (} x \text{ has } x\text{'s term paper lost by } x\text{'s professor)}$

A "strong" QP, in the sense of Milsark (1977), cannot be bound by an unselective binder since it is not a variable in the sense of Heim (1982). Thus the following sentences are ungrammatical under the intended interpretations: the QP *every donkey* cannot be bound by the unselective binder and it does not c-command the pronoun:

- (84) a. *If a man owns every donkey_i, he likes it_i.
 b. *Every man who owns every donkey_i likes it_i.

The same seems to be true of the possessor passive under the present consideration. The following examples do not seem to have a bound variable reading of the possessor of the topic possession NP and thus are not very acceptable:

- (85) a. ??[[_{NP} pro_i inu]_j-wa [_{IP} daremo_i-ga kuruma-niyotte
 dog-TOP everyone-NOM car-by
 pro_j hane-rare-ru]]
 hit-PASS-PRES
 'Lit. As for the dog, everyone has one hit by a car'

- b.??[[_{NP} *pro*_i term paper]_j-wa [_{IP} *daremo*_i-ga kyoozyu-
 term paper-TOP everyone-NOM professor-
 niyotte *pro*_j nakus-are-ru]]
 by lose-PASS-PRES
 'Lit. As for the term paper, everyone has one lost
 by his professor'

Unselective binding does not help coindexing the subject NP and the possessor *pro*, since the subject NP is a strong QP, which cannot be bound by an unselective binder. The subject NP cannot directly bind the pronominal since it does not c-command the topic NP. We find more cases of indefinite vs. "strong" QP contrast in the following:

- (86) a. atama-wa dekinowarui seito-ga sensei-niyotte
 head-TOP dull pupil-NOM teacher-by
 nagu-rare-ru
 hit-PASS-PAST
 'As for the head, dull pupils often have it hit by
 their teachers'
 b.??atama-wa daremo-ga sensei-niyotte nagu-rare-ru
 everyone-NOM
- (87) a. kodomo-wa yoi hahaoya-ga yoku sensei-niyotte
 child-TOP good mother-NOM often teacher-by
 home-rare-ru
 praise-PASS-PRES
 'As for the child, good mothers usually have them
 praised by school teachers'
 b.??kodomo-wa daremo-ga sensei-niyotte home-rare-ru
 everyone-NOM

We have left unexplained the cases where the subject NP is referential:

- (88) a. *[_{NP} *pro*_i inu]_j-wa Ken_i-ga kuruma-niyotte *pro*_j hane-
 rare-ta
 b. *[_{NP} *pro*_i term-paper]_j-wa Ken_i-ga kyoozyu-niyotte *pro*_j
 nakus-are-ta

Why cannot *pro_i* take the subject NP as its antecedent? Anaphora of the null pronominal is a bit complicated. The relevant generalization is that *pro* cannot take a clause-mate antecedent if the latter does not c-command the former. We can see this from the following examples:

- (89) a. *_{[NP Ken_i-no hahaoya]-ga pro_i nagutta}
- Ken-of mother -NOM pro hit-PAST
- ‘Ken’s mother patted *pro*’
- b. ??_{[NP pro_i hahaoya]-ga Ken_i-o nagutta}
- ‘His mother hit Ken’
- c. _{[NP [CP [NP pro_i hahaoya]-ga e turetekita] zyosei]-ga}
- pro mother -NOM brought woman-NOM
- Ken_i-o kiniitta
- Ken-ACC liked
- ‘The woman who his mother brought liked Ken’

Whatever constraint accounts for (89a, b) may account for (88a, b); the clause-mate potential antecedent *Ken* does not c-command *pro*.¹⁸

4.3 Lack of Bijectivity

Our proposal also has the advantage of being able to account for sentence (32), repeated here as (90):

- (90) Ken-ga Aya-niyotte asi-ni ude-o sibarituke-rare-ta
- Ken-NOM Aya-by leg-DAT arm-ACC tie-PASS-PAST
- ‘Ken had his arms tied to his legs by Aya’

In (90), both the dative NP *asi* ‘leg’ and the accusative NP *ude* ‘arm’ are interpreted as possessions of *Ken*. The structure of (90), on our account, is given as follows:

- (91) Ken_i-ga Aya-niyotte _{[VP [NP pro_i asi]-ni [NP pro_i ude]-o}
- sibarituke-rare]-ta

What is happening here is simply that both *pro*’s take *Ken* as their common antecedent. Nothing blocks one NP from serving as the antecedent of more than one pronominals, as the following example illustrates:

- (92) Ken_i-ga [NP pro_i kinoo atta hito]-ni [NP pro_i kyoo
 Ken-NOM pro yesterday met person-DAT pro today
 atta hito]-o syookaisi-ta
 met person-ACC introduce-PAST
 'Ken introduced the person he met today to the person
 he met yesterday'

4.4 Lack of Locality

The last set of facts to be accounted for is that the surface subject does not have to be syntactically local to the gap corresponding to it:

- (40) a. Emi_i-ga doroboo-niyotte [[e_i Ken-kara e_j moraw
 Emi-NOM thief-by Ken-from receive
 -ta] yubiwa_j]-o nusum-are-ta
 -PAST ring-ACC steal-PASS-PAST
 'Emi had the ring she received from Ken stolen by
 a thief'
- b. Ken_i-ga Aya-niyotte [[e_i Chomsky-ni e_j home-rare-
 Ken-NOM Aya-by Chomsky-DAT praise-PASS-
 ta] ronbun_j]-o hihans-are-ta
 PAST paper-ACC criticize-PASS-PAST
 'Ken had the paper that was praised by Chomsky
 criticized by Aya'

This is not surprising in our analysis. The relation between the surface subject and the possessor *pro* are only conditioned by a constraint on the licensing of *pro*. Thus no such strict locality requirement as is imposed on an NP-trace and its antecedent needs to be appealed to. This can be easily seen in a number of cases:

- (93) a. Ken_i-ga [NP [CP pro_i kinoo aw-ta] zyosei]-ni
 Ken-NOM pro yesterday meet-PAST woman-DAT
 hana-o okur-ta
 flower-ACC give-PAST
 'Ken gave a flower to the woman he met yesterday'

- b. sono-kodomo_i-ga [pro_i kabin-o war-ta koto]-o
 that-child-NOM pro vase-ACC break-PAST fact-ACC
 kookaisi-te iru
 regret be-PRES
 ‘That child regrets that he broke the vase’

5. Further Empirical Evidence for Possessor *pro*

We have discussed in the preceding sections how the possessor passive in Japanese can be optimally analyzed. I have crucially assumed in the course of the analysis that an NP that is interpreted as a possession must contain *pro* in its possessor position. To examine the adequacy of this analysis, let us discuss one more piece of its empirical consequence.

If a possession NP contains a possessor *pro*, the “anaphoric” relation between the possession NP and its “antecedent” must show the same distributional pattern as that of *pro* and its antecedent. The present analysis will be motivated to the degree that *pro* and possession NPs behave in a parallel fashion in this regard.

As a pronominal, *pro* has been argued to obey the Condition B of the Binding Theory in the way that other pronominals do. However, there are cases that a Binding Theoretic account alone cannot adequately deal with. One such environment that I would like to point out here is exemplified as the following:

- (94) Ken-ga [Emi-ga pro tatak-ta-to] omow-te iru
 Ken-NOM Emi-NOM pro pat-PAST-COMP believe be-PRES
 ‘Ken believes that Emi patted *pro*’

At least some speakers admit that the null object in the complement clause cannot seem to take *Ken* as its antecedent unless the embedded subject *Emi-ga* is focused (or “exhaustive listing”, to use the traditional terminology for a focused nominative NP). On the “neutral description” reading of the embedded nominative NP, *pro* has to refer to some person other than Ken and Emi. If the embedded subject is also null, so that it cannot have the exhaustive listing interpretation, the null object *pro* obligatorily has its antecedent in the preceding discourse:

- (95)?*Ken_i-ga [pro_j pro_i tatak-ta-to] omow-te iru (koto)

The above anaphoric relation is also possible if the embedded subject is a quantificational NP:

- (96) a. Ken_i-ga [minna-ga pro_i tatak-ta-to] omow-te
 Ken-NOM everyone-NOM pro pat-PAST-COMP believe
 iru
 be-PRES
 'Ken believes that everyone patted *pro*'
- b. Ken_i-ga [dare-ga pro_i tatak-ta-to] omow-te iru
 Ken-NOM who-NOM pro pat-PAST-COMP believe be-PRES
 no?
 Q
 'Who does Ken believe patted him?'

The relevant descriptive generalization can be stated as the following:¹⁹

- (97) In the configuration
 [IP NP_i [VP [IP NP_j [VP ...*pro*...]]]],
 NP_i can be *pro*'s antecedent only if NP_j is an
 operator.

Now let us consider the following examples, where possession NPs have replaced the object *pro*'s in (94-96):

- (98) Ken-ga [Emi-ga hahaoya-o tatak-ta-to] omow-te iru
 mother-ACC
 'Ken believes that Emi patted (his) mother'
- (99) Ken-ga [pro hahaoya-o tatak-ta-to] omow-te iru
 'Ken believes that *pro* patted (his) mother'
- (100) a. Ken-ga [minna-ga hahaoya-o tatak-ta-to] omow-te iru
 'Ken believes that everyone patted (his) mother'
- b. Ken-ga [dare-ga hahaoya-o tatak-ta-to] omow-te iru
 no?
 'Who does Ken believe patted his mother?'

In (98) the embedded object possession NP *hahaoya* is construed as Ken's only if the embedded subject NP is focused. On the other hand, *Ken* cannot be understood as the possessor of the object possession NP in (99), which involves the embedded null subject that cannot be focused. The possession NP can safely be taken as Ken's in (100), where the embedded subject is an operator. These facts can be optimally accounted for if the possession NP has *pro* as a null possessor. The possession NP in (99) cannot be taken as Ken's since *pro*, contained in it, does not meet the descriptive generalization in (97). The same is true of (98), when the embedded subject is not a focused nominative.

6. Conclusion

In this paper I have discussed the Japanese possessor passive and proposed (i) that the surface subject of a possessor passive sentence is an argument of the verb, and (ii) that the possession NP contains the possessor *pro*. This analysis has been supported by a number of both closely related and apparently unrelated empirical facts, most of which, it seems, have been unnoticed in the literature.

NOTES

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¹ The possessor passive has not always been regarded as forming a natural class with the direct passive, however (cf. Washio (1990)).

² See Washio (1990) among others. This is somewhat complicated, however, since Kuroda (1979) and Hoshi (1991) argue that only the subject of *niyotte*-passive is derived via NP-movement: the subject of *ni*-passive, in contrast, is base-generated in its surface position. For this reason, the agent of the direct and the possessive passive is expressed as NP-*niyotte*, just to avoid complications that may arise in connection to their analysis of *ni*-passive.

³ I assume that the subject of an agentive predicate is generated outside the VP, as opposed to versions of VP-internal subject hypothesis. For the discussion on and

the evidence for this view, see Nakayama and Koizumi (1991), Koizumi (1993), Tateishi (1994), Homma (1995) etc.

⁴ The PBC is defined as follows:

- (i) The Proper Binding Condition:
A trace must be bound.

⁵ The marginality of the examples in (23) may be ascribed to a pragmatic factor. It is not necessary to use the overt lexical item *zibun* to express the situation equally denoted by the sentence without it (e.g. *Emi-ga sensei-niyotte / -kara ϕ -seiseki-o home-rare-ta*). The use of *zibun* may give rise to a violation of the Maxim of Quantity (Grice (1975)) in a normal context.

As a support of this, the acceptability of the sentences in (23) improves if we utter the sentences with a contrastive focal stress on *zibun* in contexts such as the following:

- (i) a. I had thought that Emi's teacher was going to praise her sister's grades, but I have realized that the teacher praised Emi's own grades.
(Contrast: Emi (=zibun) vs. Emi's sister)
- b. I had thought that Ken broke Emi's sister's toys. But it turned out that he broke Emi's toys.
(Contrast: the child (=zibun) vs. the child's brother)

These seem to me to be natural contexts in which the sentences in (23) may be uttered. For if the speaker uses an overt reflexive, the hearer will infer that the speaker intends to add something extra to the proposition equally denoted by a sentence without the overt reflexive, and that extra information is the speaker's intention of putting in a contrast the person denoted by the overt reflexive and some other person in the discourse. The use of a phonetically null element could not enable the speaker to convey such information, since a phonetically null element cannot bear phonological prominence.

⁶ As pointed out by Harada (1971), among others, "*ga-no* conversion" is impossible if the subject NP is not adjacent to the verb in the relative clause:

- (i) Emi-no kaw-ta hon
Emi-GEN buy-PAST book
'the book that Emi bought'
- (ii) *Emi-no sono hon-ya-de kaw-ta hon
Emi-GEN the bookstore-LOC buy-PAST book
'the book that Emi bought at the bookstore'

⁷ Keiko Miyagawa (p.c.) and Miyuki Noji (p.c.) pointed out to me that the following example is acceptable:

- (i) Ken-ga bosabosa-no atama-o koibito-niyotte
Ken-NOM disheveled head-ACC girlfriend-by
mi-rare-ta
see-PASS-PAST
'Ken had his disheveled hair seen by his girlfriend'

In this case, the Affectee role on *Ken* goes well with the semantics of the *V* (*bosabosa-no atama-o mir*): one's having his dishelved hair seen by someone would naturally affect him/her.

⁸ See Kitahara (1992) for a PR analysis of the double accusative in Korean.

⁹ Cho (1992) ascribes the slightly marginal status of (52b) to the Avoid Pronoun Principle of Chomsky (1981). We could also attribute the slight marginality of the sentence to the conversation maxims of Grice (1975), as we discussed in Note 5.

¹⁰ Cho (1992) reports that some Japanese speakers marginally accept double accusative sentences such as (54). He also points out that (i), with an "unaffected" verb, tends to be judged less acceptable than (54):

- (i) *Mary-ga John-o hoho-o mi-ta
Mary-NOM John-ACC cheek-ACC see-PAST
'Mary saw John's cheeks'

While I admit the slight difference in acceptability between (54) and (i), it does not seem very clear to me whether (i) is acceptable. The difference between (54) and (i) seems much smaller than the one that I feel exists between (54) and the perfectly acceptable sentence (ii):

- (ii) Mary-ga John-no hoho-o nagur-ta
 Mary-NOM John-GEN cheek-ACC hit-PAST
 'Mary hit John's cheeks'

11 See Authier (1988) for an analysis along these lines.

12 It seems worth while pointing out a semantic property that is common to the French IPoss construction and the Japanese possessor passive construction. Kayne (1975) and Authier (1988) observe that the object possession noun in IPoss construction cannot be modified by a nonrestrictive adjective:

- (i) a. Tu as photographié sa belle bouche.
 you have photographed her beautiful mouth
 'You photographed her beautiful mouth'
 b. *Tu lui as photographié la belle bouche.
 you to-her have photographed the beautiful mouth
 (Kayne (1975))

IPoss sentences with a restrictive adjective are grammatical.

- (ii) Il lui a bandé les doigts gelés.
 he to-him/her has bandaged the fingers frozen
 'He bandaged his/her frozen fingers'

The adjective *gelés* in (ii) restricts the set of fingers denoted by the head noun, while the adjective *belle* in (i) merely serves as a parenthetical comment about the object that the head noun *bouche* refers to.

The same restriction applies to the Japanese possessor passive. Consider:

- (iii) a. Ken-ga Aya-niyotte (?*kitanai) kao-o nagur-are-ta
 Ken-NOM Aya-by dirty face-ACC hit-PASS-PAST
 'Ken had his dirty face hit by Aya'
 b. Emi-ga doroboo-niyotte (?*kakkoi) kuruma-o
 Emi-NOM thief-by stylish car-ACC
 nusum-are-ta
 steal-PASS-PAST
 'Emi had her stylish car stolen by a thief'

The corresponding active and direct passive sentences are all acceptable:

- (iv) a. Aya-ga Ken-no kitanai kao-o nugur-ta
 Aya-NOM Ken-GEN dirty face hit-PAST
 'Aya hit Ken's dirty face'
- b. doroboo-ga Emi-no kakkoi kuruma-o nusum-da
 thief-NOM Emi-GEN stylish car-ACC steal-PAST
 'A thief stole Emi's stylish car'

13 See Guéron (1985) for an analysis which posits *PRO* in a possession NP in French inalienable possession constructions.

14 *Arb* in the English translation of the examples is intended to stand for the arbitrary interpretation of *one*.

15 This part of the licensing condition on *pro* must be parametrized among Romance languages on one hand and Chinese and Japanese on the other, as discussed in Huang (1989) and Takano (1991).

16 The symbol "□" stands for the null unselective binder.

17 I adopt the slash indexing notation of Haik (1984) to express the referential value of "bound" indefinite NPs and pronouns. The index j/i , for instance, means the referential value of NP $_j$ is dependent upon the value i picked out by the unselective binder.

18 We observed that the following sentence is grammatical, in contrast to (88), on the interpretation where the dog is Ken's:

- (i) { pro_j inu}- o_i Ken $_j$ -ga kuruma-niyotte t_i hane-rare-ta
 dog-ACC Ken-NOM car-by hit-PASS-PAST
 'Ken had his dog hit by a car'

(i) and (88) are different in that *pro* in (i) is contained in the NP whose trace is c-commanded by *pro*'s antecedent, while it is the *pro* coreferential with the NP containing the possessor *pro* that is c-commanded by the subject in (88). We have seen in the text that *pro* must be c-commanded by its antecedent if they are clause-mates. This syntactic requirement is satisfied in (i) through the existence of a trace t_i . This account of (i) is supported by the following example:

- (ii) [pro_j hahaoya]-o_i Taroo_j-ga t_i seme-ta
 pro mother-ACC Taro-NOM blame-PAST
 'Taro blamed his mother'

(ii) shows a significant contrast with (89b). Again the difference between (ii) and (89b) is that in (ii) *pro* is c-commanded by its antecedent through the trace of the containing NP, whereas there is no such relation between *pro* and its intended antecedent in (89b).

¹⁹ An exhaustive listing NP can be taken as an operator in the sense that it ranges over a presupposed set and picks out the member(s) in the set denoted by the NP.

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