

ARGUMENT STRUCTURE OF JAPANESE DITRANSITIVES*

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1. Introduction

The issue on Japanese ditransitive construction concerns its hierarchical relation between dative and accusative arguments. There have been two different proposals on this issue. The standard approach (Hoji 1985, Takano 1988) claims that the dative>accusative word order reflects the base structure, and that the accusative>dative word order is derived by the application of Move α (Saito 1985, 1992). While the other approach (Miyagawa 1995, Kitagawa 1994) contends that the two orders are best viewed as being base-generated, indicating that they are not equivalent. These traditional approaches give rise to a hot debate on the view of the movement; whether the movement is optional or obligatory. What do they tell us about Japanese ditransitives? Is there any way to unify the two approaches? A hint is found in a finer-grained syntax and semantic approach proposed by Matsuoka (2003). In this paper, incorporating Matsuoka's (2003) hypothesis and Miyagawa & Tsujioka's (2004) observation on a certain ditransitive verb, I will claim that the thematic hierarchy, *Agent* > *Possessor (Possessor Goal)* > *Theme* > *Goal*, is universal.

This paper is organized in the following way. In section 2, I will review the traditional analyses and find the issue they have. In section 3, I will argue that Matsuoka's (2003) hypothesis that there are two kinds of ditransitive verbs is superior to the traditional analyses. Following Miyagawa & Tsujioka's (2004) observation on two kinds of dative arguments of a certain kind of ditransitive verbs, I will claim that Matsuoka (2003) is partially correct, but not totally correct. Altering their hypothesis on the word order of the two kinds of dative arguments, I will try to present a unified view of the competing traditional hypotheses. In section 4, incorporating Kitagawa's (1994) insight on the decomposition of a ditransitive verb, I will propose that the two kinds of verbs are decomposed into abstract verbs. This decomposition analysis not only gives an account for why there are the two kinds of ditransitive verbs in Japanese, but also captures the semantic difference between the ditransitive constructions. Section 5 is a conclusion.

2. Traditional Analyses

There are two possible surface word orders in Japanese ditransitives; the dative-accusative word order and the accusative-dative word order, as shown in (1a) and (1b),

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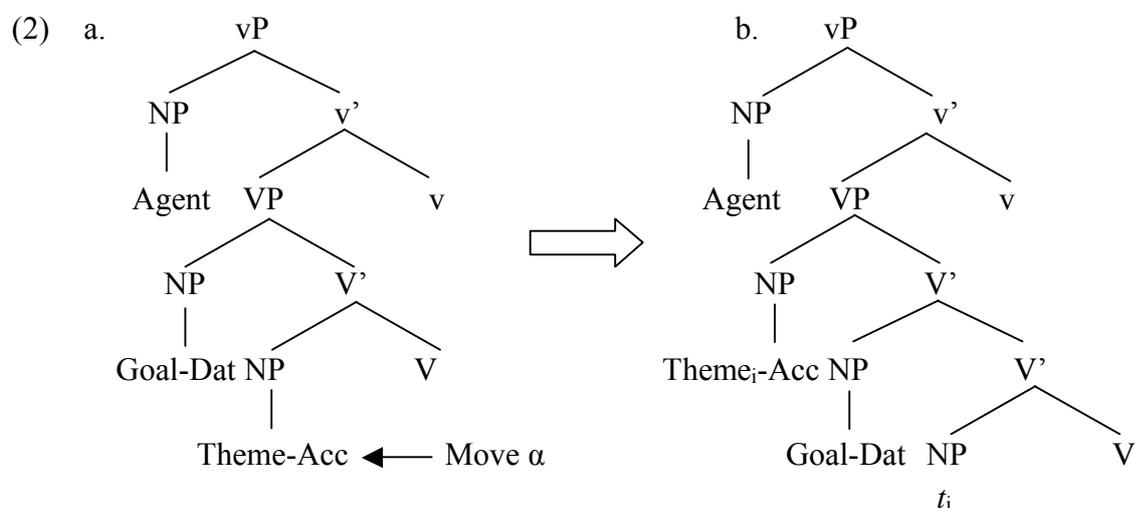
respectively.

- (1) a. John-ga Mary-ni hon-o age-ta / okur-ta / mise-ta (koto)
 John-Nom Mary-Dat book-Acc give-Past / send-Past / show-Past
 ‘John gave/sent/showed Mary a book.’
- b. John-ga hon-o Mary-ni age-ta / okur-ta / mise-ta (koto)
 John-Nom book-Acc Mary-Dat give-Past / send-Past / show-Past

This fact gives rise to a hot debate; whether the word orders are transformationally related, or base-generated. In the next section, I will briefly examine the traditional views on this issue.

2.1. Goal-centered Approach (Movement Hypothesis)

Hoji (1985) argues that dative-accusative word order in (1a) reflects the base structure, and that accusative-dative word order in (1b) is derived by a scrambling of the accusative phrase over the dative phrase. According to Hoji (1985) and Takano (1998), there is only one type of indirect object, a goal. Hence I shall call this approach goal-centered approach. They assume the following thematic hierarchy in (2).



They assume that the thematic hierarchy, agent>goal>theme, in (2a) reflects the base, and propose to derive the theme>goal order by scrambling as shown in (2b). One piece of evidence for this claim comes from the bound variable reading of a pronoun observed by Hoji (1985). Consider the examples in (3) from Hoji (1985).

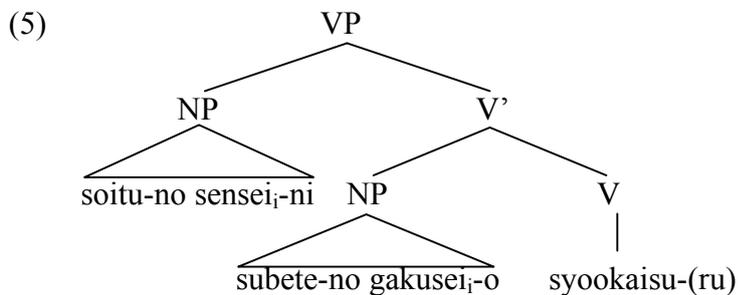
- (3) a. Mary-ga [subete-no gakusei_i] -ni [soitu_i-no sensei] -o syookaisi-ta (koto)
 Mary-Nom every-Gen student-Dat he-Gen student-Acc introduce-Past
 ‘Mary introduced his teacher to every student.’
- b. *Mary-ga [soitu_i-no sensei] -ni [subete-no gakusei_i] -o syookaisi-ta (koto)
 Mary-Nom he-Gen student-Dat every-Gen student-Acc introduce-Past

- c. Mary-ga [subete-no gakusei_i]_j-o [soitu_i-no sensei]-ni t_j syookaisi-ta (koto)
 Mary-Nom every-Gen student-Acc he-Gen teacher-Dat introduce-Past
 ‘Mary introduced every student to his teacher.’
- d. ?Mary-ga [soitu_i-no sensei]_j-o [subete-no gakusei_i]-ni t_j syookaisi-ta (koto)
 Mary-Nom he-Gen teacher-Acc every-Gen student-Dat introduce-Past

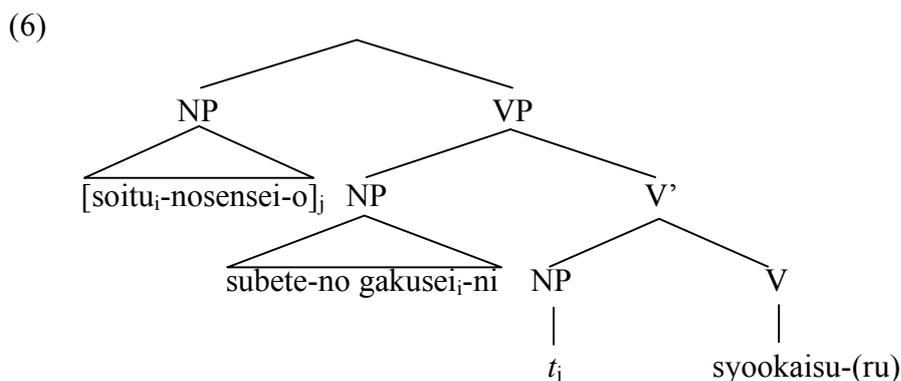
Assuming a binary branching structure in (2), Hoji (1985) argues that the bound variable reading of a pronoun follows the condition in (4).

- (4) A variable cannot be the antecedent of a pronoun or anaphor that it does not c-command (Saito and Hoji 1983)

(3a) shows that in the dative-accusative word order, the pronoun contained in the accusative argument is bound by the antecedent dative argument. (3b) is the crucial data. The sentence in (3b) is no good. The rough structure of (3b) is given in (5). In (5) the intended antecedent does not c-command the pronoun in the dative phrase. The unacceptability of (3b) is explained by the condition of (4) if we assume that dative-accusative order reflects the base.



The example sentences in (3c) and (3d) are counterparts of (3b) and (3a), respectively. If the accusative>dative word order is derived by scrambling in (3c), the antecedent in the accusative phrase c-commands the pronoun in the dative phrase from its moved position. An anaphoric relation can thus be established in (3c). (3d) is marginal, but it is much better than (3b). The rough structure in (3d) is given in (6).



In (6), the accusative phrase is moved over the dative phrase. Scrambling is undone at LF, and

the pronoun in the accusative phrase is bound by the antecedent dative phrase at its trace position. The acceptability of (5d) is thus gained by a reconstruction effect. If we assume the other way word order as its base, we make a wrong prediction.

Thus, the standard analysis identifies one order (goal>theme) as basic and the other (theme>goal) as being derived by scrambling of the theme over the goal. Under this hypothesis, there is only one type of indirect object, a goal. If we assume this standard analysis, an interesting problem arises. A mismatch in the thematic hierarchy occurs between Japanese and English. In the English ditransitive construction in (7), Larson (1988) identifies (7a) as the base and (7b) as being derived by passive like movement of the goal phrase over the theme phrase.

- (7) a. John passed an E-mail to Mary.
 b. John passed Mary an E-mail.

Baker (1993,1995) presents further evidence for Larson's (1988) claim and concludes that the thematic hierarchy, theme>goal, is universal. If Japanese and English employ different thematic hierarchies, this poses a nontrivial problem for learnability. Thematic hierarchy is not a thing that children should acquire through linguistic evidence. This suggests that the analysis of English and Japanese should be reconsidered.

2.2. Two Kinds of Indirect Objects (Base-generation Hypothesis)

Concentrating on the VP-internal word orders, Miyagawa (1994,1995) and Kitagawa (1994) argue that the two possible word orders, dative-accusative and accusative-dative, have different sources. They argue that the former string corresponds to English double object construction in (7b), and that the latter string is equivalent to to-dative construction in (7a).

One crucial data for this claim is based on a diagnosis of numeral quantifier floating. As is well known, a numeral quantifier may float off its host only if the host is a NP (Shibatani 1978, Haig 1980, Miyagawa 1989, among others). Miyagawa (1994, 1997) observes that the possibility of floating numeral quantifiers differs depending on the position of the dative phrase relative to that of the accusative argument. Consider the sentences in (8). The judgment shown in (8) is Miyagawa's (1994, 1997), not that of my informants.

- (8) a. Mary-ga tomodati_i-ni futa-ri t_i tanzyoobi-ni MD-o watasi-ta (koto)
 Mary-Nom friend-Dat 2-CL birthday-at MD-Acc hand-Past
 'Mary handed two friends a MD at his/her birthday.'
- b. *Mary-ga MD-o tomodati_i-ni futa-ri t_i tanzyoobi-ni watasi-ta (koto)
 Mary-Nom MD-Acc friend-Dat 2-CL birthday-at hand-Past
 (Miyagawa 1994, 1997 slightly modified)

According to Miyagawa (1994, 1997), as shown in (8), if the dative precedes the accusative, it

is acceptable to float the numeral quantifier construed with the dative phrase, but if the dative phrase follows the accusative phrase, the floating numeral quantifier off the dative phrase is unacceptable for many speakers. Based on this observation, he concludes that the dative *ni* in the dative-accusative order is a case marker, and that the dative *ni* in the accusative-dative order, is a postposition. According to him, the two orders for dative and accusative phrases are thus schematized as follows.

- (9) a. [DP [NP ...]-ni] [DP [NP ...]-o] -ni : Case marker
 b. [DP [NP ...]-o] [PP [DP ...]-ni] -ni : postposition

Miyagawa (1994, 1997) does not directly say anything about the thematic difference between the two dative phrases. As long as he calls the dative phrase *goals*, the base generation hypothesis is no different from the movement hypothesis in the face of the issue on the thematic hierarchy. But Miyagawa's (1994, 1997) point is that there are two kinds of dative phrases in the ditransitive construction. What does this approach tell us about the ditransitive constructions in Japanese? Why are there two different views on the word order of the construction? Matsuoka's (2003) classification on ditransitive verbs gives us a hint. He claims that there are two kinds of ditransitive verbs in Japanese; the Show-type and the Pass-type (hence force S-type and P-type, respectively). Checking on the verbs that Miyagawa (1994, 1997) adopts for numeral quantifier floating diagnosis, it has turned out that the verbs belong to the P-type. As for the discussion on the bound variable reading of a pronoun, Hoji (1985) mainly uses the S-type. In the next section, let us look at a finer grained syntax and semantic approach proposed by Matsuoka (2003) and Miyagawa & Tsujioka (2004) and find a solution to the issue on the thematic hierarchy.

3. A Finer Grained Syntax and Semantic Approach

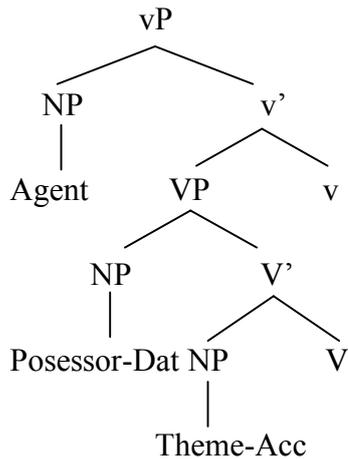
3.1. Two Kinds of Ditransitive Verbs

Baker's (1993,1995) observation on the pattern of inchoative alternation led Matsuoka (2003) to make an important proposal for ditransitive verbs. Matsuoka (2003) claims that there are two kinds of ditranstive verbs; the S-type and the P-type, which are shown in (10).

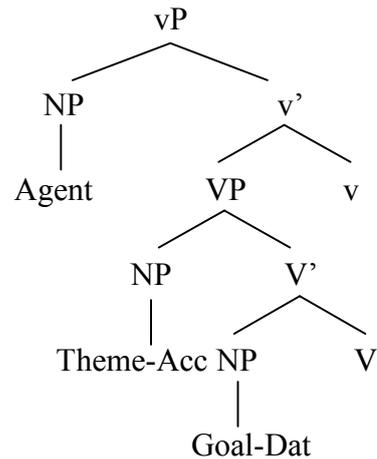
- (10) a. S-type: *mise-ru* (show), *azuke-ru* (deposit), *osie-ru* (teach), *syookaisu-ru* (introduce)
 b. P-type: *wata-su* (pass), *oku-ru* (send), *todoke-ru* (deliver), *age-ru* (give)

Matsuoka (2003) argues that the constructions of these two kinds of verbs exhibit distinct structures, as shown in (11). The phrase structures in (11a) and (11b) represent the structures of the S-type and the P-type, respectively.

(11) a. S-Type



b. P-Type



As (11a) shows, the dative argument of the S-type is generated in a position higher than the accusative argument. Essentially, this structure is no different from Hoji's (1985). On the other hand, according to Matsuoka, the dative argument of the P-type is always generated in a position lower than the accusative argument, as shown in (11b). Matsuoka (1999, 2003) assumes that the dative NP in (11a) is a possessor, which behaves as an inner subject, while the dative NP in (11b) represents a goal. If this hypothesis is correct, the thematic hierarchy of Japanese is as follows.

(12) Theme > Goal

This hierarchy in (12) is the same as the one assumed by Baker (1993, 1995). There is no need to worry about the issue on the thematic hierarchy, if this hypothesis is correct. One piece of evidence for this claim that the goal phrase is base generated in a position lower than the accusative phrase in the P-type comes from inchoative alternation.

3.1.1. Inchoative Alternation

First, let us look at the inchoative alternation of the P-type ditransitive verbs. The verb *watasu* (pass) selects three arguments; an agent with nominative case; a goal with dative case and a theme with accusative case, as shown in (13).

(13) Taro-ga Hanako-ni ronbun-o watasi-ta (koto)
Taro-Nom Hanako-Dat article-Acc pass-Past

‘Taro passed Hanako an article.’

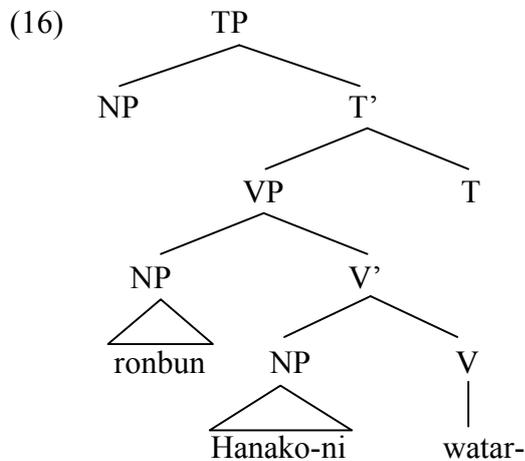
The ditransitive verb *watasu* (pass) in (13) has a morphologically related inchoative unaccusative variant, *watar-u* (pass to). Unlike the ditransitive, the inchoative variant takes two arguments; a theme with nominative case and a goal with dative case, but no agent subject. The subject of (14a) corresponds to the object NP in (13). The sentence in (14a) is good, but the sentence in (14b) is not good as an inchoative alternant.

- (14) a. Ronbun-ga Hanako-ni watar-ta (koto)
 article-Nom Hanako-Dat pass to-Past
 ‘The article passed onto Hanako.’
- b. *Hanako-ga ronbun-o watar-ta (koto)
 Hanako-Nom article-Acc pass to-Past
 ‘(Lit.) Hanako passed to an article.’

In (13), it is the theme object that is promoted to the subject position of the inchoative variant in (14). If the dative object in (13) is promoted to the subject position of the inchoative, the sentence becomes unacceptable, as the example in (14b) shows. Given the structure in (11b), the inchoative pattern in (14) is explained in terms of minimality. Minimal Link Condition (MLC) proposed by Chomsky (1995) is given in (15).

- (15) MLC
 K attracts α only if there is no β , β closer to K than α , such that K attracts β .

The structure of the inchoative sentence in (14a) is shown in (16).



In (16), the verb, *watar-* (pass to), being unaccusative verb, cannot assign accusative case to the object NP *ronbun*. The probe T, which has a case feature, searches for the closest NP to T and attracts the NP *ronbun* to the Spec of TP. T assigns nominative case to the NP in the Spec of TP. If T attracts the goal NP *Hanako* over the closest NP, *ronbun*, the ungrammatical sentence in (14b) is unexpectedly generated as an inchoative alternant.

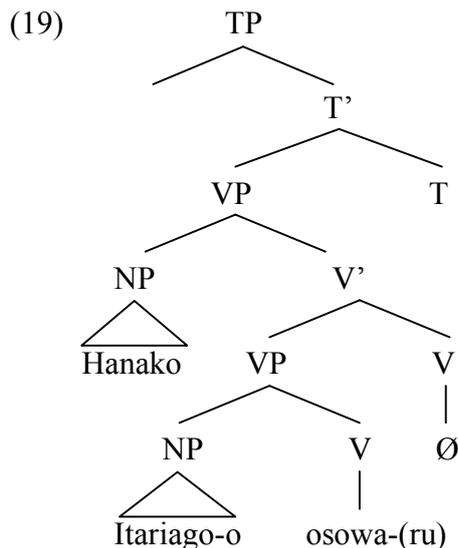
Secondly, Matsuoka (2003) examines the inchoative alternation pattern of the S-type ditransitive verbs and argues that the pattern is also explained by MLC in (15). The verb, *osier-u* (teach) selects three arguments; an agent with nominative case, a possessor with dative case, and a theme with accusative case, as shown in (17).

- (17) Taro-ga Hanako-ni Itariago-o osie-ta (koto)
 Taro-Nom Hanako-Dat Italian-Acc teach-Past
 ‘Taro taught Hanako Italian.’

The verb *osier-u* in (17) has an inchoative variant, *osowar-u* (learn). The verb *osowar-u* (learn) selects two arguments; a possessor with nominative case and a theme with accusative case, as shown in (18a). The subject NP in (18a) corresponds to the dative NP in (17). The sentence in (18a) is good, but the sentence in (18b) is no good as the inchoative alternant.

- (18) a. Hanako-ga Italiago-o osowat-ta (koto)
 Hanako-Nom Italian-Acc learn-Past
 ‘Hanako learned Italian.’
- b. *Italiago-ga Hanako-ni osowat-ta (koto)
 Italian-Nom Hanako-Dat learn-Past
 ‘(Lit.) Italian learned Hanako.’

In (17), it is the dative object that is promoted to the subject position of the inchoative variant in (18a). If the accusative object in (17) is promoted to the subject position of the inchoative variant, the sentence becomes unacceptable, as shown in (18b). The structure of the sentence in (18a) is shown in (19).



In (19), the verb *osowar-u* (learn), not being lexical causative verb, cannot assign dative case to the object NP, *Itariago*. The probe T, which has a case feature, searches for the closest NP to T, and attracts *Hanako* rather than the NP, *Itariago*. T assigns nominative case to the NP in Spec of TP. If T attracts the NP, *Itariago*, over the closest NP *Hanako*, the ungrammatical inchoative sentence in (18b) is unexpectedly generated as an inchoative alternant.

If this analysis is correct, we would expect that bound variable reading of a pronoun in

the P-type differs from the one of the S-type shown in (3). But the diagnosis does not favor the structure in (11b), which is assumed by Matsuoka (2003).

3.1.2. Two Kinds of Bound Variable Readings of a Pronoun in the P-type

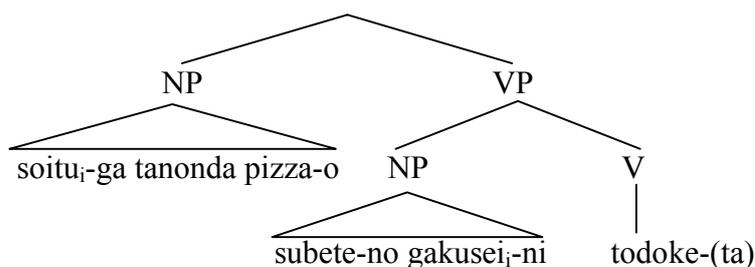
As noted by Matsuoka (2003), there are some speakers of Japanese who claim that the anaphoric relation can be established even if a pronoun contained in the dative argument precedes the antecedent in the accusative argument in the P-type. I have applied the same diagnosis on several P-type ditransitives and have gained the same results as Matsuoka's from my informants. But later, I have found that majority subjects do not accept our judgments. This means that there are two kinds of judgments in the bound variable pronoun diagnosis of the P-type. The following examples are mine. I have put majority reading in the parenthesis.

- (20) a. Mary-ga subete-no piza_i-o sore_i-o tanonda seito-ni todoke-ta (koto)
 Mary-Nom every-Gen pizza-Acc it-Acc ordered student-dat deliver-Past
 'Mary sent every book_i to the student who ordered it_i.'
- b.?(?)Mary-ga soitu_i-ga tanonda piza-o subete-no seito_i-ni todoke-ta (koto)
 Mary-Nom he-Nom ordered pizza-Acc every-Gen student-Dat deliver-Past
 'Mary delivered the pizza that he_i ordered to every student_i.'
- c. Mary-ga [subete-no seito_i-ni]_j soitu_i-ga tanonda piza-o t_j todoke-ta (koto)
 Mary-Nom every-Gen student-Dat he-Nom ordered pizza-Acc deliver-Past
 'Mary sent every student_i the pizza he_i ordered.'
- d.?(*)Mary-ga [sore_i-o tanonda seito-ni]_j subete-no piza_i-o t_j todoke-ta (koto)
 Mary-Nom it-Acc ordered student-Dat every-Gen pizza-Acc deliver-Past
 'Mary delivered the student who ordered it_i every pizza_i.'

In (20a) and (20c), the anaphoric relation can be established because the antecedent c-commands the pronoun at the surface structure, no matter which word order, the dative-accusative or the accusative-dative reflects the base structure.

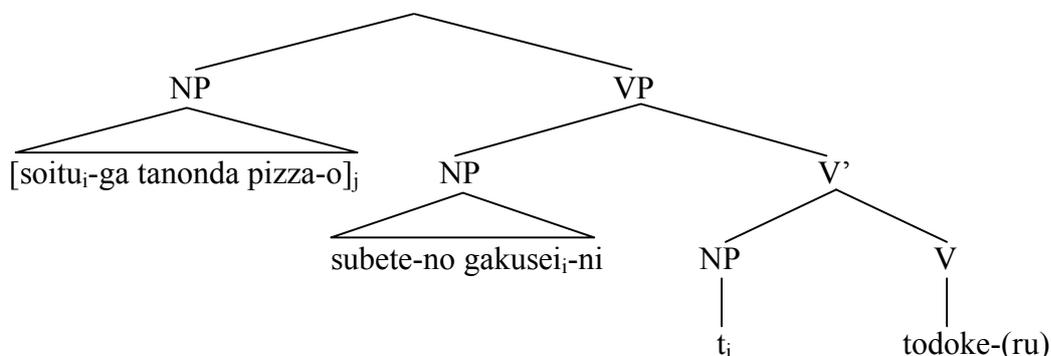
The more crucial data are (20b) and (20d). There are two kinds of judgments in bound variable reading of the pronoun in (20b) and (20d). The sentences in (20b) and (20d) also contrast with the data with the S-type in (3d) and (3b), respectively. As we have already seen in the previous section, we find (3d) to be marginal in the accusative-dative order. But in the same word order, some speakers find (20b) to be unacceptable. The assumed structure for (20b) is shown in (21).

(21) The assumed structure (some speakers)



If we assume that the accusative-dative word order is basic, as shown in (21), the pronoun contained in the accusative phrase cannot be c-commanded by the dative phrase. Hence, an anaphoric relation cannot be established. The unacceptability of (20b) for some speakers is gained in the assumed structure (21). On the other hand, many speakers judge (20b) to be marginal. This judgment is parallel to the one that all speakers obtain in (3d). So there is no contrast in judgments between (3d) and (20b) for many speakers. If we assume that the dative-accusative word order reflects the base structure of the P-type, as shown in (22), which is contrary to Matsuoka's (2003) proposal, the bound variable reading of the pronoun in (20b) is expected to be marginal.

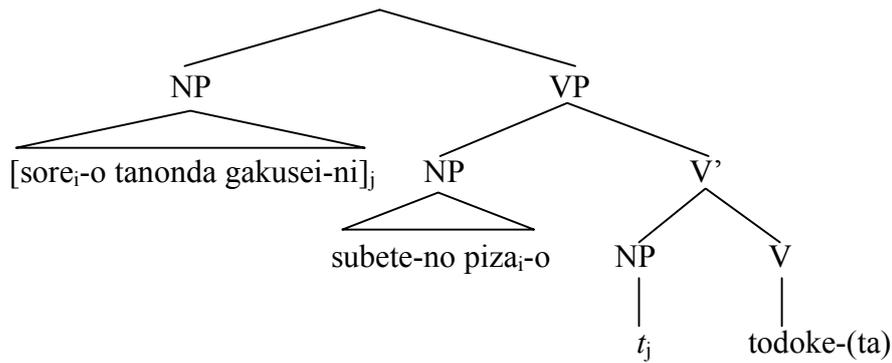
(22) The assumed structure (most speakers)



If we assume that the accusative phrase is moved over the dative phrase by scrambling, as shown in (22), the pronoun in the accusative phrase is bound by the antecedent in its trace position. The marginal acceptability of (20b) for many speakers is expected to be obtained by reconstruction effect in this assumed structure in (22).

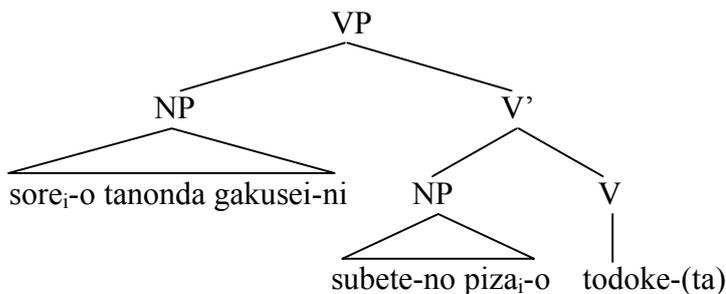
The sentence in (20d) is the more controversial data. (20d) is marginal, but it is much better than (20b), for some speakers. The rough structure of (20d) is given in (23).

(23) The assumed structure (some speakers)



If we assume that the dative phrase is moved over the accusative phrase by scrambling in (23), the pronoun in the dative phrase is bound by the antecedent in the accusative phrase in its trace position. The marginality of (20d) for some speakers is expected to be gained by reconstruction effect in this assumed structure in (23). But I found that majority of people do not accept this judgment of ours in (20d). They judge (20d) to be unacceptable. So there is no contrast in judgment between (20d) and (3b) for many speakers. If we assume that the dative-accusative word order reflects the base structure, as shown in (24), which is contrary to Matsuoka's (2003) proposal, the bound variable reading that most speakers get in (20d) can be expected to be obtained.

(24) The assumed structure (many speakers)



In (24), the pronoun contained in the dative phrase is not bound by the antecedent accusative phrase. Hence, an anaphoric relation cannot be established in (24).

If Matsuoka's (2003) hypothesis is correct, it is quite odd that there are two kinds of judgments in the bound variable pronoun diagnosis only in the P-type. There is no peculiarity in judgments of bound variable anaphora with the S-type. As we have seen, Matsuoka's (2003) hypothesis accounts for inchoative alternation of the P-type ditransitive, but as far as the bound variable pronouns with the P-type is concerned, the diagnosis does not favor Matsuoka's (2003) proposal. Why does such an idiosyncrasy in the bound variable reading of a pronoun exist only in the P-type? There must be more in the P-type ditransitive than Matsuoka's (2003) proposal. In the next subsection, I will argue that the distinction on ditransitive verbs that Matsuoka (2003) makes is correct, but Matsuoka (2003) cannot be correct in capturing the goal dative as a NP. Although the judgment in the bound variable pronoun in the P-type is highly controversial, there is a clear evidence for Matusoka's (2003)

distinction of ditransitive verbs. The evidence comes from the two goals construction which Miyagawa & Tsujioka (2004) observes.

3.2. High and Low Goals in a Certain Kind of Ditransitive

3.2.1. High and Low Goals

Miyagawa & Tsujioka (2004) observes that two different kinds of dative phrases occur in the same sentence with *right* ditransitive verbs. The evidence comes from the sentence, as shown in (25). The example sentence is mine.

- (25) Situzi-ga oozi-ni obentoo-o gakkoo-ni todoke-ta (koto)
butler-Nom prince-Dat lunch box-Acc school-to deliver-Past

‘The butler delivered a lunch box to school to the possession of the Prince.’

The sentence in (25) means that the butler sent a lunch box to school, which is a location (low goal), with an intention that the Prince (high goal) will come to possess it. The contrast in (26) shows that a high goal is a NP, which can be passivized for a case reason, and that a low goal is a PP, to which passivization cannot apply.

- (26) a. Oozi-ga situzi-niyotte obentoo-o gakkoo-ni todoke-rare-ta (koto)
prince-Nom butler-by lunch box-Acc school-to deliver-Pass-Past

‘The Prince was delivered a lunch box to school by the butler.’

- b. *Gakkoo-ga situzi-niyotte oozi-ni obentoo-o todoke-rare-ta (koto)
school-Nom butler-by prince-Dat lunch box-Acc deliver-Pass-Past

‘(Lit.) The school was sent a lunch box to the Prince by the butler.’

Interestingly, as the sentence in (27) shows, an animate goal may appear as a low goal.

- (27) Situzi-ga oozi-ni obentoo-o tukibito-ni todoke-ta (koto)
butler-Nom prince-Dat lunch box-Acc attendant-Dat deliver-Past

‘The butler delivered a lunch box to the attendant to the Prince.’

In (27), *oozi* is a high goal, and *tukibito* is a low goal. As the contrast in (28) shows, passivization can be applied to the high goal (NP), *oozi*, but not to the low goal (PP), *tukibito*.

- (28) a. Oozi-ga situzi-niyotte obentoo-o tukibito-ni todoke-rare-ta (koto)
prince-Nom butler-by lunch box-Acc attendant-Dat deliver-Pass-Past

‘The Prince was sent a lunch box to his attendant by the butler.’

- b. *Tukibito-ga situzi-niyotte oozi-ni obentoo-o todoke-rare-ta (koto)
 attendant-Nom butler-by prince-Dat lunch box-Acc deliver-Pass-Past

‘The attendant was sent a lunch box to the Prince by the butler.’

The question at hand is what kind of ditransitive verbs may allow the two goals, *high* and *low* in the same sentence. Next, I will show that what Miyagawa & Tsujioka call *right* ditransitives for the two goals construction corresponds to the P-type ditransitive verbs. This fact gives us a further support for Matsuoka’s distinction of ditransitive verbs. Consider the sentences in (29). The verbs, *azuke-ru* (entrust) in (29a) and *mise-ru* (show) in (29b), instantiate the S-type ditransitive verbs. While the verbs, *todoke-ru* (deliver) in (29c) and *wata-su* (hand) in (29d) are instances of the P-type ditransitive verbs.

- (29) a. *Taro-ga Hanako-ni okane-o ginkoo-ni azuke-ta (koto)
 Taro-Nom Hanako-Dat money-Acc bank-to deposit-Past

‘Taro deposited money to Hanako to the bank.’

- b. *Taro-ga Yamada sensei-ni kao-o kenkyusitu-ni mise-ta (koto)
 Taro-Nom Yamada teacher-Dat face-Acc office-to show-Past

‘Taro showed his face in front of Prof. Yamada at his office.’

- c. Taro-ga Hanako-ni piza-o heya-ni todoke-ta (koto)
 Taro-Nom Hanako-Dat pizza-Acc room-to deliver-Past

‘Taro delivered a pizza to Hanako to her room.’

- d. Taro-ga Hanako-ni hanataba-o hisyo-ni watasi-ta (koto)
 Taro-Nom Hanako-Dat bouquet-Acc secretary-to hand-Past

‘Taro handed a bouquet to the secretary to Hanako.’

The example sentences in (29a) and (29b) show that the two dative phrases cannot appear in the sentences with the S-type verbs. On the other hand, the example sentences in (29c) and (29d) show that two dative phrases may occur simultaneously in the sentences with the P-type verbs. The contrasts in (29) show that what Miyagawa & Tsujioka (2004) call *right* ditransitives that may allow the two goals is equivalent to the P-type ditransitive verbs. This fact provides a good evidence for Matsuoka’s (2003) distinction of ditransitive verbs. Then what about the word order of the two goals?

3.2.2. Word Order of the Two Goals

According to Miyagawa & Tsujioka (2004), the word order of the two goals is quite rigid, the hierarchical order in (30) reflects the word order of the two goals.

- (30) a. High goal (possessor goal) > accusative (theme) > low goal (locative goal)

- b. High goal (possessor goal) > low goal (locative goal) > accusative (theme)

The descriptive generalization in (30) tells us that a low goal cannot precede a high goal, and that a theme phrase cannot be moved over a high goal. If high and low goals in (25) and (27) appear in the reverse word order, low goal.>high goal, as shown in (31a) and (31b), the sentences become quite odd.

- (31) a. *Situzi-ga gakoo-ni obentoo-o oozi-ni todoke-ta (koto)
 butler-Nom school-to lunch box-Acc prince-Dat deliver-Past
 ‘The butler delivered a lunch box to school to the possession of the Prince.’

- b. *Situzi-ga tukibito-ni obentoo-o oozi-ni todoke-ta (koto)
 butler-Nom attendant-Dat lunch box-Acc prince-Dat deliver-Past
 ‘The butler delivered a lunch box to the attendant to the possession of the Prince.’

The sentence in (31b) is good in the meaning, ‘The butler delivered a lunch box to the Prince to the possession of the attendant, but not good in the original meaning of (27). What about the word order theme-high goal? Although Miyagawa & Tsujioka (2004) judge the sentence in (32) unacceptable, I find it to be marginal. I have put their judgment in the parenthesis.

- (32) (*)? Situzi-ga obentoo-o oozi-ni gakkoo-ni todoke-ta (koto)
 butler-Nom lunch box-Acc Prince-Dat school-to deliver-Past
 ‘The butler delivered a lunch box to school to the Prince.’

I assume that the marginality found in the sentence of (32) is due to the successive occurrence of the dative phrases. If we put the phrase, *baiku-de* (by motorcycle) between the two dative phrases, as shown in (33), the marginality suddenly disappears.

- (33) Situzi-ga obentoo_i-o oozi-ni t_i baiku-de gakoo-ni todoke-ta (koto)
 butler-Nom lunch box-Acc Prince-Dat motorbike-by school-to deliver-Past
 ‘The butler delivered a lunch box to school to the Prince by mortorbike.’

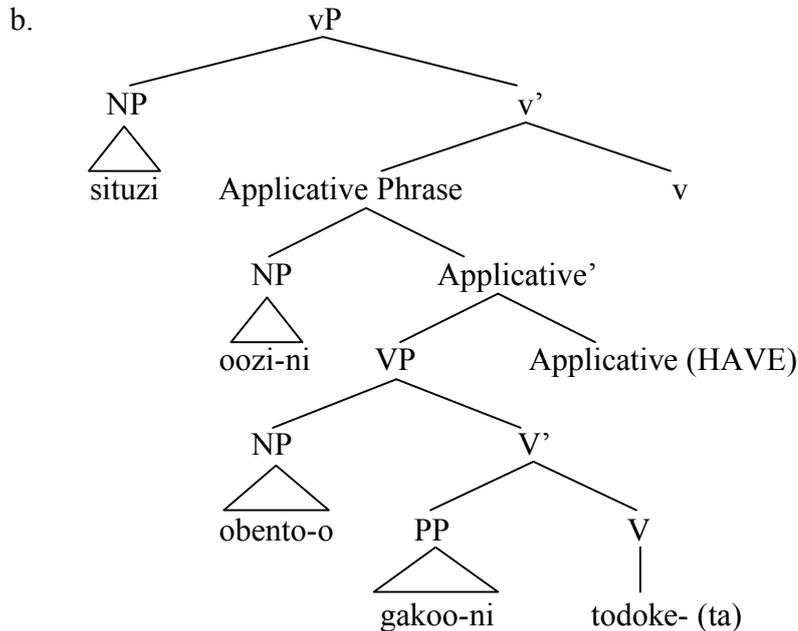
I find the sentence in (33) to be perfect. This fact shows that the theme *obentoo* may be moved over the high goal *oozi* in (33), if the hierarchy in (30a) reflects the base structure. I propose in this section that the generalization in (30) should include the fact that a theme may be moved over a high goal. So the revised generalization on the word order would be (34).

- (34) *Low goal > High goal

The constraint in (34) is so simple. In (34), the low goal is prohibited to be in a position where it c-commands the high goal. We have seen that a high goal (a possessor goal) is a NP, which is case marked *ni*, while a low goal (a locative goal) is a PP, whose *ni* is a postposition. This fact nicely corresponds to Miyagawa’s (1994,1997) conclusion that the dative *ni* is a case

marker in the dative-accusative word order, and that the dative *ni* is a postposition in the accusative-dative word order. Building on Marantz's (1993) proposal on the applicative head, Miyagawa & Tsujioka (2004) proposes the following structure in (35b) for the two goals construction in (25), which is repeated in (35a).

- (35) a. Situzi-ga oozi-ni obento-o gakko-ni todoke-ta (koto)
 butler-Nom prince-Dat lunch box-Acc school-to deliver-Past
 'The butler delivered to school to the Prince.'



In (35b), according to Miyagawa & Tsujioka (2004), the applicative head (with an abstract verb HAVE) relates the high goal, *oozi* (the Prince), to the event that the theme, *obentoo* (lunch box) ultimately comes into the possession of the Prince by way of the low goal. But as Kageyama (2006) notes, the sentence in (35a) does not imply that the high goal *oozi* actually possesses the theme *obentoo*. A success of transfer of the theme to the goal is not implied in the sentence in (35a). This structure in (35b) captures the hierarchical relation of the arguments, but it is incorrect to call the high goal *a possessor*. I shall call it *a locative goal*. I will give an account for why the P-type does not imply a success of transfer later by presenting a decomposition analysis of the ditransitive verb. In the previous section, we have seen that there is an idiosyncrasy on the bound variable reading of the pronoun in the P-type. One possibility which comes to mind is that for majority of people, an anaphoric relation is established between the high goal and the theme in the structure assumed in (35b). For minority of people, like Matsuoka (2003) and I, an anaphoric relation is established between the theme and the low goal in (35b). If this structure in (35b) is correct, what Matsuoka (2003) has been capturing as a NP goal must be a low goal, which is a PP. A further prediction is that the inchoative alternation of the P-type ditransitive verbs must occur in the lowest VP; an event structure. Otherwise, the high goal NP, *oozi*, is incorrectly attracted to the

subject position of the inchoative alternant, since the high goal is closer to T than the low goal. Such a derivation wrongly predicts the unacceptable alternation, as shown in (36).

- (36) *Oozi-ga obentoo-o gakkoo-ni todoi-ta (koto).
 prince-Nom lunch box-Acc school-Dat reach-Past
 ‘(Lit.)The Prince reached a lunch box to school.’

In the next subsection, I will argue that the two possible word orders; the dative-accusative and the accusative-dative, which Miyagawa (1994, 1997) captures as being base generated, are equivalent to the word orders shown in the two goals construction; high goal-theme and theme-low goal, respectively.

3.3. Numeral Quantifier Float

As Miyagawa & Tsujioka (2004) point out, there is no way to tell which goal is present if the sentence includes only one goal in the dative-accusative word order, as shown in (37).

- (37) Taro-ga Hanako-ni MD-o okut-ta (koto)
 Taro-Nom Hanako-Dat MD-Acc send-Past
 ‘Taro sent MD to Hanako.’

In (37), the goal *Hanako* may be a high goal or a low goal in the goal-theme order. This is what Miyagawa & Tsujioka (2004) mean, based on their generalization on the word order of the two goals, which is shown in (30). Then what about the case in which the sentence includes one goal phrase in the accusative-dative word order, as shown in (38).

- (38) Taro-ga MD-o Hanako-ni okut-ta (koto)
 Taro-Nom MD-Acc Hanako-Dat send-Past
 ‘Taro sent MD to Hanako.’

Although Miyagawa & Tsujioka (2004) conclude that *Hanako* in (38) is a low goal in the accusative-dative word order, but we have seen that a theme may be moved over a high goal in the two goals construction. Now we can say that there is no way to tell which goal is present if the sentence includes only one goal even in the accusative-dative word order. In (38), the goal *Hanako* may be a high goal or a low goal. Notice that a high goal is a NP, which allows a numeral quantifier float, and that a low goal is a PP, which does not allow a numeral quantifier to float off its host. This means that it is no use applying a numeral quantifier float diagnosis on the single goal of the P-type ditransitive construction to tell whether it is a NP or a PP. Although Miyagawa (1994, 1997) claims that there is a contrast in the judgments of numeral quantifier float diagnosis between the two sentences in (8), which is repeated in (39), the judgment may be controversial. The judgment in (39) is Miyagawa’s (1994,1997).

- (39) a. Mary-ga tomodati_i-ni san-nin t_i tanzyoobi-ni MD-o watasi-ta (koto)
 Mary-Nom friend-Dat 3-CL birthday-at MD-Acc hand-Past
 ‘Mary handed a MD to three friends at their birthday.’
- b. *Mary-ga MD-o tomodati-ni san-nin t_i tanzyoobi-ni watasi-ta (koto)
 Mary-Nom MD-Acc friend-Dat 3-CL birthday-at hand-Past

As I have mentioned, there is no way to tell which goal is present in single goal constructions, as shown in (39). The dative phrases in (39) may be a high goal (NP), or a low goal (PP). Some of my informants find (39a) to be unacceptable and some judge (39b) to be acceptable, contrary to Miyagawa’s (1994, 1997) judgment. The judgment in numeral quantifier float diagnosis in a single goal construction with the P-type is highly controversial. This fact suggests that what Miyagawa (1994, 1997) has captured as being base-generated in a single goal construction with the P-type cannot be correct. Does this mean that the base generation-hypothesis is incorrect? What about the possibility of floating numeral quantifier off the two goals? The base-generation hypothesis needs to be reconsidered in the two goals construction. Consider the sentences with the two goals, as shown in (40).

- (40) a. *Situzi-ga oozi_i-ni ^{OK}san-nin t_i piza-o gakkoo_j-ni ^{NOT OK}san-kasyo t_j
 Butler-Nom Prince-Dat 3-CL pizza-Acc school-to 3-CL
 todoke-ta (koto)
 deliver-Past
 ‘The butler delivered a pizza to three Princes to three schools.’
- b. *Situzi-ga oozi_i-ni ^{OK}san-nin t_i piza-o tukibito_j-ni ^{NOT OK}hito-ri t_j
 butler-Nom Prince-Dat 3-CL pizza-Acc attendant-to 1-CL
 todoke-ta (koto)
 deliver-Past
 ‘The butler delivered a pizza to three Princes to their one attendant.’

In (40), it is acceptable to float a numeral quantifier off the high goals (NP), *oozi* (prince), but not off its PP host, the low goals, *gakkoo* (school) and *tukibito* (attendant). We can conclude that the dative *ni* of a high goal is a case marker, while that of a low goal is a postposition. The contrast in (40) shows that what Miyagawa (1994, 1997) has been capturing as being base-generated is all about the rigid word order of the high and low goals. If the word order constraint in (34) is correct, both base-generation hypothesis (Miyagawa 1994, 1997) and movement hypothesis (Hoji 1985, Takano 1988, Saito 1989) can be maintained, as far as the P-type ditransitive construction is concerned. In this section, I have shown that what Miyagawa & Tsujioka (2004) call *right* ditransitive verbs for allowing the two goals in the same sentence corresponds to the P-type ditransitive verbs. This is the clearest evidence for Matsuoka’s distinction of ditransitive verbs. But, Matsuoka (2003) is incorrect in capturing the goal as a NP in the P-type verbs. The low goal is a PP. Here we have an issue. Why do Japanese have two kinds of ditransitive verbs? The lexical decomposition of ditransitive verbs

assumed by Kitagawa (1994) gives us a hint. In the next section, I will propose that the two kinds of ditransitive verbs are lexically decomposed into more fundamental elements, abstract verbs *HAVE* or *GO*, which denote their dative arguments as a possessor or a locative goal.

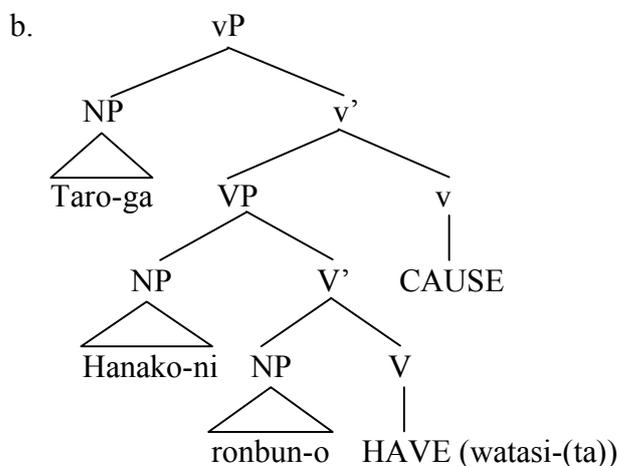
4. Proposal

4.1. The Decomposition of Ditransitives

In the previous section, we have seen that there are two kinds of ditransitive verbs in Japanese. Then two different kinds of questions arise; first of all, why does Japanese have two kinds of ditransitive verbs? Secondly, why does the P-type ditransitives allow two kinds of goals in the same sentence? Kitagawa's (1994) lexical decomposed structure, which is shown in (41b) gives us a hint. Kitagawa (1994) gives the structure in (41b) to the sentence in (41a).

- (41) a. Taro-ga Hanako-ni ronbun-o watasi-ta (koto)
Taro-Nom Hanako-Dat article-Acc hand-Past

‘Taro handed Hanako an article.’

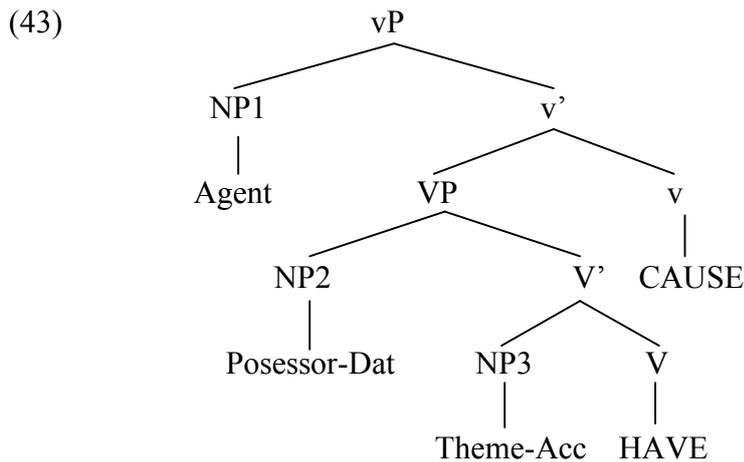


In (41b), Kitagawa (1994), based on Kayne (1983)'s insight on a small clause analysis of English double object construction, postulates an abstract verb *HAVE* for Japanese ditransitive construction in (41a). Notice that the verb *watasu* (*hand*) is an instance of the P-type, which allows the two dative phrases in the sentence. The structure in (41b) is not the correct structure for the P-type ditransitive verbs. Then what does this structure in (41b) stand for? As we have seen in the previous section, the S-type ditransitives associates its dative argument with a position higher than the accusative argument. The structure in (41b) correctly captures the one of the S-type in (42).

- (42) Taro-ga Hanako-ni ronbun-o mise-ta (koto)
Taro-Nom Hanako-Dat article-Acc show-Past

‘Taro showed Hanako an article.’

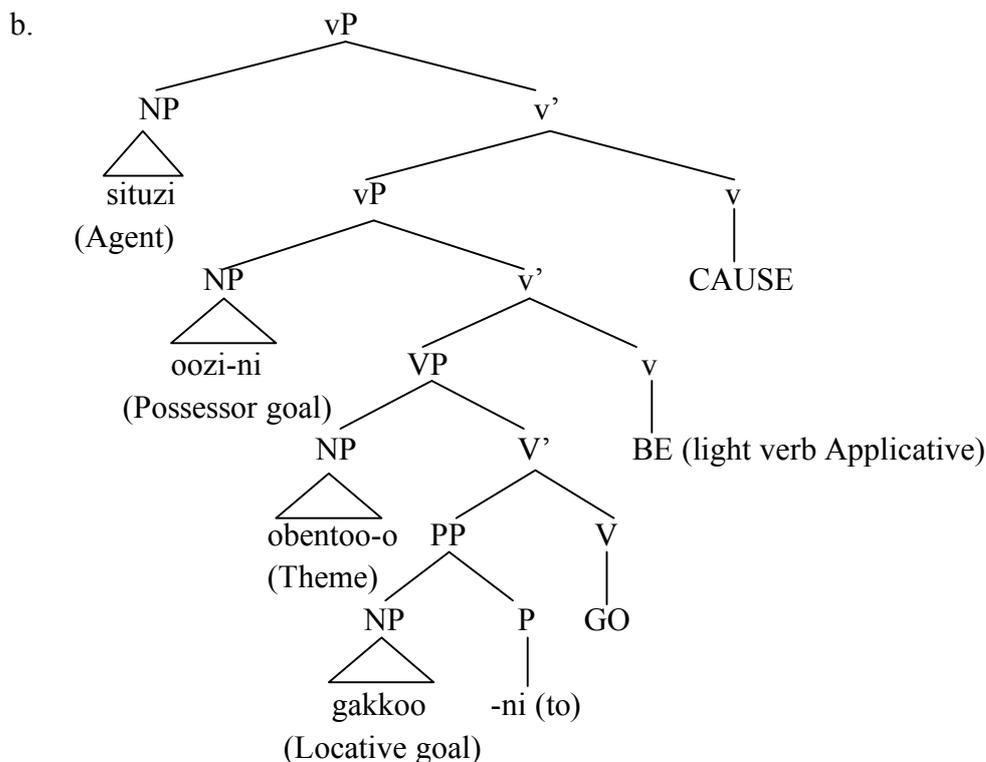
The structure for (42) is given in (43).



I will propose that the S-type ditransitive verb is decomposed into something like; X Cause [Y HAVE Z], in which the variable outside the bracket is an agent, and the variable inside the brackets are internal arguments. These variables are linked to the structure in (43). In (43), the abstract verb HAVE is specified as assigning an agent role, a theme role, and a possessor role. In (43), NP1, NP2, and NP3 have these respective thematic roles. The possessor meaning of the S-type ditransitives, which I will touch on in the next sub section, is correctly captured if we postulate the predicate HAVE in the structure in (43). What about the P-type ditransitives? As I have pointed out, the sentences of the P-type ditransitives does not imply a possessor effect. Hence, the predicate HAVE is not necessary for the P-type. I will propose that the P-type ditransitive verbs are decomposed into something like, X CAUSE [Y APPLICATIVE (BE) [Z GO to α]]. The variable X outside the brackets is an agent, the variable inside the brackets are internal arguments. These variables are linked to the structure in (35) assumed by Miyagawa & Tsujioka (2004), which is repeated in (44b), with a little bit alternation. The two goals construction in (25) is repeated in (44a) for convenience.

- (44) a. Situzi-ga oozi-ni obentoo-o gakkoo-ni todoke-ta (koto)
 butler-Nom prince-Dat lunch box-Acc school-to deliver-Past

‘The butler delivered a lunch box to school to the possession of the Prince.’



According to Marantz (1993), an applicative head is a light verb, which takes as its complement an event structure denoting VP and at the same time introduces an indirect object. Note that the applicative in (44b) is a light verb, which has no thematic role of its own to assign. Saito & Hoshi (1994) argue that in such a circumstance the next lower predicate can raise to the light verb in LF, and the resulting configuration is one of the theta marking. The NP in the spec of vP is assigned a thematic role *goal* by the light verb in a compositional way. In (44), the high goal is not a possessor, but a possessor goal. The fact that a possessor effect is absent in the P-type ditransitive construction is captured correctly in the configuration in (44), if we assume an abstract verb *GO*, instead of *HAVE*. Under this decomposition analysis, it is assumed that the first argument *obentoo* in the lowest VP is always attracted to the subject position of the inchoative variant, as shown in (45).

- (45) Obentoo-ga oozu-ni gakkoo-ni todoi-ta (koto).
 lunch box-Nom prince-Dat school-to arrive-Past

‘The lunch box was delivered to school to the Prince.’

In this section, I have shown that the thematic roles of the dative arguments of the two kinds of ditransitives are determined by abstract verbs, *HAVE* and *GO*. The abstract verb *HAVE* denotes the dative argument of the S-type as a possessor, while the abstract verb *GO* specifies the dative argument of the P-type as a possessor goal. In the P-type ditransitive construction, an additional goal, a locative goal may appear in the same sentence. I assume that the occurrence of the two goal phrases in the P-type is due to the characteristic of the abstract verb, *GO*. This decomposition analysis can be further supported by a semantic difference.

4.2. Semantic Difference

Semantic differences are observed between the S-type and the P-type. As shown in (46a) and (46b), the sentences of the S-type ditransitive do not co-exist with cancellation sentences. On the other hand, the sentences of the P-type ditransitive are quite natural if cancellation sentences are added, as the sentences in (46c) and (46d) show.

- (46) a. *Taro-ga Kei-ni hakase-no rainiti-o sirase-ta ga, Kei-wa sira-nai (koto)
Taro-Nom Kei-Dat Dr.-Gen arrival-Acc know-Past but Kei-Top know-not
'Taro let Kei know the doctor's arrival in Japan, but Kei does not know about it.'
- b. *Taro-ga Kei-ni ronbun-o mise-ta ga, Kei-wa mite-inai (koto)
Taro-Nom Kei-Dat article-Acc show-Past but Kei-Top see-not
'Taro showed Kei an article but Kei has not seen it.'
- c. Taro-ga Kei-ni nimotu-o L.A.-ni okur-ta ga, Kei-wa uketotte-nai (koto)
Taro-Nom Kei-Dat package-Acc L.A.-to send-Past but Kei-Top receive-not
'Taro sent a package to L.A. to Kei, but Kei has not received it yet.'
- d. Taro-ga Kei-ni obento-o situji-ni todoke-ta ga, Kei-wa uketotte-nai (koto)
Taro-Nom Kei-Dat lunch-Acc butler-Dat deliver-Past but Kei-Top receive-not
'Taro delivered a lunch box to the butler to Kei, but Kei has not received it yet.'

The contrasts in (46) show that the S-type constructions in (46a) and (46b) imply what Pinker (1989) calls *a possessor effect*, and that the P-type sentences in (46c) and (46d) specify only a positional transition of theme phrases to the goals. This difference in semantics can be captured in the structures in (43) and (44), if we assume abstract verbs, HAVE and GO. The same semantic differences are observed in English ditransitives, as well. As noted in the literature (Oehrle 1976, Kayne 1975, Larson 1988, Pinker 1989), the double object construction in (47a) has an implication that the students actually learned some French, while in the to-dative construction in (47b) does not.

- (47) a. Mary taught the students French.
b. Mary taught French to the students.

It is assumed that the *the students* in (47a) has a possessor role, while the students in (47b) bears *a location goal* (see Pinker 1989, Miyagawa & Jung 2004 for further discussion). This semantic resemblance between Japanese and English ditransitive constructions suggests that the S-type in Japanese corresponds to the double object construction in English, and that the P-type is equivalent to English to-dative construction.

As is noted by Matusoka (1999), another semantic difference between the S-type and the

P-type is that the dative argument of the S-type behaves as an inner subject, while the one of the P-type does not. A diagnosis to detect the subject in Japanese is to examine if the argument in question can serve as the antecedent of the subject oriented anaphor *zibun* (Kuroda 1965, Kuno 1973, among others). The anaphor *zibun* takes only a human argument as its antecedent. Consider the contrast in (48). The sentences of (48a) and (48b) are instances of the S-type and the P-type, respectively.

(48) a. Mahoo-no kagami-ga majyo_i-ni zibun_i-no kireina sugata-o mise-ta (koto)
magic-Gen mirror-Nom witch-Dat self-Gen beautiful figure-Acc show-Past

‘The magic mirror showed the witch her beautiful figure.’

b. *Mahoo-no hooki-ga oozi_i-ni zibun_i-no bentoo-o todoke-ta (koto)
Magic-Gen bloom-Nom prince-Dat self-Gen lunch box-Acc deliver-Past

‘The magic bloom delivered a lunch box to the Prince.’

(Matsuoka 1999, slightly modified)

In (48), the nominative agents are inanimate arguments, hence they are disqualified for the antecedents of the anaphors, *zibun*. As the sentence in (48a) shows, the dative argument, *majyo* (the witch) can be the antecedent of *zibun*. On the other hand, as shown in (48b), the dative argument, *oozi* (the Prince) is not coreferential with *zibun*. This contrast between (48a) and (48b) shows that the dative argument of the S-type, not the P-type has the status of subject. What about the two goals construction, as shown in (49)?

(49) Mahoo-no hooki-ga oozi_i-ni suguni tukibito_j-ni zibun_{i/*j}-no
Magic-Gen bloom-Nom prince-Dat quickly attendant-Dat self-Gen
bentoo-o todoke-ta (koto)
lunch box-Acc deliver-Past

‘The magic bloom delivered his lunch box to the Prince to the attendant.’

As shown in (49), both *oozi* (the Prince) and *tukibito* (attendant), which are high and low goals, respectively, are not coreferential with the anaphor, *zibun*. The diagnosis with the subject oriented anaphor *zibun* shows that only the dative argument of the S-type can be coreferential with the anaphor. The contrast we have seen above suggests that the dative phrase of the S-type counts as an inner subject, but not high and low goals of the P-type.

5. Conclusion

In this paper, incorporating Matsuoka (2003) and Miyagawa & Tsujioka (2004), I have claimed that in Japanese there are three kinds of dative arguments; a possessor (an inner subject), a possessor goal (a high goal), and a locative goal (a low goal). I have proposed that the two kinds of ditransitive verbs; the S-type and the P-type in the sense of Matsuoka (2003), are lexically decomposed into abstract verbs, HAVE and GO, respectively. The thematic roles

of the dative arguments are determined by these abstract verbs. Based on the hypothesis that the thematic hierarchy is universal, I will propose the thematic hierarchy in (50).

(50) Agent > Possessor (Possessor Goal) > Theme > Locative Goal

If the hierarchy in (50) is correct, the base generation hypothesis (Miyagawa 1994, 1997) can be fundamentally unified with the movement hypothesis (Hoji 1985, Takano 1988).

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