

Appeared in Japanese as “Meishika-to Kou-Kouzou,”

Yumoto, Yoko, and Hideki Kishimoto (eds) *Goi-no Imi-to Bunpo* (Lexical meaning and grammar), Kurosio Shuppan, Tokyo. 2009

## NOMINALIZATION AND ARGUMENT STRUCTURE\*

Shigeru Miyagawa

### 1. Introduction

Among the many notable contributions that Taro Kageyama has made to our understanding of human language is the insight that word formation is not restricted to one component of the grammar. Instead, depending on the construction, it may take place in the lexicon or the syntax. While the idea of this bifurcation of source for word formation is itself not new (e.g., Chomsky 1970, Sugioka 1984), rarely do we find such extensive empirical justification of it as we find in Kageyama’s work, as in, for example, Kageyama (1993). I will take up one such word formation, the *-kata* ‘way’ nominalization construction, which Kageyama (1993:358) argues is formed in syntax. I will support this conclusion, and will show that his original conception of syntactic word formation for this construction sheds new light on an issue hotly debated in the literature recently, namely, the ditransitive verb construction (e.g., Hoji 1985, Kitagawa 1994, Miyagawa 1997, Miyagawa and Tsujioka 2004, Pylkkänen 2002, Takano 1998, to appear, Yatsushiro 2003).

### 2. *-Kata* Construction

In the *-kata* construction, the nominal element *-kata* ‘way’ attaches to the adverbial form of the verb (*renyokei*).

---

\*I am grateful to Yoko Sugioka for extensive discussions pertaining to the content of this work, and to Koji Arikawa for ... I wish to express my gratitude to Taro Kageyama for the enormous body of work that has pushed all of us to think harder about language and attracted young people to enter this exciting field.

- (1) Taroo-no syokudoo-de-no piza-no tabe-kata  
 Taro-GEN cafeteria-in-GEN pizza-GEN eat-way  
 ‘the way of Taro’s eating pizza in the cafeteria’

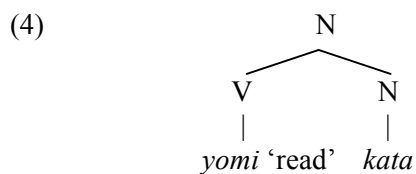
This corresponds to the sentence in (2).

- (2) Taroo-ga syokudoo-de piza-o tabe-ta.  
 Taro-NOM cafeteria-in pizza-ACC ate  
 ‘Taro ate pizza at the cafeteria.’

In the *-kata* construction in (1), the arguments — subject and object — which in (2) are marked with the nominative *-ga* and the accusative *-o*, must bear only the genitive case marking. Adjuncts such as the locative must retain the postposition and the entire PP must bear the genitive case marking (Sugioka 1992, Ito and Sugioka 2002:104; see also Hoshi 2005). Kageyama argues that the *-kata* construction is formed in syntax, giving as evidence the fact that it may nominalize clauses containing arguably syntactic elements such as aspectual, causative, and passive morphemes (the following are taken from Kageyama 1993:358).

- (3) a. sake-no nomi-hazime-kata  
 sake-GEN drink-begin-way  
 ‘the way of starting to drink sake’  
 b. yom-ase-hazime-kata  
 read-CAUSE-begin-way  
 ‘the way of making (someone) start to read’  
 c. (zidaigeki-de-no) akuyaku-no kir-are-kata  
 (period-play-in-GEN) villain-GEN cut-PASS-way  
 ‘the way of how villains are cut (with a sword) (in period plays)’

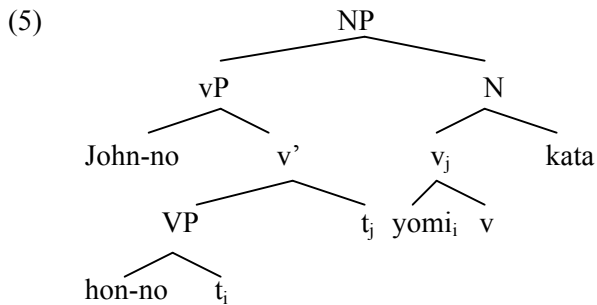
These are compelling pieces of evidence for the syntactic analysis, and I will assume it. What is the process by which this nominalization appears in syntax? Kageyama (1993:363) suggests that the adverbial form of the verb adjoins to the nominal *-kata*, rendering the verb into a nominal.



Later, I will return to this particular view of nominalization and show that it is compatible with recent developments in syntactic word formation.

### 3. Kishimoto (2006)

In a recent study, Kishimoto (2006) explores a number of issues in syntax using the *-kata* construction. Kishimoto provides a number of arguments to reinforce Kageyama’s conclusion that this construction is syntactically based, and proposes an analysis that is consistent with the spirit of Kageyama’s study, but with one major difference. Unlike the adjunction analysis that Kageyama proposed ((4) above), Kishimoto suggests that *-kata* takes a vP (Kishimoto 2006:780). The following is for *John-no hon-no yomi-kata* ‘the way of John’s reading books’



Just as with Kageyama (1993), there is adjunction to the nominal head *kata*, but what adjoins is an amalgam of the verb in the adverbial form and the “small” *v*, the latter having been picked up by the verb when it raised to *v*. Among the reasons Kishimoto gives for proposing that the *-kata* construction involves the vP is that the external argument shows up, as in the case of (5) (*John-no*), which signals the occurrence of the small “*v*”, hence vP.

It is crucial in Kishimoto’s analysis that *-kata* selects for vP, not TP. An obvious reason is that tense never shows up in this construction. Furthermore, the lack of T is tied to an important observation that Kishimoto makes, namely, that there is no scrambling in this nominal construction. The following is taken from Kishimoto (2006:789).

- (6) a. John-no     hon-no     yomi-kata  
       John-GEN   book-GEN   read-way  
       ‘the way of John’s reading books’
- b. \*hon-no     John-no     yomi-kata  
       book-GEN   John-GEN   read-way  
       ‘the way of John’s reading books’

Kishimoto argues, following a number of studies, that A-movement scrambling is triggered by the EPP feature on T (Kishimoto 2001, Kitahara 2002, Miyagawa 2001, Tsujioka 2001).

Miyagawa (2001), for example, suggests the following for the two orders, SOV and OSV.

(7) a. [TP Taro<sub>i</sub>-ga<sub>i</sub> [vP t<sub>i</sub> hon-o yonda]]  
           Taro-NOM           book-ACC read  
           ‘Taro read a book’

b. .[TP hon-o<sub>i</sub> [vP Taro<sub>i</sub>-ga t<sub>i</sub> yonda]]  
           book-ACC Taro-NOM           read

In both, something occurs in Spec,TP: in (a) it is the subject, while in (b) the object has moved to this position, an idea inherited from Kuroda 1988, allowing the subject to remain in situ in Spec,vP. Miyagawa (2001) argues that this requirement that something must occupy Spec,TP receives a natural account under the assumption that T has an EPP feature, which forces T to have a specifier (Chomsky 1981, 1995; see Alexiadou and Anagnostopoulou 1998 for arguments for the universality of the EPP on T). This approach to scrambling presumes that (A-movement) scrambling can only occur in the presence of T, and, as Kishimoto notes, this leads to the prediction that in the *-kata* construction, there should be no scrambling, a fact attested by the minimal pair in (6) above. I will return to this point in the next section.

#### 4. Ditransitives

In the literature, we find two different approaches to the ditransitive construction in Japanese. In this section I will briefly introduce the issues, and in the sections to follow, we will look to see what the *-kata* construction can tell us about ditransitives in particular and syntactic nominalization in general.

The so-called “standard” analysis assumes that there is only one underlying structure associated with ditransitives, and this underlying structure has the order goal-theme.

(8) Taro<sub>i</sub>-ga Hanako<sub>i</sub>-ni tegami-o okutta.  
       Taro-NOM Hanako-DAT letter-ACC sent  
       ‘Taro sent Hanako a letter.’

The other order of theme-goal, shown below, is, in this standard approach, the result of scrambling.

(9) Taro<sub>i</sub>-ga tegami-o Hanako<sub>i</sub>-ni okutta.  
       Taro-NOM letter-ACC Hanako-DAT sent

Hoji (1985) gives arguments based on quantifier scope, bound variable, and others in favor of the standard analysis.

In contrast, Miyagawa and Tsujioka (2004), based on Miyagawa (1997), propose that there are two distinct argument structures associated with ditransitive predicates. In one the goal has a possessive meaning, which means that the referent of the goal is most naturally an animate entity, although an inanimate entity can occur if it can be interpreted as being composed of humans as in the case of “committee,” “company,” and so forth. This “possessive” goal is a DP (or NP). The other type of goal is locative and, as such, has no implication that it has to be animate. The category of this goal is PP. This possessive/locative bifurcation for the goal in ditransitives is commonly found among languages of the world, including in English, where we find the double object (*John sent Mary a letter*) and the dative constructions (*John sent a letter to Mary*). As Miyagawa and Tsujioka (2004) note, there are a number of parallels between the Japanese ditransitives and the English double-object and dative constructions. I will note two here.

The goal in a double object construction is possessive in nature (e.g., Bresnan 1978, 1982, Harley 1995, Mazurkewich and White 1984, Pinker 1989). The following is taken from Bresnan (1978).

- (10) a. I sent the boarder/\*the border a package.  
b. I sent a package to the boarder/the border.

The double-object example shown in (a) only allows the animate “boarder” to occur in the goal position, while the dative example shown in (b) allows either the animate “boarder” or the inanimate “border.” We can see that the goal in the double object is a DP while the goal in the dative is a PP (*to*). Miyagawa and Tsujioka note that the same distinction based on animacy is found in Japanese. They focus on this distinction as manifested in the phrasal type, DP or PP, using the numeral quantifier to establish the type of phrase. To set the stage, as noted by Shibatani (1978), floated numeral quantifiers are only possible off a DP.

(11) a. Taroo-ga mati-o futa-tu otozureta.  
 Taro-NOM town-ACC 2-CL visited.  
 ‘Taro visited two towns.

b. \*Hito-ga mati-kara futa-tu kita.  
 people-NOM town-from 2-CL came  
 Intended: ‘People came from two towns.’

In (11a), the object *mati-o* ‘town-ACC’ is a DP, and it allows the numeral quantifier *futa-tu* ‘2-CL’ to be in the floated position following it, while in (11b) *mati* ‘town’ is inside a PP, so that *mati* cannot be construed with the floated numeral quantifier.

Returning to the ditransitive construction, note below that the goal, whether animate or inanimate, may occur in the same order relative to the theme.

(12) a. Taroo-ga gakusei-ni nimotu-o okutta.  
 Taro-NOM student-DAT package-ACC sent  
 ‘Taro sent students a package.’

b. Daitooryoo-ga kokkyoo-ni heitai-o okutta.  
 president-NOM border-DAT soldiers-ACC sent  
 ‘The president sent soldiers to the border.’

These two examples appear to be completely parallel, but when we put it under the numeral quantifier test, we see that the phrasal category of the two goal phrases is different.

(13) a. Taroo-ga gakusei-ni futa-ri nimotu-o okutta.  
 Taro-NOM student-DAT 2-CL package-ACC sent  
 ‘Taro sent two students a package.’

b. \*Daitooryoo-ga kokkyoo-ni futa-tu heitai-o okutta.  
 president-NOM border-DAT 2-CL soldiers-ACC sent  
 Intended: ‘The president sent two borders soliders.’

As we see in (13a), it is possible to have a floated numeral quantifier with an animate goal, but not with an inanimate goal ((13b)), clearly indicating that there are two kinds of goals, hence two distinct argument structures. There is nothing inherently wrong with the meaning of (13b), as we can see by the fact that if we change the goal to a non-floated version (*futa-tu-no kokkyoo-ni* ‘to two borders), the sentence becomes fine. Obviously, this means that the “dative” particle *-ni* has two existences, one a case marker, the other a postposition, a bifurcation earlier noted by Sadakane and Koizumi (1995).

The second parallel between Japanese ditransitives and the English double object/dative constructions is quantifier scope. As Hoji (1985) and others have noted, in the goal-theme order, the scope of quantifiers is unambiguous, while the other order, theme-goal, leads to ambiguity.

- (14) a. Taroo-ga dareka-ni dono-nimotu-mo okutta.  
 Taro-NOM someone-DAT every-package sent  
 ‘Taro sent someone every package.’  
 some > every; \*every > some
- b. Taroo-ga dono-nimotu-mo dareka-ni okutta.  
 Taro-NOM every-package someone-DAT sent  
 some > every, every > some

What I wish to focus on is the lack of ambiguity in (a) (see footnote 1 for a comment about the ambiguity of (b)). Note that the goal here is animate, thus inviting an interpretation of possession. As Miyagawa and Tsujioka note, however, if the goal is changed to inanimate, the judgment changes.

- (15) Taroo-ga dokoka-ni dono-nimotu-mo okutta.  
 Taro-NOM some place-to every-package sent  
 ‘Taro sent every package to some place.’  
 some > every, every > some

In this example, despite being in the goal-theme order, we obtain ambiguity of scope. This parallels English examples relative to scope (see Aoun and Li 1989, Bruening 2001, Pesetsky 1995).

- (16) a. Mary sent someone every book. some > every, \*every > some  
 b. Mary sent something to every student. some > every, every > some

The double object construction only allows surface scope, while scope ambiguity obtains in the dative construction. This parallels the Japanese examples, in which the animate-goal construction does not evidence ambiguity, while the “dative” construction, which is forced by the occurrence of the inanimate goal, leads to scope ambiguity.<sup>1</sup> I will not give the analysis for the lack/presence of scope ambiguity (see, for example, Bruening 2001, Marantz 1993, Pesetsky 1995, among others). I simply note that the scope facts in Japanese perfectly match

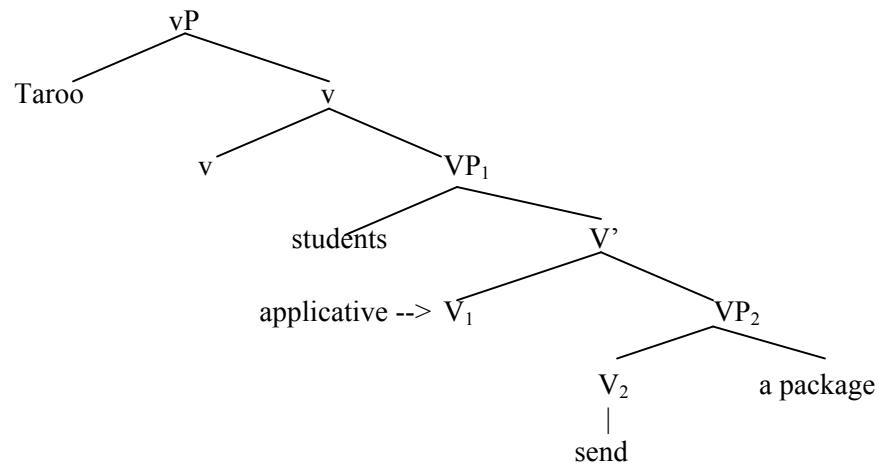
---

<sup>1</sup>See Miyagawa and Tsujioka (2004) on the possible ambiguity even for goal-theme orders where the goal is animate.

the double-object and dative constructions in English, thereby giving further evidence for the existence of two argument structures.

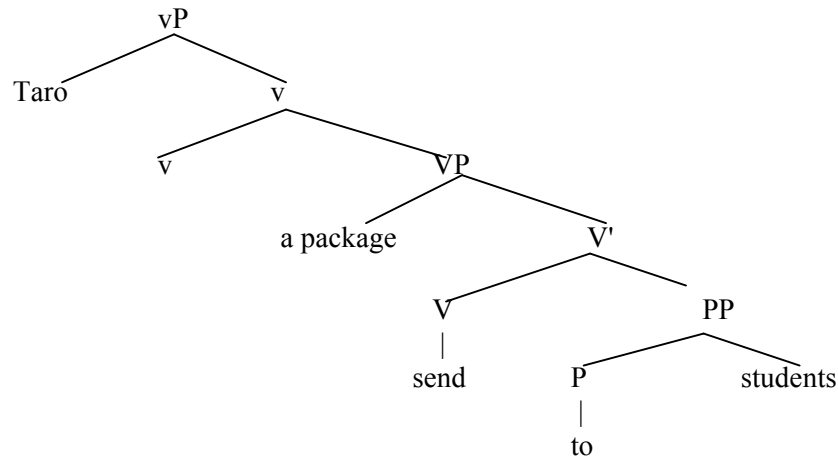
To account for these two argument structures, Miyagawa and Tsujioka adopt the applicative-head analysis of Marantz (1993) and Pylkkänen (2002). As originally noted by Marantz, the DP goal argument is an “added on” argument, and such an “extra” argument is typically found in the languages of the Bantu being introduced with an applicative head. For the DP “goal” argument, Miyagawa and Tsujioka give the following structure from Marantz (1993), which they call the “high goal.”

(17)



The high goal “students” is introduced by the applicative head  $V_1$ , which in turn selects  $VP_2$  (see Pylkkänen 2002 for a different structure). For the “low” PP goal, again, the structure is adopted from Marantz (1993) (see also Larson 1988, Pesetsky 1995 for relevant discussion).

(18) *to*-dative (Marantz 1993)



The “low” PP goal “to students” occurs within the VP headed by the ditransitive verb, making it an argument of the verb. Here the order is theme-goal, but in Japanese, the order can also be goal-theme even for a low goal. In fact, the “controversy” between the standard approach (e.g., Hoji 1985) and the double-argument-structure approach (e.g., Miyagawa and Tsujioka 2004) is not about word order per se. While word order does come into play (see below for discussion of this), the principal difference is whether one recognizes one argument structure (standard) or two (double-argument-structure).

As a demonstration of the two types of goals that exist in Japanese, Miyagawa and Tsujioka note that, for some people at least, it is possible for both the high goal and the low goal to occur simultaneously. (Some find it easier with *-e* instead of *-ni* on the low goal; also, having an element in the low goal that is coreferential with the high goal appears to improve the example, a point that Richard Larson noted to me).

(19) Taroo-wa Hanako-ni hon-o kanozyo-no-kenkyuusitu-ni okutta.  
 Taro-TOP Hanako-DAT book-ACC she-GEN-office-to sent  
 ‘Taro sent Hanako a book to her office.’

This sentence means that Taro sent a package to Hanako’s office, with the intention that Hanako will come to possess it.<sup>2</sup> Hanako does not even need to be in her office. While not all

<sup>2</sup>Harley (1995), for example, argues that the double object verb contains an abstract *have*. On this assumption, the double-goal construction in (19) is, in a way, predicted from Takezawa’s (2001) study of possessive construction with *-aru* ‘have’. As he notes, this possessive verb may allow both a possessor and a location.

speakers accept (19) (the same split in judgment is found with English speakers), many do accept it with varying degrees of hesitation, from “fine” to “awkward.” One point that Miyagawa and Tsujioka note is that even for those who accept (19), the following, in which the low goal occurs higher than the high goal, is unacceptable. I have changed the order of “Hanako” and “she” to avoid backward pronominalization.

(20) \*Taroo-wa Hanako-no-kenkyuusitu-ni kanozyo-ni hon-o okutta.  
 Taro-TOP she-GEN-office-to she-DAT book-ACC sent  
 ‘Taro sent Hanako a book to her office.’

This indicates that the “high” DP goal occurs high in the structure, which, in the two-argument-structure approach, means that it is introduced in that position by an applicative head, while the low goal occurs low in the structure. What (20) indicates is that this hierarchy cannot be violated even by something as common in Japanese as scrambling. In fact, the example becomes odd even if the theme is moved higher than the high goal (see Miyagawa and Tsujioka 2004 for one case in which an example like (21) sounds only mildly awkward).

(21) ?\*Taroo-wa hon-o Hanako-ni kanozyo-no-kenkyuusitu-ni okutta.  
 Taro-TOP book-ACC Hanako-DAT she-GEN-office-to sent  
 ‘Taro sent Hanako a book to her office.’

This has an immediate consequence for word order. In a “normal” sentence with just one goal, the goal and the theme may occur freely in either order, goal-theme or theme-goal. In the goal-theme order, the goal is likely the high goal, unless it is inanimate. However, in the theme-goal order, the goal *must* be the low goal, because the theme cannot occur above the high goal. This is true regardless of whether this goal is animate or inanimate.<sup>3</sup> In the “normal” goal-theme/theme-goal examples, this point cannot be detected, but when we put both the high and low goals in the same sentence, we can see the restrictions on word order

---

(i) Taroo-ni Hakone-ni bessoo-ga aru.  
 Taro-DAT Hakone-in villa-NOM have  
 ‘Taro has a villa in Hakone.’

<sup>3</sup>This has an important consequence for the effects of quantifier scope in ditransitive constructions. As noted earlier, the theme-goal order leads to quantifier scope ambiguity, which Hoji (1985) attributes to movement of the theme across the goal. However, what we observed is that the goal in the theme-goal order must be the low goal, which would make this order comparable to the English dative construction. As noted earlier, the English dative construction has scopal ambiguity, although English does not have scrambling. A view that English in fact does have some such movement is Takano (1998). In any case, it is clear that we do not have the final word on the source of the scopal ambiguity.

clearly. Thus, as we see below, for those who accept the two-goal construction, the order is: agent – high goal – (low goal) – theme – (low goal) – verb.

- (22) Taroo-wa Hanako-ni (kanozyo-no-kenkyuusitu-ni) hon-o  
 Taro-TOP Hanako-DAT she-GEN-office-to book-ACC  
 (kanozyo-no-kenkyuusitu-ni) okutta.  
 she-GEN-office-to sent  
 ‘Taro sent Hanako a book to her office.’

This predicts that the goal in the them-goal order is always a PP, something already noted in Miyagawa (1997).

- (23) a. Taroo-wa tomodati-ni go-nin CD-o okutta.  
 Taro-TOP friends-DAT5-CL CD-ACC sent  
 ‘Taro sent five friends a CD.’  
 b. ???Taroo-wa CD-o tomodati-ni go-nin okutta.  
 Taro-TOP CD-ACC friends-to 5-CL sent

#### 5. –*Kata* construction and ditransitives

Let us return to the –*kata* construction and see what it can tell us about the ditransitive construction. As noted earlier, one important observation that Kishimoto makes is that there is no scrambling in this construction, which means that whatever order we find in this construction is the base order. With this assumption in mind, let us consider the ordering of the goal relative to the theme. We saw that the high goal must always occur to the left of the theme and the low goal, a point we will take up below. But what about the low goal? As we saw in (22), the low goal is free to merge either before or after the theme. Note the following pair from Kishimoto (2006:807), which provides further evidence for this point from the –*kata* construction.

- (24) a. koinu-e-no esa-no atae-kata  
 puppy-to-GEN food-GEN give-way  
 ‘the way of giving food to a puppy’  
 b. esa-no koinu-e-no atae-kata  
 food-GEN puppy-to-GEN give-way  
 ‘the way of giving food to a puppy’

The occurrence of the postposition *-e* on the goal in both ensures that we are dealing with a low goal, that is, a PP. The fact that in the *-kata* construction, either order is possible suggests that the PP “low” goal may merge freely on either side of the theme.

Turning to the high goal, this is a DP argument, and as noted by Kageyama (1993), Sugioka (1992), Ito and Sugioka (2002) as well as Kishimoto (2006), argument DPs in nominalization do not appear with case markers such as the nominative, dative, or accusative, but rather, it appears solely with the genitive marking.<sup>4</sup> The following pair is from Kishimoto (2006:791).

- (25) a. John-no koinu-no esa-no atae-kata  
           John-GEN puppy-GEN food-GEN give-way  
           ‘the way of John’s giving food to a puppy’
- b. \*John-no esa-no koinu-no atae-kata  
           John-GEN food-GEN puppy-GEN give-way  
           ‘the way of John’s giving food to a puppy’

The ungrammaticality of the second example ((b)) is predicted. In this example the goal follows the theme, and this goal is marked solely with the genitive, which would make it a DP argument, a high goal. As we saw in (21) - (23), however, the goal that occurs after the theme can only be a low goal, thus, a PP, so that it must bear the postpositional phrase *-e* ‘to’ along with the genitive marker. (25b) would be fine if the goal has *-e* as well as the genitive, as we already observed in (24b).

(25a) also appears to be in accordance with Miyagwa and Tsujioka: the goal precedes the theme and it is animate, both pointing to the possibility that this is a high goal, hence compatible with occurring solely with the genitive marking given its DP status. But is (25a) grammatical? My reaction to it, and that of several native speakers I consulted, is that (25a) does not sound natural. Yoko Sugioka noted (personal communication) that there is one possible interpretation of (25a) that might render it grammatical, though still awkward. It is a reading where the “core meaning” is ‘the way of giving food’, and *koinu-no* ‘puppy-GEN’ is in some modificational relation to this core meaning, with one possible relation being that the puppy is the recipient of ‘way of giving food’. ‘Puppy’ here modifies the entire phrase, ‘the way of giving food’, and is not an argument of ‘give’.

---

<sup>4</sup>The particle *ni*, which has many existences, including the dative case, the postposition “to/from/at”, temporal marking “at” and so forth, never occurs in nominals with the genitive, a point that, as far as I know, was first observed by Harada (1976).

Whether one can perceive this special interpretation or not, (25a) as originally intended by Kishimoto appears to be ungrammatical. Other examples to confirm this are given below; (a) gives the high goal, while (b) provides the low-goal counterpart.

- (26) a. \*Hanako-no John-no MIT-no susume-kata  
 Hanako-GEN John-GEN MIT-GEN recommend-way  
 ‘the way of Hanako’s recommending MIT to John’
- b. Hanako-no John-e-no MIT-no susume-kata  
 Hanako-GEN John-to-GEN MIT-GEN recommend-way  
 ‘the way of Hanako recommending MIT’
- (27) a. \*Itiroo-no Hanako-no nimotu-no okuri-kata  
 Ichiro-GEN Hanako-GEN package-GEN send-way  
 ‘the way of Ichiro’s sending a package to Hanako’
- b. Itiroo-no Hanako-e-no nimotu-no okuri-kata  
 Ichiro-GEN Hanako-to-GEN package-GEN send-way  
 ‘the way of Ichiro’s sending a package to Hanako’
- (28) a. \*Setuko-no Ziroo-no nyuusu-no tutae-kata  
 Setsuko-GEN Jiro-GEN news-GEN convey-way  
 ‘the way of Setsuko’s conveying the news to Jiro’
- b. Setuko-no Ziroo-e-no nyuusu-no tutae-kata  
 Setsuko-GEN Jiro-to-GEN news-GEN convey-way  
 ‘the way of Setsuko’s conveying the news to Jiro’

To understand why a high goal is apparently not permitted in the *-kata* construction, let us look at English deverbal nominalization (Kayne 1984, Pesetsky 1995), which displays precisely the same pattern of grammaticality. In deverbal nominalization, the argument of the verb may surface inside an *of*-phrase or as the genitive of the resulting NP. The following are taken from Kayne (1984).

- (29) a. examine the problem =>  
 b. the examination of the problem  
 c. the problem’s examination

The dative construction allows nominalization with the theme occurring inside *of*-phrase or as the genitive of the NP.

- (30) a. present the ball to John =>  
 b. the presentation of the ball to John  
 c. the ball's presentation to John

However, the double object construction resists nominalization, a fact that parallels the *-kata* construction in Japanese.

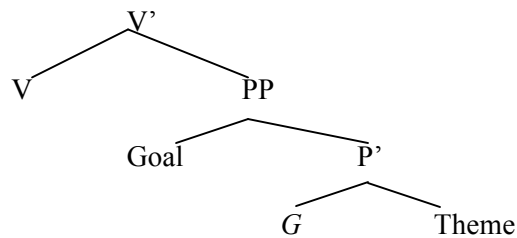
- (31) a. present John the ball =>  
 b. \*the presentation of John of the ball  
 c. \*John's presentation of the ball

Kayne concludes that the double object construction involves a small clause that contains both the goal and the theme. This is based on his observation that the small clause also fails to nominalize.

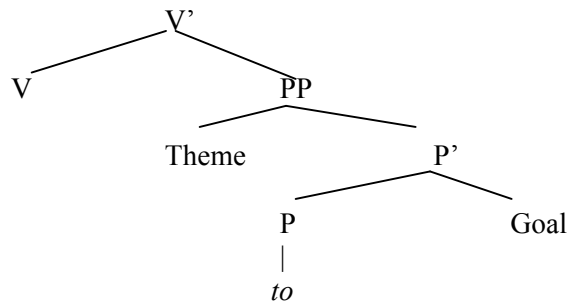
- (32) a. believe Thilo handsome =>  
 b. \*the belief of Thilo handsome  
 c. \*Thilo's belief handsome

Pesetsky (1995) gives an account of these nominalization facts by postulating an abstract preposition, which he calls “*G*” (for “Goal”), for the double object construction that is the counterpart to the overt preposition *to* in the dative construction.

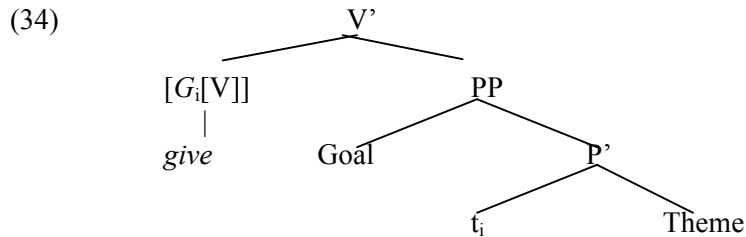
- (33) a. Double object (Pesetsky 1995:155-156) (I have labelled the nodes based on structures given in Pesetsky 1995:126-7)



- b. *to* dative (Pesetsky 1995:174, slightly modified)



Pesetsky further assumes that *G* in the double object construction undergoes incorporation into the verb, which is similar to preposition incorporation we find in many languages (e.g., Baker 1988); the incorporation is triggered presumably by the fact that *G* is a dependent morpheme.



On this account, there are two different verbs derived in syntax, one for the double object, the other for the dative construction.

- (35) *give*<sub>1</sub> [*G*[*V*]]: double object construction  
*give*<sub>2</sub> [*V*]: dative construction

To explain the nominalization facts, Pesetsky invokes Myer's Generalization.

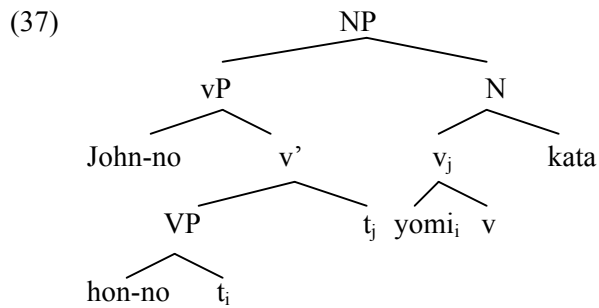
- (36) Myer's Generalization

Zero-derived words do not permit the affixation of further derivational morphemes.

Because the double-object verb has undergone a derivation whereby the abstract *G* incorporates into it (*[G[V]]*), it is an instance of a zero-derived word, hence it cannot undergo further derivational processes such as nominalization. On the other hand, the dative-construction verb has no zero-morpheme that attaches to it in the normal course of derivation, hence there is nothing to prevent its nominalization.

Though somewhat different in structure, Pesetsky's approach to the two constructions associated with ditransitive verbs is comparable to the applicative head approach in one crucial fact: in both, a phonologically null head (*G* in Pesetsky's approach, applicative head *V* in ours) occurs in the double object construction that introduces the goal, but in the dative construction, there is no such a null head. Just as with Pesetsky's *G*, the applicative approach assumes that the verb and the applicative head come together, by verb raising (Marantz 1993, Pyllkänen 2002), resulting in the verbal complex *[[V] applicative]*, as opposed to simply *[V]* for the dative construction. We can see that Myer's Generalization can also explain the absence of the "high" goal, applicative structure in the *-kata* construction while allowing the "low" goal, dative construction.

The analysis based on Myer's Generalization does raise an issue with Kishimoto's approach to the *-kata* construction. Recall that in his approach *-kata* selects a *vP*.



Strictly speaking, this is a violation of Myer’s Generalization because the verb *yomi* picks up the phonologically null *v*. This null head should block further derivational processes such as nominalization.

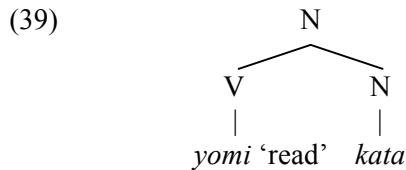
A possible problem with the point above is that we find causative verbs built on structures that clearly have a “small” *v*, as in *tabe-sase-ru* ‘eat-cause-PRS’, which presumably has the structure *tabe-v-sase*. This is affixation of *-(s)ase* to an item that contains the zero morpheme *v*. A point important to the present discussion is that Pesetsky himself reinterprets Myer’s Generalization in a way that does not always preclude affixation to a zero-derived item. He notes (p. 76-7) that the agentive nominalizer *-er* and the adjectivizer *-able* are exceptions to the Generalization. From this, Pesetsky proposes that Myer’s Generalization is not a blanket restriction against affixation to zero-derived items. Instead, it is a restriction encoded on specific derivational affixes, such as *-ion*, that prohibits them from attaching to items with a zero morpheme (pp. 83-93). Unlike the nominalizer *-ion* in English and *-kata* in Japanese, the causative morpheme *-(s)ase* in Japanese, like *-er* and *-able*, is not blocked from attaching to zero-derived items. Hence, while a nominalization construction with *-kata* or *-ion* cannot be built on an item that has a zero morpheme, *-(s)ase* can. Further evidence for this is that, while nominalization of a double-object ditransitive verb in Japanese is impossible, as we saw, such a ditransitive verb allows causativization.

- (38) Syatyou-wa Taroo-ni buka-ni futa-ri kaiko-tuuchi-o  
 president-TOP Taro-DAT subordinate-DAT 2-CL dismissal notice-ACC  
 okur-ase-ta.  
 send- CAUSE-PST

‘The president made Taro send two subordinates dismissal notices.’

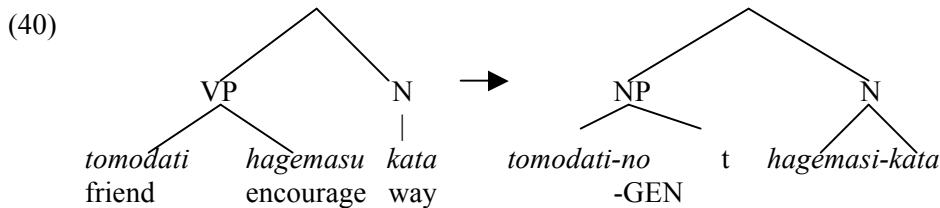
The ditransitive verb *okuru* ‘send’ has been causativized; we can see that it is the double-object ditransitive because the goal appears with a floated numeral quantifier.

An analysis that is consistent with Myer's Generalization is Kageyama's (1993:363) original analysis in which V adjoins to *kata*.



So long as this V is not accompanied by a zero morpheme such as the applicative head, this is an appropriate derivation.

Where do we place the verbal argument in this structure? Sugioka (1992:60), who independently proposes V incorporation, gives the following for *tomodati-no hagemasi-kata* 'the way of encouraging friends'.



This is similar to Kishimoto's approach, except that what *kata* selects is a VP, not a vP. An interesting piece of evidence that appears in Sugioka (1992:59) is the fact that VP idioms can appear in the *-kata* construction.

- (41) bouryokudan-kara-no asi-no arai-kata  
 gang-group-from-GEN leg-GEN wash-way  
 'the way to cut connection from a gang group'

The VP idiom we see here is *asi-o arau* 'cut connection (lit. 'leg-ACC wash')'.

As shown above in (40), according to Sugioka, the VP is turned into an NP (the right side) when the verbal head incorporates into *kata*. To be fair to both Kishimoto and Sugioka, I should remind the reader that at the time that Sugioka was developing her analysis of *-kata*, small *v* had not made its way into the general theory, so "vP" would not have been even a possibility at the time. However, given Myer's Generalization, our prediction is that even today, vP would not be possible because "v" would constitute a zero morpheme, and *-kata* nominalization does not attach to zero-derived items. This means that the "VP" analysis of Sugioka's is the appropriate one even today.

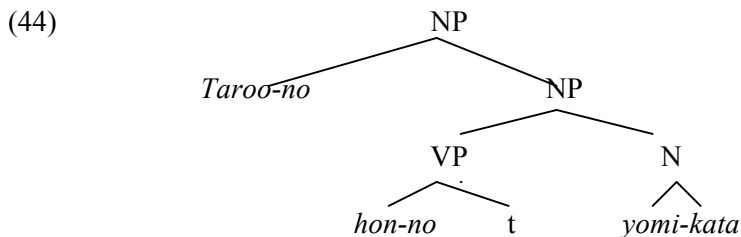
This leaves the question of what to do with the "subject," which would be introduced by "v" if it did exist.

- (42) Hanako-no hon-no yomi-kata  
 Hanako-GEN book-GEN read-way  
 ‘the way of Hanako reading books’

One point that is important to note is that the “agent” here is strictly optional.

- (43) a. Hon-o yomu.  
 book-ACC read  
 ‘(I/you/etc.) will read a book.’  
 b. hon-no yomi-kata  
 book-GEN read-way  
 ‘the way of reading books’

In the sentential example in (a) without an overt subject, there is a clear sense that the subject is missing, but in the *-kata* construction in (b), which is also missing the subject, the example sounds complete with nothing missing from it for full interpretation, a point that Kishimoto also notes. A number of linguists have observed this phenomenon of optionality of arguments (not just subjects) in nominals (Dowty 1989, Grimshaw 1990, Higginbotham 1983, among others). On this basis, one possible account of the “subject” is to view it as modifying the entire *-kata* clause.



Under this analysis, this sentence means ‘Taro’s way of reading books’. “Taro” is most naturally interpreted as the agent of “read,” but on this analysis, that reading comes about indirectly by “Taro” modifying “way of reading books.” However indirect, the quasi-agent reading is sufficient to license subject honorification, for example, as shown by the grammatical subject-honorification *-kata* examples in Kishimoto (2006:776). Without “Taro,” the sentence would simply mean ‘the way of reading books’.

## 6. Further notes on Myer’s Generalization

I will close out the article by looking briefly at two additional points about Myer’s Generalization and nominalization.

Pesetsky draws a parallel between the impossibility of nominalization of the double object construction (Kayne 1984) with a similar fact about deverbal nominals noted by Chomsky (1970) in ‘Remarks on nominalization’.

- (45) a. John grew tomatoes (in his backyard).  
 b. Tomatoes grew (in John’s backyard).

As noted by Chomsky, only the unaccusative in (b) allows nominalization.

- (46) a. \*John’s growth of tomatoes  
 b. the growth of tomatoes

Chomsky (1970: 25) notes that *the growth of tomatoes* “has the interpretation of *tomatoes grow* but not of *John grows tomatoes*,” and gives the following derivations for the examples in (45) (Chomsky 1970:59).

(47) John grows tomatoes: John [+cause, grow] tomatoes

(48) Tomatoes grow: [<sub>S</sub> tomatoes grow]<sub>S</sub>

For the causative construction in (47), a natural way to conceive of the derivation is that it is syntactic word formation.

(49) John [+cause           ] [tomatoes grow]  
                                   ↑                   |

This leads to two versions of *grow*, just as we saw that there are two versions of ditransitives, one with *G* (double object) and the other without *G* (dative).

- (50) *grow*<sub>1</sub> [+cause, V] (lexical causative)  
       *grow*<sub>2</sub> [V] (unaccusative)

What Pesetsky notes is that *grow*<sub>1</sub> contains the zero morpheme [+cause], which, under Myer’s Generalization, would block further derivation such as nominalization. This accounts for the ungrammaticality of (46a).

However, when we turn to the *-kata* construction, we see that causative verbs can appear freely (Kageyama 1993:358; I have changed the example to more directly demonstrate the point).

- (51) yom-ase-kata  
 read-CAUSE-way  
 ‘the way of making (someone) read’

This difference between English and Japanese is predicted: while [+cause] in English is represented by a phonologically null morpheme, which triggers Myer’s Generalization under

nominalization, in Japanese it is overtly manifested by the causative morpheme *-(s)ase*, which avoids the effect of Myer’s Generalization, thereby allowing *–kata* nominalization to take place. This situation with the causative verb is different from the applicative construction, in which the applicative head is a zero morpheme in both languages, leading to a failure to nominalize in both languages.

Turning to the second point, Kageyama (1993:360-2) observes a curious gap in the *–kata* construction with Verbal Noun light verbs.

- (52) a. *tyousa-o*                    *suru*  
           investigate-ACC    do  
           ‘do investigation’
- b. *tyousa-suru*  
           investigate-do  
           ‘investigate’
- (53) a. *tyousa-no*                *si-kata*  
           investigate-GEN    do-way  
           ‘the way of doing investigation’
- b. \**tyousa-si-kata*  
           investigate-do-way  
           ‘the way of investigation’

As we can see in (52), the Sino-Japanese VN *tyousa* ‘investigate’ may occur as an argument of the verb *suru* ‘do’ ((a)) or the VN may incorporate into the light verb *suru* ((b)). As Kageyama has noted, only the former may occur in the *–kata* construction ((53)). Kageyama offers a theory of syntactic word formation whereby such formation takes place at different points in syntactic derivation and, without giving the details of his theory here, this “ordering” of derivation excludes (53b). That is one possibility. The other possibility is that the light verb *suru* in (53b) has no existence in syntax as an overt form, but instead, it is inserted in phonology, possibly to support tense as in *do*-support. But what is underlying this light verb in syntax? A reasonable assumption is that it is a phonologically null “v” that verbalizes the VN: *tyousa-v*. The light-verb *suru* apparently has no other function, unlike the other *suru*, which functions to transfer theta-roles from the VN (e.g., Grimshaw and Mester 1988, Saito and Hoshi 2000). If this is at all on the right track, Myer’s Generalization can explain the ungrammaticality of (53b): *tyousa-si* is, at the point of nominalization, *tyousa-v*, with the zero

morpheme “v” impeding nominalization. While nominalization is blocked, the light-verb VN construction allows causativization as expected because *-(s)ase* can attach freely to zero-derived items as noted earlier.<sup>5</sup>

(54) Hanako-wa Taroo-ni yoron-o tyousa-s-ase-ta.  
 Hanako-TOP Taro-DAT public.opinion-ACC investigate-do-CAUSE-PST  
 ‘Hanako made Taro survey public opinion.’

The constellation of facts we have observed about ditransitive verbs and nominalization further supports Kageyama’s contention that *-kata* nominalization takes place in syntax.

#### References

- Alexiadou, Alexiadou, and Elena Anagnostopoulou (1998) Parametrizing word order, V-movement, and EPP-checking. *Natural Language and Linguistic Theory* 16, 491-539.
- Aoun, Joseph, and Yen-hui Audrey Li (1989) Constituency and Scope. *Linguistic Inquiry* 20, 141-172.
- Baker, Mark (1988) *Incorporation: A Theory of Grammatical Function Changing*. Chicago: University of Chicago Press.
- Bresnan, Joan (1978) Class notes, 1982, MIT, Cambridge, Mass.
- Bresnan, Joan (1982) *The Mental Representation of Grammatical Relations*. Cambridge, Mass.:MIT Press.
- Bruening, Benjamin (2001) QR Obeys Superiority: Frozen Scope and ACD. *Linguistic Inquiry* 4, 275-343.
- Chomsky, Noam (1970) Remarks on Nominalization. In Jacobs, R. A and P. S. Rosenbaum (eds.) *Readings in English Transformational Grammar*. Waltham, Mass.: Blaisdell.
- Chomsky, Noam (1981) *Lectures on Government and Binding*. Dordrecht: Foris Publications.
- Chomsky, Noam (1995) *The Minimalist Program*. Cambridge, MA: MIT Press.
- Dowty, David (1989) On the Semantic Content of the Notion ‘Thematic Role’. In G. Chierchia, B. Partee, R. Turner (eds.) *Properties, Types and Meaning: Vol. II: Semantic Issues*, 69-129. Dordrecht: Kluwer.
- Grimshaw, Jane (1990) *Argument Structure*. Cambridge, Mass.: MIT Press.

---

<sup>5</sup>Along with the causative, other morphemes that can attach to the zero-derived light verb include *-tai* ‘want’ and the *-te* inflectional affix. On the other hand, the agentive *-te* (*\*tyousa-te* ‘one who investigates’) is not allowed. Thanks to Yoko Sugioka for these points.

- Grimshaw, Jane and Armin Mester (1988) Light Verbs and Theta-Marking. *Linguistic Inquiry* 19, 205-32.
- Harada, S. I. (1976) Honorifics. In Masayoshi Shibatani (ed.) *Japanese Generative Grammar (Syntax and Semantics 5)*, New York: Academic Press.
- Harley, Heidi. 1995. *Subjects, Events, and Licensing*. Ph.D. dissertation, MIT, Cambridge, Mass.
- Harley, Heidi. 2002. Possession and the DOC, *Linguistic Variation Yearbook 2*, 29-68. John Benjamins.
- Higginbotham, James (1983) Logical Form, Binding, and Nominals. *Linguistic Inquiry* 16, 547-593.
- Hoshi, Hiroto (2005) Functional Categories and Configurationality. *Memoirs of Faculty of Education and Human Studies*, Akita University, Akita, Japan.
- Ito, Takane and Yoko Sugioka (2002) *Go-no Shikumi-to Gokeisei*. Tokyo: Kenkyusha.
- Hoji, Hajime. 1985. *Logical Form Constraints and Configurational Structures in Japanese*. Ph.D. dissertation, University of Washington, Seattle.
- Kageyama, Taro (1993) *Bunpoo-to Gokeisei (Grammar and Word Formation)*. Tokyo: Hituzi Shobo.
- Kayne, Richard. 1984. *Connectedness and Binary Branching*, Foris, Dordrecht.
- Kishimoto, Hideki (2001) Binding of indeterminate pronouns and clause structure in Japanese. *Linguistic Inquiry* 32, 597-634.
- Kishimoto, Hideki (2006) Japanese syntactic nominalization and VP-Internal Syntax. *Lingua* 116: 771-810.
- Kitagawa, Yoshihisa (1994) "Shells, Yolks, and Scrambled E.g.s," *NELS 24*, . 221-239. Proceedings of the 24th Conference of the Northeast Linguistic Society, University of Massachusetts, Amherst.
- Kitahara, Hisatsugu. 2002. Scrambling, case, and interpretability. In Samuel David Epstein and T. Daniel Seely, eds., *Derivation and Explanation in the Minimalist Program*, 167–183. Oxford: Blackwell.
- Kuroda, S.-Y. 1988. Whether we agree or not: A comparative syntax of English and Japanese. *Linguisticae Investigationes* 12:1–47.
- Larson, Richard (1988) On the Double Object Construction. *Linguistic Inquiry* 19, 335-391.

- Marantz, Alec (1993) Implications of Asymmetries in Double Object Construction. In Sam Mchombo (ed.) *Theoretical Aspect of Bantu Grammar*, 113-150. CSLI Publications, Stanford, California.
- Myers, Scott (1984) Zero-derivation and inflection. In *MIT Working Paper in Linguistics 7: Papers from the January 1984 MIT Workshop on Morphology*, 53-69. Department of Linguistics and Philosophy, MIT, Cambridge, Mass.
- Miyagawa, Shigeru (1996) Word Order Restrictions and Nonconfigurality. *Proceedings of Formal Approaches to Japanese Linguistics 2, MIT Working Papers in Linguistics 29*, 117-142.
- Miyagawa, Shigeru (1997) Against Optional Scrambling, *Linguistic Inquiry* 28, 1-26.
- Miyagawa, Shigeru (2001) The EPP, scrambling, and *wh*-in-situ. In Michael Kenstowicz, ed., *Ken Hale: A Life in Language*. Cambridge, MA: MIT Press, 293-338.
- Miyagawa, Shigeru and Takae Tsujioka (2004) Argument Structure and Ditransitive Verbs in Japanese. *Journal of East Asian Linguistics* 13, 1-38.
- Mazurkewich, Irene, and Lydia White (1984) The Acquisition of the Dative Alternation: Unlearning Overgeneralizations. *Cognition* 16, 261-283.
- Pesetsky, David (1995) *Zero Syntax: Experiencers and Cascades*. Cambridge, Mass: MIT Press.
- Pinker, Steven (1989) *Learnability and Cognition: the Acquisition of Argument Structure*. Cambridge, Mass.: MIT Press.
- Pylkkänen, Liina (2002) *Introducing Arguments*. Ph.D. dissertation, MIT, Cambridge, Mass.
- Sadakane, Kumi and Masatoshi Koizumi. 1995. On the nature of the 'dative' particle *ni* in Japanese. *Linguistics* 33, 5-33.
- Saito, Mamoru and Hiroto Hoshi (2000) The Japanese Light Verb Construction and the Minimalist Program. In Roger Martin, David Michaels and Juan Uriagereka (eds.) *Step by step: Essays on Minimalist syntax in honor of Howard Lasnik*, 261-295. MIT Press, Cambridge, Mass.
- Shibatani, Masayoshi (1978). Mikami Akira and the notion of 'subject' in Japanese grammar. In *Problems in Japanese Syntax and Semantics*. John Hinds and Irwin Howard (eds.) Tokyo: Kaitakusha.
- Sugioka, Yoko. 1984. *Interaction of Derivational Morphology and Syntax in English and Japanese*. Doctoral dissertation, the University of Chicago.

- Sugioka, Yoko. 1992. On the Role of Argument Structure in Nominalization. *Language and Communication* 10. Keio University, pp. 53-80.
- Tsujioka, Takae. 2001. 2001b. The syntax of possession in Japanese. Doctoral dissertation, Georgetown University, Washington, D.C.
- Takano, Yuji (1998) Object Shift and Scrambling. *Natural Language and Linguistic Theory* 16, 817-889.
- Takano, Yuji (to appear) Ditransitive Constructions. In Shigeru Miyagawa and Mamoru Saito (eds.) *Handbook of Japanese Linguistics*. London and New York: Oxford University Press.
- Takezawa, Koichi (2001) Aru-no toogoteki nimen-sei. In *Higashi-azia-gengo-bunka-no Soogokenkyuu*, 75-100. University of Tsukuba, Tsukuba, Japan.
- Yatsushiro, Kazuko (2003) VP Internal Scrambling. *Journal of East Asian Linguistics* 12, 141-170.