

**Relations between thematic structure and syntax:
a study on the nature of predicates in Japanese¹**

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0. Abstract

How to capture the nature of phrase structure building in Japanese has been a much debated point (Hale 1980, Farmer 1980, 1984, Miyagawa 1980, Saito 1985, Hoji 1985, Fukui 1986, 1995, Kuroda 1986/88, Yatabe 1993, Koizumi 1995, Takano 1996, Fukui and Takano 1998, Saito and Fukui 1998, among others). In this paper, developing Saito and Hoshi's (1994/2000², 1998) θ -theory further, we argue that Japanese builds phrase structure rather flexibly, because a predicate in the language can freely assign θ -roles from anywhere. Namely, a Japanese predicate does not have to assign θ -roles in its "base" position (cf. Hale and Keyser 1993, 1997, Chomsky 1995, 1998/2000, 1999, 2001, among others). In this sense, Japanese is thus a mixed "configurational" and "nonconfigurational" language, i.e. a "(non-)configurational" language.³

To attain this aim, we show that we can uniformly account for a very wide range of constructions in Japanese under this hypothesis in an elegant manner. Furthermore, we suggest a way to explain the nature of the apparently unique θ -marking properties of Japanese based upon Higginbotham's (1985) theory of a "hidden" Event position in conjunction with Fukui's (1986, 1995) or Kuroda's (1986/88) classical parameter proposed for Japanese and English. More specifically, we propose that the properties of functional categories of a given language affect the way lexical categories discharge their argument slots in the core computation in a significant manner.

¹ This is a radically and extensively revised version of Hoshi (1999b, 2000). Earlier versions of the papers were presented at Nagoya University, the Nissan Institute at Oxford University, the School of Oriental and African Studies at the University of London, the University of the Basque Country, and the Eighteenth National Conference of the English Linguistic Society of Japan held at Konan University. I would like to express my sincere and deepest gratitude to Mamoru Saito for a number of exciting discussions of the nature of Japanese predicates that I have had with him since I was one of his students at the University of Connecticut. As is clear, the proposals in this paper are built upon our joint work, Saito and Hoshi (1994/2000, 1998). I am also very grateful to Jun Abe, who has given me frank and invaluable comments and criticisms about almost everything that I have claimed in this paper. Finally, I would like to thank Koichi Abe, Hiroshi Aoyagi, Marcel den Dikken, Chihiro Fujimori, Roland Hinterhölzl, Daisuke Inagaki, Yasuo Ishii, Noriko Kawasaki, Ruth Kempson, Motoko Kondo, Aika Kumazawa, Chie Kutsuwada, S.-Y. Kuroda, Nobuaki Nishioka, Javier Ormazabal, M. Carme Picallo, Hiromu Sakai, Masaki Sano, Ur Shlonsky, Yoko Sugioka, María Uribe-Etxebarria, Jon Ortiz de Urbina and Yoko Yumoto for their valuable comments, objections, and suggestions on earlier versions of this paper. The research that I carried out to write this paper was supported by research funds from the British Academy, the Japan Foundation Endowment Committee and the School of Oriental and African Studies at the University of London.

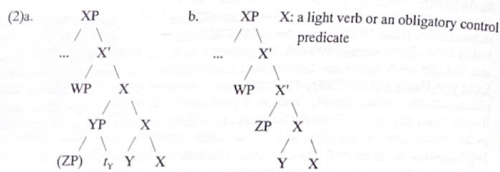
² Saito and Hoshi (1994/2000) is a revised version of Hoshi and Saito (1993).

³ We are very grateful to Jun Abe and Ken Hale, who pointed out independently that there are certain similarities between Saito and Hoshi's θ -theory and "nonconfigurational" hypotheses proposed by Hale (1980, 1981, 1982, 1983) and others (cf. Baker 1996, 1997).

1. Introduction

Through an examination of light verb constructions and obligatory control constructions in Japanese, Saito and Hoshi (1998) propose the following condition for θ -marking:

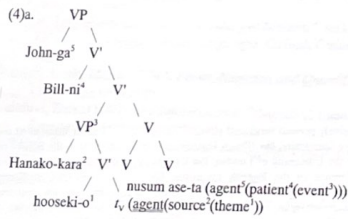
- (1) As illustrated in (2a-b), if X is either a light verb or an obligatory control predicate, Y can assign θ -roles after adjoining to X.



In (2a-b), therefore, WP and ZP can be arguments bearing θ -roles assigned by Y.

Importantly, Saito and Hoshi's condition for θ -role assignment in (1) thus allows Japanese causative example (3) to be assigned structure (4a), (4b), (4c), or (4d).⁴

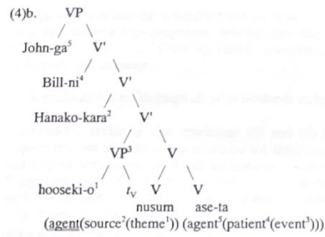
- (3) John-ga Bill-ni Hanako-kara hooseki-o nusum-ase -ta.
 John-Nom Bill-Dat Hanako-from jewelry-Acc steal -Cause-Pst
 John made Bill steal jewelry from Hanako.'



4. In this paper, we assume that controllees, underlined twice in argument structure, are semantically determined, and are not realized as PRO in syntax (Jackendoff 1972, 1974, 1990, 1997, Gunji 1987, Sag and Pollard 1991, Pollard and Sag 1994, Culicover and Jackendoff 2001, among others, cf. Chierchia 1984, 1989, 1990, Dowty 1985, Saito and Hoshi 1998). We also assume that a verb assigns Accusative Case to an internal argument together with its internal θ -role (Takahashi's 1993 claim based upon a suggestion by Mamoru Saito; Takano 1996, among others); Nominative Case is checked within the minimal domain of T (Saito 1982, Saito and Fukui 1998; cf. Kuroda 1986/88, Koizumi 1994, 1995); Genitive Case is checked within the minimal domain of N (Murasugi 1991). Just for ease of exposition, in structures such as (4a-d), θ -role assignment relations are expressed by coindexation between arguments and argument slots in thematic structure. As in (4a-d), projections such as vP or TP which are not relevant in discussion are suppressed in this paper.

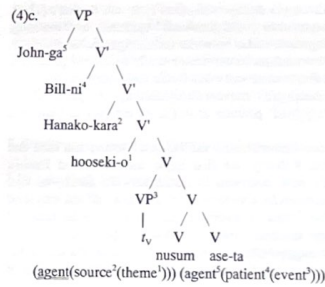
In (4a), after assigning both its theme θ -role and source θ -role to *hooseki* 'jewelry' and *Hanako-kara* 'from Hanako,' respectively, *nusum* 'steal' undergoes movement and adjoins to the causative morpheme before Spell-Out. The causative verb assigns an event θ -role to the lower VP or directly to [_v *nusum*],⁵ and a patient θ -role to *Bill*, and an agent θ -role to *John*.

In (4b),



nusum assigns only a theme θ -role within its own maximal projection, before adjoining to the causative morpheme. After the adjunction, *nusum* assigns its source θ -role to *Mary-kara* as in (2a).

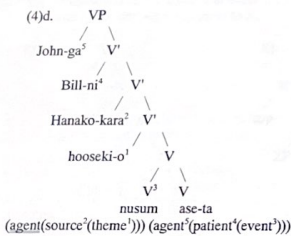
In (4c),



5. It might indeed be the case that not the lower VP but [_v *nusum*] directly receives an internal event θ -role from the causative verb in (4a-d), because the head V, *nusum*, is structurally closer to the causative verb than the VP at the end of the computation. This hypothesis, if correct, implies that relevant head adjunction/movement operations to create Japanese complex predicates must take place in the core computation, not in PF (cf. Takano 1996, Aoyagi 1998, 2000, Fukui and Takano 1998, Sakai 1998/99, Kuroda 2000, among others).

although *nusum* projects its maximal projection, it does not assign any θ -role within its projection. After adjoining to the causative verb, it discharges its theme θ -role and source θ -role to *hooseki* and *Hanako-kara*, respectively.

In (4d),



without projecting its maximal projection, *nusum* directly adjoins to the causative verb at the initial point of the derivation.⁶ From the adjoined position, it assigns a theme θ -role to *hooseki* and a source θ -role to *Hanako-kara*, as illustrated in (2b). The causative morpheme assigns its internal event θ -role directly to the X⁰ category, [*nusum*]. As in the other cases, *ase* also assigns a patient θ -role to *Bill* and an agent θ -role to *John*.⁷

Significantly, however, condition (1) clearly contradicts Hale and Keyser's (1993, 1997) and Chomsky's (1995, Chapter 4.6) "configurational" approach to θ -marking, which is widely accepted in the literature. That is, under the configurational approach, it is claimed that there is a fixed structural position for each θ -role within the projection of a θ -role assigner. Thus, a predicate must carry out θ -role assignment in its "base" position, and θ -marking is prohibited after movement/adjunction. In particular, Y cannot assign a θ -role from the "adjoined" position as in (2a-b), contrary to Saito and Hoshi's proposal.

In this paper, given this conflict between Saito and Hoshi's θ -theory and Hale and Keyser's/Chomsky's configurational θ -theory, we first argue that Saito and Hoshi's condition (1) is indeed empirically well motivated for Japanese. To do so, we first show that based upon (1), we can account for a wide range of data in a uniform way, and in particular, defend the claim that Japanese sentences such as (3) can be assigned "configurational" structure (4a), or "nonconfigurational" structure (4b), (4c) or (4d). At the same time, however, we suggest that (1) is not a universal condition for θ -marking, because it does not appear to be able to capture the θ -marking properties of

6. The way Saito and Hoshi (1998) project "direct head adjunction/head marking" structures such as (4d) is novel. Taking different theoretical assumptions, however, Ishii (1988), Washio (1989/90), Hoshi (1994a-b, 1999a), Matsumoto (1996), Yumoto (personal communication, 1998, 2000), Sakai (2000), Takano (2001b), among others, propose different versions of head adjunction structures for Japanese complex predicates at the initial point of the derivation.

7. As Saito and Hoshi (1998, p. 21) suggest, structures such as (4d) may exclude structures such as (4c) due to Economy. This is because the VP complementation in (4c) appears to be totally redundant (cf. Chomsky 1994, 1995).

English adequately.

Then, to widen the empirical coverage further, we propose that we should radically generalize it for Japanese by eliminating the stipulations in (1), as shown in (5).

(5) A predicate can discharge θ -roles from anywhere.

That is, we claim that the generalized version of Saito and Hoshi's condition in (5) holds only for Japanese type languages, whereas generalization (6), claimed by Hale and Keyser (1993, 1997) and Chomsky (1995), correctly captures the θ -marking properties of English type languages.

(6) A predicate has to discharge all of its θ -roles in its base position.

Furthermore, assuming that conditions (5) and (6) hold in Japanese and English, respectively, we suggest a way to derive the significant differences between Japanese and English with respect to θ -role assignment. More specifically, to do so, we adopt Higginbotham's (1985) theory of a "hidden" Event position in a thematic grid together with Fukui's (1986, 1995) or Kuroda's (1986/88) parameter for Japanese and English with respect to the nature of functional categories. In so doing, we argue that as originally claimed by Saito and Hoshi (1994/2000), (52) in fact holds universally, and propose that the remarkably distinct properties of functional categories in Japanese and English realize different θ -marking properties as described in (5) and (6), respectively.

In the following section, we show evidence based on which Saito and Hoshi (1994/2000, 1998) motivate their condition (1) together with some new evidence. More specifically, there, we discuss the nature of "light" verb constructions, "heavy" verb constructions, and "long distance" passives in Japanese. In section 3, we argue that condition (1) should be drastically generalized as in (5) for Japanese, while we maintain that Hale and Keyser's and Chomsky's generalization (6) holds in English. In section 4, we attempt to answer the question as to why (5) holds in Japanese, whereas (6) is valid for English. In section 5, we explore some theoretical implications of the proposals, and conclude the discussions of this paper.

2. Evidence for Saito and Hoshi's Condition (1)

2.1 Light Verb Constructions

As shown in (7),

- (7) [_{NP} John-*(no) Mary-kara -*(no) hooseki-*(no) ryakudatu]
 John-*(Gen) Mary-from-*(Gen) jewelry-*(Gen) plunderage
 'John's plunderage of jewelry from Mary'

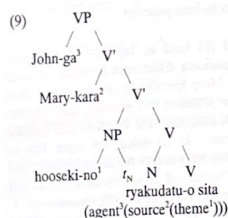
arguments taken by a nominal θ -maker in Japanese NPs are required to be marked by the Genitive Case marker *no*.

Compare (7) with examples (8a-b), which are Japanese light verb constructions involving a light verb *su*, a verb devoid of meaning.

- (8)a. John-ga Mary-kara [_{NP} hooseki-no ryakudatu]-o sita.
 John-Nom Mary-from jewelry -Gen plunderage-Acc did
 'John stole jewelry from Mary.'
 b. Mary-kara, John-ga *t*_i [_{NP} hooseki-no ryakudatu]-o sita.

Here, importantly, the agent argument and the source argument of *ryakudatu* 'plunderage' are not attached by *no*, which implies that these two arguments are outside the NP of *ryakudatu* 'plunderage.' We can therefore scramble *Mary-kara* freely, and place it at the sentence initial position as in (8b).

To account for the properties of Japanese light verb constructions such as (8a-b), Saito and Hoshi (1994/2000) propose an LF incorporation analysis in (9).



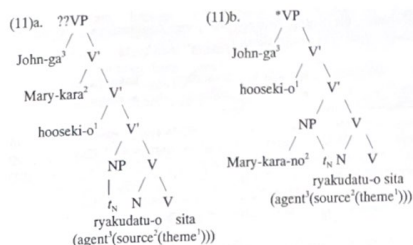
Under this covert incorporation analysis, the nominal θ -marker assigns a theme role to *hooseki* 'jewelry' first in its base position. Crucially, in the covert component, *ryakudatu* undergoes movement and assigns the remaining θ -roles to the other arguments after adjoining to the light verb *sita*.⁸

Given the assumption that a predicate assigns θ -roles from bottom up in accordance with the thematic hierarchy universally (agent > experiencer > goal/source/location > theme, Grimshaw and Mester 1988, Grimshaw 1990, p. 24, cf. Larson 1988), the LF incorporation analysis provides a natural account for the contrast between (10a) and (10b).

- (10)a.??John-ga Mary-kara hooseki-o ryakudatu -o sita.
 John-Nom Mary-from jewelry-Acc plunderage-Acc did
 'John stole jewelry from Mary.'
 b. *John-ga hooseki-o [_{NP} Mary-kara-no ryakudatu]-o sita.
 John-Nom jewelry -Acc Mary-from-Gen plunderage-Acc did

(10a) and (10b) are assigned structures (11a) and (11b), respectively, under Saito and Hoshi's theory.

8. Chomsky (1998/2000, 1999) and Uriagereka (1999) propose "Cyclic Spell-Out/Multiple Spell-Out," which denies the over-covert distinction. There are, however, ways to implement Saito and Hoshi's (1994/2000) incorporation analysis under their Cyclic Spell-Out/Multiple Spell-Out theory. Furthermore, because this issue is tangential to the main discussion of this paper, our discussion in this paper is based upon Saito and Hoshi's original analysis under Chomsky's (1995) framework with the distinction.



In (11a), *ryakudatu* projects its maximal projection without discharging any of its θ -roles within it. Only after incorporating to *sita*, the nominal θ -marker assigns a theme role, a source role, and an agent role from bottom up in accordance with the thematic hierarchy. (11a), therefore, has nothing wrong θ -theoretically, but it is in violation of the surface double-*o* constraint, which prohibits more than one NP-*o* in a single sentence in Japanese.⁹ Hence, (11a) is only marginally ungrammatical. In contrast, in (11b), *ryakudatu* is required to assign a source θ -role to *Mary-kara* in its base position first, and then to assign a theme role to *hooseki* after incorporating to the light verb in LF. This contradicts the thematic hierarchy, and the example is predicted to be ungrammatical, as desired.

To the extent that Saito and Hoshi's covert incorporation analysis of the Japanese light verb construction is correct, it thus motivates condition (1).¹⁰ In particular, it provides substantial support for structures (4b-c) for Japanese causative (3). Notice significant structural parallelism between (4b) and (9) and that between (4c) and (11a).

2.2 Heavy Verb Constructions

Consider next "heavy" verb constructions in Japanese in (12a-d). In this construction, the light verb *su* is not used, but obligatory control predicates such as *kokorom* 'attempt' which have semantic content are used. As Matsumoto (1988) observes, heavy verb constructions in (12a-b) display exactly the same properties as light verb constructions

9. Here, for ease of discussion, we assume that the light verb *sita* checks the Accusative Case feature of *ryakudatu*. Furthermore, after adjoining to the light verb *su*, the nominal θ -marker *ryakudatu* gains the ability to check Accusative Case of its theme argument, *hooseki*, being part of the verbal projection.

The reader is referred to Saito and Hoshi (1994/2000) for an alternative analysis of the Case fact in (11a). See Shibatani (1973), Harada (1973), Kuroda (1978, 1992), Saito (1985), Saito and Hoshi (1994/2000), Takano 2001b, among others, for discussion of the surface and abstract double-*o* constraints.

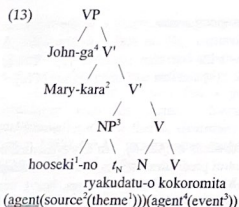
10. Light verb constructions such as (8a) are extremely productive in Japanese in that based upon the light verb *su* and nominal θ -markers, we can form Japanese light verb constructions freely (cf. Miyagawa 1989a, Tsujimura 1990). Significantly, however, English lacks this type of productive light verb construction, which implies that condition (1) holds in Japanese, but it is not valid for English. See Grimshaw and Mester (1988), Kageyama (1993), Saito and Hoshi (1994/2000), Matsumoto (1996), and references cited therein for detailed discussion of the Japanese light verb construction. See Cattell (1984), Jayaseelan (1988), among others, for their analyses of English light verb constructions.

in (8a-b). Furthermore, the contrast between heavy verb constructions (12c) and (12d) parallels that between light verb constructions (10a) and (10b).

- (12)a. John-ga Mary-kara [_{NP} hooseki-no ryakudatu]-o kokoromita.
John-Nom Mary-from jewelry-Gen plunderage-Acc attempted
'John attempted to steal jewelry from Mary.'
b. Mary-kara John-ga t_i [_{NP} hooseki-no ryakudatu]-o kokoromita.
Mary-from John-Nom jewelry-Gen plunderage-Acc attempted
c. ??John-ga Mary-kara hooseki-o ryakudatu-o kokoromita.
John-Nom Mary-from jewelry-Acc plunderage-Acc attempted
d. *John-ga hooseki-o [_{NP} Mary-kara-no ryakudatu]-o kokoromita.
John-Nom jewelry-Acc Mary-from-Gen plunderage-Acc attempted

In (12a-b), the agent argument and the source argument of *ryakudatu* are not marked by the Genitive Case marker *no* as they are not in (8a-b). This of course implies that these two arguments are located outside the maximal projection of *ryakudatu*. Since they appear at the sentential level, we can apply scrambling to *Mary-kara* without any problem, as shown in (12b) (cf. 8b). (12c) is only marginally ungrammatical with a flavor of the surface double-*o* constraint violation as in (10a). (12d) is completely out exactly like (10b).

Saito and Hoshi (1998), thus, directly apply their LF incorporation analysis of the light verb construction to the Japanese heavy verb construction, and assign structure (13) to example (12a).



Here, again, *ryakudatu* discharges θ -roles in its base position in the overt component and significantly, from the adjoined position in the LF component as in (9). The only difference between (9) and (13) is that the light verb *su* does not have θ -roles to assign, whereas obligatory control predicates such as *kokorom* have thematic roles to discharge as illustrated in (13). The (un-)grammaticality of examples in (12b-d) is thus straightforwardly accounted for in parallel with (8b) and (10a-b).

Japanese heavy verb constructions involving the stative obligatory control predicate *deki* 'can' display basically the same properties as seen below, as predicted by Saito and Hoshi's theory.

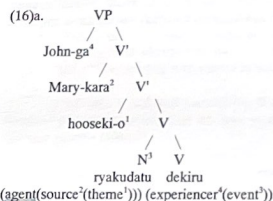
- (14)a. John-ga Mary-kara [_{NP} hooseki-no ryakudatu]-ga dekiru.
John-Nom Mary-from jewelry-Gen plunderage-Nom can
'John can steal jewelry from Mary.'

- b. Mary-kara John-ga t_i [_{NP} hooseki-no ryakudatu]-ga dekiru.
Mary-from John-Nom jewelry-Gen plunderage-Nom can
c. John-ga Mary-kara hooseki-o ryakudatu-ga dekiru.
John-Nom Mary-from jewelry-Acc plunderage-Nom can
d. *John-ga hooseki-o [_{NP} Mary-kara-no ryakudatu]-ga dekiru.
John-Nom jewelry-Acc Mary-from-Gen plunderage-Nom can

In contrast with (10a) and (12c), however, (14c) is fully grammatical. This is because there is nothing θ -theoretically wrong with the surface (10a), (12c) or (14c). However, (10a) and (12c), but not (14c), are in violation of the surface double-*o* constraint.¹¹ Finally, consider the following contrast:

- (15)a. John-ga Mary-kara hooseki-o ryakudatu-dekiru.
John-Nom Mary-from jewelry-Acc plunderage-can
'John can steal jewelry from Mary.'
b. *John-ga Mary-kara hooseki-no ryakudatu-dekiru.
John-Nom Mary-from jewelry-Gen plunderage-can

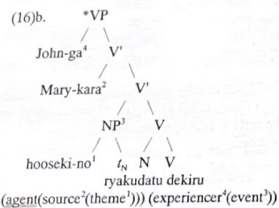
If we suppose that only Case feature bearing Ns can project NPs, then we can account for this contrast straightforwardly by giving structures (16a-b) to (15a-b), respectively.



In (16a), the nominal θ -marker, *ryakudatu*, undergoes "direct head adjunction" at the initial point of the derivation. This direct head adjunction is forced, because the nominal θ -marker, *ryakudatu*, in (16a) lacks Case features and cannot project NP. Crucially, from the adjoined position, *ryakudatu* θ -marks all of its arguments in accordance with condition (1) as in (2b) (cf. 4d). The stative control predicate also succeeds in discharging its θ -roles to *John* and *ryakudatu* in its base position.

11. Here, following Kuno (1973), Saito and Hoshi (1998), among others, we assume that stative predicates in Japanese check Nominative Case features of their internal arguments. In section 3.3, we will propose an alternative analysis of Nominative Case marked objects in Japanese. The present discussion in the text, however, is not affected by the alternative analysis in any way.

In (16b),



ryakudatu is required to project its NP to accommodate *no* marked theme argument, *hooseki*. However, this is disallowed, because the NP is projected by the N without Case feature in contradiction with the above mentioned assumption. Therefore, (16b) is correctly ruled out.

This account for the heavy verb construction proposed by Saito and Hoshi (1998), thus, further motivates condition (1) for θ -marking in Japanese.¹² Furthermore, it reinforces the validity of structures such as (4b), (4c) and (4d) for Japanese causative (3) (cf. 13, 14c, 16a).

12. English lacks the heavy verb construction, too.

- (i)a. Harry attempted [_{NP} an offer of money to the police].
 b.?*To the police, Harry attempted [_{NP} an offer of money *t*].
 c.?*To whom, did Harry attempt [_{NP} an offer of money *t*]?

- (ii)a. Harry attempted [_{NP} a withdrawal of money from the bank].
 b.?*From the bank, Harry attempted [_{NP} a withdrawal of money *t*].
 c.?*From which bank, did Harry attempt [_{NP} a withdrawal of money *t*]?

As indicated in (ia) and (iia), all the internal arguments of *offer* and *withdrawal* must be generated inside their maximal projections. Topicalization in (ib) and (iib) and wh-movement in (ic) and (iic) thus result in ungrammaticality in sharp contrast with the grammaticality of Japanese light verb construction (8b) and Japanese heavy verb construction (12b).

The following is the Japanese heavy verb construction, involving the object control predicate *mezzi* 'order'.

- (iii) Keesatu-wa kare-ni syo -made [_{NP} syuttoo]-o meezi-ta.
 police -Top he -to station-as far as appearance -Acc order-Pst
 'The police ordered him to present himself at the police station.'
 (Matsumoto 1996, p. 80)

Again, English lacks the corresponding construction. All of these phenomena, therefore, imply again significant differences between Japanese and English with respect to the nature of θ -marking.

2.3 Long Distance Passives¹³

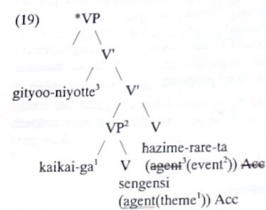
In this section, by showing that Saito and Hoshi's theory provides a natural account for the existence of "long distance" passives in Japanese, we provide further evidence for condition (1). (17a-b), which are cited from Inoue (1976), are a regular active vs. passive pair.

- (17)a. Gityoo -ga kaikai-o sengens -i-ta.
 chairperson-Nom opening-Acc announce--Pst
 'The chairperson announced the opening.'
 b. Kaikai -ga, gityoo -niyotte *t* sengens -are -ta.
 opening-Nom chairperson-by announce-Pass-Pst
 'The opening was announced by the chairperson.'

(18a) is an instance of the obligatory subject control construction, involving the complex predicate *sengens-i-hazime* 'start to announce.' (18b) is the passive counterpart of (18a). Constructions such as (18b) are called "long distance" passives, because the internal argument of the embedded verb *sengens* is made to be the "grammatical subject" of the main clause (cf. Kageyama 1993, Sakai 2000).

- (18)a. Gityoo -ga kaikai-o sengens -i-hazimeta.
 chairperson-Nom opening-Acc announce--started
 'The chairperson started to announce the opening.'
 b. Kaikai -ga, gityoo -niyotte *t* sengens -i-hazime-rare -ta.
 opening-Nom chairperson-by announce--start -Pass-Pst
 '(lit.) *The opening was started to announce by the chairperson.'

If we take a standard assumption that obligatory control constructions always involve biclausal structure, then we have to assign the following representation to long distance passive (18b):¹⁴



Here, observe that the internal argument of the lower predicate, *kaikai*, has Nominative

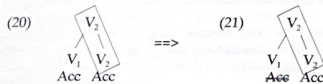
13. The reader is referred to Sugioka (1984), Miyagawa (1989b), Kageyama (1993), Nishigauchi (1993), Matsumoto (1996), and Sakai (2000) for alternative analyses of long distance passives in Japanese.

14. In (19), the agent θ -role and the Accusative Case feature of *hazime* are suppressed/absorbed by the passive morpheme *rare*. In this paper, such suppressed θ -roles and absorbed Cases are struck through as illustrated in representation (19).

Case feature. However, the internal argument is generated in the complement position of the predicate, *sengens*, which checks the Accusative Case feature of its complement. This configuration then necessarily induces "feature mismatch" in the sense of Chomsky (1995), and the derivation is canceled.

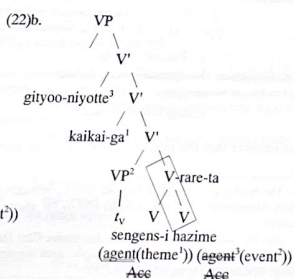
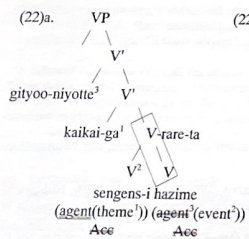
The grammaticality of long distance passives such as (18b), therefore, implies that control constructions such as (18a-b) must be able to project structures other than standard biclausal structure like the one in (19) to permit long distance passives. Again, this is predicted by Saito and Hoshi's condition (1), which states that a predicate can assign θ -roles not only in its base position but also from an adjoined position, if a light verb or an obligatory control predicate is given.

Importantly, condition (1) together with the following natural Case feature suppression mechanism provides an elegant way to account for the well-formedness of Japanese long distance passives. Consider first the structures in (20-21).



In (20), a complex predicate, V_2 , is formed based upon the two verbs, V_1 and V_2 , with unchecked Accusative Case features. Given that V_2 is the head of the complex predicate, it is plausible for us to assume that as a consequence of the head adjunction operation, the Accusative Case feature of the head, V_2 , covers up and suppresses the Accusative Case feature of the non-head, V_1 , as illustrated in (21). This Case suppression mechanism in the core computation is particularly natural under morphological percolation mechanisms proposed by Lieber (1980), Williams (1981), Zubizarreta (1985), among others. (In section 3.2, we show that we can account for the properties of both long distance passives and Japanese *ni* direct passives uniformly by adopting the same suppression mechanism. In so doing, there, we attempt to provide further evidence for this type of morphological suppression analysis.)

Given this Case suppression mechanism, now, we can account for the grammaticality of example (18b) under Saito and Hoshi's theory in a straightforward manner. Condition (1) allows example (18b) to project structure (22a) or structure (22b) as well, because *hazime* is an obligatory control predicate.



As in (22a), (1) permits *sengens* to undergo direct head adjunction without projecting its V' projection at the initial point of the derivation. When it is adjoined to *hazime*, the complex predicate [_v [_v *sengens*] *hazime*] is formed. The complex predicate contains two unchecked Accusative Cases, and thus, the computational system suppresses the Accusative Case of the non-head, *sengens*, in accordance with (20-21). Then, the passive morpheme *rare* attaches to the head of the complex predicate, absorbing the Accusative Case of the head, *hazime*. From the adjoined position, crucially, *sengens* discharges its internal θ -role, and *hazime* assigns its θ -roles in its base position in accordance with (1). Because of the two step Case suppression operation above, *kaikai-ga* is successfully in a Caseless position in (22a) (cf. 19), and hence, can undergo movement into the projection of T' to have its Nominative Case feature checked off.¹⁵

(22b) is only slightly different from (22a). In (22b), *sengens* does not undergo head adjunction at the initial point of the derivation. There, *sengens* first projects its own projection, accommodating none of its arguments in it. Then, condition (1) permits it to adjoin to *hazime*, creating the adjunction structure with two unchecked Accusative Case features. From here, the computation proceeds exactly in the same way as in (22a), allowing long distance passive in Japanese. As in (22a), together with condition (1), the two step Case suppression mechanism plays a crucial role here.

Notice again that the obligatory subject control predicate permits the lower predicate, *sengens*, to discharge its θ -roles after head adjunction in both (22a) and (22b) in a crucial manner. The success of our analysis of Japanese long distance passives thus provides further evidence for condition (1) for θ -marking in Japanese (cf. 4c-d).

Importantly, as notes 10 and 12 and the ungrammatical English translation of (18b) imply, English does not possess any construction which corresponds to Japanese type light verb constructions, heavy verb constructions, or long distance passives that we have discussed in this section. This consistent difference between Japanese and English is highly unlikely to be just a coincidence, and it implies that there is a fundamental difference between these two languages regarding θ -marking.

Given this consideration, we suggest that this is precisely because generalization (1), which has played a key role in capturing the nature of the Japanese constructions in this section, does not hold in English.

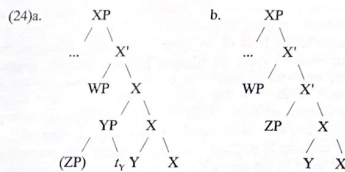
3. Evidence for Condition (5)

Given the straightforward analysis of Japanese light verb constructions, heavy verb constructions and long distance passives in the previous section, we believe that it is reasonable to conclude that Saito and Hoshi's condition (1) has strong motivation. Furthermore, because (1) is invalid in English, English lacks the corresponding constructions entirely. Based on this, we propose to revise Saito and Hoshi's claim in a way that condition (1) is not a universal one, and it is only valid for Japanese type languages.

In this section, we argue further that we should radically generalize Saito and Hoshi's well-motivated condition for θ -marking in (1) for Japanese, as in (5), while maintaining Hale and Keyser's and Chomsky's generalization (6) for English type languages. (5) is repeated below.

15. In section 3.3, we propose that due to the nature of flexible θ -marking in Japanese and Economy, Japanese lacks movement for Case reasons entirely. The analysis of long distance passives in this section, however, is not affected by the proposal.

(23) A predicate can discharge θ -roles from anywhere. (Hence, it can discharge θ -roles even after adjoining to another lexical item as in 24a-b.)



As is clear from the formulation of condition (23), (23) subsumes (1) under it. (23) thus, can automatically account for all the important data that we have discussed in the previous section (see 8a-b, 10a-b, 12a-d, 14a-d, 15a-b, 18b). Our task of this section is then to show that we can explain the properties of a still wider range of constructions in Japanese by adopting condition (23) which condition (1) cannot capture. More specifically, to attain the aims of this section, we discuss *-kata* suffixation, optional complement object control, Nominative Objects, raising, and the copula construction. None of the relevant constructions discussed in this section involves a light verb or an obligatory control predicate. Significantly, they all receive a strikingly uniform account under drastically generalized condition (23), and as predicted, English lacks the corresponding constructions consistently.

3.1 *-kata* Suffixation¹⁶

Way/manner in English can be translated into either [_N *hoo-hoo*] or [_N *-kata*] in Japanese. Semantically, *hoo-hoo* and *-kata* are identical, whereas constructions involving *hoo-hoo* and those involving *-kata* show important syntactic and semantic differences. Consider the examples in (25a-b), (26a-b), and (27a-b). The free morpheme, *hoo-hoo*, is used in (a) examples, whereas the suffix *-kata* is used in (b) examples.

- (25)a. John-ga zyoozuni hon -o yom-u hoo-hoo
John-Nom skillfully book-Acc read-Prs way
'a way John reads a book skillfully'
b. John-*ga /no *zyoozuni/zyoozuna hon -*o /no yom -i-kata
John-*Nom/Gen *skillfully/skillful book-*Acc/Gen read--way
'a good way of John's reading a book'

In *hoo-hoo* construction (25a), the agent argument and the theme argument of *yom* 'read' surface with the Nominative Case marker *ga* and the Accusative Case marker *o*, respectively. In addition, the adverbial modifier *zyoozuni* 'skillfully' is compatible with this construction. In *-kata* construction (25b), on the other hand, the agent argument

16. See Sugioka (1984, 1989, 1992), Saiki (1987), Fukui and Nishigauchi (1993), Kageyama (1993), Manning, Sag and Iida (1999) among others, for more discussion of *-kata* suffixation. Mchombo (1978) observes that the Chicheŵa counterpart of *-kata* suffixation displays the same phenomena. See Alsina (1997) for recent discussions of the Chicheŵa fact.

and the theme argument of *yom* are required to be attached by the Genitive Case marker *no*. This then implies these arguments in the *-kata* construction are within the minimal domain of [_N *-kata*], not within a T or V projection. The fact that the adverbial modifier *zyoozuni* may not be compatible with the *-kata* construction, but the adverbial modifier *zyoozuna* must be used in (25b) leads us to the same conclusion. In (26a-b),

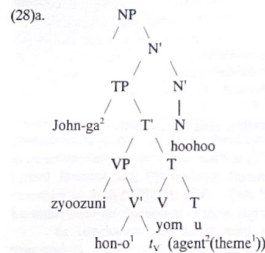
- (26)a. John-ga zyoozuni hon -o yom -i-hazime -ru hoo-hoo
John-Nom skillfully book-Acc read- start -Prs way
'a way John starts to read a book skillfully'
b. John-*ga /no *zyoozuni/zyoozuna hon -*o /no yom -i-hazime-kata
John-*Nom/Gen *skillfully/skillful book-*Acc/Gen read- start -way
'a good way of John's starting to read a book'

the subject control construction involving the complex predicate, *yom-i-hazime* 'start to read' is used. In (27a-b),

- (27)a. Mary-ga John-ni zyoozuni hon -o yom -ase -ru hoo-hoo
Mary-Nom John-Dat skillfully book-Acc read-Cause-Prs way
'a way Mary [makes John read a book] skillfully' or
'a way Mary makes John [read a book] skillfully'
b. Mary-*ga /no John-*ni /?e-no *zyoozuni/zyoozuna hon -*o /no
Mary-*Nom/Gen John-*Dat/to -Gen *skillfully/skillful book-*Acc/Gen
yom -ase -kata
read-Cause-way
'a good [way for Mary's making/letting John read a book]'

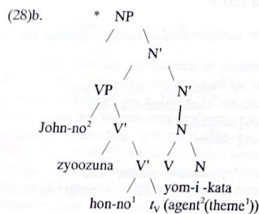
the object control construction, i.e. the causative construction, is embedded inside the *hoo-hoo* construction and inside the *-kata* construction, respectively. As expected, in both (26) and (27), we observe exactly the same Case fact and the same modification fact that we do in (25). A question, therefore, arises as to why the semantically identical lexical items, *hoo-hoo* and *-kata*, display these significant differences and how they trigger these phenomena. We argue below that this is exactly the phenomena predicted by radically generalized condition on θ -marking (23).

Consider first a well-formed structure for (25a) below:



Here, the verb *yom* first discharges a θ -role to the theme argument *hon* 'book' and at the same time, it checks the Accusative Case feature of *hon*. *Yom* then accommodates the adverbial, *zyoozuni*, within its maximal projection. For affixal feature checking, *yom* undergoes movement and adjoins to T before Spell-Out. After the adjunction, *yom* assigns an agent θ -role to *John*, and the Nominative Case feature of *John* is checked off within the projection of T. Here, TP, as a whole, modifies *hoofoo*, adjoining to the N', and *zyoozuni* 'skillfully' modifies the V projection of *yom* by adjoining to the V'. The Case fact and the modification fact observed above are thus both straightforwardly accounted for under this type of analysis. The data in (26a) and (27a) are accounted for exactly in the same manner.

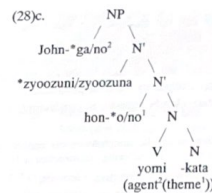
Consider next structure (28b) for *-kata* suffixation in (25b).



This structure has a lot of similarities with (28a), a well-formed structure for the *hoofoo* construction in (25a). This is because here, *yom* assigns its θ -roles to the theme and agent arguments in its base position, and accommodates the modifier, *zyoozuna* 'skillfully', in its maximal projection. Notice, however, that this cannot be the correct structure for (25b). This is because the V head is forced to undergo movement to adjoin to *-kata* for affixal feature checking through T before Spell-Out. This type of extraction is, however, illicit in the core computation, because it is extraction out of the modifier, VP. Furthermore, the Genitive Case features of *John* and *hon* cannot be properly checked off in this configuration (cf. Murasugi 1991). The adjectival modifier *zyoozuna* cannot be properly licensed by adjoining to the V', either.

If (28b) is the only structure that example (25b) can project, we then incorrectly predict that (25b) must be ungrammatical contrary to fact, i.e. that *-kata* suffixation does exist in Japanese unlike in English. (English in fact even lacks a bound morpheme which corresponds to *-kata* 'way'.) The grammaticality of (25b), thus, guides us to suppose that (25b) should be able to project another structure. This is indeed what radically generalized condition (23) forces (25b) to do due to the semantic and syntactic properties of *-kata*.

Consider the following direct head adjunction structure for (25b):



Yom, being a predicate in Japanese, can assign θ -roles from an adjoined position, given condition (23) (cf. 1). Hence, significantly, *yom* in (28c) has adjoined to *-kata* for affixal feature checking at the initial point of the derivation, creating direct head adjunction structure (cf. Chomsky 1995, pp. 289-290). This adjunction operation for affixal feature checking does not involve extraction out of an adjunct, and thus, is licit (cf. 28b). From the adjoined position, *yom* properly discharges a theme θ -role to *hon* and an agent θ -role to *John*. Because *yom* cannot project due to the direct head adjunction, here, only [_N *-kata*] projects its N projection. As a consequence, all the arguments of *yom* show up in the minimal domain of [_N *-kata*], and are required to have Genitive Case features checked off. Similarly, due to the head adjunction structure in (28c), not an adverbial modifier, but an adjectival modifier, which is licensed within an N projection, must be used in *-kata* constructions such as (25b). The data in (26b) and (27b) are successfully explained exactly in the same way, as desired.

The fact that the modifier *zyoozuni* 'skillfully' can ambiguously modify *yom* or *ase* in causative-*hoofoo* construction (27a), whereas *zyoozuna* can only modify *-kata* in causative-*kata* construction (27b) provides particularly strong evidence for the proposed analysis of these two constructions. (Notice the differences in English translations of (27a) and (27b).) This is because the modification fact in (27a-b) strongly implies that causative-*hoofoo* constructions involve V projections as in (28a), but that causative-*kata* constructions do not involve any V projection, but they must involve only N projections as shown in (28c). Namely, it must be that Japanese causative projects different structures depending on in which one of these two constructions it appears (cf. Kuroda 1965, 2000, 2001, Kuno 1973, Shibatani 1973, 1976, Inoue 1976, Miyagawa 1980, Manning, Sag, and Iida 1999, among others). And this is indeed what is predicted by condition (23). Remember that given condition (23), Japanese causatives in principle project structures "flexibly" (see 4a-d), and that both formal and semantic properties of given constructions determine which configurations they must or can build in the course of the computation. On the one hand, given (23), the semantic and syntactic properties of *-kata* force head adjunction at the initial point of the computation as shown in (28c). On the other, this is not the case with *hoofoo* constructions, as in (28a). It is also important to note here that affixal features involved in causative-*kata* constructions such as (27b) which force direct head adjunction must be formal features, not PF features, because they clearly affect the interpretations of examples such as (27b) (cf. 27a). (See Hoshi (2001), Kuroda (2000, 2001) and note 4 for much relevant discussion of these significant issues.)

In conclusion, the direct head adjunction structure in (28c) allowed to be projected by condition (23) has, thus, provided an illuminating way to account for the

grammaticality of *-kata* suffixation, the Case fact and the modification fact observed above. Because (23) does not hold in English, English lacks this type of syntactic suffixation. Notice, furthermore, that condition (23) permits direct head adjunction structures such as (28c), but condition (1) does not (cf. 4d). In *-kata* constructions such as (25b), there does not exist a light verb or an obligatory control predicate. For Japanese, radically generalized condition (23) is, thus, clearly superior to condition (1).¹⁷

17. The proposed account for the nature of *-kata* suffixation can be straightforwardly applied to "lexical compounds" such as the one in (i) and Miyagawa's (1987) "restructuring" construction in (ii):

(i) John-ga aisukurimu-o [_v [_v tabe]-arui-ta].
John-Nom ice cream -Acc eat-walk-Pst
'John walked, while eating ice cream.'

(ii) John-ga Tokyo-ni hon-o_i zitsensya-de _{t_i} [_v [_v kai-ni]-it-ta].
John-Nom Tokyo-to book-Acc bicycle-by buy-to-go-Pst
'John went to Tokyo to buy books.'

In (i), [_v *tabe*] is a "modifier," which have a verbal affixal feature. Hence, [_v *tabe*] is required to directly head-adjoint to [_v *arui-ta*] at the initial point of the derivation, exactly in the same way as *yom* directly head-adjoints to *-kata* in (28c). From the adjoined position, [_v *tabe*] assigns a θ -role to *aisukurimu* and checks its Accusative Case feature in accordance with proposed condition (23). There is nothing that prevents the same kind of computation for "restructuring" example (ii). Here, [_v *kai-ni*] is also a modifier, and it undergoes direct head adjunction to [_v *it-ta*] at the initial point of the computation. As in (i), given (23), the adjoined verb, [_v *kai-ni*] can assign its theme θ -role to *hon*, and check its Accusative Case feature. Crucially, thanks to the direct head adjunction operation in (ii), [_v *kai-ni*] does not project a modifying phrase. Hence, the object semantically taken by [_v *kai-ni*], *hon-o*, can be freely scrambled without being extracted out of the modifying clause projected by *kai-ni*, as shown in (ii). (As Chihiro Fujimori points out in personal communication in November, 2000, Saito's (2000) theory is opposed to our analysis of (i) and (ii) in that his theory denies the possibility of Case feature checking from an adjoined position. See Hoshi (2001) for arguments for the suggested analysis here.) The proposed analysis, if correct, thus also accounts for another important contrast between Japanese and English based upon (23). Namely, Japanese can generate "lexical" compound verbs such as *tabe-aruk* 'eat-walk' and "restructuring" constructions freely in the core computation, whereas English cannot. See Miyagawa (1987), Kageyama (1993), Matsumoto (1996), Nishiyama (1998), Saito and Hoshi (1998), Sakai (2000), Hoshi (2001), in particular, Saito (2000) for relevant discussion of the nature of lexical compounds and restructuring in Japanese.

The proposed analysis of *-kata* suffixation is also directly applicable to *-suz* suffixation below. See Sugioka (1992, pp. 62-64) for detailed discussion of the latter type of suffixation.

(iii)a. boku-ga uresi-i teedo
I -Nom glad-Prs degree
'the extent that I am glad'
b. boku-ga /no uresi-sa
I -*Nom/Gen glad--degree

(iv)a. Taro-ga ki -ga oo -i teedo
Taro -Nom mood-Nom many-Prs fact
'the extent that Taro is capricious'
b. Taro-ga /no ki -ga /no oo-sa
Taro -*Nom/Gen mood-*Nom/Gen many-degree

(v)a. otosiyori-o yorokob-ase -yasu-i teedo
elderly -Acc glad -Cause-easy-Prs degree
'the extent that elderly are easy to please.'
b. otosiyori-o /no yorokob-ase -yasu-sa
elderly -*Acc/Gen glad -Cause-easy-degree

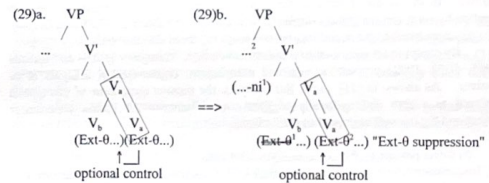
The reason why the following *hoo-hoo* construction is ungrammatical is that *hoo-hoo* cannot trigger head adjunction. This is so, because if [_v [_v *yom*]-u] adjoins to [_v *hoo-hoo*], we create a complex noun [_v [_v [_v *yom*]-u] *hoo-hoo*] in violation of Li (1990) type constraint, which prohibits head adjunction from a functional head to a lexical head.

(28)d. *John-no zyoozu-na hon -no yom-u hoo-hoo (cf. 25a-b)
John-Gen skillful book-Gen read-Prs way

3.2 Optional Complement Object Control

In this section, on the basis of a study of complement object control in Japanese and English, we provide further evidence for the claim that condition (23) is superior to condition (1). More specifically, here, we argue that due to the flexibility of phrase structure building in Japanese allowed by (23), the external θ -role of the head of a complex predicate can cover up and suppress the external θ -role of the non-head by means of head adjunction, whenever necessary, as shown in (29a-b) (cf. 20-21). On the other hand, because a predicate has to discharge its argument slots in its base position in English as claimed in (6), English cannot create such head adjunction structures for suppression of an external θ -role.

Keeping these in mind, consider (29a-b).



Here, because (23) allows flexible phrase structure building in Japanese, the complex predicate [_v [_v ...] ...] is formed by (direct) head adjunction. As in (29a), neither the head nor the non-head has yet discharged their external θ -roles, when they have adjoined to each other. However, due to the adjunction structure, there is only one VP SPEC position into which an external θ -role can be assigned. Hence, the head V_h and the non-head V_n compete for the single VP SPEC position. Due to a morphological head rule (Lieber 1980, Williams 1981, Zubizarreta 1985, among others), only the head is allowed to discharge its external θ -role to the SPEC.¹⁸ That is, the external θ -role of

18. Zubizarreta (1985) first proposes that the Romance causative verb, *faire*, suppresses the external argument of an embedded verb with its own external θ -role by attaching to it (cf. Williams 1979). Here, we have incorporated this insightful proposal under our analysis.

In fact, we have discussed constructions where two predicates with their own external θ -role form a complex predicate by head adjunction in previous sections. See, for example, section 2.3 on long distance passive. However, there has never arisen a relevant case like the one in (29a-b) until now. This is because the external θ -role of the non-head of the complex predicates discussed in the previous section was always licensed by control. Under our assumption, a controllee is determined

the non-head is covered up and suppressed by that of the head in this configuration, and is required to be realized optionally as a *ni* phrase, as shown in (29b). Importantly, the suppression mechanism in (29a-b) based upon the morphological percolation section 2.3, and if it is successful again in this section, it in turn reinforces the validity of this approach.¹⁹ Furthermore, in (29b), the suppressed external argument is licensed by the non-head *V* from an adjoined position crucially in accordance with generalization (23). Below, we show that Japanese indeed has this type of external θ -role suppression, and argue for the validity of (23).

Consider now *ni* direct passive (30a) and *ni* indirect passive (30b).

- (30)a. John-ga, sensei-ni e_i [_v home]-_v rare]-ta. (*ni* direct passive)
 John-Nom teacher-by praise - Pass -Pst
 'John was affected by the teacher's praising him.'
 b. John-ga tuma-ni sin-are -ta. (*ni* indirect passive)
 John-Nom wife -Dat die-Pass-Pst
 'John was affected by his wife's dying.'

In these examples, *home* 'praise' and *sin* 'die' are attached by the passive morpheme *rare*, and the logical subjects of these verbs appear as *ni* phrases. For this reason, we call these examples *ni* passives. The *ni* direct passive and the *ni* indirect passive differ as follows. In the *ni* direct passive, there is a gap in the object position of the verb attached by *rare*, and the gap is coindexed with the matrix subject, as illustrated in (30a).

On the other hand, in the *ni* indirect passive in (30b), there does not exist such a gap. By studying the nature of *ni* passives in detail, K. Hasegawa (1964) and Kuroda (1965, 1979, 1992) propose an optional complement object control analysis of *ni* passives. As shown in (31), under this analysis, the passive morpheme of this type is analyzed as a verb that optionally triggers control between the matrix experiencer subject and the internal argument of the embedded clause.

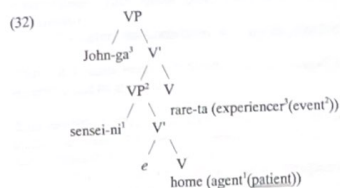
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|--------------------------------------|---|
| <i>ni</i> direct passive verb | embedded verb |
| (31) (experiencer(event)) | (... (.θ))(K. Hasegawa 1964 and Kuroda 1965) |
| | |
| optional "complement object control" | |

If such complement object control obtains, *ni* direct passives such as (30a) are generated. If such control is not triggered, *ni* indirect passives such as (30b) are generated.

Thus, Hasegawa and Kuroda suggest structure like the one in (32) for *ni* direct passive (30a), where the relevant complement object control holds.

semantically, and is irrelevant to the core computation. In this section, we discuss constructions where this type of control of the embedded external argument is not involved.

19. In this paper, we adopt Williams' (1994) hypothesis that Case features and an external θ -role are the "head" features of (complex) predicates. Hence, these features of a head cover up and suppress those of a non-head by means of head adjunction, under the assumption that a predicate can have only one set of "head" features.



This control analysis of *ni* direct passive is strongly supported by the ungrammaticality of (33b).

- (33)a. John-ga tyuui-o harat-ta.
 John-Nom heed-Acc pay -Pst
 'John paid heed.'
 b. *Tyuui-ga John-ni haraw-[_v are]-ta.
 Heed-Nom John-by pay - Pass -Pst
 '*Heed got paid by John.' (Hoshi 1991)

(33a) is an active sentence involving the verb phrase idiom, *tyuui-o haraw* 'pay heed.' This type of idiom resists *ni* direct "passivization," because under Hasegawa/Kuroda hypothesis, the *ga* marked NP, *tyuui*, is required to be an experiencer subject in (33b). However, this is semantically impossible and thus, (33b) is correctly ruled out, as desired.²⁰

Importantly, Lasnik and Fiengo (1974), on the other hand, observe that English *get* passives such as (34a) involve complement object control as illustrated in (34b).

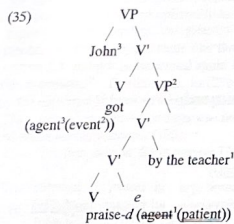
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| (34)a. John got praise- <i>d</i> e _i by the teacher. | (Lasnik and Fiengo 1974) |
| | |
| b. (agent/experiencer(event)) | (...θ) |
| | |
| ↑ "complement object control" | |

Thus, under Lasnik and Fiengo's analysis, (34a) is assigned the following structure:

20. As shown below, (33a) can be passivized in Japanese:

Tyuui-ga John-niyoite t_i haraw-are -ta.
 heed--Nom John-by pay -Pass-Pst
 'Heed was paid by John.'

This is because unlike *ni* direct passive, *niyoite* passives such as (i) do not involve complement object control. See Kuroda (1965, 1979), Hoshi (1994a-b, 1999a), among others for more discussion of various types of Japanese passive.



Lasnik and Fiengo substantiate their complement object control analysis based upon the ungrammaticality of examples such as (36b), involving the verb phrase idiom, *pay heed*.

- (36)a. John paid heed to our warning.
 b. *Heed got paid to our warning by John.
 (cf. Heed was paid to our warning by John.)

Heed is part of the verb phrase idiom, which cannot satisfy the semantic requirements imposed by *get* of *get* passives. Hence, (36) is correctly ruled out under this analysis.

Significantly, the *ni* direct passive and the *get* passive have further striking similarities:

- (37)a. John-ga Mary-ni zibun_{ni}-no uti -de koros-are -ta.
 John-Nom Mary-by self-Gen house-in kill -Pass-Pst
 'John was affected by Mary's killing him, in his/her, house.'
 (N. A. McCawley 1972, Kuno 1973: 299, 304)
 b. John got arrest-ed (by the police).

The logical subject of the embedded predicate of *get* passive is suppressed, and is optionally realized as a *by* phrase as shown in (37b). On the other hand, N. A. McCawley (1972) and Kuno (1973) observe that the *ni* phrase of *ni* direct passive is a suppressed external argument. Hence, it cannot function as the antecedent of long distance subject oriented anaphor *zibun* 'self.' This point is illustrated in (37a), where *John* but not *Mary* must be the antecedent of *zibun*. (Importantly, N. A. McCawley and Kuno point out that examples such as (37a) poses a problem for K. Hasegawa's and Kuroda's well-motivated structures such as (32) for *ni* direct passives. This is because *Mary-ni* is analyzed as the grammatical subject of the embedded clause in (30a), and hence, K. Hasegawa's and Kuroda's analysis incorrectly predicts that either *John* or *Mary* can be the antecedent of *zibun* in (37a).)

Given these discussions of *ni* direct passives and *get* passives, two significant questions immediately arise. The first question is why the external arguments of the embedded clauses in both *ni* direct passives and *get* passives must be suppressed. It is highly unlikely that this has nothing to do with complement object control. It has been observed that complement object control and suppression of an external argument are linked also in Chicheva causatives, Japanese benefactives and Romance *faire-par*

constructions. (See Alsina 1992, 1993, 1997 and Hoshi 1994a-b, 1999a for relevant discussion.)

To capture this connection, we suggest a condition on control below:

- (38)a. A Control relation is blocked by an external θ -role that intervenes between a controller and its controllee.

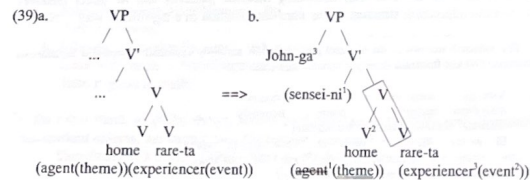
With condition (38a), we can then grasp the connection between complement object control and external θ -role suppression (cf. Hornstein 1999, Kawasaki 1999, Culicover and Jackendoff 2001, among others).

The second question, which is more significant in this section, arises as to why passive morphemes such as *-d* which suppress an external θ -role must be attached to the embedded verb of *get* passive as in (35), while there is "no" such morpheme attached to the embedded verb of *ni* direct passive as in (32) (cf. Washio 1989/90, Hoshi 1994a-b, 1999a, Kawasaki 1999). In other words, what suppresses the external θ -role of the embedded verb of *ni* direct passive and how? (As mentioned above, this is exactly the question for which structure (32) cannot offer a satisfactory solution.) Why is *get* passive (38b), which lacks the passive morpheme attached to the embedded verb, ungrammatical in sharp contrast with *ni* direct passive (32) and *get* passive (35)?

- (38)b. *John got praise by the teacher. (cf. 32, 35)

To answer this question, we propose the following, crucially relying on (23): the embedded verb of the *ni* direct passive is not attached by an external θ -role suppresser, because a predicate with an external θ -role in Japanese can suppress the external argument of another predicate "on its own" by means of head adjunction at some point of the computation as in (29a-b). Notice that given condition (23), there is nothing wrong about the kind of head adjunction illustrated in (29a-b). In other words, the *ni* passive verb triggering complement object control "attracts" and forces head adjunction with an embedded predicate at some point of the derivation in order for it to suppress the external θ -role of the non-head on its own and then, to hold complement object control in accordance with (38a).

Thus, one of the derivations that we propose for (30a) is the one in (39a-b).

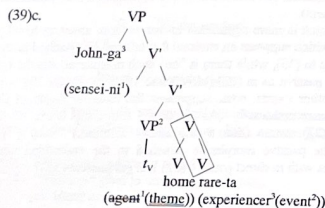


As was claimed above, the passive verb of the *ni* direct passive is a predicate triggering complement object control. To establish adequate syntactic and semantic environments, it attracts the embedded predicate and adjoins to it, as is allowed by (23).

Due to the head adjunction structure, there is only one VP SPEC position into which only the head, *rare*, can assign its external θ -role as illustrated in (29a-b). Hence, the

external argument of the non-head, *home*, is necessarily covered up and suppressed by that of the head, *rare*, as in (39b). Then, the complement object control by the matrix experiencer argument and the embedded theme argument is established, satisfying (38a). Finally, *home* licenses its suppressed external argument from the adjoined position crucially in accordance with (23), and *rare* assigns its internal event θ -role and its experiencer θ -role to [_v *home*] and *John*, respectively (cf. 4d).

The structure below is also a well-formed structure for *ni* direct passive (30a) under the proposed analysis.



The only difference between (39b) and (39c) is: in (39b), the two V heads, *home* and *rare*, form head adjunction structure at the initial point of the derivation. In (39c), the embedded predicate *home* adjoins to *rare* after projecting its own projection with none of its arguments in it. Other than this difference, there is no other difference between them, and the derivation for (39c) proceeds exactly in the same way as the one in (39a-b) (cf. 4c). Importantly, also in (39c), *rare* suppresses the external θ -role of *home* with its external argument on its own, as in (29a-b), and *home* licenses the suppressed argument from the adjoined position again in accordance with (23).²¹

Notice that in the proposed analysis, radically generalized condition (23) has played a key role to freely form such adjunction structures (39a-c) for suppression of an external argument (see 29a-b, cf. 20a-b). To the extent that the proposed analyses are correct, it must be the case that both long distance passives and *ni* direct passives involve head adjunction structure in the core computation in a significant way. Notice,

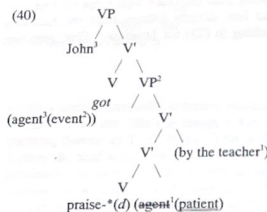
21. The proposed analysis of the *ni* direct passive can be naturally extended to Japanese benefactive construction (ia) and Romance *faire-par* construction (ib).

- (i)a. John-ga sensei-ni e home -te morat-ta.
John-Nom teacher-by praise-Benef-Pst
'John had himself praised (by the teacher).'
b. El mestre ha fet obrir el libre (per la Maria).
the teacher has made open the book (by the Mary)
'The teacher had the book opened (by Mary)'

Kuroda (1965) proposes that Japanese benefactives such as (ia) involve complement object control by the external argument of the benefactive verb. Alsina (1993, 1997), on the other hand, argues that Romance *faire-par* constructions involve complement object control by the patient argument of the causative verb. Importantly, as in the *ni* direct passive, the logical subject of the embedded clause is suppressed in the *faire-par* construction in (ib), and appears as a *by* phrase. Terada (1990) claims that the logical subject of the embedded clause of Japanese benefactives such as (ia) is also suppressed. See Hoshi (1994a-b) for alternative analyses of these constructions.

further, that condition (1) cannot provide the same solution for the problems regarding the nature of *ni* direct passives. This is so, because in *ni* direct passives, neither a light verb nor an obligatory control predicate is involved. The passive morpheme of *ni* direct passive is clearly an optional control predicate (See examples in 30a-b; K. Hasegawa/Kuroda hypothesis in 31).

Importantly, because condition (23) does not hold in English, *get* in *get* passives cannot trigger head adjunction to suppress an external θ -role in order for it to establish its complement object control on its own. Hence, English is required to utilize the passive morphemes such as *-d* to suppress the external argument of an embedded verb, as illustrated below. (cf. 34a vs. 38b)



3.3 Nominative Objects²²

How to analyze Nominative Objects in Japanese has also been a much debated point. Here, we propose a new account for it, crucially relying upon drastically generalized condition (23) for Japanese.

As shown in (41a), action predicates such as *tabe* is compatible with Accusative Case marked NPs, but they are incompatible with *ga* marked objects.

- (41)a. John-ga niku-o /^{*}ga tabe-ru.
John-Nom meat-Acc/*Nom eat-Prs
'John eats meat.'
b. John-ga suugaku-^{*}o /ga deki-ru.
John-Nom math -^{*}Acc/Nom can-Prs
'John is good at math.'

On the other hand, as (41b) shows, stative predicates are compatible with Nominative Case marked objects, but cannot take Accusative Case marked objects.

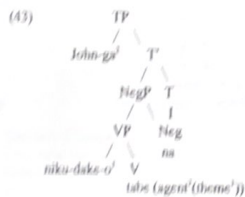
Significantly, Koizumi (1994) observes the following scope fact:

22. Kuno (1973), Kuroda (1978), Saito (1982), Takezawa (1987), Takano (1996, 2001a) and Saito and Hoshi (1998) propose non-movement analyses of Nominative Objects. Tada (1992) and Koizumi (1994, 1995) propose movement analyses of them. See Takano (1996, 2001a) and Saito and Hoshi (1998) for arguments against the movement analyses.

- (42) a. *John-ga niku-dake-o tabe-na-i.* (only > not, not > only)
 John-Nom meat-only-Acc eat -Neg Prs
 'John does not eat meat only.'
 b. *John-ga suugaku-dake-ga deki-na-i.* (only > not, *not > only)
 John-Nom math -only-Nom can -Neg Prs
 'John is not good at math only.' (Koizumi 1994)

Na 'not' can take wide scope over *dake* 'only' attached to the Accusative Object in (42a). On the other hand, *na* cannot take wide scope with respect to *dake* attached to the Nominative Object in (42b). That is, in (42b), *dake* must take wide scope over *na*.

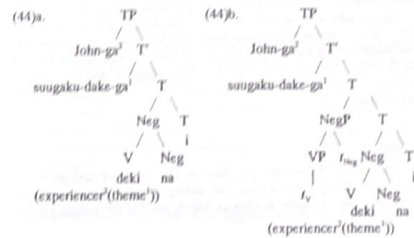
This apparently surprising fact, in fact, directly follows from the following analysis based on the condition for θ -marking in (23) for Japanese. First, assuming standard structure (43) for (42a),



we can straightforwardly account for the Case fact and the scope fact. First, *niku* 'meat' receives Accusative Case together with a theme θ -role from *tabs* in (43). Secondly, in this structure, *na* asymmetrically c-commands *dake*, and thus, the fact that in (42a), *na* can take wide scope over *dake* is accounted for.

To explain the Case fact and scope fact in (42b), we adopt Fukui's (1986, 1995) and Takezawa's (1987) hypothesis that stative predicates such as *deki* are "defective" predicates in that they lack Case feature. We also hypothesize that θ -positions and Case positions always coincide in Japanese because of the flexible nature of its θ -marking permitted by (23) and due to Economy (Saito and Hoshi 1994/2000), p. 282, cf. Williams 1994, Chomsky 1999, Lasnik 1999). Namely, we maintain that Japanese NPs do not have to undergo movement for Case reasons, because (23) allows NPs to be "base"-generated in Case positions. Hence, NPs are not allowed to do so due to some version of economy condition (cf. Chomsky 1995).

Given these assumptions, we can assign to (42b) the structures shown below:



Being a Case-theoretically defective predicate, the stative predicate, *deki*, is forced to adjoin to T so that *deki* can assign a θ -role to its internal argument within the Case checking domain of T (cf. 4c-d). This is illustrated in (44a) and (44b), both of which involve the head adjunction of *deki* up to T through Neg. Notice that in both of these structures, the stative predicate *deki* assigns its θ -roles from an adjoined position crucially in accordance with condition (23). These two structures are exactly the options permitted by the condition and in this way, the internal argument of *deki*, *suugaku-dake*, has Nominative Case, *ga*, checked off in its base/theta position. Furthermore, as illustrated in (44a-b), there is no point in the core computation where *na* asymmetrically c-commands *dake* (cf. 43).²³ Hence, the fact that *dake* necessarily takes wide scope over *na* in (42b) is elegantly accounted for on the basis of (23).

To the extent that the proposed "base-generation"/non-movement analysis of Nominative Objects is correct, it provides further support for the claim that (1) should

23. To account for the following types of Nominative Object constructions, we adopt Miyagawa (1989b)/Koizumi (1994, 1995) hypothesis that Japanese stative morphemes such as *rare* 'can' absorb the Accusative Case feature of an attached verb optionally. (See Park (2001) for much relevant discussion of Nominative Objects and the configurationality of Japanese and Korean.)

John-ga kono pan -dake-ga tabe-rare-na-i.
 John-Nom this bread-only-Nom eat-can -Neg Prs
 'John cannot eat only this bread.' (only > not, *not > only)

John-ga kono pan -dake-o tabe-rare-na-i.
 John-Nom this bread-only-Acc eat-can -Neg Prs
 'John cannot eat only this bread.' (only > not, not > only)

As is clear, based upon (23), the proposed analysis of Nominative Case feature checking and long distance passives correctly accounts for the interpretation of the example below as well:

kono pan -dake-ga John-nyotte tabe-hazime-rare-na-katta.
 this bread-only-Nom John-by eat-start Pass-Neg-Pst
 '*Only this bread was started to eat by John.' (only > not, *not > only)

In (ii), *dake* must take wide scope over *na* (cf. 42b), implying that the Nominative Case marked NP, *kono pan-dake* 'only this bread,' is "base"-generated above *na* 'not.'

be radically generalized to (23) for Japanese. Given (1), not (23), we cannot formulate the above mentioned head adjunction analysis of Nominative Objects. This is so, because again, constructions such as (42b) do not involve a light verb or an obligatory control predicate. It thus appears clear once again that Japanese predicates can freely undergo head adjunction even before assigning all of their θ -roles, and build phrase structures rather flexibly. Furthermore, it must be that Japanese lacks movement for Case reasons entirely. Under the proposed analysis, English lacks Nominative Objects exactly because (23) does not hold in the language.²⁴

3.4 Raising

As predicted by condition (23), not by (1), there is also evidence that shows that embedded predicates in raising constructions can undergo head adjunction for θ -role assignment. Consider the examples in (45a-c), which involve the raising predicate *hazimar* 'start'.

- (45)a. [_{NP} (Nihonsechu -no /niyoru) Rosia -e -no bussii -no
Japanese Government-Gen/by Russia-to-Gen goods-Gen
yusoo]-ga tuzuita.
transport -Nom continued
'The Japanese government's transport of goods to Russia continued.'
- b. (Nihonsechu -niyotte) Rosia -e [_{NP} bussii -no yusoo]-ga
Japanese Government-by Russia-to goods-Gen transport -Nom
tuzuita.
continued.
- c. Rosia -e_i (Nihonsechu -niyotte) t_i [_{NP} bussii -no yusoo]-ga
Russia-to Japanese Government-by goods-Gen transport -Nom
tuzuita.
continued.

In (45a), all the arguments taken by *yusoo* 'transport' are marked by the Genitive Case marker *no*, which implies that those arguments are inside the maximal projection of [_v *yusoo*]. In (45b), the goal argument, *Rosia-e*, is not attached by *no*, indicating that it is outside the NP projected by *yusoo*. Furthermore, because it is located at the sentential level, we can apply scrambling to *Rosia-e* and place it at the sentence initial position as shown in (45c).

We observe exactly the same fact with another raising predicate *owar* 'finish' below:

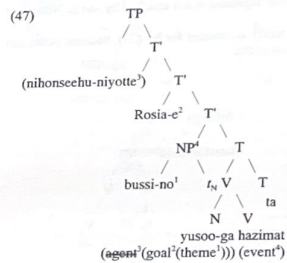
24. Stative predicates in English such as *good* also lack Case features, and thus, the preposition, *at*, must be "inserted" as below:

- (i)a. John is good at math.
*John is good math.

Notice that the significant parallelism between (i)a) and well-formed *ger* passive (34a) and that between (i)b) and ill-formed *ger* passive example (38b) are uniformly captured under the proposed analysis. That is, because unlike Japanese, English cannot make use of a nonconfigurational head adjunction structure building strategy, *at* and *-d* must be "inserted" in (i)a) and (34a), respectively, with no structural change.

- (46)a. [_{NP} (Nihonsechu -no /niyoru) Rosia -e -no bussii -no
Japanese Government-Gen/by Russia-to-Gen goods-Gen
yusoo]-ga owatta.
transport -Nom finished.
'The Japanese government's transport of goods to Russia finished.'
- b. (Nihonsechu -niyotte) Rosia -e [_{NP} bussii -no yusoo]-ga
Japanese Government-by Russia-to goods-Gen transport -Nom
owatta.
finished.
- c. Rosia -e_i (Nihonsechu -niyotte) t_i [_{NP} bussii -no yusoo]-ga
Russia-to Japanese Government-by goods-Gen transport -Nom
owatta.
finished.

By adopting condition (23) again, we suggest the following natural structure for (45b).²⁵



Here, the predicate, *yusoo*, first assigns a theme θ -role to *bussii* 'goods' in its base position. After adjoining to the raising predicate, *hazimat*, it discharges a goal role to *Rosia-e*, and licenses the suppressed external argument from the adjoined position again crucially in accordance with (23) (cf. 4b). This analysis, if successful, reinforces again the validity of condition (23), rejecting (1).^{26, 27}

25. In (47), the nominal θ -marker, *yusoo*, has undergone lowering, and hence, the derivation might result in ungrammaticality. If this type of lowering is indeed prohibited in the core computation, we suppose that *yusoo* directly incorporates to [_v *hazimat*] *ta* rather than to [_v *hazimat*] in the covert component.

26. The ungrammaticality of the following examples might support the claim that Nominative Case feature checking in Japanese is a last resort operation as implied in section 3.3 (cf. Fukui 1986, 1995).

- (i)a. *Nihonsechu -ga Rosia -e [_{NP} bussii -no yusoo]-ga
Japanese Government-Nom Russia-to goods-Gen transport -Nom
hazimat -ta /owat -ta
start -Pst/finish-Pst
'The transport of goods by the Japanese government started/finished.'

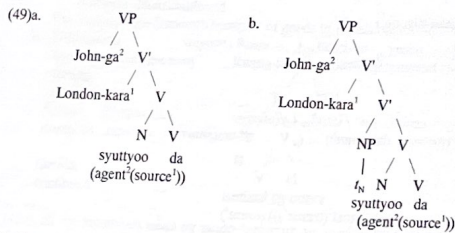
3.5 Copula Constructions

Not (1) but condition (23) also accounts for the nature of the following copula constructions, which appear to be also absent in English, in a straightforward manner. Example (48b) is cited from Matsumoto (1996, p. 81).

- (48)a. John-ga [_{NP} London-kara-no syutyoo] da.
 John-Nom London-from-Gen business trip cop.
 'John is on a business trip from London.'
 b. John-ga London-kara [_{NP} syutyoo] da.
 John-Nom London-from business trip cop.
 'John is on a business trip from London.'

In (48a), the source argument of *syutyoo*, *London-kara*, is marked by the Genitive Case marker *-no*, which indicates that it is within the N projection of *syutyoo* 'business trip.' On the other hand, interestingly, the source argument is not attached by *-no* in (48b), and thus, it is outside the NP in (48b).

The grammaticality of (48b) is nicely accounted for by (23), because (48b) can be assigned well-formed structure (49a) or (49b).



(49a) involves head adjunction at the initial point of the computation, whereas (49b) involves such an adjunction operation at a later point (cf. 4c-d). In either case, *syutyoo* successfully assigns θ -roles from the adjoined position as permitted by condition (23). Consider next the following data:

- b. *Nihonsechu -niyotte Rosia -e buss-i-ga yusoo -ga
 Japanese Government-by Russia-to goods-Nom transport-Nom
 hazimat-ta /owat -ta
 start -Pst/finish-Pst

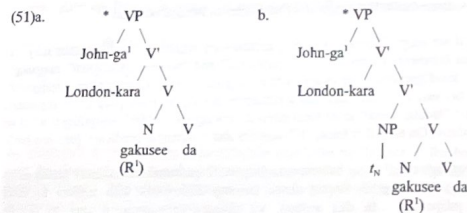
In (ia), *nihonsechu-ga* 'the Japanese government' could have been realized as *nihonsechu-niyotte* 'by the Japanese government' or *nihonsechu-no*. In (ib), *buss-i-ga* could have been *buss-i-no*.
 27. The following English examples are ungrammatical, suggesting again that English lacks constructions paralleling (45b-c) and (46b-c), because (23) is invalid for English:

- (ia)?*To Russia, [_{NP} the transport of goods *t*₁] continued (by the Japanese government).
 b.?*To Russia, [_{NP} the transport of goods *t*₁] finished (by the Japanese government).

- (50)a. John-ga [_{NP} London-kara -no gakusee] da.
 John-Nom London-from-Gen student cop.
 'John is a student from London.'
 b. *John-ga London-kara [_{NP} gakusee] da.
 John-Nom London-from student cop.
 'John is a student from London.'

The contrast between (50a) and (50b) seems to indicate the adjunct of the predicate nominal *gakusee*, *London-kara*, may not be the outside the N projection of *gakusee* (cf. 48b).

The ungrammaticality of (50b) can also be accounted for under natural assumptions. Given completely generalized condition (23), the predicate nominal, *gakusee*, can adjoin to the copula verb as in (51a-b), assigning its external argument, R, to *John* (cf. Williams 1981, 1994, Higginbotham 1985, Grimshaw 1990, among others).²⁸



(51a-b) are, however, ill-formed representations, because the modifier, *London-kara*, cannot modify the predicate nominal by adjoining to the projection of the copula verb, *da* (Grimshaw 1990, Hoshi 2001, cf. 27a-b). Namely, here, we adopt a standard assumption that a modifier must be adjoined to the projection of its modifiee (Kitagawa 1986, Miyagawa 1987, among others).

To the extent that the proposed analysis is correct, it, again, seems to provide further support for generalization (23) that a predicate in Japanese freely assigns θ -roles from anywhere, building phrase structure in by far more flexible a manner than a predicate in English.

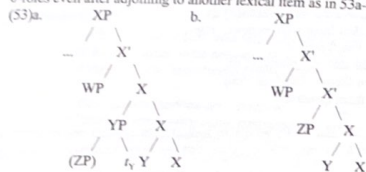
4. Deriving the θ -marking Differences between Japanese and English

In the preceding section, by showing a strikingly uniform analysis of various constructions in Japanese, we have argued that we should drastically generalize Saito and Hoshi's (1998) condition (1) for Japanese as in (23), which is repeated here as (52).

- (52) A predicate can discharge θ -roles from anywhere. (Hence, it can discharge

28. The label R is the argument of a noun which is external (Williams 1981, Di Sciullo and Williams 1987, Williams 1994, among others), and R is meant to suggest 'referential.'

θ -roles even after adjoining to another lexical item as in 53a-b.)



What we have claimed is also striking is that English seems to lack Japanese type flexible θ -marking properties in a very consistent manner. And this strongly implies that Hale and Keyser's and Chomsky's claim (6), repeated here as (54), is correct for English.

(54) A predicate has to discharge all of its θ -roles in its base position.

Therefore, if we adopt Chomsky's (1995) terminology regarding "configurationality," it must be that Japanese is a mixed "configurational" and "nonconfigurational" language, i.e. a (non-)configurational language, while English is a "configurational" language. This is so, because (54) indicates that a predicate in English must project its argument structure as a "shielded unit" in its local domain "configurationality," assigning θ -roles in its base position. On the other hand, (52) implies that a Japanese predicate does not have to do so.

Given this conclusion, however, an important question immediately arises as to why Japanese and English display these striking differences with respect to their θ -marking properties. In this section, we attempt to suggest a way to derive generalization (52) for Japanese and generalization (54) for English in a principled way. To do so, we crucially adopt Higginbotham's (1985) theory of a "hidden" Event position in thematic structure and Fukui's (1986, 1995) or Kuroda's (1986/88) classical parameter for Japanese and English with respect to the nature of functional categories. In so doing, we argue that as formerly suggested by Saito and Hoshi (1994/2000), (52) in fact holds universally (cf. Saito and Hoshi 1998). At the same time, we propose that exactly how a predicate assigns its θ -roles is determined crucially by the properties of functional categories in a given language.

Through a detailed syntactic and semantic investigation, Higginbotham (1985) argues that the interpretation of example (55a) is the one in (55b).

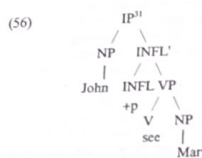
(55)a. John saw Mary.

b. John saw Mary' is true, if and only if there was an event of John's seeing Mary.

Furthermore, assuming syntactic structure (56) for (55a), he proposes that the verb *see* has the thematic structure in (57). Importantly, based on Davidson's (1966) insightful suggestion, Higginbotham argues that *see* is a three-place predicate including a "hidden" Event (henceforth, *E*) position in its argument structure as in (57).²⁹ More specifically,

29. Davidson (1966) proposes that there is a "hidden" argument place for events in thematic structure for verbs of change or action. Higginbotham (1985) extends this idea to verbs of state as well. See Higginbotham (1985, 1989), Sprout (1985), Parsons (1994), among others, for justification of this

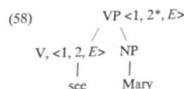
in (57), 2 indicates an internal theme argument, 1 an external experiencer argument, and *E* a hidden *E* argument.³⁰



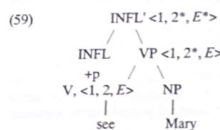
(57) 'see', +V -N, <1, 2, E>

(Higginbotham 1985)

Assuming further that all these argument positions in the thematic structure must be "discharged" one by one in syntax, he proposes the following system:



As illustrated in (58), an argument structure percolates up the tree of the heads, in this case the verb *see*. Within the VP in (58), *see* discharges 2 by assigning its internal θ -role to *Mary*. The effect of thematic discharge is thus marked by an asterisk next to the appropriate role, 2. As shown in (59),



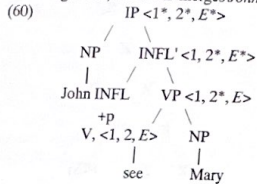
the VP is then combined with INFL, forming the INFL'. Within the INFL', the INFL " θ -binds" and "existentially quantifies" the *E* position in the thematic structure of *see*, restricting the set of events which are permissible referents of the sentence. The INFL with past tense feature also restricts the events to being events in the past in the sense that if 'x saw Mary' to be true, then it must be the case that "there is" an event *E* which is an event of x's seeing Mary, and furthermore, *E* must have occurred "before" the time of utterance of the sentence. In this manner, INFL "discharges" the *E* position via

proposal.

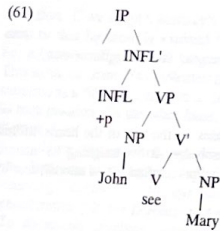
30. *E* is distinct from an event internal argument.

31. +p is an indication on INFL that the sentence is past tense. Just for convenience, here, we use INFL in place of T, following Higginbotham (1985).

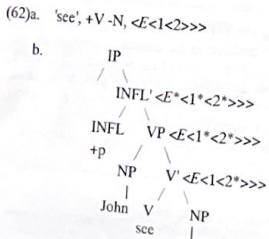
θ-binding. Next, the INFL' merges *John* forming IP, as below:



Finally, *John* is θ-marked and thus, 1, the external argument of *see*, is discharged as shown in (60). As a result, we can successfully conclude that the semantic value of sentence (55a) is that 'John saw Mary' is true if and only if "there was an event" of John's seeing Mary. On the other hand, the VP-internal subject hypothesis proposed by Fukui (1986, 1995), Kitagawa (1986), Kuroda (1986/88), among others, assigns the following "base" structure (61) for example (55a) (cf. 56).



If we incorporate into Higginbotham's theory above both the VP-internal subject hypothesis and Grimshaw (1990) type hierarchical argument structure adopted in this paper, we obtain structure (62b) for (55a) with a minimal modification of the argument structure for *see*. The only modification made in the argument structure for *see* in (62a) is that *E* is made the highest argument, and 1 is made the second highest argument in the argument structure.

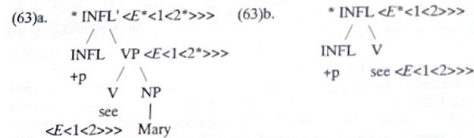


<E<1<2>>> Mary

Observe that in (62b), the internal theme role, 2, is discharged via θ-marking first as before. Then, the external experiencer role, 1, is also discharged via θ-marking. Finally, the hidden *E* position is discharged via θ-binding by being bound by INFL, i.e. an existential quantifier, when the VP merges INFL.

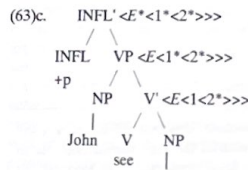
Significantly, now, we can derive generalizations for θ-marking for Japanese and English in (52) and (54), respectively, by adopting this minimally revised version of Higginbotham's theory in conjunction with Fukui's (1986, 1995) or Kuroda's (1986/88) classical parameter for Japanese and English. Under Fukui's theory, English has "agreement"-inducing functional categories such as INFL or D, whereas the Japanese counterparts are "defective," or Japanese might even lack such functional categories. More specifically, he claims that Japanese INFL is defective, and it lacks D. It is, therefore, plausible for us to consider that INFL and D necessarily θ-bind *E* positions in English.³² On the other hand, Japanese lacks functional categories which θ-bind the *E* position of a predicate's thematic grid.

It, then, follows from this that (63a) and (63b) necessarily result in ill-formed structures.



In (63a), the verb *see* and *Mary* merge, forming the VP. When they are combined, the internal theme argument 2 is discharged via θ-marking. However, before the external experiencer argument 1 is discharged, the VP is combined with INFL, forming the INFL'. Because functional categories in English are "active," INFL necessarily θ-binds the hidden *E* position at the point of the merger. However, this θ-discharge illicitly skips the external argument 1 (Grimshaw and Mester 1988, Grimshaw 1990; See Saito and Hoshi's 1994/2000, 1998 account for (10a-b), (12c-d) and (14c-d) in this paper). Hence, (63a) is ill-formed. In (63b), INFL directly merges the verb *see*, θ-binding *E* before 2 and 1 are discharged. This θ-binding is also illicit, skipping the two argument slots, 1 and 2, and thus, the computation like (63b) is cancelled.

Structure (63c), on the other hand, is well-formed,



32. See Higginbotham (1985) and Sproat (1985) for their specific arguments that D θ-binds the *E* position of a nominal θ-marker in English.

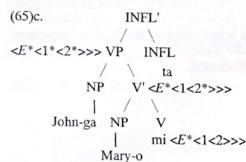
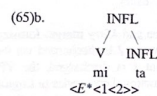
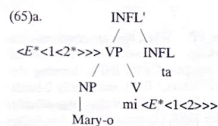
$\langle E \langle 1 \langle 2 \rangle \rangle \rangle$ Mary

because E is successfully θ -bound by INFL after 2 and 1 are discharged via θ -marking. Notice that in other words, our suggested account based upon Higginbotham's theory of θ -binding together with Fukui's parameter forces all arguments except for E to be discharged before INFL merges VP in English. Namely, our system forces a predicate in English to project its maximal projection, discharging all of its θ -roles in its base position, before merging INFL, as illustrated in (63a-c). Importantly, this is exactly what generalization (54) states and here, the generalization is successfully derived in a principled manner.

Based upon the insight provided by Fukui's (1986, 1995) parameter, let us then suppose that Japanese, on the other hand, has only "defective" INFL which does not θ -bind an E position, and lacks D completely (cf. Fukui 1995, p. 109). Let us assume further that because of the lack of functional categories which θ -bind an E position in thematic structure, there is no way where the E position of a predicate in Japanese is discharged via θ -binding in the core computation. The E position of thematic structure of a Japanese predicate is therefore forced to be "textually/inherently" existentially quantified by C_{HL} .

Keeping these assumptions in mind, consider example (64), which is the Japanese counterpart of English example (55a). Consider also the structures in (65a), (65b) and (65c) for (64) (cf. 63a-c).

- (64) John-ga Mary-o mi-ta.
John-Nom Mary-Acc see-Pst
'John saw Mary.'



As is claimed above, the E position of the thematic structure of mi is already existentially quantified at the point when mi has entered the core computation as in (65a-c). As suggested above, importantly, this is a direct consequence of Japanese not having functional categories such as INFL or D to carry out θ -binding. Hence, the computation proceeds with the predicate having the argument structure, $\langle E^* \langle 1 \langle 2 \rangle \rangle \rangle$, completely ignoring the E position. In other words, under the suggested system here,

the E position of Japanese predicates is properly licensed already in the lexicon, and is totally irrelevant and invisible to the core computation.

In (65a), the verb mi forms the VP with $Mary$, discharging the internal θ -role. The VP is then combined with INFL, forming the INFL'. INFL in Japanese, by assumption, is defective, and as such, it does not discharge any argument slot via θ -binding unlike the one in English. Hence, in contrast with (63a), the merger operation in (65a) does not cause any problem in the computation, and is permitted under the suggested system. In the same way, in (65b), the verb mi directly merges under the suggested system. Again, because INFL is defective in Japanese, no thematic discharge takes place in (65b). Hence, the whole INFL structure in (65b) is predicted to be well-formed, in sharp contrast with (63b). In structure (65c), the verb mi merges $Mary$ first, forming the V' and discharging 2 via θ -marking. Then, the V' merges $John$, forming the VP and discharging 1 via θ -marking as well. Then, the VP merges INFL, which is again incapable of θ -binding. (65c), therefore, has nothing wrong about its derivation θ -theoretically, either.

Notice that if the suggested analysis here is correct, the Japanese counterparts of (*63a-b), which are given in (65a-b), are predicted to be well-formed. Significantly, structure (65a) allows the predicate mi to adjoin to INFL at a later point in the computation, and permits it to discharge the remaining θ -role from the adjoined position. Configuration (65b) also permits the predicate mi to discharge its θ -roles from the adjoined position within the projection of INFL at a later point of the derivation. And, this is exactly what we have claimed takes place in Japanese in the preceding sections, and precisely what generalization (52) states (cf. 54). Thus, generalization (52) is also elegantly accounted for by our analysis based upon Higginbotham's theory and Fukui's independently motivated parameter for Japanese and English. Importantly, if our explanation of generalizations (52) and (54) is indeed correct, it must be the case that as formerly maintained by Saito and Hoshi (1994/2000), a predicate can discharge its argument slots from bottom up in accordance with the thematic hierarchy from anywhere freely in the course of the computation universally. And whether a predicate discharges its argument slots as in (52) or (54) crucially depends upon the properties of functional categories in a given language.

Significantly, we can provide basically the same elegant account for generalizations (52) and (54) by adopting Kuroda's (1986/88) classical parameter together with Higginbotham's theory of a hidden E position. This is because informally speaking, Kuroda's parameter subsumes Fukui's under it. Under Kuroda's theory, "agreement" is "forced" in English, whereas it is "not forced" in Japanese. Hence, functional categories such as INFL or D in English must force agreement obligatorily. On the other hand, such functional categories in Japanese trigger agreement optionally. By adopting Kuroda's parameter, it is then reasonable for us to assume that INFL and D in Japanese do not have to θ -bind the hidden E position of a given predicate, while INFL and D in English must do so. Therefore, as above, structures (63a) and (63b) for English example (55a) are straightforwardly ruled out in the same way. On the other hand, under the assumption that due to Kuroda's parameter, the E position of a predicate in Japanese is existentially bound in the lexicon "optionally," Japanese sentences such as (64) can be assigned well-formed structures such as (65a) or (65b) in another principled manner. This is so, because under the proposed system incorporating Kuroda's parameter, E positions "could" be invisible and irrelevant to the computation. Therefore, generalizations (52) and (54) are completely accounted for in another desirable way, and this proposal also yields basically the same

conclusions mentioned above.³³

To summarize, in this section, we have attempted to derive our generalization (52) for Japanese and Hale and Keyser's and Chomsky's generalization (54) for English in a principled manner. In so doing, we have argued that (52) is actually correct universally. Namely, θ -marking is freely done from anywhere, as far as a predicate discharges its argument slots from bottom up in accordance with the universal thematic hierarchy in the course of the computation. Japanese displays this universal thematic θ -role assignment "transparently," because it is a language that lacks functional categories to trigger or force θ -binding completely (cf. Higginbotham 1985, Fukui 1986, 1995, Kuroda 1986/88). The well-motivated generalization (54) holds in English, because its INFL and D trigger θ -binding obligatorily, forcing a predicate in the language to complete its θ -marking in its "base" position. In other words, (52) certainly does apply to English. However, the active functional categories in the language obliterate some universal properties of θ -role assignment, and θ -relatedness appears to be a base property (cf. Chomsky 1995, p. 331).³⁴

5. Conclusions

In this paper, we have attempted to provide a new perspective to look at the nature of phrase structure building in Japanese and English more properly than before. More specifically, through an examination of various constructions in Japanese and English, we have argued for Saito and Hoshi's (1994/2000) claim that radically generalized θ -marking condition (52) holds universally. Furthermore, we have proposed that the nature of functional categories of a given language affect the way lexical categories assign θ -roles in the course of the computation in a significant manner. In the upshot, because Japanese has only defective or flexible functional categories or even lack them, a predicate can discharge its argument slots freely from any structural position. On the other hand, because of its active functional categories, English can project only "configurational" structures where predicates assign all of their θ -roles in their "base" positions. We have also maintained that this is a direct consequence derived from the interaction between Higginbotham's theory and Fukui's or Kuroda's classical parameter for Japanese and English with respect to the nature of functional categories. Importantly, this proposal, if it is right, provides strong support for Chomsky's (1995, among others) research project under which language variation should be reduced to the different formal nature of functional categories.

33. Mamoru Saito points out more radical a hypothesis than the one presented in the text in personal communication in February, 2001. That is, the reason why the E position does not appear to be θ -bound by Japanese functional categories such as INFL or D is that the discharge of its argument slots by a Japanese predicate is completely optional, while that by an English predicate is obligatory. (Intuitively, this suggestion appears to be along the line with Kuroda's (1986/88) parameter.) Under this alternative, then, apparently empty positions in Japanese expressions may not have to be filled with empty categories such as a zero pronoun in the core computation, because of the optionality of thematic discharge. At the moment, we are not aware of any compelling evidence that shows which one of these hypotheses is correct, the one in the text or this suggestion by Mamoru Saito.

34. Under the proposed analysis, there is a possibility that a language which has functional categories that θ -bind the E position of a predicate could also display Japanese type flexible θ -marking properties in constructions where a predicate phrase, e.g. a "bare" VPnP, is directly dominated by a higher predicate. We suggest that this could indeed be the case in causatives and restructuring constructions in Romance. See Zubizarreta (1985, 1987), Alsina (1993, 1997), Hoshi (1994a-b, 1999a), Baker (1997), Saito and Hoshi (1998), Wurmbrand (1998), notes 18 and 21, among others for relevant discussion.

To the extent that the proposals in this paper are correct, they also provide substantial support for Saito and Hoshi's (1994/2000, 1998) conception of the nature of $C_{thematic}$ where two "separate" linguistic representations, lexical conceptual/thematic structure and syntactic structure, interact with each other in an elegant and principled manner in the course of the core computation (cf. Hale 1980, Chomsky 1981, 1995, Higginbotham 1985, Jackendoff 1990, 1997, Pollard and Sag 1994, Baker 1996, 1997, Matsumoto 1996, Bresnan 2000, among others). Under this conception, such interactions are freely done in accordance with universal principles. Therefore, the notional content of a predicate, i.e. lexical conceptual/thematic structure, does not have to be projected as a "formally shielded unit" in the local domain of the predicate at any point of the computation (cf. Kitagawa 1986, Washio 1988/89, Hale and Keyser 1993, 1997, Hoshi 1994a-b, 1999a, Chomsky 1995, Sakai 2000). Depending on the syntactic and semantic properties of a given construction in a given language, these two significant linguistic representations interrelate with each other in a flexible manner or in a restricted manner. Recall that Japanese causative (3) could be assigned in a restricted manner. Recall that Japanese causative (3) could be assigned in a "configurational" structure (4a), "nonconfigurational" structure (4b), (4c) or (4d), yielding exactly the same interpretation. This is basically the case in the causative construction involved in *hoofoo* construction (27a). Significantly, however, the same causative construction involved in *-kata* construction (27b) is forced to build only "nonconfigurational" direct head adjunction structure, producing an interpretation that is remarkably distinct from that of (27a). It should also be noted here that if the proposed θ -theory is indeed correct, then it must be the case that there is no universally fixed single configuration for each construction in natural language (cf. Baker 1988). These conclusions, we believe, in turn provide us with an important insight into the nature of the conceptual-intentional performance system in our mind/brain. That is, the external conceptual-intentional system must determine the interpretation of a given expression, based upon instructions as to exactly how the two "independent" representations, lexical conceptual/thematic structure and syntactic structure, have interrelated with each other in the course of the core computation. (See Kuroda 2001 for important and much relevant discussion of these theoretical issues.)

References

- Alsina, A. (1992) 'On the Argument Structure of Causatives', *Linguistic Inquiry* 23, 517-556.
- Alsina, A. (1993) *Predicate Composition: A Theory of Syntactic Function Alternations*, PhD dissertation, Stanford University.
- Alsina, A. (1997) 'Causatives in Bantu and Romance' in A. Alsina, J. Bresnan, and P. Sells (eds.), *Complex Predicates*, pp. 203-246.
- Alsina, A., J. Bresnan, and P. Sells (1997). *Complex Predicates*, Center for the Study of Language and Information, Stanford, California.
- Aoyagi, H. (1998) *On the Nature of Particles in Japanese and its Theoretical Implications*, PhD dissertation, University of Southern California.
- Aoyagi, H. (2000) 'On Verbal Inflection in Japanese', Paper presented at the Eighteenth National Conference of the English Linguistic Society of Japan, Konan University.
- Baker, M. (1988) *Incorporation*, University of Chicago Press, Chicago.
- Baker, M. (1996) *The Polysynthesis Parameter*, Oxford University Press, Oxford.
- Baker, M. (1997) 'Complex Predicates and Argument in Polysynthetic Languages' in A. Alsina, J. Bresnan, and P. Sells (eds.), pp. 247-288.
- Bošković, Ž. (1996) *The Syntax of Nonfinite Complementation*, MIT Press, Cambridge, Mass.
- Bresnan, J. (2000) *Lexical Functional Syntax*, Basil Blackwell, Oxford.
- Cattell, R. (1984) *Composite Predicates in English*, Academic Press, New York.
- Chierchia, G. (1984) *Topics in the Syntax and Semantics of Infinitives and Gerunds*, PhD dissertation, University of Massachusetts.
- Chierchia, G. (1989) 'Structured Meanings, Thematic Roles and Control' in G. Chierchia, B. H. Partee, and R. Turner (eds.), *Properties, Types and Meaning* Vol. II, Kluwer, Dordrecht, pp. 131-166.
- Chierchia, G. (1990) 'Anaphora and Attitudes *De Se*' in R. Bartsch et al. (eds.), *Semantics and Contextual Expression*, Foris, Dordrecht, pp. 1-32.
- Chomsky, N. (1981) *Lectures on Government and Binding*, Foris, Dordrecht.
- Chomsky, N. (1994) 'Bare Phrase Structure' in G. Webelhuth (ed.), *Government and Binding Theory and the Minimalist Program*, Blackwell, London.
- Chomsky, N. (1995) *The Minimalist Program*, MIT Press, Cambridge, Mass.
- Chomsky, N. (1998/2000) 'Minimalist Inquiries: The Framework' in R. Martin, D. Michaels, and J. Uriagereka (eds.), *Step by Step: Papers in Minimalist Syntax in Honor of Howard Lasnik*, MIT Press, Cambridge, Mass., pp. 89-155.
- Chomsky, N. (2001) 'Beyond Explanatory Adequacy' ms., MIT, Cambridge, Mass.
- Chomsky, N. (1999) *Derivation by Phase*, MIT Occasional Papers in Linguistics 18, Department of Linguistics, MIT, Cambridge, Mass.
- Culicover, P. W. and R. Jackendoff (2001) 'Control Is Not Movement', *Linguistic Inquiry* 32, 493-512.
- Davidson, D. (1966) 'The Logical Form of Action Sentences' in D. Davidson (1980), 105-122.
- Davidson, D. (1980) *Essays on Actions and Events*, Clarendon Press, Oxford.
- Di Sciullo, A. M. and E. Williams (1987) *On the Definition of Word*, MIT Press, Cambridge, Mass.
- Dowty, D. (1985) 'On Some Recent Analyses of Control', *Linguistics and Philosophy* 8, 1-41.
- Farmer, A. (1980) *On the Interaction between Morphology and Syntax*, PhD dissertation, MIT, Cambridge, Mass.
- Farmer, A. (1984) *Modularity in Syntax: A Study of Japanese and English*, MIT Press, Cambridge, Mass.
- Fukui, N. (1986) *A Theory of Category Projection and its Application*, PhD dissertation, MIT, Cambridge, Mass.
- Fukui, N. (1995) *Theory of Projection in Syntax*, Center for the Study of Language and Information, Stanford, California & Kuroshio Publishers, Tokyo.
- Fukui, N. and T. Nishigauchi (1993) 'Head-movement and Case-Marking in Japanese', *Journal of Japanese Linguistics* 14, 1-35.
- Fukui, N. and Y. Takano (1998) 'Symmetry in Syntax: Merge and Demerge', *Journal of East Asian Linguistics* 7, 27-86.
- Grimshaw, J. (1990) *Argument Structure*, MIT Press, Cambridge, Mass.
- Grimshaw, J. and A. Mester (1988) 'Light Verbs and Theta Marking', *Linguistic Inquiry* 19, 205-232.
- Gunji, T. (1987) *Japanese Phrase Structure Grammar: A Unification-Based Approach*, Reidel, Dordrecht.
- Hale, K. (1980) 'Remarks on Japanese Phrase Structure: Comments on the Papers on Japanese Syntax' in Y. Otsu and A. Farmer (eds.), *MIT Working Papers in Linguistics* 2, 185-203.
- Hale, K. (1981) 'On the Position of Warlpiri in a Typology of the Base', Indiana University Linguistics Club, Bloomington.
- Hale, K. (1982) 'Preliminary Remarks on Configurationality' in Pustejovsky and P. Sells (eds.), *North Eastern Linguistic Society* 12, 86-96.
- Hale, K. (1983) 'Warlpiri and the Grammar of Non-configurational Languages', *Natural Language and Linguistic Theory* 1, 5-47.
- Hale, K. and J. Keyser (1993) 'On Argument Structure and the Lexical Expressions of Syntactic Relations' in Hale, K. and J. Keyser (eds.), *A View from Building 20, A Festschrift for Sylvain Bromberger*, MIT Press, Cambridge, Mass.
- Hale, K. and J. Keyser (1997) 'On the Complex Nature of Simple Predicators' in A. Alsina, J. Bresnan, and P. Sells, eds., *Complex Predicates*, pp. 29-65.
- Harada, S. (1973) Counter Equi NP Deletion, *Annual Bulletin of the Research Institute of Logopedics and Phoniatrics* 7, 113-147.
- Hasegawa, K. (1964) *Nihongo Bunpoo Shiron* [An Essay on Japanese Grammar], *Gengobunka* 1, 3-46.
- Higginbotham, J. (1985) 'On Semantics', *Linguistic Inquiry* 16, 547-594.
- Higginbotham, J. (1989) 'Elucidations of Meaning', *Linguistics and Philosophy* 12, 465-517.
- Hoji, H. (1985) *Logical Form Constraints and Configurational Structures in Japanese*, PhD dissertation, University of Washington.
- Hornstein, N. (1999) 'Movement and Control', *Linguistic Inquiry* 30, 69-96.
- Hoshi, H. (1991) 'The Generalized Projection Principle and its Implications for Passive Constructions', *Journal of Japanese Linguistics* 13, 53-89.
- Hoshi, H. (1994a) Theta Role Assignment, Passivization and Excorporation, *Journal of East Asian Linguistics* 3, 147-178.
- Hoshi, H. (1994b) *Passive, Causative and Light Verbs: A Study on Theta Role Assignment*, PhD dissertation, University of Connecticut.
- Hoshi, H. (1999a) 'Passives' in N. Tsujimura, ed., *The Handbook of Japanese Linguistics*, Blackwell, Oxford, 191-235.
- Hoshi, H. (1999b) 'Complex Predicate Formation in Japanese: A (Non-)configurational Theory', *SOAS Working Papers in Linguistics and Phonetics*, SOAS, University of London, 427-473.

- Hoshi, H. (2000) 'Relations between Thematic Structure and Syntax: a Study on Complex Predicates', Paper presented at the Eighteenth Annual National Conference of the English Linguistic Society of Japan, Konan University.
- Hoshi, H. (2001) 'The Syntax of Japanese Complex Predicate Formation and the Lexicon', Paper read at Nagoya University (to appear in *Working Papers in Linguistics*, Nagoya University, Nagoya, Japan).
- Hoshi, H. and M. Saito (1993) 'The Japanese Light Verb Construction: A Case of LF Theta Marking' in M. Saito, ed., *Japanese Grammar (II)*, Second Annual Report for the Research Project, *Development of a Formal Grammar of Japanese*, Department of Linguistics, University of Connecticut, Storrs, 16-28.
- Inoue, K. (1976) *Henkei-Bunpoo to Nihongo* [Transformational Grammar and Japanese], Taishukan, Tokyo.
- Ishii, Y. (1988) 'Reciprocal Predicates in Japanese' in K. de Jong and Y. No (eds.), *Proceedings of the Sixth Eastern States Conference on Linguistics*, The Ohio State University, Columbus, Ohio, pp. 150-161.
- Jackendoff, R. (1972) *Semantic Interpretation in Generative Grammar*, MIT Press, Cambridge, Mass.
- Jackendoff, R. (1974) 'A Deep Structure Projection Rule', *Linguistic Inquiry* 5, 481-506.
- Jackendoff, R. (1990) *Semantic Structure*, MIT Press, Cambridge, Mass.
- Jackendoff, R. (1997) *The Architecture of the Language Faculty*, MIT Press, Cambridge, Mass.
- Jayaseelan, (1988) 'Complex Predicates and θ -theory' in W. Wilkins, ed., *Thematic Relations, Syntax and Semantics* 21, Academic Press, 91-111.
- Kageyama, T. (1993) *Bunpoo to Goketsu* [Grammar and Word Formation], Hitsuji Shoboo, Tokyo.
- Kawasaki, N. (1999) 'Two Types of Semantic Roles and Movement into Theta-position: Evidence from the Middle', ms., Tokyo Woman's Christian University.
- Kitagawa, Y. (1986) *Subjects in Japanese and English*, PhD dissertation, University of Massachusetts.
- Koizumi, M. (1994) 'Nominative Objects: the Role of TP in Japanese' in M. Koizumi and H. Ura (eds.), *Formal Approaches to Japanese Linguistics I*, MIT Working Papers in Linguistics 24, 211-230.
- Koizumi, M. (1995) *Phrase Structure in Minimalist Syntax*, PhD dissertation, MIT.
- Kuno, S. (1973) *The Structure of the Japanese Language*, MIT Press, Cambridge, Mass.
- Kuroda, S.-Y. (1965) *Generative Grammatical Studies in the Japanese Language*, PhD dissertation, MIT.
- Kuroda, S.-Y. (1978) 'Case-Marking, Canonical Sentence Patterns, and Counter Equi in Japanese' in J. Hinds, I. Howards (eds.), *Problems in Japanese Syntax and Semantics*, Kaitakusha, Tokyo, 30-51.
- Kuroda, S.-Y. (1979) 'On Japanese Passives' in G. Bedell, E. Kobayashi, and M. Muraki (eds.), *Exploration in Linguistics: Papers in Honor of Kazuko Inoue*, Kenkyusha, Tokyo, 305-347.
- Kuroda, S.-Y. (1986/88) 'Whether We Agree or Not: A Comparative Syntax of English and Japanese' in W. J. Poser, ed., *Papers from the Second International Workshop on Japanese Syntax*, 103-143.
- Kuroda, S.-Y. (1992) *Japanese Syntax and Semantics*, Kluwer Academic Publishers.

- Kuroda, S.-Y. (2000) 'Complex Predicates: a Retrospect of the Past 40 Years and a Perspective of the Present', Paper presented at the Eighteenth Annual National Conference of the English Linguistic Society of Japan, Konan University.
- Kuroda, S.-Y. (2001) 'Complex Predicates (tentative title)', ms., University of California, San Diego.
- Larson, R. (1988) 'On the Double Object Construction', *Linguistic Inquiry* 19, 335-391.
- Lasnik, H. (2000) 'Chains of Arguments' in S. D. Epstein and N. Hornstein (eds.), *Working Minimalism*, MIT Press, Cambridge, Mass, 189-215.
- Lasnik, H. and R. Fiengo (1974) 'Complement Object Deletion', *Linguistic Inquiry* 5, 535-571.
- Li, Y. (1990) 'X⁰-binding and Verb Incorporation', *Linguistic Inquiry* 21, 399-426.
- Lieber, R. (1980) *The Organization of the Lexicon*, PhD dissertation, MIT, Cambridge, Mass.
- Manning, C., I. Sag, and M. Iida (1999) 'The Lexical Integrity of Japanese Causatives' in R. D. Levine and G. M. Green (eds.), *Studies in Contemporary Phrase Structure Grammar*, Cambridge University Press, Cambridge, 39-79.
- Matsumoto, Y. (1988) 'Still More on Light Verbs' ms., Stanford University.
- Matsumoto, Y. (1996) *Complex Predicates in Japanese: A Syntactic and Semantic Study of the Notion "Word"*, Center for the Study of Language and Information, Stanford & Kuroshio Publishers, Tokyo.
- McCawley, N. A. (1972) 'On the Treatment of Japanese Passives', *Chicago Linguistic Society* 8, 256-270. Mchombo, S. A. (1978) *A Critical Appraisal of the Place of Derivational Morphology within Transformational Grammar: Considered with Primary Reference to Chichewa and Swahili*, PhD dissertation, School of Oriental and African Studies, University of London.
- Miyagawa, S. (1980) *Complex Verbs and the Lexicon*, PhD dissertation, University of Arizona.
- Miyagawa, S. (1987) 'Restructuring in Japanese' in T. Imai and M. Saito (eds.), *Issues in Japanese Linguistics*, Foris, Dordrecht, pp. 273-300.
- Miyagawa, S. (1989a) 'Light Verbs and the Ergativity Hypothesis', *Linguistic Inquiry* 20, 659-68.
- Miyagawa, S. (1989b) *Structure and Case Marking in Japanese*, Syntax and Semantics, vol. 22, Academic Press, San Diego.
- Murasugi, K. (1991) *Noun Phrases in Japanese and English: A Study in Syntax, Learnability and Acquisition*, PhD dissertation, University of Connecticut.
- Nishigauchi, T. (1993) 'Long Distance Passive' in N. Hasegawa (ed.), *Japanese Syntax In Comparative Grammar*, Kuroshio, Tokyo, 79-114.
- Nishiyama, Y. (1998) 'V-V Compounds as Serialization', *Journal of East Asian Linguistics* 7, 175-217.
- Park, J. (2001) *The Configurationality of Japanese and Korean*, MA dissertation, SOAS, University of London.
- Parsons, T. (1994) *Events in the Semantics of English: A Study in Subatomic Semantics*, MIT Press, Cambridge, Mass.
- Pollard, C. and I. Sag (1994) *Head-Driven Phrase Structure Grammar*, Center for the Study of Language and Information, Stanford, California & the University of Chicago Press, Chicago & London.
- Sag, I. and C. Pollard (1991) 'An Integrate Theory of Complement Control', *Language* 67, 63-113.

- Saiki, M. (1987) *On the Manifestations of Grammatical Functions in the Syntax of Japanese Nominals*, PhD dissertation, Stanford University.
- Saito, M. (1982) 'Case Marking in Japanese: A Preliminary Study', ms., MIT.
- Saito, M. (1985) *Some Asymmetries in Japanese and their Theoretical Implications*, PhD dissertation, MIT.
- Saito, M. (2000) 'Predicate Raising and Theta Relations', Proceedings of 2000 Seoul International Conference on Language and Computation, The Linguistic Society Of Korea, 85-113.
- Saito, M. and N. Fukui (1998) 'Order in Phrase Structure and Movement', *Linguistic Inquiry* 29, 439-474.
- Saito, M. and H. Hoshi (1994/2000) 'The Japanese Light Verb Construction and the Minimalist Program' in R. Martin, D. Michaels, and J. Uriagereka (eds.), *Step by Step: Papers in Minimalist Syntax in Honor of Howard Lasnik*, MIT Press, Cambridge, Mass, 261-295.
- Saito, M. and H. Hoshi (1998) 'Control in Complex Predicates' in Report for the Special Research Project, *Tozai Gengo Bunka no Rutoketron*, Tsukuba University, Japan, 15-46.
- Sakai, H. (1998/99) 'Koten-teki Ruikai-ron to Hikaku-Toogoron [Classical Typology and Comparative Syntax]', ms., Hiroshima University.
- Sakai, H. (2000) 'Head Movement in the Minimalist Program: A View from Argument Sharing Phenomena in Japanese V-V Compounds', Paper presented at Morphology Workshop for the Eighteenth Annual National Conference of the English Linguistic Society of Japan, Konan University.
- Shibatani, M. (1973) 'Semantics of Japanese Causativization', *Foundations of Language* 9, 327-373.
- Shibatani, M. (1976) 'Causativization', in M. Shibatani, ed., *Syntax and Semantics 5, Japanese Generative Grammar*, Academic Press, New York, 239-294.
- Sproat, R. (1985) *On Deriving the Lexicon*, PhD dissertation, MIT, Cambridge, Mass.
- Sugioka, Y. (1984) *Interaction of Derivational Morphology and Syntax in Japanese and English*, PhD dissertation, University of Chicago.
- Sugioka, Y. (1989) 'Hasei-go ni okeru Dooshi-osei no Uketsugi [Inheritance of Verb Features in Derived Words]' in S. Kuno and M. Shibatani (eds.), *Nihongogaku no Shintenkai* [New Developments in Japanese Linguistics], 167-185.
- Sugioka, Y. (1992) 'On the Role of Argument Structure in Nominalization', *Language, Culture and Communication*, Keio University.
- Tada, H. (1992) 'Nominative Objects in Japanese', *Journal of Japanese Linguistics* 14, 91-108.
- Takahashi, D. (1993) 'Movement of Wh-phrases in Japanese', *Natural Language and Linguistic Theory* 11, 655-678.
- Takano, Y. (1996) *Movement and Parametric Variation in Syntax*, PhD dissertation, University of California, Irvine.
- Takano, Y. (2001a) 'Case and Internal Thematization', ms., Kinjo Gakuin University.
- Takano, Y. (2001b) 'Structure and Interpretation in Japanese Accusative Causatives', ms., Kinjo Gakuin University.
- Takezawa, K. (1987) *A Configurational Approach to Case-Marking in Japanese*, PhD dissertation, University of Washington.
- Terada, M. (1990) *Incorporation and Argument Structure in Japanese*, PhD dissertation, University of Massachusetts.
- Tsujimura, N. (1990) 'Ergativity of Nouns and Case Assignment', *Linguistic Inquiry* 21, 277-287.

- Uriagereka, J. (1999) 'Multiple Spell-Out' in S. D. Epstein and N. Hornstein (eds.), *Working Minimalism*, MIT Press, Cambridge, Mass, 251-282.
- Washio, R. (1989/90) 'The Japanese Passive', *The Linguistic Review* 6, 227-263.
- Williams, E. (1979) 'French Causatives', ms., University of Massachusetts, Amherst, Mass.
- Williams, E. (1981) 'Argument Structure and Morphology', *The Linguistic Review* 1, 81-114.
- Williams, E. (1987) 'Implicit Arguments and Control', *Natural Language and Linguistic Theory* 5, 151-180.
- Williams, E. (1994) *Thematic Structure in Syntax*, MIT Press, Cambridge, Mass.
- Wurmbrand, S. (1998) *Infinitives*, PhD dissertation, MIT.
- Yatabe, S. (1993) *Scrambling and Japanese Phrase Structure*, PhD dissertation, Stanford University.
- Yumoto, Y. (2000) 'V^o o Hobu to Suru Toogo-teki Fukugoo nituite [On the Syntactic Compound of V^o Complement Type]', *Fujii Haruhiko Sensei Taikan Kinen Ronbunshuu* [A Festschrift for Professor Haruhiko Fujii], Eihosha.
- Zubizarreta, M. (1985) 'The Relationship between Morphophonology and Morphosyntax: the Case of Romance Causatives', *Linguistic Inquiry* 16, 247-289.
- Zubizarreta, M. (1987) *Levels of Representation in the Lexicon and in the Syntax*, Foris, Dordrecht.