

“Subject-Sensitivity” in Controller Choice *

Sakumi Inokuma
University of Tokyo

sakumi@pop21.odn.ne.jp

Abstract

This paper provides a unified theory of controller choice and the availability of what Landau (2000) calls Partial Control. The argument is twofold: with respect to “subject control,” I show that Landau’s EC/PC distinction largely overlaps with the distinction in passivizability of the matrix verb; with respect to “object control,” I show that split control is reduced to a subclass of PC, contrary to Landau. These two contrasts, the possibility of passivization and that of split control, can be explained uniformly if we extend Watanabe’s (1996b, 2000) theory of control and switch reference. This SR-based theory of controller choice will lead us to a peculiar notion of “subject-sensitivity.”

Keywords: controller choice, partial control, passivizability, split control, Switch Reference, C⁰-binding

1. Introduction

Landau (2000) observes that a certain subclass of controlled infinitival clauses allows its understood subject (i.e., PRO) not to be strictly identical to its controller, as the contrast in (1) shows.

- (1) a. *Tom {met/gathered} at 6.
b. *Tom seems to have {met/gathered} at 6.
c. Tom decided to {meet/gather} at 6.

The simple sentence in (1a) is ungrammatical because collective predicates such as *meet* or *gather* require the subject to be plural. (1b) is explained in the same manner if we adopt the standard raising analysis of predicates such as *seem* and *appear*. The acceptability of (1c) is surprising if the understood subject of the infinitival clause is identical to the matrix subject *Tom*. The movement approach to control (e.g., Hornstein (1999, 2003)) does not distinguish (1c) from (1b). Nor does a simple theory of control, which identifies PRO with its controller in some binding-theoretic terms, account for this “loose identity” effect. Not all control verbs,

* This paper is an abbreviated version of Inokuma (2004).

however, show this effect. Consider (2).

- (2) a. *Tom tried to meet at 6.
b. *The chair managed to gather during the strike.

Verbs such as *try* and *manage* are treated as control verbs along the same lines as those such as *decide*, although they do not show the loose identity effect found in (1c). Landau (2000) calls verbs such as *decide* Partial Control (PC) verbs and those such as *try* Exhaustive Control (EC) verbs, and introduces a distinction among obligatory control verbs. He draws the distinction in terms of predicate types as shown in (3), and further reduces it to the tensedness condition: EC verbs select untensed infinitival clauses; PC verbs select tensed infinitival clauses.¹

- (3) a. EC verbs are *implicative, aspectual* or *modal*.
b. PC verbs are *factive, propositional, desiderative* or *interrogative*.

(Landau (2000: ch.2 (26)))

In this paper I will provide a new set of data from Japanese in addition to English. As a point of departure, look at Japanese sentences in (4), which show the same contrast as their English counterparts.

- (4) a. *Taroo-ga [PRO6zi-ni atumari-] sokonaw-ta.
Taro-Nom 6-at gather- fail-Past
'*Taro failed to gather at 6.'
- b. *Taroo-ga [PRO6zi-ni atumar-ooto] si-ta.
Taro-Nom 6-at gather-*yooto* try-Past
'*Taro tried to gather at 6.'
- c. Taroo-ga [PRO 6zi-ni atumar-ooto] kime-ta.
Taro-Nom 6-at gather-*yooto* decide-Past
'Taro decided to gather at 6.'

Predicates such as *sokonawu* 'fail' and *suru* 'try' do not show the PC effect, whereas those such as *kimeru* 'decide' do, manifesting the same pattern as in English.

Another construction of interest, apparently related to controller choice, is what is called "split control," exemplified by (5) and (6).

¹ For more precise characterization of PC/EC verbs, see Landau (2000: ch.2). I do not go into details about technical problems Landau's system faces. For discussion, see Inokuma (2004).

- (5) a. John_i persuaded Mary_j [PRO_{i+j} to gather at 6].
 b. *John_i ordered Mary_j [PRO_{i+j} to gather at 6].
- (6) a. Taro_i-ga Hanako_j-o [_{CP} [_{TP} PRO_{i+j} 6zi-ni atumar-]ooto] settokusi-ta.
 Taro-Nom Hanako-Acc PRO 6-at gather-*yooto* persuade-Past
 ‘Taro persuaded Hanako to gather at 6.’
 b. *Taro_i-ga Hanako_j-ni [_{CP} [_{TP} PRO_{i+j} 6zi-ni atumaru-]yooni] meizi-ta.
 Taro-Nom Hanako-Dat PRO 6-at gather-*yooni* order-Past
 ‘*Taro ordered Hanako to gather at 6.’

Split control is (semantically) characterized by the fact that the matrix subject, in addition to the matrix object, functions as PRO’s controller. Typical “object control” verbs like *persuade* and *ask* allow split control, whereas other verbs like *order* and *command* do not. In light of the “subject sensitivity,” the restriction on the control verbs like *try* is that PRO and the matrix subject must be identical in reference; in contrast, the restriction on other control verbs like *order* is that PRO and the matrix subject must be disjoint in reference.

I propose a theory which provides a unified account for the EC/PC distinction and controller choice. The argument is twofold: with respect to “subject control,” I show that Landau’s EC/PC distinction largely overlaps with the distinction in passivizability of the matrix verb; with respect to “object control,” I show that split control is reduced to a proper subclass of PC, contrary to Landau (2000: 53-55). These two aspects of control can be explained uniformly if we extend Watanabe’s (1996b, 2000) theory of control and Switch Reference (SR). According to Watanabe (1996b), the ungrammaticality of (7a) is due to the failure of C⁰-binding of the Same Subject (SS) marker, whereas (7b) is acceptable because there is no such restriction on the unspecified (∅) marker.

- (7) a. *It was tried by Tom [_{CP} SS [_{TP} PRO to leave]].
 b. It was decided by Tom [_{CP} ∅ [_{TP} PRO to leave]].

Closer examination of the passivizability of subject control verbs discloses that the class of the passivable verbs and the class of PC verbs overlap both in English and in Japanese. If Watanabe’s (1996b) analysis is on the right track, we are led to conclude that the PC verbs select the ∅-marker in the infinitival complement clauses, while the EC verbs select the SS-marker. When the C⁰ in the embedded clause is bound by the matrix C⁰, the PC effect does not occur and the matrix verb cannot be passivized. That is, we get EC when the C⁰ is bound by the matrix C⁰. Put another way, PC is obtained when the C⁰ in the controlled clause is not bound by the matrix C⁰. Thus the PC effect is reduced to the nature of PRO being unspecified with respect to its reference.

Turning to object control verbs, I claim that the choice of the SR-marker determines the

possibility of split control. When the matrix verb selects the Different Subject (DS) marker, the embedded C^0 must not be bound by the matrix C^0 , hence the two subjects must be disjoint in reference. The two subjects may corefer when the matrix verb selects the \emptyset -marker, because the \emptyset -marker does not have the binding feature and does not participate in the C^0 -binding. Furthermore, PRO's inherent property allows both of the arguments to be included in the reference of PRO. Thus transitive verbs that select \emptyset -marked infinitival clauses allow split control. The contrast is exemplified in (8).

- (8) a. John_i ordered Mary_j [_{CP} **DS** [_{TP} PRO_{i+j/j+} to meet at 6]].
 b. John_i persuaded Mary_j [_{CP} \emptyset [_{TP} PRO_{i+j/j+} to meet at 6]].

Verbs that fall in the *order*-class select DS-marked infinitival clauses, whereas verbs that fall in the *persuade*-class select \emptyset -marked infinitival clauses.

This way of explaining the availability of PC enables us to unify the theory of controller choice and the theory of EC/PC distinction in terms of the system of SR, or C^0 -binding to be precise. The essential assumptions of the present approach are: (i) that PRO is inherently unspecified with respect to its reference; (ii) that the SR-marker in C^0 position of the controlled clause specifies whether the matrix subject is included in the reference of PRO; and (iii) that which SR-marker is used is lexically specified by the matrix verb in obligatory control.

2. C^0 -Binding in Switch Reference

In this section I will take up Watanabe's (2000) analysis of Switch Reference (SR). Although Finer (1985) is the first extensive account of SR in purely syntactic terms, Watanabe (2000) inherits most of his basic ideas, modulo the difference in theoretical technologies.

Let us start by observing the data of SR. SR is a system which captures the referential relation, coindexation or conindexation, between subjects of the matrix and the embedded (typically adjunct) clauses. The schematic representation of SR is given in (9).²

- (9) a. Before NP_i VP-**SS**, NP_i VP.
 b. Before NP_i VP-**DS**, NP_j VP.
 c. *Before NP_i VP-**SS**, NP_j VP.
 d. *Before NP_i VP-**DS**, NP_i VP.

In (9a), the Same Subject (SS) marker appears, so the two NPs receive the same referential

² The SR markers are indicated by boldface hereafter.

interpretation. In (9b), on the other hand, coreference between the two subjects is prohibited, precisely because of the existence of the Different Subject (DS) marker. (9c) and (9d) show that failure to satisfy the requirement of the SS/DS marker results in ungrammaticality. The SR system is typically found in Native American and Australian languages. The following are examples from Mojave, Seri, and Yavapai, taken from Finer (1985).³

(10) Mojave

- a. [nya-isvar-**k**] i:ma-k.
when-sing-SS dance-tns
“When he_i sang, he_i danced.”
- b. [nya-isvar-**m**] i:ma-k.
when-sing-DS dance-tns
“When he_i sang, he_j danced.”

(11) Seri

- a. [t-ooxi] i?meemt.
DP-die-(SS) [perf-stink]
“When it_i died, it_i stank.”
- b. [i-t-a?t **ma**] m-oxxookam.
[3obj]-DP-[see-pl] DS perf-[flee-pl]
“When they_i saw them_j, they_j fled.”

(12) Yavapai

- a. [tokatoka-č savakyuva u-t-**k**] čikwar-kiñ.
Tokatoka-SUBJ Savakyuva see-TEMPORAL-SS laugh-COMPL
“When Tokatoka_i looked at Savakyuva, he_i laughed.”
- b. [tokatoka-č savakyuva u-t-**m**] čikwar-kiñ.
Tokatoka-SUBJ Savakyuva see-TEMPORAL-DS laugh-COMPL
“When Tokatoka_i looked at Savakyuva, he_j laughed.”

The theoretical ingredients of Watanabe’s system are characterized by: (i) ordinary Spec-Head agreement between the subject DP and T⁰, (ii) T-to-C movement, and (iii) the binding feature generated on C⁰. Let us examine each of these in some detail.

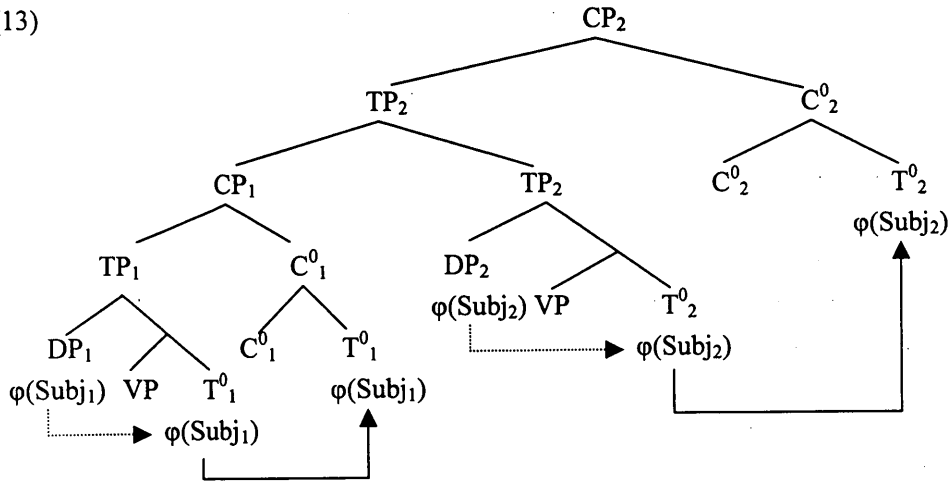
The subject-T⁰ agreement, assumption (i), is undeniable. In the *MI/DbP* framework (Chomsky (2000, 2001)), this is formalized as feature-valuation of the uninterpretable ϕ -feature on T⁰ by the interpretable ϕ -feature on DP.⁴ T-to-C movement (ii) is also

³ The examples in this section, including the glosses and translations, are taken from Finer (1985) unless otherwise noted.

⁴ Watanabe claims that this is not a valuation but a copying (see Watanabe (2000: fn. 5)), but the point relevant to us here is that T⁰ somehow gets associated with the interpretable ϕ -feature of the subject

well-established in tensed clauses, as argued by numerous authors (e.g., Watanabe (1996a), Rizzi (1997)) and put forth drastically by Pesetsky and Torrego (2001, 2004). The structure for typical SR cases looks like (13).

(13)



(Watanabe's (2000) (20) with notational modifications)

The derivation within the two clauses proceeds in a parallel way. The ϕ -features on the subjects are copied onto (or value the uninterpretable ϕ -feature on) T^0 via Spec-Head agreement: $DP_1-T^0_1$ in the adjunct clause CP_1 , and $DP_2-T^0_2$ in the matrix clause CP_2 . Each T head now associated with an interpretable ϕ -feature is raised to the C head. Then the two C heads, each associated with the ϕ -features of the subject DP in its clause, enter into a binding relation determined by the binding feature generated on the lower C^0_1 . This is where the assumption (iii) comes into play: when the anaphoric feature is generated on C^0 (i.e., $C^0_{[+a]}$), it is realized as an SS marker; when pronominal (i.e., $C^0_{[+p]}$), C^0 is realized as a DS marker. This specifies the referential dependency between C^0 's (more precisely, between the two ϕ -sets raised to C^0 's), which indirectly determines the referential dependency between the two subjects.⁵

Although not so obvious as the other two assumptions, (iii) seems to be the minimal and natural way to explain the SR system. Notice that the apparent conditions on the SR system are straightforwardly derived from this mechanism. Binding relations cannot hold across the non-adjacent clauses, a hierarchical configuration (i.e., the c-command relation) is the prerequisite for binding, the bound/free distinction guarantees the binary realization of SS/DS, and only subjects can participate in this C^0 dependency via raising of T^0 . The stipulation that

DP.

⁵ "SS" and "DS" should be interpreted as $C^0_{[+a]}$ and $C^0_{[+p]}$ respectively in the discussion that follows, though I will use these notations for convenience.

the embedded C^0 s must be SR-marked would be supported by the fact that ordinary subordinating complementizers like *before*, *after*, or *if* cannot head the root clauses by themselves, and always require the clauses to be above them.

3. Passivizability and Split Control

Landau's (2000) EC/PC distinction shows an interesting property in light of Watanabe's (1996b) theory of controller choice with respect to passivizability. After establishing the SR-based approach to control based on the passive data, I will illustrate that our approach can be extended to cover the variation in object control, i.e., availability of split control.

3.1. Passivizability

Since Williams (1980), it has been held that the obligatory control (OC) verbs are generally not passivizable. Williams' characterization of OC verbs, however, is different from Landau's. The features of Williams' OC class which are relevant here are (i) that the empty subject of the infinitival complement clause does not alternate with an overt subject (*for*) NP, and (ii) that the empty subject of the infinitival clause must be c-commanded by its antecedent.⁶ Under this characterization of OC verbs, verbs such as *try* and *persuade* fall into the OC class, whereas verbs such as *want* and *decide* fall into the NOC class. *Want* can take a complement clause with an overt subject, and *decide* can undergo passivization.⁷ Landau does not regard these two properties as the appropriate criteria for the OC/NOC distinction (Landau (2000: 31-32)). I will follow Landau (2000) with respect to the OC/NOC distinction.

Note however that Landau's system does not make explicit predictions about variations with respect to passivizability among the OC verbs. For him, controlled infinitives are uniformly CPs, and the only difference between EC and PC is that the former is not tensed whereas the latter is. I see no plausible way to capture how the tensedness of the embedded clause affects the passivizability of the matrix verb.

Before looking at the passive data, let us shortly review Watanabe's (1996b) theory of control in more detail. He employs several assumptions to explain controller selection in obligatory control. Among them, I will concentrate on the following two assumptions relevant to us here.

⁶ For more precise characterization of the OC class, see Williams (1980: (26)).

⁷ That *want* does not passivize and that *decide* does not take an overt subject are attributed to properties independent of control. Williams needs an additional rule (*Arb-rewriting rule*) to distinguish *want/decide*-type control from arbitrary control within the NOC class.

- (14) a. PRO is an anaphor.
 b. SR is involved in control, where SS, DS, and \emptyset (unspecified) are SR-markers.

(14a) requires PRO to find an antecedent in the superordinate clause. Note that Watanabe does not construe PRO's anaphoricity as a rigid condition such as Rosenbaum's (1967) Minimal Distance Principle (MDP). MDP unambiguously determines a controller of PRO by the rigid distance, counted by the c-command relation. Thus under MDP, a DP higher than another DP can never control PRO, even if it is in an appropriate local domain for PRO. This way of determining PRO's controller is too strict, as shown in (15).

- (15) a. Bill_i persuaded Mary_j [PRO_{*i/j} to steal jewels].
 b. Bill_i promised Mary_j [PRO_{i/*j} to steal jewels].

Those who maintain MDP or some such rigid requirement on controller choice might (i) treat *promise*-type verbs merely as an exception; or (ii) posit elaborate structures like Larsonian VP-shells (Larson (1988)) to prevent *Mary* from c-commanding PRO in (15b). We find examples, however, of overt anaphors showing the same kind of antecedent alternation.

- (16) a. Bill_i told Mary_j about himself_i.
 b. Bill_i told Mary_j about herself_j.

Assuming that c-command is a prerequisite for anaphor binding, we must consider both *Bill* and *Mary* as c-commanding the anaphor in (16). It is clear that one of the two DPs must asymmetrically c-command the other, with *Bill* c-commanding *Mary* under the standard clause structure. In (16a), *Bill* counts as an antecedent for the anaphor crossing the other possible antecedent *Mary*. Thus, the anaphor in (16) is underspecified with regard to the antecedent selection within its local domain. So is PRO in (15); PRO itself is underspecified with regard to which argument in its superordinate clause is to be the controller.

3.1.1. English

Watanabe argues that it is the SR-system that determines PRO's antecedent from within the matrix clause (14b). When the SR-marker in the controlled clause is SS (that is, C⁰_[+a]), PRO's reference is hooked to the matrix subject; when it is DS (that is, C⁰_[+p]), PRO's reference must exclude the matrix subject. Watanabe's innovation is to postulate that there is a \emptyset -marker in addition to SS and DS. As Watanabe himself points out, the \emptyset -marker is needed in any case to explain sentences like *Tom_i believes that he_{ij} is a genius*. We have four possible configurations for obligatory control (compare (9)).

- (17) a. Subj₁ ... (Obj₂) ... [CP **SS** [TP PRO₁ ...]]
 b. Subj₁ ... Obj₂ ... [CP **DS** [TP PRO₂ ...]]
 c. Subj₁ ... [CP **Ø** [TP PRO₁ ...]]
 d. Subj₁ ... Obj₂ ... [CP **Ø** [TP PRO₂ ...]]

What is important here is that this Ø-marker has an effect upon control constructions, in the form of passivizability. He argues that there are two possibilities in subject control: SS-marked and Ø-marked. As seen in section 2, the SS-marker must be bound by the matrix C⁰, which guarantees the coreference between the two subjects. If the matrix clause is passivized, though, the matrix C⁰ cannot be coupled with the subject in the active sentence; thus it cannot bind the embedded SS-marker. The Ø-marker, on the other hand, is not subject to such constraints. We have the following contrast among subject control verbs.

- (18) a. *It was tried (by the professor_i) [CP **SS** [TP PRO_i to talk about syntax]].
 b. It was decided (by the professor_i) [CP **Ø** [TP PRO_i to talk about syntax]].

This analysis implies that PRO can take as its antecedent the implicit argument and the original subject (or the “demoted” subject expressed optionally by *by*-phrases). Object control verbs are trivially passivizable as predicted, given that DS is free from C⁰-binding.⁸

- (19) Mary was ordered ~~Mary_j~~ (by John_i) [CP **DS** [TP PRO_j to leave Tokyo]].

Readers may wonder if the SR-marker in (19) changes from DS into SS after passivization, because the antecedent *Mary* ends up in the matrix subject position. This cannot be the case, however; the reason for which will be provided by Japanese passivization data in empirical terms, and by the variety of English object control in conceptual terms. The assumption needed here is that the chain formed by movement and that formed by binding are distinguished.⁹ I will return to the technical problem of the passivization of object control verbs in section 4.

We have the following paradigm of control configurations with respect to passivizability.

⁸ In (19), the binding relation is indicated by subscript, and the trace of movement (i.e., an unpronounced copy) is indicated by strike-through.

⁹ Watanabe (1996b) in fact argues that even two binding relations do not form one single chain.

- (20) a. **SS** + PRO --- Subject Control (*Passive)
 [CP [TP Subj_i V ... [CP **SS** [TP PRO_i ...]]]]
- b. **Ø** + PRO --- Subject Control (^{ok}Passive)
 [CP [TP Subj_i V ... [CP **Ø** [TP PRO_i ...]]]]
- c. **DS** + PRO --- Object Control (^{ok}Passive)
 [CP [TP Subj_i V Obj_j [CP **DS** [TP PRO_j ...]]]]
- d. **Ø** + PRO --- Object Control (^{ok}Passive)
 [CP [TP Subj_i V Obj_j [CP **Ø** [TP PRO_j ...]]]]

SS-marked subject control (20a) and DS-marked object control (20c) are straightforward. Ø-marked subject control is also straightforwardly derived when the matrix predicate is intransitive. The nature of Ø-marked object control is still unclear, and will be discussed in the sections that follow.

The variation among subject control verbs as to whether they allow impersonal passives in English has received much attention in syntactic studies of control.¹⁰ The EC/PC distinction sheds new light upon this.

Recall Landau's EC/PC distinction in terms of predicate types (3), repeated below:

- (3) a. EC verbs are *implicative, aspectual* or *modal*.
 b. PC verbs are *factive, propositional, desiderative* or *interrogative*.

Among these classes of verbs, aspectual verbs are undoubtedly not passivizable.

- (21) a. *It was started (by the professor_i) [PRO_i to talk about syntax].
 b. *It was continued (by the professor_i) [PRO_i to talk about syntax].

Implicative verbs also do not undergo passivization, although the judgment is not as sharp as in the case of aspectuals.

- (22) a. ??It was managed (by the government_i) [PRO_i to win the war].
 b. ??It was forgotten (by Tom_i) [PRO_i to leave her the message].
 c. ??/*It was failed (by the president_i) [PRO_i to win the vote].

Factive and desiderative verbs, in contrast, allow passivization to a considerable extent.

¹⁰ See Larson (1991), Koster (1984), and Bošković (1997), among others, for the passivizability of control verbs.

- (23) a. ^{ok/?}It was claimed (by that country_i) [PRO_i to have won the war].
 b. ^{ok/?}It was hoped (by John_i) [PRO_i to solve the problem].
 c. [?]It was planned (by this boy_i) [PRO_i to leave for N.Y.]
 d. ^{ok/?}It was intended (by this defendant_i) [PRO_i to overturn the government].
 e. ^{ok/?}It was demanded (by the people_i) [PRO_i to know the truth].

Notice that although there is considerable variation among speakers, the contrast between (22) on the one hand and (23) on the other is clear. Those who easily get the sentences in (23) also marginally allow (22), whereas those who do not assign perfect acceptability to (23) also find (22) worse. I would like to interpret this variation as variation in the general tendency toward passivization.¹¹

3.1.2. Japanese

Japanese shows a contrast with respect to passivizability in a way parallel to its English counterparts. As Inokuma (2004) observes, only irrealis *yooto/yooni*-clauses allow PC reading among Japanese controlled clauses. As now predicted from the English data, irrealis verbs taking *yooto*-clauses can undergo passivization; other classes cannot.^{12, 13}

Aspectual verbs *hazimeru* ‘start, begin’ and *tudukeru* ‘continue,’ which are ambiguous between raising and control (cf. Nishigauchi (1993)), do not allow direct passivization.

- (24) a. Sensei-ga ronbun-o yomi-*{hazime/tuduke}*-ta.
 teacher-Nom paper-Acc read-*{start/continue}*-Past
 ‘The teacher *{started/continued}* to read a paper.’
 b. *Ronbun-o yomi-*{hazime/tuduke}*-rare-ta.
 paper-Acc read-*{start/continue}*-Pass-Past
 ‘*(It) was *{started/continued}* to read a paper.’

Aspectual *oeru* ‘finish,’ and implicative *sokonawu* ‘fail’ and *wasureru* ‘forget’ show the same pattern. Notice that they are all pure control verbs.

¹¹ In addition, discourse-related/stylistic factors may well affect the acceptability of passive sentences. For instance, some speakers found (i) better than (ii).

(i) It was claimed by the government to have won the war.
 (ii) It was claimed by John to have done the homework.

Other speakers find the sentences in (22)-(23) better with *by*-phrases than without. I believe these are largely semantic/pragmatic factors and will not pursue any further in this paper.

¹² For comprehensive classification of Japanese infinitival complements, see Akima (2004) and Inokuma (2004).

¹³ *Yooni*-clauses are used mainly in object control and therefore are put aside for now.

- (25) a. Sensei-ga ronbun-o yomi{-oe/-sokonaw/-wasure}-ta.
 teacher-Nom paper-Acc read{-finish/-fail/-forget}-Past
 ‘(Lit.) The teacher {finished/failed/forgot} to read a paper.’
 b. *Ronbun-o yomi{-oe/-sokonaw/-wasure}-rare-ta.
 paper-Acc read{-finish/-fail/-forget}-Pass-Past
 ‘*(It) was {finished/failed/forgotten} to read a paper.’

On the other hand, irrealis verbs with *yooto*-clauses, such as *kimeru* ‘decide,’ *kuwadateru* ‘attempt,’ and *keikakusuru* ‘plan,’ can be passivized without any problems.¹⁴

- (26) a. Lupin-ga hooseki-o nusum-**yooto** {kime/kuwadate/keikakusi}-ta.
 Lupin-Nom jewel-Acc steal-*yooto* {decide/attempt/plan}-Past
 ‘Lupin {decided/attempted/planned} to steal jewels.’
 b. Hooseki-o nusum-**yooto** {kime/kuwadate/keikakus}-rare-ta.
 jewel-Acc steal-*yooto* {decide/attempt/plan}-Pass-Past
 ‘(It) was {decided/attempted/planned} to steal jewels.’

Although some speakers of Japanese find (26b) somewhat awkward, it is far more acceptable than (24b) and (25b) and most of the speakers I have consulted judge (26b) perfectly acceptable (see also note 14).

¹⁴ Here we have a factual disagreement with Watanabe (1996b). Watanabe, focusing on the contrast in (i) and (ii), concludes that irrealis verbs with *yooto* cannot be passivized (judgments of (i) and (ii) are by Watanabe (1996b)).

- (i) a. *seihu-o tenpukusi-**yooto** (John-niyotte) kuwadate-rare-ta.
 ‘It was attempted (by John) to overturn the government.’
 b. kono mati-o sar-**yooto** (John-niyotte) ketuis-are-ta.
 ‘It was decided (by John) to leave this town.’
 (ii) a. seihu-o tenpukusuru **koto-ga** (John-niyotte) kuwadate-rare-ta.
 ‘It was attempted (by John) to overturn the government.’
 b. kono mati-o saru **koto-ga** (John-niyotte) ketuis-are-ta.
 ‘It was decided (by John) to leave this town.’

Watanabe claims that *yooto* is an SS-marker, whereas nominalizer *koto* is a Ø-marker. Although I agree with him in that (ii) sentences sound more natural than (i), (i) sentences are also admissible, nearly perfect in my intuition.

Possible complications might stem from stylistics or aspectual compatibility of the two predicates. Furthermore, *ketuisuru* ‘make up one’s mind’ produces a slightly worse result than its nearly synonymous verb *kimeru* ‘decide’ in PC configuration.

- (iii) a. Taroo-ga 6zi-ni atumar-**yooto** kime-ta.
 ‘Taro decided to gather at 6.’
 b. *Taroo-ga 6zi-ni atumar-**yooto** ketuisi-ta.
 ‘Taro made up his mind to gather at 6.’

Compared to *kimeru*, *ketuisuru* and *kessinsuru* strongly imply an internal state-change of one’s mind, as indicated by the English translation, which might bear some delicate effect upon the judgment.

Turning to *suru* ‘try’ with a *yooto*-clause, it patterns with other aspectual verbs, and not with irrealis verbs.¹⁵ We can conclude that *suru*, though always used with *yooto/yooni*-clauses, must be analyzed as an aspectual EC verb.

- (27) a. Lupin-ga hooseki-o nusum-**ooto** si-ta.
 Lupin-Nom jewel-Acc steal-*yooto* try-Past
 ‘Lupin tried to steal a jewel.’
 b. *Hooseki-o nusum-**ooto** s-are-ta.
 jewel-Acc steal-*yooto* try-Pass-Past
 ‘*(It) was tried to steal a jewel.’

Incidentally, all the (b) sentences in (24)-(27) are acceptable under the so-called indirect passive reading, roughly corresponding to English *have*-passives like *I had my jewelry stolen*. This construction has been traditionally distinguished from direct passives in the literature on Japanese syntax, and I do not go into details here.

One peculiar property of Japanese infinitival clauses must be noted before closing this subsection. As Nishigauchi (1993) points out, a certain class of Japanese infinitival constructions undergoes Long-Distance (LD) passivization. In LD-passives, the object of the embedded infinitival clause is extracted into the matrix subject position, crossing the apparent clause boundary. This is shown in (28).

- (28) a. Hooseki-ga [hooseki nusumi]-hazime-rare-ta.
 jewel-Nom steal-start-Pass-Past
 ‘(Lit.) Jewels were started to steal.’
 b. Hooseki-ga [hooseki nusumi]{-oe/-sokonaw/-wasure}-rare-ta.
 jewel-Nom steal{-finish/-fail/-forget}-Pass-Past
 ‘(Lit.) Jewels were {finished/failed/forgotten} to steal.’
 c. Hooseki-ga [hooseki nusum-**ooto**] s-are-ta.
 jewel-Nom steal-*yooto* try-Nom-Past
 ‘(Lit.) A jewel was tried to steal.’

This construction is intriguing: since what is passivized is the matrix verb and not the embedded verb, the latter should retain its accusative-Case-checking property and should stick its object in its base position. If we keep the standard Case-driven approach to passives, we must assume that the Case-checking property of the embedded verb is somehow absorbed, leaving its object un-Case-marked in its clausal domain. See Nishigauchi (1993) and Kiguchi

¹⁵ For more syntactic evidence for the absence of PC properties of *suru*, see Inokuma (2004).

(2004) for the analysis of LD-passives. We do not go into the analysis of LD-passives but limit ourselves to noting that irrealis verbs do not have this option, as exemplified in (29).¹⁶

- (29) *Hooseki-ga [~~hooseki~~ nusum-ooto] {kime/kuwadate/keikakus}-rare-ta.
 jewel-Nom steal-*yooto* {decide/attempt/plan}-Pass-Past
 '(Lit.) A jewel was {decided/attempted/planned} to steal.'

To summarize, we can state the correlation of passivizability and the EC/PC distinction in English and Japanese as below.¹⁷

(30) EC/PC Distinction and Passivizability

- a. EC verbs cannot be passivized, while PC verbs can, both in English and in Japanese.
- b. i. EC verbs in Japanese can be passivized only when the object DP in the embedded clause is extracted into the matrix subject position (Long Distance Passive).
- ii. Passivization of EC verbs is impossible in any circumstances in English.

3.2. *Object Control and Split Control*

Let us turn to the object control class. As mentioned above, our approach predicts that object control verbs can be passivized, irrespective of the SR-marker they select.¹⁸ Fortunately, we find another variation among object control verbs.

One intriguing prediction of the present approach is that there are no object control EC verbs, since the EC reading is reduced exclusively to a property of the SS-marker. Potential counterexamples to this prediction are reported by Barrie (2004). He observes that the verbs like *order*, *permit*, and *require* do not show a PC effect:

¹⁶ (29) slightly improves with enough stress on the nominative-marked DP and a pause after it. Using a *by*-phrase removes this option.

(i) *Lupin-niyotte hooseki-ga [~~hooseki~~ nusum-ooto kime]-rare-ta.
 Lupin-by jewel-Nom steal-*yooto* decide-Pass-Past
 'By Lupin, a jewel was decided to steal.'

¹⁷ It is interesting to observe that Landau's (2000) EC verbs and Williams' (1980) OC verbs largely overlap, with the exception of object control verbs such as *persuade*. Wurmbrand (2001, 2002) classifies PC verbs as the NOC class, along the lines of Williams (1980).

¹⁸ Object control verbs never select the SS-marker by definition.

- (31) a. *Mary ordered/permitted/required John to meet in the lobby.
 b. Mary persuaded John to gather in the ball room.
 c. John asked Mary to meet up before the opera starts.

(Barrie (2004: (17)-(19)))

Barrie claims that *order*-class verbs should be analyzed as ECM verbs.¹⁹ His observation, however, is inadequate in that he does not distinguish (non-split) partial control from split control. *Order* does allow PC when we substitute *gather* for *meet*.

- (32) a. Mary ordered John to gather during the break.
 b. Mary permitted John to gather during the break.

What distinguishes the sentences in (31) from those in (32) is that the embedded predicate *meet* is inherently reciprocal and favors split reading if it is embedded under the transitive predicate with two arguments. In other words, the distinction between *persuade* and *ask* on the one hand and *order* and *permit* on the other must be drawn not by PC vs. EC or PC vs. ECM, but by “splittable PC” vs. “non-splittable PC.” *Order*-class verbs prohibit PRO from including the matrix subject. Even *meet* can be embedded if the matrix subject is excluded from the set denoted by PRO as in (33).

- (33) The president_i, who is visiting a foreign country, ordered the vice-president_j [PRO]_{j+} to meet before he_i is back].

The restriction here is that the matrix subject of *order* never be included in the embedded subject PRO. This is the reverse restriction from the one imposed by the SS-markers, suggesting strongly that the SR-marker at issue is a DS-marker. Turning back to *persuade*-type verbs, I claim that they select \emptyset -marked infinitival clauses. Since the C⁰ in the controlled clause selected by *persuade* is unspecified (\emptyset -marked), PRO seeks its antecedent in the matrix clause by itself, and happens to find the two arguments there, deriving split control reading by default. In fact, control with *persuade* allows split control (34a) as the first reading, though the reading in (34b) is not impossible.

¹⁹ Barrie observes as supporting evidence for the ECM-status of *order*-class verbs that they are marginally acceptable with embedded expletive subjects.

- (i) John ordered there to be fresh fruit available at intermission.
 (ii) The doctor permitted there to be only two visitors at a time.

(Barrie (2004: (20)-(21)))

To the extent that sentences such as (i) and (ii) are acceptable, we must assume that *order*-class verbs can be used as ECM verbs as well as control verbs.

- (34) a. John_i persuaded Mary_j [CP Ø [TP PRO_{i+j} to meet/gather at 6.]]
 b. ?John_i persuaded Mary_j [CP Ø [TP PRO_{j+} to meet/gather at 6.]]

Japanese also shows the parallel contrast between *settokusuru* ‘persuade’ and *meiziru* ‘order.’ *Meiziru* does not allow split reading, whereas *settokusuru* allows both (non-split) partial reading and split reading, in the same manner as English counterparts do. But Japanese is more complex than English in that it employs overt SR-markers.

- (35) a. Taro_i-ga Hanako_j-o [CP [TP PRO_{j+/?/?i+j} 6zi-ni awu-]yooni] settokusi-ta.
 Taro-Nom Hanako-ACC PRO 6o'clock-at meet-yooni persuade-Past
 ‘Taro_i persuaded Hanako_j [CP DS [TP PRO_{j+/?/?i+j} to meet at 6]].’
 b. Taro_i-ga Hanako_j-o [CP [TP PRO_{*i+/i+j/*j+} 6zi-ni aw-]ooto] settokusi-ta.
 Taro-Nom Hanako-ACC PRO 6o'clock-at meet-yooto persuade-Past
 ‘Taro_i persuaded Hanako_j [CP Ø [TP PRO_{*i+/i+j/*j+} to meet at 6]].’
- (36) a. Taro_i-ga Hanako_j-ni [CP [TP PRO_{j+/*i+j} 6zi-ni awu-]yooni] meizi-ta.
 Taro-Nom Hanako-ACC PRO 6o'clock-at meet-yooni order-Past
 ‘Taro_i ordered Hanako_j [CP DS [TP PRO_{j+/*i+j} meet at 6]].’
 b. *Taro_i-ga Hanako_j-ni [CP [TP PRO_{i+/i+j/j+} 6zi-ni aw-]ooto] meizi-ta.
 Taro-Nom Hanako-ACC PRO 6o'clock-at meet-yooto order-Past
 ‘Taro_i ordered Hanako_j [CP Ø [TP PRO_{i+/i+j/j+} meet at 6]].’

By use of *yooto* and *yooni*, Japanese overtly expresses whether the matrix subject (*Taro* in the above examples) is included in PRO: it is included in PRO when the Ø-marker *yooto* is used (i.e., split control), and it is not when the DS-marker *yooni* is used (i.e., non-split PC). *Meiziru*, however, does not have the option to choose the Ø-marker in its lexical specification; thus (36b) is unacceptable under any readings.

The alternation of DS- and Ø-markers exemplified in (35) might become problematic for the approach pursued here, which assumes that which SR-marker is to be used is specified in the lexical information of the matrix verb (in the case of obligatory control). This seems to be attributed to the overtness of SR-markers in Japanese. Japanese SR-markers *yooto* and *yooni*, by virtue of being overt, can restrict the interpretation of PRO independently of the matrix verbs, whereas English SR-markers do not have this option, because they are always null. This mode of explanation, however, is largely functional and needs further investigation.

3.3. Summary

With the qualification noted above, the effect of the SR-marker choice upon passivizability and PRO’s interpretation is summarized in (37).

(37) The Choice of SR-Markers and Its Effects

Configuration	C ⁰	Passive	EC/PC	Split	Type
Subj V [CP C ⁰ [TP PRO ...]]	SS	*	EC	---	<i>try</i>
	∅	ok	PC	---	<i>decide</i>
Subj V Obj [CP C ⁰ [TP PRO ...]]	∅	ok	PC	ok	<i>persuade</i>
	DS	ok	PC	*	<i>order</i>

4. C⁰-Binding and the Property of PRO

Recall from the discussion above that the SS-marker is distinguished from DS- or ∅-markers in that it has to be bound by the matrix C⁰ which is linked to the φ-features of the matrix subject DP. Put another way, control with the SS-marked clause is doubly anaphoric, with anaphoric C⁰ and anaphoric PRO, whereas the anaphoricity of control with the DS- or ∅-marked clause stems solely from that of PRO. We are led to conclude that the PC reading is obtained when only PRO is bound by the matrix argument, independently of C⁰-binding. When the SS-marker is used, i.e., C⁰-binding is involved, PRO's reference is strictly specified as that of the matrix subject. Informally, we can state the roles of PRO and SR-markers in controller choice and the EC/PC distinction as in (38).

- (38) a. PRO must include at least one argument in its matrix clause, but not restricted to it.
- b. i. The SS-marker specifies PRO's reference as rigidly identical to the matrix subject.
- ii. The DS-marker specifies PRO's reference as excluding the matrix subject.
- iii. The ∅-marker does not specify PRO's reference at all.

From this perspective, PRO is inherently unspecified as to (i) which argument it must take as its antecedent and (ii) the singularity/plurality distinction, and is potentially capable of seeking its antecedent in the matrix clause (and beyond it, i.e., in the discourse). SR-markers, idiosyncratically specified in the lexical information of the matrix verb in the case of obligatory control, restrict whether the matrix subject must or must not be included in the PRO's interpretation.

Turning to Japanese, we reach an unexpected conclusion. We have assumed that *yooto* is an SS-marker in Japanese, but the above discussion forces us to analyze it as the ∅-marker, allowing both PC reading and passivization. *Yooni* remains the DS-marker, and the SS-marker in Japanese turns out to be the empty morpheme used in the EC configuration. This is a desirable result, when we look at split control effects in Japanese, which occur when we use *yooto* with object control verbs.

- (39) a. Taro_i-ga Hanako_j-o [CP [TP PRO_{i+j} 6zi-ni aw-] ooto] settokusi-ta.
 Taro-Nom Hanako-Acc PRO 6o'clock-at meet-*yooto* persuade-Past
 'Taro_i persuaded Hanako_j PRO_{i+j/*i+/*j+} to meet at 6.'
- b. Taro_i-ga Hanako_j-ni [CP [TP PRO_{i+j} 6zi-ni aw-] ooto] tanom-da.
 Taro-Nom Hanako-Dat PRO 6o'clock-at meet-*yooto* ask-Past
 'Taro_i asked Hanako_j PRO_{i+j/*i+/*j+} to meet at 6.'

If *yooto* is in fact a \emptyset -marker and does not specify the inclusion/exclusion of the matrix subject in the interpretation of PRO, this split control effect is straightforwardly explained. PRO seeks its antecedent in the matrix clause, in accordance with the specification by the SR-marker. But the SR-marker in this case is an unspecified \emptyset -marker, so PRO can take the antecedent by itself. In the matrix domain, PRO happens to find two arguments, and thus takes them as its legitimate antecedent. This is consistent with the condition stated in (38).

To sum up, we have obtained the following morphosyntax of C⁰-binding systems in English and Japanese.

- (40) In English, the C⁰-head of a controlled infinitive is always phonologically empty.
- (41) In Japanese, the C⁰-head of a controlled infinitive is realized as:
- a. phonologically empty when it is anaphoric.
 - b. *yooto* when it is unmarked.
 - c. *yooni* when it is pronominal.

The whole discussion up to this point implies that the SS-marker requires the rigid identity of the two subjects in English and Japanese. Suppose that the SS-marker in fact requires strict identity of the two subjects universally. Then the SS-markers which allow loose identity might prove to be \emptyset -markers, just as *yooto* in Japanese turns out to be the \emptyset -marker. Deciding between these two alternatives calls for a close investigation of the SR-system from a crosslinguistic perspective.

As for the availability of split control, although Landau (2000) in fact notes that *persuade* and *order* must be distinguished in terms of the availability of split control, his characterization of split control is syntactic in nature. For Landau, split control is characterized by its capability of licensing syntactically plural elements like *each other* and plural *-s*. This is illustrated in (42).

- (42) a. John proposed to Mary to meet each other at 6.
 b. *Mary₁ recommended to/ordered John₂ [PRO₁₊₂ to cooperate with each other].
 (Landau (2000: ch.2 (79) and (84)))

It is clear that his syntactic characterization cannot distinguish non-split PC (43a) from semantically split PC (43b).

- (43) a. John_i ordered Mary_j [PRO_{j+} to meet at 6].
 b. *John_i ordered Mary_j [PRO_{i+j} to meet at 6].

The approach pursued here, on a basis of the binding properties of C⁰, is semantic in essence, and correctly draws a distinction between the above two sentences.

The passivization of *order* further supports our approach. The passivized sentence with *order* allows split control reading.

- (44) a. Mary was ordered ~~Mary_j~~ by John_i [CP DS [TP PRO_{i+j/?j+} to meet at 6]].
 b. ?Mary was ordered ~~Mary_j~~ by John_i [CP DS [TP PRO_{i+j/j+} to gather at 6]].

The DS-marker excludes only the subject (in the active sentence); thus the *by*-phrase in the passive sentence, although carrying the same θ -role as the original subject, can be the legitimate antecedent of PRO. This is in clear contrast to the impassivizability of SS-marked subject control verbs.

- (45) a. *John_i tried [CP SS [TP PRO_{i+} to meet at 6]].
 b. *It was tried by John_i [CP SS [TP PRO_i to leave New York]].
 (46) a. *John_i ordered Mary_j [CP DS [TP PRO_{i+j} to meet at 6]].
 b. Mary_j was ordered ~~Mary_j~~ by John_i [CP DS [TP PRO_{i+j} to meet at 6]].

This behavior of *order* also illustrates that passivization does not replace DS-markers with SS-markers, and that antecedents of PRO are visible to it in their base positions. Theoretical clarifications are in order. In (46b), the matrix C⁰ gets associated with the ϕ -set of *Mary*, which apparently binds the embedded C⁰ (the DS-marker). We need to somehow block this binding relation to maintain the present approach. The option which immediately comes up is to utilize the notion of local binding. Suppose that the DS-marker at issue has a binder closer than the matrix C⁰. Then the matrix C⁰ does not locally bind the DS-marker. The candidate for the potential binder here is the past participle. Assuming that the object agrees with the past participle and moves up to the derived subject position, the passive sentence of the DS-marked object control sentence has a structure like:

- (47) [CP C_j⁰ [TP Mary_j was ordered_j ~~Mary_j~~ [CP DS_j [TP PRO_j to leave for New York]]]]].

In the matrix clause in (47), *Mary* first agrees with the past participle *ordered*, and *ordered*

gets associated with the φ -set of *Mary*. *Mary* then moves up to the SpecTP position and agrees with T^0 . This T^0 associated with the φ -set of *Mary* head-moves to the matrix C^0 . In this structure, the matrix C^0 binds the DS-marker, but does not locally bind it, because of the presence of the past participle *ordered*, which also has the φ -set of *Mary*. The passive sentences of subject EC verbs are also excluded successfully. Consider the structure in (48).

(48) [_{CP} C^0 [It was tried [_{CP} SS_i [_{TP} PRO_i to leave for New York]]]]].

In this structure, the past participle does not have the DP to agree with, and hence does not count as a binder of the SS-marker. As for the matrix C^0 , it is coupled with the φ -set of the expletive subject *it*. The ill-formedness of (48) indicates that the φ -set of an expletive does not count as an appropriate binder of the SS-marker.

The discussion on the contrast between *persuade*-class verbs and *order*-class verbs leads us to the formal licensing conditions of SS- and DS-markers as follows.

- (49) a. The SS-marker must be locally bound by the matrix C^0 .
 b. The DS-marker must not be locally bound by the matrix C^0 .

One consequence of our approach is that it predicts that transitive subject control verbs, represented by *promise*, allow neither passivization nor PC reading. This is so because for the matrix subject to control PRO across the object, the C^0 in the controlled clause must be the SS-marker. This prediction is partly attested, as in the impassivizability of *promise*.

- (50) a. *Mary_j was promised Mary_j by John_i [_{CP} SS [_{TP} PRO_i to leave New York]].
 b. ?John_i promised Mary_j [_{CP} SS [_{TP} PRO_{i+/i+j} to meet at 6]].

Promise does not undergo passivization (50) as predicted. Nor does it generally allow the PC reading, but this is largely subject to variation among speakers.²⁰

- (51) a. */?John_i promised Mary_j [_{CP} SS [_{TP} PRO_{i+j} to gather during the break]].
 b. */ok John_i promised Mary_j [_{CP} SS [_{TP} PRO_{i+} to gather during the break]].

Our approach can explain the grammar of those who find the sentences in (51) unacceptable.

²⁰ The partial and split readings become more natural when the embedded predicate is *meet*.

(i) ?John_i promised Mary_j [_{CP} SS [_{TP} PRO_{i+/i+j} to meet at 6]].

This might be because of the use of reciprocal *meet*. *Promise*-type verbs also show an intriguing property of controller shift (see Culicover and Jackendoff (2001)), and I will reserve this topic for future research.

For those who accept the sentences in (51), we have to treat *promise* as an exception at the present level of the research.

5. Conclusion

In this paper I have provided an SR-based approach to controller choice. This approach explains controller choice, availability of PC, and availability of split control in a single term: C⁰-binding. The effects of the binding property of C⁰ which heads the controlled infinitival clause are summarized in (52).

(52) Binding Property of C⁰ and Its Effects

	C ⁰	SR	EC/PC	Passive	Split	Examples
intransitive	+a	SS	EC	*	---	<i>try, fail</i>
	+p	DS	---	---	---	---
	∅	∅	PC	ok	---	<i>decide, plan</i>
transitive	+a	SS	EC	*	*	<i>promise</i>
	+p	DS	PC	ok	*	<i>order, permit</i>
	∅	∅	PC	ok	ok	<i>persuade, ask</i>

References

- Akima, Masayo (2004) "A Note on Restructuring Constructions in Japanese," *Linguistic Research* 20, 223-235, The University of Tokyo English Linguistics Association.
- Barrie, Michael (2004) "Moving towards Partial Control," *NELS* 34, 133-146.
- Bošković, Željko (1997) *The Syntax of Nonfinite Complementation: An Economy Approach*, MIT Press, Cambridge, MA.
- Chomsky, Noam (2000) "Minimalist Inquiries: The Framework," *Step by Step: Essays on Minimalist Syntax in Honor of Howard Lasnik*, ed. by Roger Martin, David Michaels, and Juan Uriagereka, 89-155, MIT Press, Cambridge, MA.
- Chomsky, Noam (2001) "Derivation by Phase," *Ken Hale: A Life in Language*, ed. by Michael Kenstowicz, 1-52, MIT Press, Cambridge, MA.
- Culicover, Peter W. and Ray Jackendoff (2001) "Control Is Not Movement," *Linguistic Inquiry* 32, 493-512.
- Finer, Daniel L. (1985) *The Formal Grammar of Switch-Reference*, Garland, New York, London.
- Hornstein, Norbert (1999) "Movement and Control," *Linguistic Inquiry* 30, 69-96.
- Hornstein, Norbert (2003) "On Control," *Minimalist Syntax*, ed. by Randall Hendrick, 6-81, Blackwell, London.

- Inokuma, Sakumi (2004) "Control, Switch Reference, and Interclausal Dependencies," MA Thesis, University of Tokyo.
- Koster, Jan (1984) "On Binding and Control," *Linguistic Inquiry* 15, 417-459.
- Landau, Idan (2000) *Elements of Control: Structure and Meaning in Infinitival Constructions*, Kluwer, Dordrecht.
- Larson, Richard K. (1988) "On the Double Object Construction," *Linguistic Inquiry* 19, 335-391.
- Larson, Richard K. (1991) "Promise and the Theory of Control," *Linguistic Inquiry* 22, 103-139.
- Nishigauchi, Taisuke (1993) "Long Distance Passive," *Japanese Syntax in Comparative Grammar*, ed. by Nobuko Hasegawa, 79-114, Kurosio, Tokyo.
- Pesetsky, David and Esther Torrego (2001) "T-to-C Movement: Causes and Consequences," *Ken Hale: A Life in Language*, ed. by Michael Kenstowicz, 355-426, MIT Press, Cambridge, MA.
- Pesetsky, David and Esther Torrego (2004) "Tense, Case, and the Nature of Syntactic Categories," *The Syntax of Time*, ed. by Jacqueline Guéron and Jacqueline Lecarme, 495-537, MIT Press, Cambridge, MA.
- Rizzi, Luigi (1997) "The Fine Structure of the Left Periphery," *Elements of Grammar*, ed. by Liliane Haegeman, 281-337, Kluwer, Dordrecht.
- Rosenbaum, Peter S. (1967) *The Grammar of English Predicate Complement Constructions*, MIT Press, Cambridge, MA.
- Watanabe, Akira (1996a) *Case Absorption and Wh-Agreement*, Kluwer, Dordrecht.
- Watanabe, Akira (1996b) "Switch Reference in Control: Toward a Minimal Theory of Control," *Studies in Linguistics and Language Teaching* 7, 89-160, Kanda University of International Studies.
- Watanabe, Akira (2000) "Feature Copying and Binding: Evidence from Complementizer Agreement and Switch Reference," *Syntax* 3, 159-181.
- Williams, Edwin (1980) "Predication," *Linguistic Inquiry* 11, 208-238.
- Wurmbrand, Susi (2001) *Infinitives: Restructuring and Clause Structure*, Mouton de Gruyter, Berlin, New York.
- Wurmbrand, Susi (2002) "Syntactic versus Semantic Control," *Studies in Comparative Germanic Syntax*, ed. by C. Jan-Wouter Zwart and Werner Abraham, 93-127, John Benjamins, Amsterdam, Philadelphia.