

Control Shift and Passivization in Subject Control Constructions*

Yumiko Ishikawa

1. Introduction

It has long been considered that there is PRO, a phonetically null pronoun, in the subject position of the infinitival clause in control constructions such as the sentences in (1) (Chomsky 1980, Manzini 1983, Chomsky and Lasnik 1993, Landau 1999, among others):

- (1) a. John₁ asked Mary₂ PRO₂ to leave.
b. John₁ promised Mary₂ PRO₁ to leave.

These sentences are called obligatory control (OC) constructions because PRO must corefer with the matrix object as in (1a) or the matrix subject as in (1b). The reference of PRO has been considered to be determined by the nature of control verbs which select infinitival complements. Specifically, Chomsky (1980) proposes that control verbs are divided into two classes: some of them (e.g. *promise*) are marked in the lexicon with the feature [+SC] indicating “assign subject control” and others are marked with the feature [-SC].

It also has been observed that the subject of infinitival complements corefers with the other argument from active sentences when the embedded clause is passivised, as shown below:

- (2) a. John₁ asked Mary₂ PRO_{1/2} to be allowed to shave himself.
b. John₁ promised Mary₂ PRO_{-1/2} to be allowed to shave himself.

(Manzini, 1983: 423)

In contrast to (1a), PRO is coreferential with the matrix subject in (2a). PRO in (2b) is not coindexed with the matrix subject but with the matrix object. In other words, the controller shifts to the other argument in these examples. We cannot assume that the [-SC] feature of control verb shifts to [+SC] in (2a) because the verb itself is not passivised. The same holds of the asymmetry between (1b) and (2b). This suggests that the theory of construal based on the feature [±SC] have to be given up.

Hornstein (1999) points out that control shift demonstrates the same pattern with non-OC

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constructions in many respects and treats control shift as a change from an OC to a non-OC structure. He then proposes that the theory of construal of PRO in OC constructions can be reduced to A-movement, based on the assumption that θ -roles are formal features that can derive movement. His approach is very intriguing, but some researchers, including Jackendoff and Culicover (2001), Landau (2003), and Kayne (2005), points out that subject control constructions might raise a serious problem to his analysis. The purpose of this paper is to provide further supporting evidence to movement approach to control constructions, focusing on how subject control constructions are derived from XP-movement.

This paper is organized as follows. Section 2 is devoted to introducing previous researches, focusing on Chomsky and Lasnik's (1993) Case-theoretic approach and Hornstein's (1999) movement approach to control constructions. In Section 3, I propose that the subject of infinitival clauses moves to Spec VP in the matrix clause in the relevant case and demonstrates how movement in subject control constructions evades the Minimal Link Condition. Section 4 provides the analysis on the grammatical contrast between passivization and double-passivization in subject control constructions based on the proposal presented in Section 4. Section 5 gives a principled explanation of the crosslinguistic variation. Section 6 is the summary.

2. Previous Researches

2.1. Case-Theoretic Approach: Chomsky and Lasnik (1993)

In the Government and Binding Theory (Chomsky, 1981), the distribution of PRO is defined by the PRO Theorem, which requires that PRO is ungoverned and that argument PRO appears only in non-Case positions. This compels us to adopt a disjunctive version of the Visibility Condition that falls short of a true generalization.

- (3) A chain is visible for θ -marking if it contains a Case position (necessarily, its head) or is headed by PRO.¹

(Chomsky, 1995: 116)

The abandonment of the notion of *government*, which is the basis of the PRO theorem, within the Minimalist Program (Chomsky, 1995) requires the PRO theorem to be reconsidered. Chomsky and Lasnik (1993) then propose that PRO is the only expression that bears null Case and that only non-finite Ts can check its case. The Visibility Condition can now be simplified as below:

¹ The word used in Chomsky's (1995) original paper, *theta* is replaced with θ for convenience.

control in ‘persuade’ clause is ungrammatical. If *John* is the controller, it must move to $\nu P3$ via Spec TP1. This movement, however, is ruled out because it violates the Minimal Link Condition (MLC), which requires that the goal must be the closest feature that can enter into an agreement relation with the probe.

As pointed out in Jackendoff and Culicover (2001) and Landau (2003), his approach, however, might not be able to explain the grammaticality of subject control constructions. Let us consider the following example:

(7) a. John promised Mary to leave.

b. $[_{IP2} [_{I0} \text{past} [_{VP3} \text{ } \nu\text{+promised} [_{VP2} \text{Mary} \text{promised} [_{IP1} \text{John} [\text{to} [_{VP1} \text{John} \text{leave}]]]]]]]]]$

In (7b), movement of *John* to Spec $\nu P3$ also violates the MLC because it crosses *Mary* in VP2. Therefore, his approach predicts that (7a) is ungrammatical contrary to the fact.

Moreover, when the subject control verb is passivised, his approach incorrectly predicts that the sentence is grammatical, as illustrated below:

(8) a. *John was promised to leave.

b. $[_{TP2} \text{John} \text{T} [_{\text{PassP}} \text{was} [_{VP3} \nu\text{+promised} [_{VP2} \text{John} \text{promised} [_{TP1} \text{John} \text{to} [_{VP1} \text{John} \text{leave}]]]]]]]]]$

In (8b), *John* first receives a θ -role from *leave* and then moves to Spec VP2 via Spec TP1 to receive a θ -role from *promise*. *John* ends up moving to Spec TP2 to check EPP-feature and receive Case. Under Hornstein’s approach, movement of *John* in (8b) should be ruled in because there is no intervening DP.

3. Proposals

3.1. Property of *Promise-Type Verbs*

Concerning the problem with movement in subject control constructions discussed above, Hornstein (2001) argues that complement of *promise* is not a direct object but an indirect object and that movement across the indirect object is allowed in English. This argument is supported by the fact that the relevant object is not assigned accusative Case but dative Case in French and Icelandic, as illustrated below:

- (9) a. French
 Jean a promis à Marie de partir.
Jean has promised to Marie DE to-leave
 ‘Jean promised Marie to leave.’
- b. Icelandic²
 Ég lofaði honum að vera góður.
I promised him(DAT) Comp be good.
 ‘I promised him to be good.’

However, it is still not clear why movement across an indirect object does not violate the MLC because indirect object obviously c-commands the infinitival clause, as the grammaticality of the sentence in (10) shows:

- (10) That dog seems to no boy to like any of his toys.

I propose then that the ν P-Spec of the verb *promise* is a non- θ -position. This proposal is supported by the grammaticality of the sentences below:

- (11) a. There promises to be trouble at the concert.
 b. It promises to be a beautiful day.

(Davies and Dubinsky, 2004: 10)

There are expletives in subject position in these sentences. This implies that *promise* does not assign a θ -role to its subject as the same with raising verbs. Therefore, it is considered that *John* in (7a), repeated here as (12), does not receive a θ -role from ν but from V. To put it in different way, *promise*-type verbs are unaccusative verbs which have two internal arguments.³

- (12) John promised Mary to leave.

We will discuss on Hornstein’s analysis of control shift before considering how the proposal presented here overcomes the problem with movement approach to subject control constructions.

² This example is cited from Anderson (1990: 263).

³ Pesetsky (1995) argues that *escape* in “I’m afraid his name escapes me at the moment.” and *appeal* in “She appeals to me.” are also unaccusative verbs having two internal argument.

3.2. Control Shift as Non-Obligatory Control

Hornstein (2003) claims that control shift, which is problematic to Chomsky (1980) and Chomsky and Lasnik (1993), involves a change from an OC (obligatory control) to an NOC (non-obligatory control) construction. Let us first consider the some differences between OC and NOC constructions.

(13) Obligatory Control (OC)

- a. *It was expected PRO to shave himself.
- b. *John's campaign expects PRO to shave himself.
- c. John expects PRO to win and Bill does too.
- d. *John₁ told Mary₂ PRO to leave together/each other.

(14) Non-Obligatory Control (NOC)

- a. It was believed that PRO shaving was important.
- b. Clinton's campaign believes that PRO keeping his sex life under control is necessary for electoral success.
- c. John thinks that PRO getting his résumé in order is crucial and Bill does too.
- d. John₁ told Mary₂ that PRO₁₊₂ leaving together/each other was important to Bill.

(Hornstein, 2001: 31-32)

The contrast between (13a) and (14a) illustrates that PRO requires an antecedent only in OC constructions. The different grammaticality between (13b) and (14b) shows that an antecedent must c-command PRO only in OC constructions. Strict reading is available in (14c) but not in (13c). Split antecedent is acceptable in (14d) but is unacceptable in (13d). The shifted control constructions show the same grammaticality with NOC toward all tests mentioned above, as illustrated below:

(15) Control Shift

- a. John was asked/begged PRO to be allowed to leave early.
- b. John's mother asked/begged Mary to be allowed to shave himself before dinner.
- c. John petitioned/begged/asked Mary PRO to be allowed to leave early and Frank did too.
(OK with John's leaving early)
- d. John asked/begged Mary PRO to be allowed to shave each other.

(*ibid.*, 2003: 36)

Therefore, it is reasonable to assume that control shift is an instance of NOC PRO. Then, we have to consider what is NOC PRO. Hornstein (2001) argues that NOC PRO is simply *pro* and proposes the licensing condition of *pro* such as below:

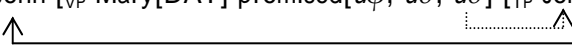
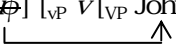
- (16) a. [...] NOC ‘pro’ cannot be part of the array but is a formative used as a last option to save an otherwise doomed derivation.
 b. [...] it is licensed at a cost in the Spec IP (= TP) of non-finite CP complements.
 (Hornstein, 2001: 58)

Takahashi (2001), however, argues that empty category such as null operators and empty pronouns cannot satisfy the EPP requirement.⁴ Let us consider the following examples:

- (17) a. *All to leave would be difficult for them.
 b. To all leave would be difficult for them.
 (Baltin, 2002: 2-3)

The contrast in (17) illustrates that subject of infinitival clause remains in its VP-internal position. Therefore, I propose that non-finite T lacks an EPP feature and that NOC *pro* is licensed under agreement.

Following my proposals, subject control constructions are derived as follows:

- (18) a. John promised Mary to leave.
 b. [_{VP} Mary[DAT] promised[$\mu\phi$, $\mu\theta$, $\mu\theta$] [_{TP} John to leave]]
 c. [_{VP} John [_{VP} Mary[DAT] promised[$\mu\phi$, $\mu\theta$, $\mu\theta$] [_{TP} John to leave]]]

 d. [_{TP} T[$\mu\phi$] [_{VP} V [_{VP} John[NOM] [_{VP} Mary[DAT] promised[$\mu\phi$, $\mu\theta$, $\mu\theta$] [_{TP} John to leave]]]]]


In (18b), Merge of *Mary* is executed over movement of *John* to Spec VP and it is assigned dative Case from V.⁵ Then, *John* moves to the outer Spec VP under agreement with θ -feature of V such as in (18c). Note that this movement does not violate the MLC, because the MLC defines the relation between the probe and its goal and *Mary* does not intervene between *John* and V. In (18d), the set of uninterpretable features ($\mu\phi$) of T are erased under agreement with John in Spec VP and

⁴ See also Ishikawa (2005: 30).

⁵ I assume that V is an inherent Case assigner. See Chomsky (2000) for licensing conditions on inherently Case-marked DP and the possibility of inherent Case assignment from V.

Merge is executed over Move in (21), while Move is executed over Merge in (22). At first glance, (21) might be considered as the correct derivation of (19b) because economy is violated in (22). However, deep insight reveals that economy can be violated under certain condition, as discussed in Hornstein (2000). Let us compare these two derivations. In (21b), *John* merges over move of *pro* in the embedded infinitival clause, assigned dative Case and then, *pro* merges in the outer Spec of VP. The EPP-feature of the matrix T cannot be deleted and the derivation crashes because the DP which enters into agreement relation with T is an empty category in (21c). By contrast, *pro* moves to the inner Spec of VP, assigned dative Case, and then *John* merges in the outer Spec of VP in (22b). There is no DP between T and *John* and therefore, φ and EPP-feature of T can be deleted in (22c).

This observation supports Hornstein's argument that violating economy is permitted as the derivation which honors economy does not converge. In other words, Merge over Move can be violated for convergence of the derivation.

5. DP Activity Parameter

In this section, we discuss on the crosslinguistic data, especially on different acceptability of raising constructions between French and English. English allows movement across an indirect object, while French does not, as illustrated in (23):

- (23) a. John seems to Mary to have talent.
 b. *Jean semble à Marie avoir du talent.
Jean seems to Marie to-have of-the talent.

Hornstein (2003) implies that whether movement across an indirect object is a parametric option. However, his analysis cannot explain the grammaticality of subject control constructions in French such as the sentence in (24) because both of raising and subject control constructions are derived from movement across indirect object under Hornstein's approach.

- (24) Jean a promis à Marie de partir. (= (9a))

Therefore, we should look elsewhere to account for why (23b) is ungrammatical.

Looking beyond raising constructions crosslinguistically, we can find similar difference in the acceptability of sentences, as depicted below:

- (25) a. John seems to Mary to be tired.
 b. John gave Mary a book.
 c. John danced [null DP] himself tired.⁷

	a	b	c
English, German, Icelandic	ok	ok	ok
French, Spanish, Italian	unacceptable	unacceptable	unacceptable

In all of the sentences in (25) the indirect object intervenes between Case assigning feature and its target, as schematized in (26):

(26) T (or v)[$u\phi$] DP[DAT] DP

Then, I propose that the crosslinguistic variety discussed above is due to the parameter which determines the activity of inherently Case-marked DP.

(27) DP Activity Parameter

Activity of inherently Case-marked DP in agreement with structural Case-assigning head (T or v) is parametrically determined.

	Inherently Case-marked DP
English, German, Icelandic	inactive
French, Spanish, Italian	active

Let us now return to the difference in grammaticality between raising and subject control constructions in French.

(28) *Jean semble à Marie avoir du talent. (= (23b))

- a. [_{VP} [_{PP} à Marie] semble [_{TP} Jean T [_{VP} avoir du talent]]]
 b. [_{TP} T[$u\phi$] [_{VP} v +semble [_{VP} [_{PP} à Marie] semble [_{TP} Jean T [_{VP} Jean avoir du talent]]]]]
-

In (28b), *Jean* stays in Spec TP in the embedded clause because there is no θ -feature to drive further movement. An indirect object, à *Marie* exists between T in the matrix clause and *Jean*. This inherently Case-marked DP is active in French according to (27). This causes the crash of

⁷ Ishikawa (2005) argues that the V in unergative VP has a null DP complement and assumes that this DP is assigned inherent Case. See also Pesetsky and Torrego (2004).

the derivation.

(29) Jean a promis à Marie de partir.⁸ (= (9a))

- a. [_{VP} [_{PP} à Marie] promis [_{TP} Jean T [_{VP} Jean partir]]]
- b. [_{VP} Jean [_{VP} [_{PP} à Marie] promis [_{TP} Jean T [_{VP} Jean partir+v]]]]]
- c. [_{TP} T[~~uφ~~] [_{VP} v+promis [_{VP} Jean [_{VP} [_{PP} à Marie] promis [_{TP} Jean T [_{VP} Jean partir]]]]]]]

By contrast, *Jean* moves to Spec-VP in the matrix clause to receive a θ -role and there is no DP between T and Jean in (29). Therefore, agreement between them is executed without any problems. If raising to object is an obligatory operation, as discussed in Chomsky (2005), both of (28) and (29) are ruled in incorrectly. Consequently, I argue that raising to object is not obligatory operation and that θ -roles are formal features which drive movement.⁹

6. Summary

Subject control constructions raise a serious problem to Hornstein's (1999) movement approach to control constructions because movement across an indirect violates the MLC. To overcome this problem, I have proposed that *promise*-type verbs are unaccusative verbs and that the direct object moves to Spec VP. The analysis presented in this paper strongly supports Hornstein (1999) and his related works. Moreover, I argue that the activity of inherently Case-marked DP is determined parametrically and then, give a principled explanation of crosslinguistic difference in acceptability of sentences including an indirect object.

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⁸ Kayne's (1981) argument that *de* in French is a complementizer raises a problem how DP in the embedded clause can move to the matrix clause without violating the Phase Impenetrability Condition. I assume that the CP in control constructions is a weak phase based on Hirai's (2004) argument that CP can be divided in two types in terms of phase strength. I omit the CP in embedded clause in the derivation here for expository purpose. See Hornstein (2000) for another approach to this issue.

⁹ Bošković and Takahashi (1998) reach the same conclusion on the independent ground.

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