九州大学学術情報リポジトリ
Kyushu University Institutional Repository

On the Derivation of Control Constructions in POP+

Sakumoto, Yuya
Graduate School of Humanities, Kyushu University : Doctoral Program

https://doi.org/10.15017/4793630

出版情報：九大英文学. 64, pp.47-62, 2022-03-31. 九州大学大学院英語学・英文学研究会
バージョン：
権利関係：

On the Derivation of Control Constructions in POP+*

Yuya Sakumoto

1. Introduction

It has been taken in generative literature that raising and control constructions should be analyzed in different ways:

(1) a. John seemed to win.
b. John$_i$ seemed [t_i to win].

(2) a. John tried to win.
b. John$_i$ tried [PRO$_i$ to win].

Regarding the raising construction in (1a), the matrix subject *John* receives a theta-role not from the matrix verb *seemed* but from the embedded verb *win*. This is generally assumed to be derived by movement as shown in (1b). In contrast, the control constructions in (2a) have the matrix and embedded verbs, *tried* and *win*, which assign two different theta-roles to the same subject. This peculiarity leads to the general PRO analysis in (2b), thereby the invisible subject PRO is assumed in control constructions, which is controlled by the matrix subject (Chomsky (1973, 1981)).

Hornstein (1999) proposes the movement analysis for control constructions with the assumption that movement into theta-positions is theoretically allowed within Chomsky's (1995) Minimalist Framework. This approach has been referred to as Movement Theory of Control (henceforth, MTC) (Hornstein (1999, 2001, 2003)).

This paper aims to validate MTC under Chomsky's (2015) framework, i.e., POP+. First, we review what defines a phase in previous studies, specifically adopting the view that an unvalued phi feature determines phasehood of CP (Chomsky (2001,

2008), Kanno (2008), Legate (2012), Saito (2017a, b), and Sakumoto (2021a), among others). Based on this assumption, we claim that the PRO analysis is untenable for control constructions in POP+. Furthermore, we will show that the proposed analysis based on MTC can successfully overcome problems which the PRO analysis faces in terms of phases and the labeling algorithm, and in fact can gain theoretical and empirical support.

The organization of this paper is as follows. Section 2 presents the theoretical background of the present approach: Phase Theory and Labeling Algorithm. Section 3 points out the problems of the PRO analysis from the perspective of phases and labeling algorithm in POP+. In Section 4, we outline the core proposal of Hornstein (1999, 2003) and further develop his proposal by providing a novel MTC analysis, which can adequately capture the control phenomena, unlike the PRO analysis. Finally, Section 5 concludes the paper.

2. Theoretical Background

This section introduces two important concepts for our proposed analysis: Phase Theory (Chomsky (2000)) and Labeling Algorithm (Chomsky (2013, 2015)).

2.1 Phase Theory (Chomsky (2000))

Chomsky (2000) proposes the Phase Theory where the derivations in a sentence proceed phase by phase, and C and *v** are phase heads, which transfer their complement to the interfaces upon the completion of syntactic operations in the phase domain. Syntactic operations in the phase complement are not allowed because the complement is already transferred. This is known as Phase Impenetrability Condition (henceforth, PIC) (Chomsky (2000)):

(3) Phase Impenetrability Condition
In phase α with Head H, the domain of H is not accessible to operations outside α, only H and its edge are accessible to such operations. (Chomsky (2000: 108))

It is well known that the proposition is the determining factor of a phase, and

phases are the locus of the unvalued phi (Agree) feature (e.g. Chomsky (2000, 2001, 2008, 2015), Gallego (2010)). Furthermore, many researchers argue that a (unvalued) phi (Agree) feature defines a phase (Chomsky (2001, 2008), Kanno (2008), Legate (2012), Saito (2017a, b), and Sakumoto (2021a)).

Focusing on the role of a phi (Agree) and Tense feature, for example, Kanno (2008) captures the finite/non-finite asymmetry (see also Grano and Lasnik (2018) for a different approach). It has been observed that *wh*-island effects are not observed if the embedded complement is a non-finite clause (see Ross (1967)):[1]

(4) a. What$_i$ do you wonder [how$_j$ to repair t_i t_j]? (Manzini (1992: 51))

b. *What$_i$ do you wonder [how$_j$ Mary repaired t_i t_j]? (*ibid.*)

Kanno (2008) demonstrates that the presence of both a phi (Agree) and a Tense feature is necessary for a phase.[2] Accordingly, C of finite complements has both Agree and Tense features, forming a phase, while C of control constructions lack both features, resulting in no phases. Thus, *wh*-extraction from non-finite *wh*-clauses is possible because its C bears neither phi (Agree) nor Tense feature, forming no phases.

Another finite/non-finite asymmetry can be found in Quantifier Raising. Several studies (e.g. Cecchetto (2004), Takahashi (2010), Miyagawa (2011a), and Wurmbrand (2013), and Sakumoto (2021a)) claim that Quantifier Raising (May (1977)) is a syntactic movement and obeys PIC. Given this, consider the following examples:

(5) a. Someone thinks that John loves everyone. (∃>∀, *∀>∃)
(Takahashi (2010: 331))

b. At least one professor claims/tends PRO to read every journal.
(∃>∀, ∀>∃)
(Grano and Lasnik (2018: 467))

As is clear from (5), inverse scope is possible in control constructions. This can also follow if we assume with Cecchetto (2004), Miyagawa (2011a), Wurmbrand (2013), Grano and Lasnik (2018), and Sakumoto (2021a), among others that QR obeys PIC and that C of infinitival complements does not form a phase. As Sakumoto (2021a) discussed, the contrast between (5a, b) can also be captured by Kanno's (2008) analysis: control C does not constitute a phase, because it lacks both a phi (Agree) and

Tense feature.[3]

Saito (2017a, b) also claims that the presence of phi feature agreement affects the phase domain with regard to Condition A, based on Yang's (1983) observation and Quicoli's (2008) analysis. Given the discussion above, it is reasonable to assume that an (unvalued) phi (Agree) feature defines a phase domain, so it is expected that C of control constructions does not constitute a phase.[4]

2.2 Labeling Algorithm (Chomsky (2013, 2015))

Chomsky (2013, 2015) claims that each syntactic object needs a label for interpretation at the interfaces, and the Labeling Algorithm determines the label, not Merge. This operation takes place at the timing of Transfer, and Minimal Search (henceforth, MS) detects the closest head as the label. Let us consider how a label is determined under the Labeling Algorithm each by each. In {X, YP}, X is chosen as a label because it is the nearest head. In {XP, YP}, where both syntactic objects are phrases, so that MS cannot determine the label. For this situation, Chomsky proposes two possible solutions: (i) one phrase moves out and becomes a copy, which is invisible to MS or (ii) the unique label is provided by the feature sharing between two phrases.

3. Control

3.1 Problems with the PRO Analysis in terms of Chomsky (2015)

Given the theoretical discussion above, the present section argues that the PRO analysis for control constructions is invalid under Chomsky's (2015) framework in terms of the phase and labeling algorithm.

3.1.1 Problem with Labeling

This subsection raises the issue of the labeling algorithm in control constructions. Consider the control constructions in (6a) and its possible derivation in (6b-d):

(6) a. John tried PRO to win the race.

b. $\{_{\alpha}$ PRO $\{_{v^*P}$ win the race$\}\}$

c. $\{_{\varepsilon}$ C $\{_{\gamma=??}$ PRO $\{_{\beta=??}$ T to $\{_{\alpha=v^*P}$ ~~PRO~~ $\{_{v^*P}$ win the race$\}\}\}\}\}$

d. $\{_{\varepsilon}$ C $\{_{\gamma=<\varphi,\ \varphi>}$ $PRO_{[\varphi]}$ $\{_{\beta=T}$ T to $\{_{\alpha=v^*P}$ ~~PRO~~ $\{_{v^*P}$ win the race$\}\}\}\}\}$

First, PRO merges with *v**P, as shown in (6b). At the timing of MS, PRO and *v**P are both XP structures, so that in (6c) PRO needs to move in order to label α as discussed in Section 2.2. However, if it merges with β, the label of γ will be a problem. Thus, shared features must have the label of γ between DP and TP. In addition, since English T is too weak to be labeled by itself (Chomsky (2015: 9)), the label of β must be strengthened by the shared features <φ, φ> between DP and TP as illustrated in (6d). Otherwise, the derivation crashes. Even if one posits the agreement between PRO and T for the purpose of labeling, the existence of an unvalued phi feature of T in the control complement would have to be stipulated in English, irrespective of the lack of inflection.[5] The assumption that infinitival C bears an unvalued phi feature is dubious and unwarranted, since inflection never appears in its T, and it never assigns overt Case to DP. Therefore, the PRO analysis requires stipulated assumptions for proper labeling in Chomsky's (2015) framework to derive control constructions.

3.1.2 Problem with Phases

The second argument against the PRO analysis concerns phasehood. Before going on to the argument, recall that an unvalued phi feature constitutes a phase, as discussed in Section 2.1, which is evident from the following repeated examples:

(7) a. What$_i$ do you wonder [how$_j$ PRO to repair t_i t_j]? (= (4a))

b. * What$_i$ do you wonder [how$_j$ Mary repaired t_i t_j]? (= (4b))

(8) a. Someone thinks that John loves everyone. (∃>∀, *∀>∃) (= (5a))

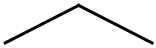
b. At least one professor claims/tends PRO to read every journal.
(∃>∀, ∀>∃) (= (5b))

These pieces of evidence presented here suggest that an unvalued phi feature constitutes a phase, which casts doubt on the PRO analysis as it cannot account for the grammaticality of (7a) and (8b). As the PRO analysis must assume in light of the labeling algorithm that C of the infinitival CP bears an unvalued phi feature, it is

expected to constitute a phase, contrary to the fact. Hence, it can be concluded that the PRO analysis is untenable in terms of phasehood.

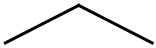
One intriguing analysis related to this problem is Sugimoto (2016). On the basis of Chomsky (2015) and Epstein, Kitahara and Seely (hereafter, EKS) (2016), Sugimoto (2016) proposes external pair-Merge of T to C as another mode of Merge for infinitival constructions including the control type, which explains the non-phasehood of the control complement CP:[6]

(9) a. External pair-Merge of R to *v** (EKS (2016))



R is pair-Merged to *v** (*v**→invisible)

b. External pair-Merge of T to C (Sugimoto (2016))



T is pair-Merged to C (C→ invisible)

(9a) shows the External pair-Merge of R to *v** in EKS (2016): *v** with its unvalued feature becomes invisible syntactically, which cancels its phasehood. (9b) shows the External pair-Merge of T to C (creating the amalgam <T, C>) proposed by Sugimoto (2016): C is rendered invisible in syntax, which cancels the phasehood of C. Sugimoto claims that the amalgam <T, C> can be a label by itself as opposed to finite T in English on the basis of Chomsky's (2015) proposal that the amalgam <R, *v**> is strong enough to serve as a label.

Though his reasoning looks promising, Sugimoto's proposal is problematic. First, one issue concerns the Q feature in C. If External pair-Merge of T to C renders C in the control complement invisible in syntax, the sentences repeated here as (10) cannot be derived. This is because a valued Q feature in C in the control complements in (10) ends up being invisible under the <T, C> analysis, thus failing to label <Q, Q> for an appropriate interpretation.

(10) What$_i$ do you wonder [how$_j$ to repair t_i t_j]? (= (4a))

Hence, C in control complements has to be visible in syntax. The second issue is also an empirical one: if the <T, C> analysis is applied to all infinitives and realized as *to* in English, it is not clear how control constructions are differentiated from ECM

and raising constructions under his analysis.[7] For these reasons, Sugimoto's (2016) analysis for the control constructions is untenable, though it seems theoretically desirable. In the subsequent discussions, we will claim that an alternative analysis is needed to capture control constructions successfully.

4. Proposal and Analysis

With the theoretical assumptions and the problems of the PRO analysis in mind, the present section argues that MTC can capture the control phenomena under Chomsky's (2015) framework without involving the problems mentioned above.

4.1 Reconsideration of Control in Hornstein (1999, 2003)

As we briefly discussed in Section 1, raising and control constructions have generally been treated differently. In the era of the Government and Binding approach, raising constructions are typically analyzed by movement as in (11), while control constructions are derived by assuming PRO as shown in (12).

(11) a. John seemed to win.
b. John$_i$ seemed [t_i to win].

(12) a. John tried to win.
b. John$_i$ tried [PRO$_i$ to win].

Hornstein (1999, 2003) proposes MTC, whereby obligatory control can be generated through movement. The following assumptions are adopted in Hornstein (1999):

(13) a. θ-roles are features on verbs.
b. Greed is Enlightened Self-Interest.
c. A D/NP "receives" a θ-role by checking a θ-feature of a verbal/predicative phrase that it merges with.
d. There is no upper bound on the number of θ-roles a chain can have.
e. Sideward movement is permitted.

(Hornstein (1999: 78))

Let us introduce Hornstein's (1999, 2003) argument here: Owing to the abandonment of the D-structure in the Minimalist Program, there is nothing which bans movement

into theta-positions, and hence control constructions can be analyzed by movement. Given the discussion above, consider the derivation in (14):

(14) a. John hopes to leave.

b. [$_{TP}$ John [$_{VP}$ ~~John~~ [hopes [$_{TP}$ ~~John~~ to [$_{VP}$ ~~John~~ leave]]]]]

Hornstein's (1999, 2003) derivation of typical control constructions is as follows. First of all, the derivation starts with *John* merging with *leave*, which checks the verb's theta-feature. Then, *John* raises to the embedded TP Spec position in order to check the D-feature of TP. The Case of *John* cannot be checked in that position since this is not a Case-marking position. After that, *John* raises to VP Spec position of *hope* and checks its external theta-feature. Each time a theta-feature of the predicate is checked by *John*, it assumes the designated theta-role (= (13c)). Thus, *John* is assigned two theta-roles from *leave* and *hope*. Finally, *John* raises to the TP Spec position of the matrix clause, where the D-feature of the TP and nominative Case are checked, and the derivation converges.

Thus far, we have reviewed Hornstein's (1999, 2003) analysis. Since his analysis does not presuppose an invisible lexical item, namely PRO, it seems to be theoretically welcome under the Minimalist Program. The following subsection will show how MTC can be derived from the perspective of Chomsky (2015), and we will suggest that the new MTC analysis can solve the problems which the PRO analysis faces.

4.2 Derivation of MTC in Chomsky (2015)

On the basis of the proposal made by Hornstein (1999, 2003) outlined in the previous subsection, the present section provides a novel MTC analysis for control constructions under the framework of Chomsky (2015). Note that the assumptions in (13) adopted by Hornstein (1999, 2003) can be drastically reduced in Chomsky's (2015) framework. Under Free Merge in Chomsky (2013, 2015), movement (Internal Merge) can be applied freely and thus movement need not be driven by theta-features (13a, b, c). As Sakumoto (2021b) points out, Sideward Movement (cf. (13e)) cannot be formulated under Free Merge (see also Nunes (1995, 2004) for the original

motivation of Sideward Movement).[8] Thus, what is needed is only (13d) which guarantees multiple theta-roles. Clearly, the revised MTC is much simpler than the original MTC.

Now, let us consider the derivation of the control constructions in (15):

(15) a. John tried to win the race.

b. John tried $\{_{\gamma}$ C $\{_{\beta=T}$ T to $\{_{\alpha=v^*P}$ ~~John~~ $\{_{v^*P}$ win the race$\}\}\}\}$

In (15b), DP *John,* which is base-generated in the external argument position of embedded *v**P, moves outside; otherwise, α cannot be labeled since *John* and *v**P are both phrases. The movement of *John* does not have to go through the TP Spec position since *John* and TP are both phrases and have no shared features (note that T in control complements is necessarily strong because it does not have an unvalued feature, which will be further discussed later in this subsection). Hence, the movement of *John* is applied to the external argument position of the matrix clause.

Our analysis assumes that the C of control constructions does not constitute a phase because it is not endowed with an unvalued phi feature which is the phase marker, as discussed in Section 2.1. Suppose that infinitival C is endowed with an unvalued phi feature and constitutes a phase, and non-finite T is too weak to serve as a label in English, then the possible derivation would be as in (16b, c):

(16) a. John tried to win.

b. $\{_{\gamma}$ C $\{_{\beta=<\varphi,\ \varphi>}$ John $\{_{\alpha=T}$ to $\{_{v^*P}$ ~~John~~ win$\}\}\}\}$

c. $\{_{\zeta}$ John $\{_{\varepsilon}$ tried $\{_{\gamma}$ C $\{_{\beta}$ ~~John~~ $\{_{\alpha=??}$ to $\{_{v^*P}$ ~~John~~ win$\}\}\}\}\}$

In (16b), the movement of *John* is applied for the same reason above. Then, the label of β is determined as <φ, φ> by virtue of the shared features between *John* and TP. However, *John* cannot move outside the transfer domain as in (16c) because its operation would induce a violation of PIC.[9] Even if *John* moves outside without feature sharing, the derivation cannot converge since the copy of *John* is assumed to be invisible to Minimal Search in Chomsky (2015).[10,11] Contrary to this, our non-phase analysis for the control construction can successfully capture its derivation just like Sugimoto (2016). Under our proposed analysis, the unvalued phi feature for C is not necessary and thus no phases are constituted, which would successfully capture

the contrast in (4a, b), repeated here as (17a, b).

(17) a. What$_i$ do you wonder [how$_j$ PRO to repair t_i t_j]? (= (4a))

b. * What$_i$ do you wonder [how$_j$ Mary repaired t_i t_j]? (= (4b))

Next, let us consider the necessity of C in the control constructions in syntax. Recall Sugimoto's pair-Merge analysis in which C in infinitival constructions which involve control types becomes invisible in syntax by External pair-Merge of T to C, as proposed by Sugimoto (2016). As pointed out above, the <T, C> analysis cannot account for *wh*-control constructions such as (17a): the Q feature in C must be present in syntax so as to gain the correct interpretation <Q, Q>, but the <T, C> analysis renders all infinitival C uniformly invisible in syntax, which incorrectly rules out (17a). Therefore, this paper assumes that the Q feature is optionally introduced into C in control constructions, instead of assuming Sugimoto's (2016) External pair-Merge of T to C. Thus, (17a) is derived in the following manner:

(18) What do you wonder $\{_{\gamma=<Q,\ Q>}$ how$_{[uQ]}$ $\{_{\beta=C}$ C$_{[Q]}$ $\{_{\alpha=T}$ to $\{_{v^*P}$ ~~you~~ repair ~~what~~$\}\}\}\}$

Chomsky (2015) (and Chomsky (2013)) makes a clear departure from his previous frameworks and T in English needs to be strengthened by the shared feature, namely <φ, φ>. As far as we are aware, little attention has been paid to how T in control constructions is labeled (e.g. see Sugimoto (2016), Matsumoto (2019) and Kanno (2020)). Therefore, let us here consider the label of control T. Under MTC, PRO is not necessary, and the DP subject moves to the matrix clause. For that reason, T needs to be labeled on its own without being strengthened. As Mizuguchi (2017) points out, this can also be said of T for all infinitives. In addition to the labeling problems of infinitival *to* in raising constructions, Mizuguchi (2017) objects to Chomsky's (2015) reasoning for the weak head and instead proposes (19) as an alternative:[12]

(19) Heads can label only when they are without unvalued features.

(Mizuguchi (2017: 331))

Following this analysis, T in the control complement in MTC can be labeled by itself since it does not have an unvalued phi feature unlike the PRO analysis.[13, 14]

5. Conclusion

To conclude, this paper has revealed that the PRO analysis is untenable for control constructions under the framework of Chomsky (2015), and thus demonstrated that MTC, as proposed by Hornstein (1999, 2003), gains much more empirical and theoretical support than the PRO analysis. Since movement (Internal Merge) is a subcase of Merge in Chomsky (2015), it can be applied freely with the outcome evaluated properly at the interfaces, which opens up a new possibility to derive control constructions via movement. This paper has shown that two potential problems with the PRO analysis do not arise with the alternative MTC analysis, further strengthening the validity of the movement analysis for control constructions.

Notes

*Parts of this paper were presented at the 72nd General Meeting of Kyushu Branch of the English Literary Society of Japan held at Prefectural University of Kumamoto on October 26th, 2019, and the 92nd General Meeting of the English Literary Society of Japan, held online on July 6-15, 2020. I would like to thank the audience at the meeting. I am especially grateful to Nobuaki Nishioka for his invaluable suggestions and comments. My special thanks also go to Toshiaki Inada, Yoshihiro Munemasa, Shin-ichi Tanigawa, Takayoshi Kurogi, Masako Maeda, Sho Shimokariya, Tomonori Otsuka, Norimasa Hayashi, and graduate students of the English department at Kyushu University for constructive comments and suggestions. I am also grateful to Edmundo Luna for suggesting stylistic improvements. Of course, all remaining errors are my own.

[1] Kanno (2008) uses examples from Frampton (1990) for the finite/non-finite asymmetry:

(i) a. *Sam, who I know when you said you saw *t*, (Frampton (1990: 70))
b. Sam, who I know when to try to see *t*, … (Frampton (1990: 69))

Instead, this paper uses examples from Manzini (1992) only for clarifying the discussion.

[2] There are other determining factors of a phase from previous research: for example, the proposition (Chomsky (2000)), an unvalued feature (e.g. Chomsky (2001, 2008, 2015)), Case valuation (Takahashi (2010), Miyagawa (2011b)), the highest projection (Bošković (2014)), and value selection (Wurmbrand (2013)).

[3] See Cecchetto (2004), Wurmbrand (2013), and Grano and Lasnik (2018) for different approaches.

[4] This paper considers that a phi (Agree) feature determines a phase domain but put aside the question of whether a Tense feature is related to the domain, which is assumed in Kanno (2008). This is because it is not clear whether control constructions bear a Tense feature or not. As Kanno himself discusses, Landau (2000) and Martin (1996, 2001) provide evidence that some types of control constructions do have the property of Tense. Kanno argues that they show not a tense property but a modal property (e.g. irrealis) because they do not show full temporal properties. However, it seems necessary to investigate this matter with more empirical data. See also Sakumoto (2021a) for the counterexamples to Kanno's (2008) proposal.

[5] More recently, Kanno (2020) and Sugimoto (2021) have pursued this possibility, arguing for (partial) agreement between PRO and infinitival T (or <T, C>). However, we argue that the idea is not persuasive enough, as we discussed, and must be empirically investigated more. See Kanno (2020) and Sugimoto (2021) for their detailed analyses.

[6] We use "external pair-Merge of T to C" instead of using "external pair-Merge of C to T" used in Sugimoto (2016) to be consistent with EKS's (2016) proposal. His recent updated paper (Sugimoto (2021)) also uses "external pair-Merge of T to C."

[7] Mizuguchi (2019) attempts to explain ECM and raising as <C, T> and <T, C>

respectively in order to capture their different peculiar syntactic phenomena. However, he does not deal with control constructions.

[8] See Sakumoto (2021b) for his alternative approach, which derives (obligatory) adjunct controls without sideward movement.

[9] In principle, *John* can move to the edge of the embedded CP in (16c) before the Transfer, but Chomsky (2015) claims that such movement de-labels <φ, φ> from β because "labels are computed at the phase level, with cyclic Transfer (Chomsky (2015: 11))."

[10] Refer to Chomsky's (2015: 10) analysis for "who do you think that read the book" on which this analysis is based.

[11] C-deletion as proposed by Chomsky (2015) can avoid this issue even if infinitival complements constitute a phase. However, the assumption that infinitival complements constitute a phase cannot capture the contrast in (4a, b).

[12] See also Hayashi's (2020) analysis, which eliminates the notion of weak heads.

[13] The label of T in the control complement could be determined under the PRO analysis, as Matsumoto (2019) argues. Matsumoto claims that PRO does not have a phi feature but an inherent case instead, so that T in the control complement can be labeled under Mizuguchi's proposal. Under MTC, however, we do not need to assume the theory-internal notion, namely PRO, as well as an inherent case for labeling of T in the control complement, which has theoretically desirable results.

[14] Note that if we suppose that infinitival T has an unvalued phi feature as in (16c), it would be a weak head just like finite T in English under Mizuguchi's (2017) analysis.

References

Bošković, Željko (2014) "Now I'm a Phase, Now I'm Not a Phase: On the Variability of Phases with Extraction and Ellipsis," *Linguistic Inquiry* 45, 27-89.

Cecchetto, Carlo (2004) "Explaining the Locality Conditions of QR: Consequences for the Theory of Phases," *Natural Language Semantics* 12, 345-397.

Chomsky, Noam (1973) "Conditions on Transformation," *A Festschrift for Morris Halle*, ed. by Stephen R. Anderson and Paul Kiparsky, 232-286, Holt, Rinehart

and Winston, New York.

Chomsky, Noam (1981) *Lectures on Government and Binding: The Pisa Lectures*, Foris, Dordrecht.

Chomsky, Noam (1995) *The Minimalist Program*, 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.

Chomsky, Noam (2008) "On Phases," *Foundational Issues in Linguistic Theory*, ed. by Robert Freidin, Carls P. Otero and Maria L. Zubizarreta, 133-166, MIT Press, Cambridge, MA.

Chomsky, Noam (2013) "Problems of Projection," *Lingua* 130, 33-49.

Chomsky, Noam (2015) "Problems of Projection: Extensions," *Structures, Strategies and Beyond: Studies in Honour of Adriana Belletti*, ed. by Elisa Di Domenico, Cornelia Hamann and Simona Matteini, 3-16, John Benjamins, Amsterdam.

Epstein, Samuel D., Hisatsugu Kitahara and T. Daniel Seely (2014) "Labeling by Minimal Search: Implications for Successive-Cyclic A-Movement and the Conception of the Postulate "Phase"," *Linguistic Inquiry* 45, 463-481.

Epstein, Samuel D., Hisatsugu Kitahara and T. Daniel Seely (2016) "Phase-Cancellation by Pair-Merge of Heads," *The Linguistic Review* 33, 87-102.

Frampton, John (1990) "Parasitic Gaps and the Theory of WH-Chains," *Linguistic Inquiry* 21, 49-77.

Gallego, Ángel J. (2010) *Phase Theory*, John Benjamins, Amsterdam.

Grano, Thomas and Horward Lasnik (2018) "How to Neutralize a Finite Clause Boundary: Phase Theory and the Grammar of Bound Pronouns," *Linguistic Inquiry* 49, 465-499.

Hayashi, Norimasa (2020) "Labeling without Weak Heads," *Syntax* 23, 275-294.

Hornstein, Norbert (1999) "Movement and Control," *Linguistic Inquiry* 30, 69-96.

Hornstein, Norbert (2001) *Move! A Minimalist Theory of Construal*, Blackwell,

Oxford.

Hornstein, Norbert (2003) “On Control,” *Minimalist Syntax*, ed. by Randall Hendrick, 6-81, Blackwell, Oxford.

Kanno, Satoru (2008) “On the Phasehood and Nonphasehood of CP,” *English Linguistics* 25, 21-55.

Kanno, Satoru (2021) “Shared Labels and Partial Labeling,” *English Linguistics* 36, 227-262.

Landau, Idan (2000) *Elements of Control: Structure and Meaning in Infinitival Constructions*, Kluwer, Dordrecht.

Legate, Julie Anne (2012) “The Size of Phases.” *Phases*, ed. by Gallego, 233-50, Berlin, De Gruyter.

Manzini, Maria Rita (1992) *Locality: A Theory and Some of Its Empirical Consequences*, MIT Press, Cambridge, MA.

Martin, Roger (1996) *Theory of PRO and Control*, Doctoral dissertation, University of Connecticut.

Martin, Roger (2001) “Null Case and the Distribution of PRO,” *Linguistic Inquiry* 32, 141-166.

Matsumoto, Yosuke (2019) “On the Derivation of Infinitival Relative Clauses Based on Labeling,” *JELS* 36, 72-77.

May, Robert (1977) *The Grammar of Quantification*, Doctoral dissertation, MIT.

Miyagawa, Shigeru (2011a) “Optionality,” *The Oxford Handbook of Linguistic Minimalist*, ed. by Cedrix Boeckx, 354-376, Oxford University Press, Oxford.

Miyagawa, Shigeru (2011b) “Genitive Subjects in Altaic and Specification of Phase,” *Lingua* 121, 1265-1282.

Mizuguchi, Manabu (2017) “Labelability and Interpretability,” *Studies in Generative Grammar* 27, 327-365.

Mizuguchi Manabu (2019) “Optional Raising in ECM and Labeling of XP-YP,” *Studies in Generative Grammar* 29, 373-411.

Nunes, Jairo (1995) *The Copy Theory of Movement and Linearization of Chains in the Minimalist Program*, Doctoral dissertation, University of Maryland, College

Park.

Nunes, Jairo (2004) *Linearization of Chains and Sideward Movement*, MIT Press, Cambridge, MA.

Quicoli, A. Carlos (2008) “Anaphora by Phase,” *Syntax* 11, 299-329.

Ross, John Robert (1967) *Constraints on Variables in Syntax*, Doctoral dissertation, MIT.

Sakumoto, Yuya (2021a) “What Defines Phases?” *JELS* 38, 218-224.

Sakumoto, Yuya (2021b) “A Phase-Based Analysis for Adjuncts,” *Studies in English Linguistics and Literature* 31, 195-221.

Saito, Mamoru (2017a) “Notes on the Locality of Anaphor Binding and A-Movement,” *English Linguistics* 34, 1-33.

Saito, Mamoru (2017b) “Labeling and Argument Doubling in Japanese,” *Tsing Hua Journal of Chinese Studies* 47, 383-405.

Sugimoto, Yushi (2016) “De-phased by External Pair-Merge of C to T and Its Consequences,” *Proceedings of the 24th Conference of the Student Organization of Linguistics in Europe*, 237-253.

Sugimoto, Yushi (2021) “Labeling Defective T,” *Studia Linguistica* 75, 150-164.

Takahashi, Masahiko (2010) “Case, Phases, and Nominative/Accusative Conversion in Japanese,” *Journal of East Asian Linguistics* 19, 319-355.

Wurmbrand, Susi (2013) “QR and Selection: Covert Evidence for Phasehood,” *NELS* 42, 277-290.

Yang, Dong-Whee (1983) “The Extended Binding Theory of Anaphors,” *Language Research* 19, 169-192.