About the Status of Infinitival Complements

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In this paper, I argue that infinitival complements of *try*-class verbs and *want*-class verbs c-select CPs and those of *believe*-class verbs c-select IPs, as argued by Chomsky (1986a) and Watanabe (1993, 1996), among others. I also argue, following Chomsky and Lasnik (1993), that PRO is always Case-marked, unlike Martin (1992, 1996) and Bošković (1996, 1997), who argue that only [+tense] nonfinite I can check Null Case. The proposal in this paper which assumes the Minimalist approach initiated by Chomsky (1993) enables us to explain the well-known paradigm concerning the above three classes of verbs.

Section 1 points out the shortcomings of the binding-theoretic account of PRO and summarizes Chomsky and Lasnik's (1993) analysis which opens up a new way of analyzing the relevant paradigm. Section 2 takes up Bošković (1996, 1997) and points out some controversial aspects of his analysis. Section 3 presents my analysis which makes it possible to explain the well-known paradigm concerning the three classes of verbs.

1. PRO as a Case Bearer

1.1. The PRO Theorem

In Chomsky (1981), PRO is claimed to have the feature [+anaphoric, +pronominal]. If PRO is both an anaphor and a pronominal, it must obey Condition A and B of the Binding Theory at the same time. Condition A requires that it be bound in its governing category and Condition B requires that it be free in the same domain. In order to meet the two requirements or not to violate them, PRO must not have a governing category. Thus the PRO Theorem as in (1) is derived.

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(1) PRO must be ungoverned.

With this in mind, consider the following paradigm in terms of recent X-bar theoretic notions:

(2) a. John tried [$_{CP}$ *e* [$_{IP}$ PRO to win the race]]
b. *John tried [$_{CP}$ *e* [$_{IP}$ Mary to win the race]]
(3) a. *John believes [$_{IP}$ PRO to have won the race]
b. John believed [$_{IP}$ Mary to have won the race]

In (2), the matrix verb cannot govern into the IP contained in the complement CP, leaving PRO ungoverned and *Mary* non-Case-marked, whereas in (3), the matrix verb governs the subject of the embedded clause, excluding the option of PRO. This analysis, however, faces a number of conceptual problems.

First, it is based on the assumption that, in contrast to all other NPs, PRO is not Case-marked, which is problematic to Chomsky (1981, 1986b), who argues that Case marking is a prerequisite for θ-marking.

Second, once the headedness of CP is brought into the theory, it becomes difficult to explain the difference in grammaticality between (2a) and (3a), for the question arises why the head of CP does not govern the specifier of IP just as the matrix verb governs the specifier of IP in (3a). Furthermore, there is a possibility of PRO being governed by I in (2a) and (3a). In order to exclude this possibility we have to stipulate that I with the feature of [-Tense] cannot be a governor (for example, Haegeman 1991:250). Without this stipulation, I would govern PRO because I m-commands PRO, and I and PRO are in the same maximal projection.

Third, even if PRO has the feature [+anaphoric, +pronominal], it never has both of these features at the same time in a certain construction (see Williams (1980) and Manzini (1983)).[1]

Fourth, according to the Minimalist approach assumed in this paper, the role of head government is questioned and it will surely be desirable if we can eliminate it, but then the PRO Theorem itself will be nonexistent. Thus, in this respect, too, we have to look for a new way of explaining the distribution of PRO.

It might be possible to argue that transitive verbs like *believe* have to check their Accusative Case feature and that Accusative Case checking is prevented if PRO appears,

[1] For example, consider the following obligatory control construction:
(i) John promised Bill [PRO to shave himself]
In this construction PRO must refer to *John*. In this sense it has only the feature of an anaphor.

since the embedded subject checks Null Case in the embedded clause. However, we cannot apply this argument to raising predicates like *seem*, which do not have Accusative Case but still do not allow PRO, or to the passive version of *believe*-class verbs.

(4) a. *It is believed [PRO to be competent]
b. *It seems (to Mary) [PRO to be competent]

From the above discussion, I conclude that the binding-theoretic account of the distribution of PRO must be abandoned.

1.2. Chomsky and Lasnik (1993)

Chomsky and Lasnik's (1993) proposal that PRO is always Case-marked opens up a new way of capturing the distribution of PRO. They note that, as can be seen in (5), PRO must undergo NP-movement from non-Case positions and is not allowed to undergo NP-movement from Case positions even to escape government.

(5) a. John tried PRO_i to be arrested t_i.
b. *We hope [PRO_i to strike t_i [that the problems are insoluble]]
c. *We hope [PRO_i to seem to t_i [that the problems are insoluble]]

Chomsky and Lasnik argue that the behavior of PRO is virtually the same as other Case-marked NPs. Therefore, the ungrammaticality of (5b, c) parallels the ungrammaticality of the following examples.

(6) a. *We want [$John_i$ to strike t_i [that the problems are insoluble]]
b. *We want [$John_i$ to seem to t_i [that the problems are insoluble]]

They propose that PRO has Null Case, which is restricted to PRO and checked via Spec-head agreement with nonfinite I. If PRO carries a structural Case, the ungrammaticality of (5b, c) will receive the same explanation as that of (6), namely, violation of the Last Resort Condition, which forbids NP movement from Case-checking to Case-checking positions.[2]

Introduction of Null Case, however, is not without controversy. Consider the following repeated as (7) below:

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[2] The " last resort" condition on movement requires that movement is permitted only to satisfy some condition (Chomsky and Lasnik 1993, 523). The tacit assumption here is that NP movement is driven by the need to check the Case features of the NP undergoing movement in accordance with Chomsky's (1993) Greed, which requires that move only to satisfy a requirement on α.

(7) a. John tried [PRO to win the race] (=2a)
b.*John believes [PRO to have won the race] (=3a)

The grammaticality of (7a) can be explained straightforwardly if we assume that infinitival Tense bears Null Case. The ungrammaticality of (7b), however, cannot be explained as it stands because PRO should get Null Case in this example. I will argue later in this paper that this problem is solved by introducing Chain Condition to the Case-theoretic approach. We will return to this problem in section 3.2.2.

1.3. Summary

In this section, we have seen that the binding-theoretic account of the distribution of PRO is not satisfactory and that the Case-theoretic counterpart has a possibility of opening up a new way of analyzing infinitival complements.

In the next section, before moving on to my analysis, we will take up Bošković (1996, 1997) as an example, who treats infinitival complements from a Case-theoretic viewpoint, and will point out that his s-selection analysis is not tenable in that it is not able to explain an important part of the data concerning *want*-class verbs.

2. Bošković (1996, 1997)

Bošković (1996, 1997) argues that control infinitives are considered IPs from economy considerations.[3] He also argues that the Case-theoretic account of the distribution of PRO is superior to Chomsky's (1981) binding-theoretic account. His analysis is based on Chomsky and Lasnik's (1993) assumption that PRO carries Null Case, and Martin's (1992, 1996) assumption that PRO is Case-checked via Spec-head

[3] Bošković (1996, 1997) argues, citing Stowell (1981), that the distribution of empty complementizers can be accounted for if they are subject to the ECP. In (ia) the empty complementizer is properly governed by the verb; in (ib-c) it is not.

(i) a. It is believed [$_{CP}$ C [$_{IP}$ he is crazy]]
b. * [$_{CP}$ C [$_{IP}$ He would buy a car]] was believed at that time
c. *It was believed at that time [$_{CP}$ C [$_{IP}$ you would fail her]]

Infinitival clauses behave quite differently from finite clauses in the relevant respect.

(ii) a. I tried at that time [$_{CP}$ C [$_{IP}$ PRO to fail her]]
b. [$_{CP}$ C [$_{IP}$ PRO to buy a car]] was desirable at that time

He argues that the grammaticality of (iia-b) suggests that the infinitives in (iia-b) are not CPs and therefore do not contain a null complementizer. He further argues that under the Case-theoretic approach to the distribution of PRO, control infinitives can be IPs and that the CP projection does not have to be present in (iia-b). From a minimalist point of view, however, to invoke ECP is not desirable because the notion of government itself is nonexistent in the Minimalist Program. We leave this problem open here.

agreement with [+tense, -finite] I. Furthermore, he argues that *try*-class verbs s-select nonpropositional complements, which he refers to as "Irrealis," and that their complements have [+tense, -finite] I because of this fact, whereas *believe*-class verbs s-select Proposition with [-tense, -finite] I. By assuming the above argument, he tries to eliminate c-selection in favor of s-selection.

To clarify his argument, consider the following paradigm:

(8) a. John believed [$_{IP}$ him to be crazy]
b. *John believed [$_{IP}$ PRO to be crazy]
c. John tried [$_{IP}$ PRO to leave]
d. *John tried [$_{IP}$ him to leave]
e. *John$_i$ was tried [$_{IP}$ t$_i$ to leave]
f. *Who$_i$ did John try [$_{IP}$ t$_i$ to leave]

According to Bošković (1996, 1997), PRO in (8b) is not Case-marked because *to* has [-tense, -finite] I, which does not check Null Case, whereas PRO in (8c) is Case-checked because *to* has [+tense, -finite] I, which checks Null Case; hence, the difference in grammaticality between (8b) and (8c). As for (8a, d), Bošković (1996, 1997) assumes that Accusative Case is checked in SpecAgroP and argues that *him* in (8a) and (8d) must undergo LF A-movement to the matrix SpecAgroP in order to be Case-checked. (8a) is unproblematic because *to* cannot check Null Case in his system and the Case feature of *him* is checked in SpecAgroP, but in (8d), *to* can check Null Case and so *him* results in moving from a Case-checking position to a Case-checking position, which he argues is blocked by the Last Resort Condition. The same argument can be applied to explain the ungrammaticality of (8e, f).

Let us now turn to *want*-class verbs with infinitival complements. Consider the following:

(9) a. I want [$_{CP}$ [$_C$ *e*][$_{IP}$ him to leave]]
b. *I want [$_{CP}$ [$_C$ *e*][$_{IP}$ PRO to leave]]
c. I want [$_{IP}$ PRO to leave]
d. *John$_i$ was wanted [$_{CP}$ [$_C$ *e*][$_{IP}$ t$_i$ to leave]]
e. *John$_i$ was wanted [$_{IP}$ t$_i$ to leave]
f. John wanted very much [$_{CP}$ [$_C$ for][$_{IP}$ Mary to cook]]
g. *John wanted very much [$_{CP}$ [$_C$ for][$_{IP}$ PRO to cook]]

As for (9a), Bošković assumes that the infinitival complement is headed by a null complementizer, a phonologically null counterpart of the complementizer *for*, which

heads the infinitival complement of *want* in (9f) and that *him* is Case-checked in essentially the same way as in (9f). Then the ungrammaticality of (9b) and (9g) can be derived straightforwardly: the deviance of (9b) is attributable to the fact that the Case-assigning feature of *e-to* remains unchecked just as the deviance of (9g) is attributable to the fact that the Case-assigning feature of *for-to* remains unchecked. (9c) is grammatical because the infinitival clause receives irrealis interpretation and its subject position can be a Null-Case-checking position. (9d) is ungrammatical because *John* moves from a Case-checking position to a Case-checking position, which is violation of the Last Resort Condition. (9e) is excluded for the same reason that (8e) is. (9f) is unproblematic.

However, his argument is untenable in the following respect: he assumes that the presence of *for* and its null counterpart is a result of the l-selectional properties of *want* and that the *for-to* complement in (9f) and the infinitival complement in (9a) do not check Null Case, and hence do not have [+tense, -finite] I.[4, 5] But this discussion is tantamount to saying that only when *want* takes either a *for-to* complement or an infinitive introduced by a null counterpart of *for*, Null Case cannot be checked and that when a PRO subject occurs as in (9c), the infinitival complement has [+tense, -finite] I, and so it is highly stipulative.[6]

That Bošković's (1996, 1997) argument is not tenable is also confirmed by the following fact: he assumes that the defining property of irrealis complements is that the truth of the complements is left unspecified at the time of the utterance and argues that truth and falsity can be predicated of the complement of *believe* but not those of *try* and *want* as in (10).

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[4] Following Pesetsky (1992), he argues that in addition to s-selection, which may simply be a coherence condition on semantic interpretation, we need selection for terminal elements, which Pesetsky refers to as " l-selection" . He also suggests that l-selection is limited in scope and involves arbitrary selection for lexical items and features associated with them that cannot be reduced to either s-selection or c-selection. However, we cannot help saying that this way of thinking has a fairly ad hoc nature and so we do not adopt it here.

[5] Bošković (1997) adopts Watanabe's (1993) analysis of *for-to* constructions. According to Watanabe (1993), *for-to* complex is generated under I, with *for* undergoing movement to C^0. Under this proposal, *Mary* in (9f) is Case-checked in SpecIP under Spec-head agreement with the *for-to* complex, prior to the raising of *for*. Bošković also assumes that the *for-to* I checks Accusative rather than Null Case.

[6] The same argument can be applied to the following examples:

(i) a. John hoped $[_{IP}$ PRO to leave]

b. John hoped $[_{CP}\,[_{C}$ for$][_{IP}$ Bill to leave]]

If we follow Bošković (1996, 1997), the infinitival complement in (ia) has [+tense, -finite] I, whereas the *for-to* complement in (ib) does not contain [+tense, -finite] I.

(10) a. John believed Peter to have played football, which was false.
b. *John tried to play football, which was false.
c. *John wanted to play football, which was false.

With this in mind, consider the following:

(11) a. *I wanted *him to leave*, which was false.
b. *John wanted very much *for Mary to cook*, which was false.

The fact that (11a, b) are deviant suggests that the infinitival complements in these examples should receive irrealis interpretation and it implies that the infinitival complements in (11) carry [+tense, -finite] I.

To summarize the above discussion, the grammaticality of (9a, f) requires that the infinitival complements in these examples should not contain [+tense, -finite] I and the fact that the complements of *want*-class verbs receive irrealis interpretation requires that they carry [+tense, -finite] I; hence, contradiction.

Summarizing, although the Case-theoretic approach seems to have a possibility of opening up a new way of analyzing infinitival complements, Bošković's s-selection approach to infinitival complements based on the Case-theoretic account of the distribution of PRO is not tenable and his attempt to eliminate c-selection for infinitival complements has proven unsuccessful.

In the next section, following the claim by Odijk (1997) that c-selection must be stipulated independently as a property of lexical items, I will present a c-selection analysis which enables us to explain the relevant examples taken up above.

3. An Alternative

As we have seen in the previous section, there are some pieces of evidence that indicate that Bošković's (1996, 1997) s-selection approach to the problem concerned is not satisfactory, although economy considerations favor the analysis of control infinitives as IPs. Therefore, in this section, I would like to suggest a new analysis that enables us to explain the well known paradigm concerning the three classes of verbs: *try*-class verbs, *want*-class verbs, and *believe*-class verbs.

In 3.1., I would like to point out some arguments against the analysis of control infinitives as IPs. In 3.2., I will present my analysis.

3.1. Some Arguments against the IP Analysis

Radford (1997: 147) presents some supporting evidence in favor of the *economy* (IP) analysis of clauses such as (12b):

(12) a. Phyllis Stein thinks [$_{CP}$ *that* money can buy everything]
b. Phyllis Stein thinks [$_{IP}$ money can buy everything]

He argues, following Bošković (1994), that complementizerless clauses such as those italicized in (13) below cannot be coordinated with clauses containing an overt complementizer such as *that*:

(13) a. *John said [*Peter left*] and [**that Bill kissed Mary**]
b. *John reckoned [*Peter left*] and [**that Bill kissed Mary**]

Furthermore, he argues that if the italicized *that*-less complement clauses are IPs but the bold-printed *that*-clauses are CPs, we can attribute the ungrammaticality of sentences like (13) to the fact that we have coordinated an IP with a CP, thereby violating the condition that we can only conjoin constituents belonging to the same category.

This argument, however, is not tenable. Consider the following cited from *The Old Man and the Sea* by Earnest Hemingway:

(14) a. I saw [**that** the hook was in the corner of his mouth] and [he has kept his mouth tight shut]
b. Then he dreamed [**that** he was in the village on his bed] and [there was norther] and [he was very cold] and [his right arm was asleep because his head had rested on it instead of a pillow]
c. He was afraid [**that** it might nauseate him] and [he would vomit and lose his strength]
d. I wish [it were a dream] and [**that** I had never hooked him]

These data show that if we follow the above argument, we must conclude that the *that*-less complement clauses are CPs, contrary to what Bošković (1994) and Radford (1997) argue.

With the above fact in mind, let us now turn to the *economy* (IP) analysis of infinitival complements. Bošković (1996, 1997) argues that economy considerations favor the analysis of control infinitives as IPs. Therefore, the following control infinitives are IPs in his system.

(15) a. I want [$_{IP}$ PRO to win my tournament]
b. I hope [$_{IP}$ PRO to win my game]

But his argument proves untenable if we look at the following data:

(16) a. I want [*PRO to win my game*] and [$_{CP}$ for Mary to win her tournament]
b. I hope [*PRO to win my game*] and [$_{CP}$ for Mary to win her tournament]

The grammaticality of (16a, b) shows that if we assume the condition that we can only conjoin constituents belonging to the same category, the italicized clauses in the above sentences are not IPs but CPs.[7]

From the above discussion, I conclude that the null hypothesis is that control infinitives of *want*-class verbs are CPs.

3.2. Speculations

In the previous section, we have seen that control infinitives of *want*-class verbs are not IPs, but CPs. In this section, following this line of argument, I will develop my speculations. In 3.2.1., I will take up *want*-class verbs, basing my discussion on the premise that control infinitives of *want*-class verbs are CPs. In 3.2.2., I will take up *believe*-class verbs and *try*-class verbs, hypothesizing that the former-class verbs take IPs as their complements and the latter-class verbs take CPs as their complements, although economy considerations favor the IP-analysis.

3.2.1. Want-*class Verbs*

In this section, I take up *want*-class verbs, but before putting my discussion on a concrete footing, I would like to make the following assumptions:

(17) The specifier-features of a head are checked against the head-features of its specifier; likewise, the complement-features of a head are checked against the head-features of its complement or the head-features of the specifier of its complement. (Adapted from Radford 1997: 175)

(18) Nonfinite I becomes a Null-Case checker iff PRO appears in a Spec-IP position.

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[7] To those who find it difficult to judge the following sentences as grammatical, it seems to be difficult to accept (16a,b).
(i) a. I want for Mary to win her tournament.
b. I hope for Mary to win her tournament.
However, according to my survey, those who accept (ia, b) also accept (16a, b).

(19) Empty C becomes an Accusative-Case checker iff it can be replaced by an overt counterpart.

With the above assumptions in mind, consider the following repeated as (20):

(20) a. I want [$_{CP}$ [$_{C}$ *e*][$_{IP}$ him to leave]] (= 9a)
b. I want [$_{CP}$ [$_{C}$ *e*][$_{IP}$ PRO to leave]] (= 9b)
c. *John$_{i}$ was wanted [$_{CP}$ [$_{C}$ *e*][$_{IP}$ t$_{i}$ to leave]] (= 9d)
d. John wanted very much [$_{CP}$ [$_{C}$ for][$_{IP}$ Mary to cook]] (= 9f)
e. *John wanted very much [$_{CP}$ [$_{C}$ for][$_{IP}$ PRO to cook]] (= 9g)

(20a) is grammatical because in my system, empty C becomes an Accusative-Case checker and the head feature of *him* is checked by it. Incidentally, the claim that empty C plays the same role as an overt counterpart in the case of *want* is confirmed by the following examples:

(21) a. What I wanted was for him to leave.
b. *What I wanted was him to leave.

The above data show that if we make the cleft sentence (=(21a)) corresponding to *I wanted (for) Bill to leave*, *for* is obligatory and this fact implies that we can assume a covert counterpart of *for* in (20a); hence, the validity of (19). Nonfinite I, on the other hand, is irrelevant for Case-checking in (20a) since PRO does not appear in this sentence. The same kind of argument can be applied to (20b): in (20b), PRO appears as the subject of the infinitival complement, so PRO is Case-checked by nonfinite I, according to (18), and empty C itself is irrelevant for Case-checking because it cannot be replaced by an overt complementizer; hence, the grammaticality of (20b). On the other hand, (20c) is ungrammatical because *John* moves from a Case-checking position to a Case-checking position, which is violation of the Last Resort Condition. (20e), too, is ungrammatical because the complement-feature of *for* is not checked against an overt NP. Finally, (20d) is unproblematic.

To summarize so far, we have seen that if we assume (17), (18) and (19), the Case-theoretic approach which treats infinitival complements of *want*-class verbs as CPs enables us to explain the data concerned straightforwardly without invoking s-selection.

3.2.2. Believe-*class Verbs and* Try-*class Verbs*

In this section, I take up *believe*-class verbs and *try*-class verbs and show that my analysis of infinitival complements based on the Case-theoretic approach is on the right track. Furthermore, I would like to suggest a revised Case-theoretic approach invoking

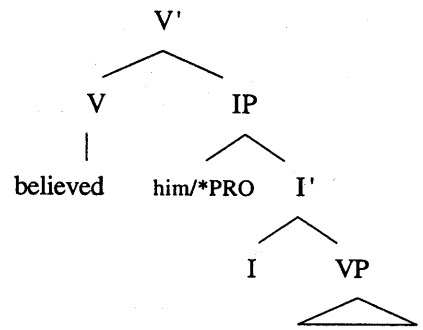
Chain Condition to give an explanation to the problem that accrues from introducing Null Case to the theory.

As for *believe*-class verbs, following Chomsky (1986a) and Watanabe (1993, 1996), among others, I assume that their complements are IPs. With this assumption in mind, let us see how the relevant data are explained by invoking (18), (19) and (20). Consider the following:

(22) a. John believed [$_{IP}$ him to be crazy]
b. *John believed [$_{IP}$ PRO to be crazy]

My explanation for the grammaticality of (22a) is based on the following structure:

(23)



As the above tree shows, *him* and *believed* are in a checking configuration with each other and so the Accusative Case of *him* is checked by the transitive verb *believed.* However, as it stands, my analysis also allows PRO to occur in the same position as shown in (23), which contradicts the ungrammatical example above, i.e., (22b). This contradiction can be overcome, however, if we adopt Chain Condition following Hanazaki (1995).[8]

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[8] Wyngaerd (1994: 48) proposes the following Chain Condition:
(i) Chain Condition
If
(a) NP_n is an empty category, and
(b) there is an NP_m which c-commands NP_n and to which NP_n is 0-subjacent, or 1-subjacent if NP_n is head-governed then $\{NP_m, NP_n\}$ is a chain, where NP_m is assigned one and only one value.
His definition is different from mine because he also tries to capture the cases involving A'-movement. For example, he argues that the following contrast can be explained by the above condition.
(ii) a. ?What do you wonder how to fix e e?
b. *How do you wonder what to fix e e? (Wyngaerd 1994:16)
According to him, in (iia) the adjunct trace links to its antecedent in the embedded [SPEC, CP] because no barrier intervenes and the object trace is head-governed by the verb and so one barrier may consequently intervene when it links to its antecedent, i.e., the wh-phrase in the matrix [SPEC, CP]. In (iib), on the other hand, the object trace satisfies 0-

(24) Chain Condition
Form a chain if there is no barrier between α_i and α_{i+1} which excludes α_i.

The notion "chain" and local binding are defined as follows:

(25) $C = (\alpha_1, \ldots\ldots, \alpha_n)$ could be a chain if and only if:
(i) α_1 is an NP.
(ii) α_i locally binds α_{i+1} (= an empty category).

(26) α locally binds β if and only if α and β are coindexed, α c-commands β, there is no γ coindexed with α that is c-commanded by α and c-commands β.

I further define the notion of "barrier" and "exclusion" following Chomsky (1986a).

(27) α is a barrier for β iff (i) or (ii):
(i) α immediately dominates γ, γ a barrier for β
(ii) α is not L-marked and α dominates β.[9]

(28) α excludes β if no segment of α dominates β. (Chomsky 1986a: 9)

Let us see how the condition (24) works concerning (22b). In (22b), a chain must be formed between *John* and PRO because there is no barrier between *John* and PRO that excludes *John*. However, this chain cannot be permitted because it has two θ-roles, which is violation of the condition that a chain has only one θ-role; hence, we can correctly exclude (22b).

Let us next turn to *try*-class verbs and see how the relevant data are explained by my analysis. Consider the following:

(29) a. *John tried $[_{IP}$ PRO to leave]
b. John tried $[_{CP}$ $[_{IP}$ PRO to leave]]
c. *John tried $[_{CP}$ $[_{IP}$ him to leave]]
d. *John$_i$ was tried $[_{CP}$ $[_{IP}$ t_i to leave]]
e. *Who$_i$ did John try $[_{CP}$ $[_{IP}$ t_i to leave]]

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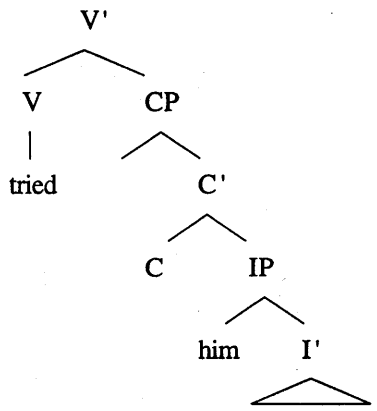
subjacency condition when it links to its antecedent in the embedded [SPEC, CP], but the adjunct trace is not head-governed and must satisfy 0-subjacency. This condition is violated because in (iib) the complement CP intervenes and so the sentence is ruled out. We take up only an argument chain here, and so there is no need to complicate the condition (24).

[9] α L-marks β iff α is a lexical category that θ-governs β. (Chomsky 1986a: 15)
Although I follow basic assumptions of the Minimalist Program (Chomsky 1991, 1993, 1995), I argue that the notion such as θ-government is necessary until it proves to be untenable.

If we follow Bošković (1996, 1997), the infinitival complements of *try*-class verbs should be IPs as shown in (29a). However, the IP analysis is not tenable in my system because if we assume the structure shown in (29a), *John* and PRO end up forming an illicit chain. This state of affairs leads us to assume that the infinitival complements of *try*-class verbs are CPs.[10] Following this assumption, (29b) is considered grammatical because PRO is Case-checked under Spec-head agreement in the embedded Spec-IP. Incidentally, the condition (24) is irrelevant if we assume the structure shown in (29b), for a chain cannot be formed between *John* and PRO because a barrier (= CP) intervenes between them. On the other hand, my explanation for the ungrammaticality of (29c) is based on the following structure:

(30)



It is obvious that in (30), *him* and *tried* are not in a checking configuration, because *him* is not contained in the specifier of the complement of the verb *tried* and so the Accusative Case feature of *him* remains unchecked, which is not permitted in the Minimalist Program. Finally, the ungrammaticality of (29d, e) follows naturally as a consequence of the ungrammaticality of (29c).

To summarize, I have shown, in this section, that if we assume that infinitival complements of *believe*-class verbs are IPs and those of *try*-class verbs are CPs, we can

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[10] Incidentally, this way of thinking seems to be compatible with the spirit of economy. Chomsky (1991) suggests the concept of economy as follows:

> There is varied evidence suggesting that both derivations and **representations** are subject to a certain form of " least effort" condition and **are required to be minimal** in a fairly well defined sense, with no superfluous steps in derivations and **no superfluous symbols in representations**. (Chomsky 1991: 447) (**bold mine**)

In my system, to assume that the infinitival complements of *try*-class verbs are IPs is not enough to derive a desired result, and so the assumption that they are CPs are not considered " superfluous" in his sense.

explain the relevant data straightforwardly by the revised Case-theoretic approach invoking Chain Condition.

4. Conclusion

To summarize, I have argued in this paper that infinitival complements of *try*-class verbs and *want*-class verbs c-select CPs and those of *believe*-class verbs c-select IPs. I have also argued that introduction of Null Case and Chain Condition is necessary. The suggested c-selection analysis enables us to explain all the data concerning the three classes of verbs and also avoid the problem Bošković's s-selection analysis faces and so I believe that the revised Case-theoretic approach to infinitival complements based on c-selection is well-grounded.

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