On the Subject Position in Japanese*

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ABSTRUCT

In this paper, we would like to identify the subject position in Japanese, following Goto's (2010) and Saito's (2011) arguments. Specifically, we will argue that, in Japanese, which has no Agreement, no Feature Inheritance (FI) takes place, and due to no FI the [EPP] feature does not emerge on T, which resides on C. Therefore, the subject in Japanese ends up with moving to SpecCP; on the other hand, in English, which has Agreement, FI does take place and due to it the [EPP] feature emerges on T, so the subject in English ends up with moving to SpecTP. Assuming this difference, we will account for several binding facts, which would confirm the validity of the current analysis.

KEYWORDS

SpecCP as the subject position in Japanese, the correlation between Feature Inheritance and the [EPP] feature, the phase-based binding theory

1. The Embedded Subjects

It has been pointed out that the subject in the embedded clause can be Case-licensed not only as Nom, but also Acc, and the latter case is called the "Raising-to-Object (RTO) Construction."

(1) a. Bill believes [that she is honest]
    b. Bill believes her [<her> to be honest][1]

In (1a), the embedded subject *she* is Case-licensed as Nom, which means that it is Case-licensed in the embedded subject position. In (1b), on the other hand, the embedded subject *her* is Case-licensed as Acc, which means that it cannot be Case-licensed in the embedded subject position; rather, it must be Case-licensed in the matrix clause[2]. Therefore, this Case manifestation indicates that the embedded subject in (1b) moves into the matrix clause.

The same construction is attested in Japanese as well.

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[1] Throughout this paper, adopting the copy theory, we will use < > to indicate the traces of movement.
[2] Fujimori (2014) argues that the RTO subject moves to the matrix SpecVP, where it is Case-licensed as Acc.

(2) a. Bill-wa [Mary-ga baka-da to] omot-teiru
b. Bill-wa Mary-o [<Mary> baka-da to] omot-teiru

As in (1a), the fact that the embedded subject *Mary-ga* 'Mary-Nom' in (2a) is Case-licensed as Nom means that it is in the embedded subject position, where it is Case-licensed. And as in (1b), the fact that the embedded subject *Mary-o* 'Mary-Acc' in (2b) is Case-licensed as Acc means that it moves into the matrix clause, where Acc is licensed.

If the embedded subjects, or the RTO subjects, in (1b) and (2b) actually raise into the matrix clauses, it is expected that they can interact with some elements in the matrix clauses[3], whereas the embedded subjects in (1a) and (2a) cannot interact with the elements in in the matrix clauses since they do not raise into the matrix clauses. In fact, these expectations are borne out. One of the most famous analyses is Lasnik and Saito's (1991) arguments, as shown in (3), and the corresponding examples in Japanese are from Sakai (1998), as shown in (4)[4].

(3) condition A
a. ?* The DA proved [that two men$_i$ were at the scene of the crime] during each other$_i$'s trials
b. The DA proved two men$_i$ [<two men> to have been at the scene of the crime] during each other$_i$'s trials

Weak Crossover mitigation
a. ?* The DA proved [that no suspect$_i$ was at the sence of the crime] during his$_i$ trial
b. The DA proved no suspect$_i$ [<no suspect> to have been at the sence of the crime] during his$_i$ trial

NPI licensing
a. ?* The DA proved [that no one was at the scene of the crime] during any of the trials
b. The DA proved no one [<no one> to have been at the scene of the crime] during any of the trials

(4) a. ?* Rie-wa [karera$_i$-ga muzitu da to] otagai$_i$-no syoogen-niyotte sinzi-teiru
b. Rie-wa karera$_i$-o [<karera> muzitu da to] otagai$_i$-no syoogen-niyotte sinzi-teiru

In the (a) examples in (3-4), the embedded subjects are Case-licensed as Nom, which means they are

[3] Note that, in order to interact with the matrix elements, the RTO subjects must move *high enough* to bind/c-command them. See 3.3, especially the discussion around (38).
[4] We will use the subscript indices such as $_{i, j, k}$ to indicate the coreferential relations between an anaphor/pronoun and its antecedent.

in the embedded subject positions, which in turn means they cannot interact with the elements in the matrix clauses. On the other hand, in the (b) examples in (3-4), the Acc-licensed embedded subjects do interact with the elements in the matrix clauses, which means they are in the matrix clauses via RTO.

Another piece of evidence that the RTO subjects in Japanese moves into the matrix clauses is shown in Kuno (1976), which concerns the adverb modification.

(5) a. * Taroo-ga [Hanako-ga *orokanimo* tensai da to] omot-teiru
b. Taroo-ga *orokanimo* [Hanako-ga tensai da to] omot-teiru
c. Taroo-ga Hanako-o *orokanimo* [tensai da to] omot-teiru

In (5), the adverb *orokanimo* 'stupidly' modifies the matrix verb *omot-teiru* 'think,' not the embedded predicate *tensai-da* 'is a genius.'

(6) # Hanako-wa *orokanimo* tensai da.

Thus, the ungrammaticality in (5a) can be accounted for straightforwardly; *orokanimo* is in the embedded clause, which cannot modify the matrix verb, or incorrectly modifies the embedded predicate, like (6). In (5b), accordingly, given that *orokanimo* is in the matrix clause[5], it can properly modify the matrix verb, not the embedded predicate. What is noteworthy is (5c): the RTO subject *Hanako-o* 'Hanako-Acc' is on the left side of *orokanimo*, which is the matrix element, as shown in (5b). Thus, the grammaticality of (5c) indicates that the RTO subject moves into the matrix clause, across the matrix adverb *orokanimo*.

In this section, we showed that the Acc-licensed embedded subjects (or, the RTO subjects) raise into the matrix clauses, while the Nom-licensed ones stay in the embedded clauses. In the next section, however, we'd like to show some paradoxical examples in Japanese; that is, there are some cases where the Nom-licensed embedded subjects appear to be in the matrix clauses. And we would also like to consider how to account for the facts.

2. The Nom-licensed Embedded Subjects which Appear to Be in the Matrix Clauses

[5] One may argue that in (5b) the adverb *orokanimo* would be in the embedded clause; that is, it is just preposed to the edge of the embedded clause. However, if so, (5b) would be as bad as (5a), since just the modification of (6) would still show unacceptability.
(6') # Orokanimo Hanako-wa tensai da.
Furthermore, if *orokanimo* is the embedded adverb, it cannot be preposed across the tensed clause (see Abe (2013)).
(i) * Asu Bill-ga [John-ga daigaku-e iku to] itta
(ii) * Orokanimo Taroo-ga [Hanako-ga tensai da to] omot-teiru
(Here, *orokanimo* is meant to modify the embedded predicate, not the matrix one.)
In (i) the adverb *asu* 'tomorrow' modifies the embedded predicate *iku* 'go,' not the matrix predicate *itta* 'say-past.' For the same reason, in (ii), *orokanimo* modifies the embedded predicate *tensai-da,* not the matrix predicate *omot-teiru*.

Takeuchi (2010) also argues that the Nom-licensed embedded subjects stay in the embedded clauses, while the Acc-licensed ones move into the matrix clauses, based on the condition B consideration as shown in (7).

(7) a. ? $John_i$-ga [$kare_i$-ga baka da to] omot-teiru
b. * $John_i$-ga $kare_i$-o [<kare> baka da to] omot-teiru

Takeuchi (2010) argues that, in (7a), the embedded subject *kare-ga* 'he-Nom' is Case-licensed as Nom and that it does not violate Condition B, which indicates that it is not a clause mate with its antecedent *John*, and which in turn means that it does not move into the matrix clause, remaining in the embedded clause. On the other hand, in (7b), the embedded subject *kare-o* 'he-Acc' is Case-licensed as Acc and it does violate Condition B, which indicates that it is a clause mate with its antecedent *John*, and which in turn means that it does move into the matrix clause.

However, as Fujimori (2014) points out, not everyone agrees with Takeuchi's (2010) judgements. Specifically, Fujimori (2014) notes in footnote 2, "An anonymous *EL* reviewer pointed out to me that [(7a)] is unacceptable, and that it becomes acceptable if the embedded subject is replaced by *zibun-zisin* 'self-self.' " What the reviewer suggested is illustrated in (8)[6].

(8) a. * $John_i$-ga [$kare_i$-ga baka da to] omot-teiru
b. $John_i$-ga [$zibun\text{-}zisin_i$-ga baka da to] omot-teiru

According to his/her judgement, the embedded subject *kare-ga* in (8a) violates condition B, which indicates that the embedded subject must be a clause mate with its antecedent *John*, locally c-commanding the pronoun. Furthermore, in (8b), if his/her judgement is reasonable, the embedded subject *zibun-zisin-ga* 'self-self-Nom' must be a clause mate with its antecedent *John*, locally c-commanding the reflexive. This state of affairs can be accounted for only if we assume that the embedded subject in Japanese must be regarded not as the embedded element but as the matrix element.

However, this assumption would be seemingly paradoxical, since, as we showed in (4), repeated below as (9), the embedded subject does not interact with the element in the matrix clause.

(9) ?* Rie-wa [karera-ga muzitu da to] otagai-no syoogen-niyotte sinzi-teiru (= (4a))

[6] The examples in (8) are reminiscent of Yang's (1983) discussion on no NIC effect in Japanese and Korean, which are non-Agreement languages.

This means the embedded Nom-licensed subject should be in the embedded clause, or at least low enough not to c-command the matrix element.

Furthermore, assuming that the examples in (8) indicate the valid judgements, the corresponding examples in English show completely opposite situations.

(10) a. $John_i$ believes [that he_i is a fool]
b. * $John_i$ believes [that $himself_i$ is a fool]

In (10a), the pronoun *he* is the embedded subject, which is not locally c-commanded by the matrix subject *John*, so it does not violate condition B, reasonably being coreferential with *John*. On the other hand, in (10b), the embedded subject is the reflexive *himself*, so it must be locally bound by its antecedent *John*; but since they are not clause mates, it ends up with violating condition A.

Now, the position where we have to identify as the valid embedded subject position in Japanese must be like this: [1] in order to account for the binding facts shown in (8), it must be *high enough* to be bound by the matrix subject; [2] in order to account for the no interaction with the element in the matrix clause shown in (4a = 9), it must be *not so high* as to bind the matrix element. In contrast, the valid embedded subject position in English must be *low enough* not to be locally bound by the matrix subject (as shown in (10)), nor to bind the matrix element (as shown in (a) examples in (3)).

Here is an obvious question: is there such a contradictive position? In the next section, following Goto's (2010) and Saito's (2011) arguments, we'd like to identify such a position. And we'd also like to account for the difference between Japanese and English as to the possibility/impossibility of binding the embedded subjects, specifically (8) vs (10), along the same line.

3. High Enough, but Not So High

3.1. The Optionality of Feature Inheritance and Its Consequences: Goto (2010)

Goto (2010) argues that, given the phase-based Transfer system, it is expected that the edge of C in the matrix clause remains as a residue of Transfer in the narrow syntax and the position will not be Transferred throughout the derivation.

(11) [$_{CP}$ what did(C) [$_{TP}$ you [$_{vP}$ *v* [$_{VP}$ think [$_{CP}$ C [$_{TP}$ John [$_{vP}$ *v* [$_{VP}$ buy <what>]]]]]]]
??? Transfer 4 Transfer 3 Transfer 2 Transfer 1

To solve this problem, Goto (2010) assumes that the matrix CP is Transferred along with its domain

(or, in his terms, “in one fell swoop”).

(12) [$_{CP}$ what did(C) [$_{TP}$ you [$_{vP}$ *v* [$_{VP}$ think [$_{CP}$ C [$_{TP}$ John [$_{vP}$ *v* [$_{VP}$ buy <what>]]]]]]]
Transfer 4 Transfer 3 Transfer 2 Transfer 1

How then should such a mechanism be allowed? Here, Goto (2010) proposes asymmetrical Feature Inheritance (FI) as follows.

(13) C-to-T Feature Inheritance is unnecessary in the matrix clause, whereas it is necessary in the embedded clause.

That is, in the embedded phase, C-to-T FI does occur in order to ensure Phrase Impenetrability Condition (PIC) (cf. Richards (2007)), while in the matrix phase, C-to-T FI does not take place, which means the φ-features and Tense feature on C remains in situ, so the matrix subject has to move to the matrix SpecCP to value its φ-features and Tense feature against those in the matrix C.

Then, Goto (2010) accounts for several phenomena under the assumption (13), such as the matrix/embedded asymmetry in English as to Subject-Aux Inversion (SAI), shown as below.

(14) a. Who will John visit?
b. * Who John will visit?
c. Who did John see?
d. * Who John saw?
(15) a. * I wonder who will John visit.
b. I wonder who John will visit.
c. * I wonder who did John see.
d. I wonder who John saw.

In (14), the φ-features and Tense feature remains on the matrix C, so the Aux elements such as *will* or *did* must realize on the C, accounting for SAI in the matrix clause; while in (15), the φ-features and Tense feature on the embedded C are inherited by the embedded T, so the Aux elements must realize on the T, also accounting for no SAI in the embedded clause.

Furthermore, Goto (2010) assumes that, though T inherently bears the [EPP] feature, it is activated *only when FI takes place*. Thus, he argues that, in (16a), the φ-features on the matrix C remain there due to the asymmetrical FI in (13), and that the [EPP] feature on the matrix T is inactive because no FI takes place, as shown in (16b). As a result, the subject *John* need not move to SpecTP, remaining in Spec*v*P, where the φ-features on C enter into an Agree relation with *John* in

the Spec*v*P to value the φ-features.

(16) a. Who will John visit?
b. [$_{CP}$ who C$_{[φ]}$-will [$_{TP}$ <will> [$_{vP}$ John [$_{VP}$ visit <who>]]]]

On the other hand, in (17), the φ-features on the embedded C are inherited by the embedded T due to the asymmetrical FI in (13), and the [EPP] feature on the T becomes active because FI takes place, as shown in (17b). As a result, the subject *John* needs to move to the embedded SpecTP, where the φ-features on the T enter into an Agree relation with *John* in the SpecTP to value the φ-features.

(17) a. I wonder who John will visit.
b. … [$_{CP}$ who C$_{[\ ]}$ [$_{TP}$ John [$_{T}$ will$_{[φ][EPP]}$ [$_{vP}$ <John> [$_{VP}$ visit <who>]]]]]

3.2. FI, the φ-Features and the [EPP] Feature: Saito (2011)

It has been pointed out that Japanese and English are different in terms of whether Agreement is involved or not; that is, Japanese has no Agreement phenomena but English has; and so many researchers have tried to induce the difference syntactically (e.g. Fukui (1986, 1988), Kuroda (1988), among others). In particular, Fukui (1986, 1988) argues that Japanese does not have Agreement-inducing functional categories, such as C, I, or D; while English has such categories.

(18) Japanese lacks the class of functional categories. (Fukui (1986, 1988))

Restating (18) from the recent Minimalistic perspective, it could be assumed either that Japanese has no C that has the φ-features[7], or that Japanese actually has C that has the φ-features, but something is different from those languages which have Agreement.

Saito (2011) pursues the latter option; more specifically, Saito (2011) argues that, even though C has the φ-features in Japanese, since Japanese does not exhibit any Agreement, FI of the φ-features does not take place, which means that the φ-features remain on C[8]. Furthermore, Saito (2011) also assumes that the [EPP] feature resides on C at first, and when FI takes place, the [EPP] feature is 'pied-piped,' or inherited by T along with the φ-features. Thus, since no FI takes place in Japanese, as mentioned above, the [EPP] feature also remains on C, so the subject in Japanese moves to SpecCP, not SpecTP[9].

[7] Fukui (1988) actually points out that this is the plausible alternative.
[8] Saito (2011) may implicitly assume that the φ-features become activated only when FI takes place; that is, when they remain on C, the φ-features become inactivated. In this respect, this implicit assumption is compatible with Fujimori's (2013, 2014) argument that, if the φ-features on C are not inherited by T and remain on C, they are "incomplete" ones.
[9] Saito (2011) points out that the subject drops in SpecTP on the way to SpecCP in order to check/value its Nom. However, since

(19) a. Zen'in-ga zibun-zisin-ni toohyoosi-na-katta (to omo-u) (all > not, *not > all)
b. Zibun-zisin-ni zen'in-ga < Zibun-zisin-ni> toohyoosi-na-katta (to omo-u)
(all > not, not > all)

(20) a. [$_{CP}$ all [$_{TP}$ <all> [$_{NegP}$ [$_{vP}$ <all> [$_{VP}$ [$_{NPi}$ self] V] *v*] Neg] T] C$_{[EPP]}$]
b. [$_{CP}$ self [$_{TP}$ all [$_{NegP}$ [$_{vP}$ <all> [$_{VP}$ <self> V] *v*] Neg] T] C$_{[EPP]}$]

According to Saito's (2011) analysis, the subject in (19a) moves to SpecCP, as shown in (20a). Assuming that a phrase in SpecTP interacts with negation scopally, since the subject in (19a) is out of the TP, it takes scope over negation. On the other hand, in (19b), the object moves up to SpecCP via scrambling[10], and the subject is in SpecTP. If the same as above is assumed, the subject can interact with negation, so the scope ambiguity between the subject and negation occurs, as desired.

3.3. SpecCP as the Subject Position in Japanese

Both Goto (2010) and Saito (2011) have some insights in common: that is, C-to-T FI of the φ-features does not always take place, and FI and the [EPP] feature are closely connected; T does not have the [EPP] feature when no FI occurs. Therefore, following Goto (2010) and Saito (2011), we would like to assume as follows: (i) in Japanese, since there is no Agreement, C-to-T FI, which induces Agreement, never occurs; (ii) due to no FI in Japanese, the [EPP] feature remains on C; (iii) the subject in Japanese ends up with moving to SpecCP to check the [EPP] feature on C. Thus, the specific derivations of the embedded clauses in (8) should be as in (22).

(21) a. … [$_{CP}$ kare-ga [$_{TP}$ <kare> [$_{vP}$ <kare> [$_{VP}$ baka da] *v*] T] to(C$_{[EPP]}$)] …
b. … [$_{CP}$ zibun-zisin-ga [$_{TP}$ <zibun-zisin> [$_{vP}$ <zibun-zisin> [$_{VP}$ baka da] *v*] T] to(C$_{[EPP]}$)] …

Once we accept SpecCP as the subject position in Japanese, some interesting consequences may occur. First, the binding facts shown in (8) can be accounted for. Quicoli (2008) argues that the conditions of binding theory should apply cyclically on the basis of information contained at the level of the syntactic phase. As for the cases of condition A, for example, see the following examples.

(22) a. They$_i$ appeared to each other$_i$ to respect rules.

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the [EPP] feature resides on C, the subject ends up with moving to SpecCP to check it.
[10] As for the precise derivation of A-scrambling Saito (2011) proposes, see the discussion around (36).

b. They$_i$ appeared to respect each other$_i$.

In the era of P&P approach, Cuicoli (2008) points out, the coreference relation between *they* and *each other* in (22a) was accounted for by applying condition A at the level of *S-structure*; on the other hand, in (22b), condition A must be applied at the level of *D-structure*. However, since there are no D-/S-structures in the minimalist framework, these facts should be retreated in terms of minimalistic view. Then, Quicoli (2008) argues that condition A should apply cyclically at the end of each phase[11].

(23) a. [$_{v}$P they v_1 [$_{VP}$ respected the rules]]
b. [$_{v}$P they$_i$ v_2 [$_{VP}$ appeared to each other$_i$ [$_{TP}$ to [$_{v}$P <they> v_1 [$_{VP}$ respect the rules]]]]]
(24) a. [$_{v}$P they$_i$ v_1 [$_{VP}$ respected each other$_i$]]
b. [$_{v}$P they$_i$ v_2 [$_{VP}$ appeared [$_{TP}$ to [$_{v}$P <they> v_1 [$_{VP}$ respect each other$_i$]]]]]

In (23), which indicates the derivations of (22a), condition A applies in the v_2 phase, and in (24), which indicates the derivations of (22b), condition A applies in the v_1 phase. Quicoli (2008) also argues that condition B (shown in (25)) and C (in (26)) should be applied in a phasal manner as well.

(25) a. John$_i$ appeared to him$_j$ [<John$_i$> to admire him$_j$]
b. [$_{v}$P John$_i$ v_1 [$_{VP}$ admire him$_j$]]
c. [$_{v}$P John$_i$ v_2 [$_{VP}$ appeared to him$_j$ [$_{TP}$ to [$_{v}$P <John$_i$> v_1 [$_{VP}$ admire him$_j$]]]]]
(26) a. He$_i$ appeared to John$_j$ [<he$_i$> to have treated Peter$_k$ well]
b. [$_{v}$P He$_i$ v_1 [$_{VP}$ have treated Peter$_k$ well]]
c. [$_{v}$P He$_i$ v_2 [$_{VP}$ appeared to John$_j$ [$_{TP}$ to [$_{v}$P <he$_i$> v_1 [$_{VP}$ to have treated Peter$_k$ well]]]]]

In (25), *John* binds *him* in the both phases, resulting in the disjoint reference; and in (26), *he* binds *Peter* in the v_1 phase and *John* in the v_2 phase, also resulting in the disjoint references.

Adopting Quicoli's (2008) analysis, we'd like to account for the binding facts shown in (8), repeated as (27) below.

(27) a. * John$_i$-ga [kare$_i$-ga baka da to] omot-teiru
b. John$_i$-ga [zibun-zisin$_i$-ga baka da to] omot-teiru

Assuming Chomsky's (2001) PIC, in which the complement of the phase head should be Transferred

[11] Hereafter, we will indicate the Transferred unit as the shaded part such as … .

when the whole phase completes, the elements in SpecCP can count as the member of the above phase, since it will be Transferred when the upper phase completes. This means that, as shown in (21), since the subject in Japanese moves to the embedded SpecCP, it is accessible from the upper phase, the matrix *v*P. When the antecedent of the reflexive/pronoun shows up in the matrix Spec*v*P, it phase-locally binds the reflexive/pronoun in the embedded SpecCP, inducing condition B violation in (28) and condition A satisfaction in (29), respectively.

(28) a. [$_{CP}$ kare-ga [$_{TP}$ <kare> [$_{vP}$ <kare> baka *v*] da] to(C$_{[EPP]}$)]
b. [$_{vP}$ John$_i$ [$_{VP}$ [$_{CP}$ kare$_i$-ga [$_{TP}$ <kare> [$_{vP}$ <kare> baka *v*] da] to] omou] *v*]
(29) a. [$_{CP}$ zibun-zisin-ga [$_{TP}$ <zibun-zisin> [$_{vP}$ <zibun-zisin> baka *v*] da] to(C$_{[EPP]}$)]
b. [$_{vP}$ John$_i$ [$_{VP}$ [$_{CP}$ zibun-zisin$_i$-ga [$_{TP}$ <zibun-zisin> [$_{vP}$ <zibun-zisin> baka *v*] da] to] omou] *v*]

Furthermore, the current analysis can be extended to the corresponding examples in English, as shown in (10), repeated as (30) below.

(30) a. John$_i$ believes [that he$_i$ is a fool]
b. * John$_i$ believes [that himself$_i$ is a fool]

Recall that English has agreement phenomena, which means, under the current analysis, that C-to-T FI actually takes place. Moreover, following Goto's (2010) and Saito's (2011) arguments, when FI takes place, T has the [EPP] feature. Thus, we assume that, in English, the subject ends up with moving to SpecTP to check/value the φ-features and the [EPP] feature on T.

(31) [$_{CP}$ C$_{[\ ]}$ [$_{TP}$ SUBJ T$_{[\varphi][EPP]}$ [$_{vP}$ <SUBJ> …]]]

If this is the case, the embedded subjects *he* in (30a) and *himself* in (30b) are not phase-locally bound by the matrix subject *John*, satisfying condition B in (32) and violating condition A in (33), respectively.

(32) a. [$_{CP}$ that(C$_{[\ ]}$) [$_{TP}$ he T$_{[\varphi][EPP]}$ [$_{vP}$ <he> is a fool]]]
b. [$_{vP}$ John$_i$ [$_{VP}$ believe [$_{CP}$ that(C$_{[\ ]}$) [$_{TP}$ he$_i$ T$_{[\varphi][EPP]}$ [$_{vP}$ <he> is a fool]]]]]
(33) a. [$_{CP}$ that(C$_{[\ ]}$) [$_{TP}$ himself T$_{[\varphi][EPP]}$ [$_{vP}$ <himself> is a fool]]]
b. [$_{vP}$ John$_i$ [$_{VP}$ believe [$_{CP}$ that(C$_{[\ ]}$) [$_{TP}$ himself$_i$ T$_{[\varphi][EPP]}$ [$_{vP}$ <himself> is a fool]]]]]

If we follow Saito (2011) as to the derivation of scrambling, we can also account for the

following binding facts under the current analysis.

(34) a. Taroo$_i$-ga [Hanako$_j$-ga zibun-zisin$_{*i/\surd j}$-ni toohyoosi-ta to] omot-teiru
b. Taroo$_i$-ga [zibun-zisin$_{\surd i/\surd j}$ -ni Hanako$_j$-ga <zibun-zisin> toohyoosi-ta to] omot-teiru

In (34a), *zibun-zisin* in the embedded clause has only *Hanako* in the embedded subject as its local antecedent, whereas, in (34b), when *zibun-zisin* is scrambled to the edge of the embedded clause, it can have the matrix subject *Taroo* as its local antecedent as well. First, consider the derivation of (34a).

(35) a. [$_{v}$P Hanako$_j$ [$_{VP}$ zibun-zisin$_j$-ni toohyoosi] *v*]
b. [$_{v}$P Taroo$_i$ [$_{VP}$ [$_{CP}$ Hanako$_j$-ga [$_{TP}$ <Hanako> [$_{v}$P <Hanako> [$_{VP}$ zibun-zisin$_{*i/\surd j}$ -ni toohyoosi] *v*] ta] to(C$_{[EPP]}$)] omou] *v*]

As shown in (35a), *zibun-zisin* is phase-locally bound by *Hanako* in Spec*v*P, resulting in the coreferential interpretation. And the *v*P is Transferred when the phase completes, so, as shown in (35b), when the matrix subject *Taroo* shows up in the matrix Spec*v*P, it cannot have access to within the Transferred unit, so *Taroo* cannot be an antecedent for *zibun-zisin*.

Then how about (34b)? See the derivation of (34b) as follows.

(36) a. [$_{v}$P Hanako$_j$ [$_{VP}$ zibun-zisin$_j$-ni toohyoosi] *v*]
b. [$_{CP}$ zibun-zisin$_j$-ni [$_{TP}$ <zibun-zisin> [$_{TP}$ Hanako$_j$-ga [$_{v}$P <Hanako> [$_{VP}$ zibun-zisin$_j$ -ni toohyoosi] *v*] ta]] to(C$_{[EPP]}$)]]
c. [$_{v}$P Taroo$_i$ [$_{VP}$ [$_{CP}$ zibun-zisin$_{i/j}$-ni [$_{CP}$ [$_{TP}$ < zibun-zisin> [$_{TP}$ Hanako$_j$-ga [$_{v}$P <Hanako> [$_{VP}$ zibun-zisin$_j$ -ni toohyoosi] *v*] ta] to(C$_{[EPP]}$)]] omou] *v*]

Saito (2011) argues that, in the case of A-scrambling, as in (34b), the scrambled element first moves to the outer SpecTP and then further moves to SpecCP for the [EPP] feature reason (as shown in (36b)). Then the matrix subject *Taroo* shows up in the matrix Spec*v*P, and since *Taroo* can have access to the element in the embedded SpecCP, *Taroo* phase-locally binds *zibun-zisin* in (36c), resulting in the coreferential interpretation[12].

Now, if the current assumption that the subject in Japanese is in SpecCP is on the right track,

[12] Along the same line, the current analysis can account for Dejima's (1999) very interesting scrambling data.
(i) a. Taroo-ga$_i$ [$_{CP}$ Hanako-ga$_j$ [$_{CP}$ Ziroo-ga$_k$ zibunzisin$_{*i/*j/\surd k}$-o hihansita to] it-ta to] omot-teiru
b. Taroo-ga$_i$ [$_{CP}$ Hanako-ga$_j$ [$_{CP}$ zibunzisin$_{*i/\surd j/\surd k}$-o Ziroo-ga$_k$ hihansita to] it-ta to] omot-teiru
c. Taroo-ga$_i$ [$_{CP}$ zibunzisin$_{\surd i/\surd j/\surd k}$-o Hanako-ga$_j$ [$_{CP}$ Ziroo-ga$_k$ hihansita to] it-ta to] omot-teiru
If, following Saito (2011), the scrambled element moves to SpecCP, since it is accessible from the upper phase, it can be phase-locally bound by its antecedents in the upper Spec*v*Ps (*Hanako* in (ib) and *Taroo* in (ic)), respectively.

not only binding facts mentioned above but also no interaction between the embedded subject and the matrix element shown in (4a) can be accounted for as well. Given that the matrix elements, such as *–niyotte* 'by virtue of' phrase in (4a), are adjoined to *v*P, the specific structure of (4a), repeated as (38), would be as below.

(37) ?* Rie-wa [karera$_i$-ga muzitu da to] otagai$_i$-no syoogen-niyotte sinziteiru

(38) a. [$_{CP}$ karera-ga [$_{TP}$ …] to(C$_{[EPP]}$)] (irrelevant derivations omitted)

b. [$_{vP}$ [$_{vP}$ Rie [$_{VP}$ [$_{CP}$ karera-ga [$_{TP}$ …] to(C$_{[EPP]}$)] sinzi] *v*] otagai-no syoogen-niyotte]

In (38), although the embedded subject *karera-ga* 'they-Nom' moves up to the embedded SpecCP (as in (38a)), it cannot bind (or c-command) the matrix element *otagai-no syoogen-niyotte* 'by each other's testimonies,' which is assumed to be *v*P-adjoined (as in (38b)). Therefore, no coreferential interpretation emerges.

Thus, we have shown that SpecCP, not SpecTP, is the subject position in Japanese, contrary to English, in which the subject position is SpecTP, and that this assumption can account for binding facts shown in (8 = 27), as well as no interaction between the embedded subject and the matrix element shown in (4a = 9 = 37). In this respect, the embedded SpecCP is, in a sense, the "exquisite" position: that is, it can be phase-locally bound by the matrix subject in the matrix Spec*v*P, but cannot bind the matrix *v*P-adjoined element; in other words, the embedded SpecCP is *high enough* (to be phase-locally bound by the matrix subject) but *not so high* (as to bind the *v*P-adjoined matrix element).

4. Conclusion and Remaining Problems

In this paper, we argued that, following Goto (2010) and Saito (2011), the subject in Japanese ends up with moving to SpecCP, because Japanese has no C-to-T FI, which makes the [EPP] feature remain on C; while the subject in English ends up with moving to SpecTP, because English has FI, which makes the [EPP] feature emerge on T. Based on the current assumptions, we also argued that the curious differences on the binding relations between Japanese and English can be accounted for by Quicoli's (2008) phase-based binding theory.

So far, so good. But there are some problems to be solved in the current analysis. For example, Saito (2016, 2017) deal with the same phenomena by means of the completely different apparatuses from ours; that is, Saito (2016, 2017) argue that the subject in Japanese is in SpecTP, not SpecCP, contrary to his own (2011) arguments, and that C does not form the phase when no φ-agreement occurs, and if so only *v*P (more precisely, *v**P and *v*P) functions as the phase, which will be Transferred.

(39) a. Taroo$_i$-ga [$_{CP}$ [$_{TP}$ zibunzisin$_i$ -ga Hanako-o suisensita] to] itta

b. [$_{CP}$ [$_{TP}$ zibunzisin-ga [[$_{v*P}$ <zibunzisin> [[$_{VP}$ …] *v**]] T]] C]

c. [$_{v*P}$ Taroo-ga$_i$ [[$_{VP}$ [$_{CP}$ [$_{TP}$ zibunzisin$_i$-ga [[$_{v*P}$ …]] T]] C]] say] *v**]]

In (39b), by definition, the embedded *v*P forms the phase, so the whole *v*P is Transferred. But since C in Japanese does not form the phase due to no φ-agreement, the subject *zibunzisin* in the embedded SpecTP is accessible from the matrix subject *Taroo* in the matrix Spec*v*P, so *Taroo* phase-locally binds *zibunzisin*, satisfying condition A. And when the matrix *v**P completes, the complement of *v** (i.e. the shaded part in (39c)) is Transferred.

Compare the above case to that of English.

(40) a. * Mary$_i$ insisted [$_{CP}$ that [$_{TP}$ herself$_i$ saw it]]

b. [$_{CP}$ that [$_{TP}$ herself …]]

In (40b), also by definition, T in English carries the φ-features, so C above the T forms the phase. When the embedded CP completes, the TP below it is Transferred. Then, when the matrix subject *Mary* shows up in the matrix *v**P, it is too late to bind the embedded subject, since it has been Transferred, resulting in no coreferential interpretation.

Note here that Saito's (2017) analysis depends on Bošković's (2016) argument that what is sent by Transfer is not the complement of the phase head but the whole phase itself. However, as shown in (40b), the apparently non-phase unit (or, the complement of the phase head; i.e. TP in (40b)) is Transferred. As for this, Saito (2017) assumes as below.

(41) a. A phase is Transferred upon the completion of the next phase up.

b. What T inherits from C is not only unvalued φ-features but also phasehood; in other words, unvalued features on a head make it a phase head.

Thus, in (40b), when C-to-T FI takes place, not only the φ-features but also phasehood is inherited by T, which makes the T the phase head. And When CP, whose head C is the phase head, completes, TP is Transferred[13].

[13] In a sense, it appears that the assumptions in (41) is the mixture of Chomsky's (2001) and Bošković's (2016) insights.

	When does Transfer take place?	***What is Transferred?***
Chomsky (2001)	When the phase itself completes	The complement of the phase head
Bošković's (2016)	When the next phase head emerges	The lower phase as a whole
Saito (2016)	When the next phase completes	The complement of the phase head
Saito (2017)	When the next phase completes	The lower phase as a whole

As shown the diagram above, Saito's (2017) assumptions rely on Bošković's (2016) arguments. However, by the assumption (41a), when, for example, C-to-T FI takes place, not only C but also T counts as "phase," and when CP phase completes, the lower phase, TP, is Transferred. Consequently, what is Transferred in Saito's (2017) system is the same as Chomsky's (2001); TP. Actually, as

Here, we have some important problems to be solved; (a) which is sent by Transfer, the complement of the phase head, or the whole phase itself?; (b) when does Transfer take place, when the phase itself completes, or when the next phase up completes; (c) where is the subject in Japanese, in SpecCP or SpecTP?; and so on. Unfortunately, we have no clear answers to these problems, and we'd like to leave them for future research.

Note finally that we would agree with Bošković (2016) in that "while phases are the crucial units in the multiple spell-out framework, for all practical purposes the crucial units are actually not phases but phasal complements. But, in contrast to phases, phasal complements have no theoretical status … phasal complements should then play no role in spell-out; what is transferred to spell-out should be phases, not phasal complements." If this is indeed the case, the current analysis has to be revised, since we assume, following Chomsky (2001), that what is sent to Transfer is the phase complement, and that the phase edge is accessible from the upper phase. Furthermore, even if we adopt Bošković's (2016) arguments, the very same problem as Chomsky (2001) has and Goto (2010) deals with would still emerge: that is, how should the matrix CP phase be Transferred? Bošković (2016) argues that as soon as the upper phase head is merged, the lower phase as a whole is sent to spell-out.

(42) a. * How did you hear [$_{NP}$ rumors [$_{CP}$ that John bought a house <how>]]
b. N [$_{CP}$ … how …]

Bošković (2016) accounts for the Complex NP Constraint as follows: in (42b), as soon as N, a phasal head, is merged, CP is Transferred. As a result, nothing within CP is accessible for movement from CP, so *how* cannot move out of it. This means that phases are Transferred *only when the upper phase head is merged*. Then, the matrix CP, above which no phase head is merged, could never be Transferred, so the same problem as Chomsky (2001) has remains unsolved.

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shown in the diagram, Saito (2016) still assumes Chomsky's (2001) Transfer unit, the complement of the phase head. Thus, as mentioned above, such questions as when Transfer takes place or what is Transferred are in controversy.

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