Interpreting Anaphora within the Domain

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1. Introduction

This short paper addresses the question of why the crosslinguistic difference regarding binding relation arises and of how it is accounted for. Especially, we pay a special attention to anaphor binding, where an anaphor refers to a reflexive and a reciprocal.

As simply exemplified in (1), anaphor binding is so restricted that in (1) the English reflexive should be bound by the clause mate antecedent.

(1) a. John$_i$ recommended himself$_i$.

b. * John$_i$ thinks that Mary recommended himself$_i$.

However, this is not always the case in other languages than English. As will be discussed in the subsequent sections, Japanese sometimes behaves in a different way; the subject in an embedded clause can be bound by the matrix antecedent in some cases. A natural question that immediately arises is why such discrepancy is brought about. Since Binding Theory in Chomsky (1981) itself cannot account for such a crosslinguistic difference, we are required to analyze it from another viewpoint. In this paper, focusing on another difference independently of binding, we claim that it resolves our main question.

After this brief introduction of our current issue, Section 2 provides the basic binding facts in English and Japanese and examines the analysis by Saito (2017a,b) as one of previous researches. In section 3, with the careful scrutiny of the additional data, it is shown that his analysis lacks empirical coverage in some cases. In Section 4, we present an alternative analysis which can accommodate those problematic cases as well as the basic facts. Section 5 concludes this paper.

2. Interpreting Anaphora within the Domain

It is widely known that anaphors in languages such as English are sensitive to clause boundary, as already shown in the introduction above. The object reflexive *himself* in (1a) is successfully coindexed with the subject *John*, while the one in (1b) cannot across the clause boundary. This patterns with the French examples shown in (2) (the relevant examples are taken from Charnavel and Sportiche 2016).[1]

[1]French has two types of expressions for reflexivization: one is a clitic *se* attached to a verb, the other a pronoun *lui-même* or *elle-même*, and that when the clitic in (2a) is replaced with the latter type, the sentence gets degraded, as in (i).

(i) * Jean$_i$ examinera lui$_i$-même.
John examine.FUT himself
'John$_i$ will examine himself$_i$.'

(2) a. Jean$_i$ s$_i$'examinera.
John himself-examine.FUT
'John$_i$ will examine himself$_i$.'

b. * Jean$_i$ pense que Marie examinera lui$_i$-même.
John think.PRES that Mary examine.FUT himself
'John$_i$ thinks that Mary will examine himself$_i$.'

Languages such as Japanese also show the same pattern: the object in an embedded clause cannot refer to the subject in a matrix clause. Japanese, however, has a different pattern of behavior than English and French. As Yang (1983) observes, the NIC effect is not observed in Japanese, and thus the NP in an embedded clause can take the NP outside that clause as its antecedent, unlike English and French. The relevant data are given in (3-5).

(3) * John$_i$ thinks that himself$_i$ recommended Mary.

(4) * Jean$_i$ pense que lui$_i$-même examinera Marie.
John think.PRES that himself examine.FUT Mary
'John$_i$ thinks that himself$_i$ will examine Mary.

(5) a. Taroo$_i$-ga zibunzisin$_i$-o suisen-si-ta (koto)
Taro-NOM self.self-Acc nomination-do-PAST fact
'Taro$_i$ nominated himself$_i$.'

b. * Taroo$_i$-ga Hanako-ga zibunnzisin$_i$-o suisen-si-ta to it-ta (koto)
Taro-NOM Hanako-NOM self.self-Acc nomination-do-PAST COMP say-PAST fact
'Taro$_i$ said that Hanako nominated himself$_i$.'

In face of it, one may argue that French does not completely have the same pattern in English witnessed in (1). However, as Charnavel and Sportiche (2016) argues following Cardinaletti and Starke (1999), the unacceptability of (i) is actually traced back to another constraint which is independent of anaphor binding. Consider the following examples:

(ii) a. ?? Jean$_i$ décrit le paysage à lui$_i$-même.
John describes.PRES the landscape to himself
'John$_i$ describes the landscape to himself$_i$.'

b. Jean$_i$ se$_i$ décrit le paysage.

(iii) a. Marie$_i$ dépend d'elle-même.
Mary depend.PRES on-herself
'Mary$_i$ depends on herself$_i$.'

b. * Marie$_i$ se$_i$ dépend.

(iv) a. Marie a présenté Jean$_i$ à lui$_i$-même.
Mary have.PRES present John to himself
'Mary introduced John$_i$ to himself$_i$.'

b. Marie$_k$ s$_{*i/k}$'est présenté Jean$_i$.

These show that (un)acceptability with French reflexives is determined relatively; to be more precise, all else equal, if a weaker form of the target element, i.e. *se*, is available, it should be used, hence it blocks the use of a stronger form, i.e. *lui-même* or *elle-même*. Thus, the unacceptability of (i) and the acceptability of (2a) do not affect our main argument in this paper.

c. Taroo$_i$-ga zibunzisin$_i$-ga Hanako-o suisen-si-ta to it-ta (koto)
Taro-Nom self.self-Nom Hanako-Acc nomination-do-Past Comp say-Past fact
'Taro$_i$ said that himself$_i$ nominated Hanako.'

(Saito 2017b:63)

What is important here is that unlike (3) and (4), (5c) is acceptable with the intended interpretation where the reflexive *zibunzisin* is coindexed with the subject across the clause boundary. This behavior has been surprising if we assume the Principle A of the Binding Theory proposed in Chomsky (1981), which defines the governing category as follows:

(6) **Governing Category**
α is the governing category for β iff α is the minimal category containing β, a governor of β, and a SUBJECT accessible to β.

Given this definition, the governing category for the sentences in (3-4) and (5c) is the embedded clause and thus it would be predicted that the Japanese example is unacceptable, which is contrary to the fact. Therefore, nothing being assumed, the difference between English and French, on the one hand, and Japanese, on the other, is a mystery.

Facing these paradigms, Saito (2017a,b) presents an explanation which focuses on the difference between them regarding agreement. He argues that the presence or absence of agreement, more precisely agreement features, plays an important role and that it causes such a difference. The gists of his analysis are summarized in (7).

(7) a. Information of reference of an anaphor is sent to the C-I interface along with a transfer domain that includes the anaphor. (cf. Quicoli 2008)

b. A phase head in languages with agreement inherits ϕ-features to a head immediately below.

c. ϕ-features constitute a phase, which Transfer targets as a whole as its domain, with Transfer applied upon the completion of a next phase up.

(7a) states that binding relations of anaphors are calculated phase by phase and that an anaphor and its antecedent should be present in the same derivational stage before Transfer applies. (7b) assumes that under the assumption that C and *v** are phase heads, C and *v** inherit their ϕ-features to T and V, respectively, and only in that case, TP and VP become phases; otherwise, CP and *v**P are phases. (7c) describes when and where Transfer applies: in languages with agreement, for examples, VP gets transferred (because of the inheritance of ϕ-features from v*) when a next phase CP is completed.

With these assumptions, let us first check how Saito's analysis works in English. The relevant examples are repeated here as (8).

(8) a. John$_i$ recommended himself$_i$.

b. * John$_i$ thinks that Mary recommended himself$_i$.

Suppose that the derivations for both sentences have reached at the following points:

(9) a. [$_{v*P}$ John [*v** [$_{VP}$ recommend himself]]]

b. [$_{v*P}$ Mary [*v** [$_{VP}$ recommend himself]]]

Here, the shaded parts represent transfer domains (the same hereinafter). In (9a), the anaphor and its antecedent *John* are included in the same phase *v**P, and hence the information of coreference can be sent to the interface and the binding relation successfully holds as in (8a). By contrast, in (9b), the (intended) antecedent of the anaphor, *John*, has not joined the derivation yet at the above point. Therefore, the information of coreference cannot be sent, and (8b) eventually becomes unacceptable. the same account goes for the French data.

Next, let us see how his analysis can capture the Japanese data as well. The relevant data are reproduced:

(10) a. Taroo$_i$-ga zibunzisin$_i$-o suisen-si-ta (koto)
Taro-Nom self.self-Acc nomination-do-Past fact
'Taro$_i$ nominated himself$_i$.'

b. * Taroo$_i$-ga Hanako-ga zibunnzisin$_i$-o suisen-si-ta to it-ta (koto)
Taro-Nom Hanako-Nom self.self-Acc nomination-do-Past Comp say-Past fact
'Taro$_i$ said that Hanako nominated himself$_i$.'

c. Taroo$_i$-ga zibunzisin$_i$-ga Hanako-o suisen-si-ta to it-ta (koto)
Taro-Nom self.selfNom Hanako-Acc nomination-do-Past Comp say-Past fact
'Taro$_i$ said that himself$_i$ nominated Hanako.'

Note here that in Japanese, CP and *v**P are phases due to the absence, and thus the inheritance, of ϕ-features. However, this point is not crucial upon the explanation of (10a) and (10b). Consider the following derivational points (the traces of subjects are omitted for simplicity of exposition):

(11) a. [$_{CP}$ [$_{TP}$ Taroo-ga [$_{v*P}$ [$_{VP}$ zibunzisin-o suisen-s] *v**] T] C]

b. [$_{CP}$ [$_{TP}$ Hanako-ga [$_{v*P}$ [$_{VP}$ zibunzisin-o suisen-s] *v**] T] C]

Here, since the (intended) antecedent *Taroo* is included at the point of (11a) whereas is not at the point of (11b), their (un)acceptabilities follow. As for the successful binding relation in (10c), suppose that the derivation has reached the matrix *v**P:

(12) [$_{vP}$ Taroo-ga [[$_{VP}$ [$_{CP}$ [$_{TP}$ zibunzisin-ga [[$_{vP}$ . . .] T]] to] say] *v**]]

Unlike (11a) and (11b), in (12), since the anaphor is the subject of the embedded sentence, it can survive the transfer of the embedded *v**P and hence is available for binding. Therefore, upon the completion of the next phase up, i.e., the matrix CP, the information of coreference can be sent to the interface, with the anaphor successfully interpreted.

Summarizing his analysis, the interpretational difference in question lies in the presence or absence of ϕ-features, which causes the difference regarding the transfer domain, as schematized in (13), and regarding the interpretational possibilities.

(13) a. [$_{CP}$ [C [$_{TP}$ subject [$T_{[+AGR]}$ [$_{vP}$ . . .]]]]]

b. [$_{CP}$ [C [$_{TP}$ subject [$T_{[-AGR]}$ [$_{vP}$ . . .]]]]] (order irrelevant)

3. On Further Binding Facts

In this section, we carefully scrutinize more Japanese examples concerning binding and examine whether those data are covered in the same fashion described in the preceding section.

3.1. Anaphors vs. Logophors

Since Kuno (1972, 1973), it has been well known that *zibun* 'self' in Japanese can be an instance of logophors as well as of anaphors. Of importance is that such logophors are immune to locality constraint, as exemplified in (14), which is imposed onto anaphors. Note that anaphors such as reflexives in English are subject to such a requirement, as we have observed above in (1).

(14) John$_i$-wa [[zibun$_i$-o kirat-tei-ru] onna]-to kekkon-site-simaimasi-ta yo.
John-Top self-Acc hate-Prog-Pres woman-with marriage-do-end.up-Past Part
'John$_i$ ended up marrying a woman who hated himself$_i$.'

(Kuno 1972:184)

In (14), *zibun* resides in the relative clause, yet coreference is possible. Thus, *zibun* as a logophor has a different property regarding locality requirement than an anaphor.

What is more relevant to our discussion here is that *zibunzisin* 'self.self' behaves similarly to *zibun*. Witness that *zibunzisin* in (15) resides in the relative clause, yet coreference with the subject out of that clause is possible.

(15) Ano-heisi$_i$-wa [teki-no sentooki-ga zibunzisin$_i$-o nerat-tei-ru] koto]-ni
that-solider-Top enemy-Gen battle.ship-Nom self.self-Acc aim.at-Prog-Pres fact-Dat
kigatui-ta.
notice-Past
'That solider$_i$ noticed that an enemy's battle ship was aiming at himself$_i$.'

(14) then shows that *zibunzisin* can be logophoric, thus no need to obey the locality constraint.

Bearing this in mind, let us return to the key example in (5c) under Saito's analysis, repeated as (16).

(16) Taroo$_i$-ga zibunzisin$_i$-ga Hanako-o suisen-si-ta to it-ta (koto)
Taro-Nom self.self-Nom Hanako-Acc nomination-do-Past Comp say-Past fact
'Taro$_i$ said that himself$_i$ nominated Hanako.'

Taking into consideration the possibility that *zibunzisin* can be used as logophoric, (16) does not necessarily prove the plausibility of his analysis. More specifically, the use of logophoric *zibunzisin* does not necessitate

the mechanism he proposes due to its insensitivity to the locality requirement. Put in a different way, (16) alone is insufficient to discuss the behavior of anaphors.

The discussion so far requires us to avoid cases with logophors. One way to achieve that purpose is to use inanimate NPs. As Charnavel and Sportiche (2016) claims, whereas animates NPs can report or describe scenes from their viewpoints (In their terms, "point of view"), inanimate NPs cannot. This means that they cannot function as antecedents of logophors, as Charnavel and Sportiche show with the following French examples:

(17) a. [Cette auberge]$_i$ fait de l'ombre à son$_i$ (propre) jardin et au jardin de la
this inn make.Pres a shade to its own garden and to garden of the
maison voisine.
house neighboring
'[This inn]$_i$ gives shade to its$_i$ (own) garden and to the garden of the neighboring house.'

b. [Cette auberge]$_i$ bénéficie du fait que [$_{TP}$ son$_i$ (*propre) jardin est plus spacieux
this inn benefit.Pres the fact that its own garden be more spacious
que celui des auberges voisines].
than that of inns neighboring
'[This inn]$_i$ benefits from the fact that its$_i$ (*own) garden is more spacious than that of the neighboring inns.'

c. [Cette auberge]$_i$ bénéficie du fait que [$_{TP}$ les touristes préfèrent son$_i$ (*propre)
this inn benefit.Pres the fact that the tourists prefer.Pres its own
jardin à ceux des auberges voisines].
garden to that of inns neighboring
'[This inn]$_i$ benefits from the fact that the tourists prefer its (*own) garden to that of the neighboring inns.'

In (17a), *son propre* can be successfully used since it meets the locality requirement, while in (17b) and (17c) it cannot since they violate the locality requirement. This shows that *son propre* is an anaphor (in their terms, a plain anaphor). Thus it is better to use inanimate NPs as antecedent to suppress the use of a logophor (in their terms, an exempt anaphor).

Returning to Japanese, however, there arises a problem: since *zibun* or *zibunzisin* only can refer to animate NPs, inanimate NPs are not appropriate as antecedents for anaphors. Facing this problem, how can we make it possible to make full use of inanimate NPs?

The approach taken in Kato (2016) appears to be appropriate to fulfill our current demand. To be more specific, she claims that *otagai* 'each other' is an anaphor, giving the paradigm in (18).

(18) a. [Huta-tu-no kuruma]$_i$-ga heddoraito-de otagai$_i$-no nanbaapureeto-o terasi-ta.
two-Cl-Gen car-Nom headlight-with each.other-Gen number.plate-Acc light-Past
'Two cars lighted each other's number plates with their headlights.'

b. * [Huta-tu-no kuruma]$_i$-ga heddoraito-de [Taroo-ga otagai$_i$-no bonnetto-o
two-Cl-Gen car-Nom headlight-with Taro-Nom each.other-Gen hood-Acc
ake-ru tokoro]-o terasi-ta.
open-Pres scene-Acc light-Past

'Two cars lighted the scene that Taro opened each other's hoods with headlights.'

(Kato 2016:19)

(18a) shows that the subject inanimate NP *huta-tu-no kuruma* and the anaphor *otagai* can be successfully coindexed within the same clause. (18b) points out that when *otagai* is placed in the relative clause, the whole sentence gets degraded with the intended interpretation. This indicates that *otagai* is subject to the locality requirement as English reflexives are, whereby it can be safely used as an anaphor. This then suggests that in what follows, we should use *otagai* as an anaphor to investigate binding relations in Japanese.

3.2. Scrambling and Adjuncts

Having set the stage, now let us move on to examine how binding with *otagai* works. First consider the following examples:

(19) a. [Ni-hon-no ronbun]$_i$-ga [otagai$_i$-no kasetu-ga riiman-yosoo-no
two-CL-GEN article-NOM each.other-GEN hypothesis-NOM Riemann-hypothesis-GEN
syoomei-ni tsunaga-ru to] setumei-si-tei-ru.
proof-DAT lead-PRES C explanation-do-PROG-PRES
'Two pieces of articlesexplain that each other's hypotheses leads to Riemann Hypothesis.'

b. * [Ni-hon-no ronbun]$_i$-ga [Tanaka-sensei-ga otagai$_i$-no kasetu-o
two-CL-GEN article-NOM Tanaka-professor-NOM each.other-GEN hypothesis-ACC
hitei-si-ta to] setumei-si-tei-ru.
negation-do-PAST C explanation-do-PROG-PRES
'Two pieces of article explain that Prof. Tanaka denied each other's hypotheses.'

Notice that the acceptability in (19a) and the unacceptability in (19b) follow if we assume Saito's analysis. Since these examples basically have the same configurations as (1a) and (1b), respectively, they fall into place under his explanation. Note also that his analysis predicts that when the embedded object in (19b) is scrambled across the embedded subject, nothing changes concerning its acceptability since the antecedent and the anaphor are present together at the same stage in the course of the derivation. This is indeed borne out, as in (20):

(20) a. [Ni-hon-no ronbun]$_i$-ga [[otagai$_i$-no kasetu]$_j$-o Tanaka-sensei-ga t_j
two-CL-GEN article-NOM each.other-GEN hypothesis-ACC Tanaka-professor-NOM
hitei-si-ta to] setumei-si-tei-ru.
negation-do-PAST C explanation-do-PROG-PRES
'Two pieces of article explain that Prof. Tanaka denied each other's hypotheses.'

b. [$_{vP}$ ni-hon-no ronbun-ga [$_{VP}$ [$_{CP}$ [$_{TP}$ otagai-no kasetu-o Tanaka-sensei-ga [[$_{vP}$ ...] T]] to] setumei-s] *v*]

Saito's analysis also predicts that the addition of an adjunct which modifies the element in the embedded clause does not affect the acceptability. As the example in (21) shows, this is not borne out, however.[2]

[2] *Kipparito* 'flatly' can modify the verb *hiteisuru* 'deny' but cannot the verb *setumeisuru* 'explain', which

(21) * [Ni-hon-no ronbun]$_i$-ga [kipparito [otagai$_i$-no kasetu]$_j$-o Tanaka-sensei-ga t_j
two-Cl-Gen article-Nom flatly each.other-Gen hypothesis-Acc Tanaka-professor-Nom
hitei-si-ta to] setumei-si-tei-ru.
negation-do-Past C explanation-do-Prog-Pres
'(lit.) Two pieces of article explain that Prof. Tanaka denied each other's hypotheses.'

This result is rather surprising for his analysis, since the adjunct basically does not change the configuration in (20b). Compare it with the one in (22).

(22) [$_{v\text{P}}$ ni-hon-no ronbun-ga [$_{\text{VP}}$ [$_{\text{CP}}$ kipparito [$_{\text{TP}}$ otagai-no kasetu-o Tanaka-sensei-ga [[$_{v\text{P}}$ ...] T]] to] setumei-s] v]

Under the assumption that adjuncts cannot undergo long-distance scrambling[3], (21) indicates that the anaphor still stays in the embedded clause. Summarizing the discussion here, we conclude that the example in (21) constitutes a counterexample to his analysis.

4. Alternative

The previous section has revealed that Saito's analysis faces the problematic contrast between (20a) and (21). In this section, we present an alternative analysis which can accommodate all the data given above.

This paper simply assumes that the scrambled object in (20a) does not reside in the embedded clause, as assumed in Saito (2017a,b), but rather does in the matrix clause. Assuming in addition that an anaphor and its antecedent should be at the same clause to be interpreted appropriately, this enables the scrambled object to be processed at the same level, namely in the matrix clause. Hence the acceptability in (20a) follows as the one in (18a) does. By contrast, the scrambled object in (21) does stay in the embedded clause as it does not move across the adjunct which marks the left boundary of the embedded clause. Since they the antecedent and the anaphor are separated by the clause boundary, they are not processed together at the same level, hence the unaccpetability, as the example in (18b) is unacceptable.

Notice that our claim that the scrambled object moves into the matrix clause can be confirmed by the following facts concerning scope ambiguity:

(23) a. [Subete-no hito]$_i$-o dareka-ga t_i ai-si-tei-ru.
all-Gen person-Acc someone-Nom love-do-Prog-Pres

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leads to an unacceptability.

(i) # Taroo-wa sono kasetu-o kipparito setumei-si-ta.
Taro-Top the hypothesis-Acc flatly explanation-do-Past
'(lit) Taro flatly explained the hypothesis.'

This means that *kipparito* marks the left periphery of the embedded sentence in (21).

[3]The assumption that adjuncts cannot under long-distance scrambling across a clause boundary is motivated by the data such as the following (cf. Saito 1985):

(i) * Yukkurito$_i$ Taroo-wa [Hanako-ga t_i booru-o nage-ta to] it-ta.
Slowly Taro-Top Hanako-Nom ball-Acc throw-Past C say-Past
'Slowly, Taro said that Hanako threw a ball.'

'Someone loves all people.' (some>all,all>some)

b. [Subete-no hito]$_i$-o Taroo-ga [dareka-ga t_i ai-si-tei-ru to] it-ta.
all-GEN person-Acc Taro-NOM someone-NOM love-do-PROG-PRES C say-PAST
'Taro said that someone loves all people.' (some>all,*all>some)

It has been observed since Mahajan (1990) that scrambling has A/A-bar distinction in movement. While clause-internal scrambling exhibits both of A- and A-bar-properties, clause-external scrambling only does A-bar-property. As the above data show, the scope relation between the quantifiers in (23a) can be interpreted in either way, but the one in (23b) is fixed with the scrambled universal quantifier necessarily taking the narrow scope. Note also with the following examples that the similar scope fact can be observed even if additional modifiers attaches to NPs.

(24) a. [Toogoron-niokeru subete-no kangae]$_i$-o dareka-ga t_i hitei-si-ta.
syntax-in all-GEN idea-Acc someone-NOM negation-do-PAST
'Someone denied all ideas in syntax. (some>all,all>some)

b. [Toogoron-niokeru subete-no kangae]$_i$-o Taroo-ga [dareka-ga t_i hitei-si-ta
syntax-in all-GEN idea-Acc Taro-NOM someone-NOM negation-do-PAST
to] it-ta.
C say-PAST
'Taro said that someone denied all ideas in syntax. (some>all,*all>some)

Now let us combine these facts with binding by *otagai* and examine what happens to scope relation. Consider (25).

(25) [Ni-hon-no ronbun]$_i$-ga [otagai$_i$-no bunya-niokeru subete-no kangae]$_j$-o dareka-ga
two-CL-GEN article-NOM each.other-GEN field-in all-GEN idea-Acc someone-NOM
t_j hitei-si-ta to setumei-si-tei-ru.
negation-do-PAST C explanation-do-PROG-PRES
'Two pieces of article explain that somebody denies all ideas in each other's fields.'
(some>all,*all>some)

Here, *otagai* is successfully bound by *ni-hon-no ronbun* and the universal quantifier in the scrambled object necessarily takes narrow scope. This patterns with the behavior in (23b) and (24b), which crucially suggests that the scrambled object is actually located in the matrix clause.

The same explanation goes to the acceptability in (19a), repeated here as (26), where the embedded subject *otagai-no kasetu* is placed in the matrix clause and hence the successful binding relation holds.

(26) [Ni-hon-no ronbun]$_i$-ga otagai$_i$-no kasetu-ga riiman-yosoo-no
two-CL-GEN article-NOM each.other-GEN hypothesis-NOM Riemann-hypothesis-GEN
syoomei-ni tsunaga-ru to] setumei-si-tei-ru.
proof-DAT lead-PRES C explanation-do-PROG-PRES
'Two pieces of articlesexplain that each other's hypotheses leads to Riemann Hypothesis.'

In a nutshell, the above discussion leads us to conclude that the idiosyncratic behavior in Japanese is not captured by Saito's approach which assumes the difference regarding the transfer domain in (13),

and rather suggests that there is not such a difference between English and Japanese and that scrambling plays a crucial role. More accurately, since English does not have the scrambling operation the element in an embedded clause cannot be bound by the antecedent in the antecedent in a matrix clause whereas in Japanese its presence makes it possible for the former to be bound by the latter.

5. Conclusion

This paper has discussed the question of why the unsuccessful binding in English is possible in Japanese. To be more concrete, in Japanese, a matrix antecedent can bind an embedded subject whereas such binding fails in English. It has also been argued that Saito's (2017a, 2017b) analysis becomes untenable when the additional data come in. Rather, we have claimed that a key to account for the discrepancy lies in the availability of scrambling, which creates such a crosslinguistic difference.

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