

A NOTE ON TRANSFER DOMAINS*

Mamoru Saito
Nanzan University

1. Introduction

This is a brief follow-up on Saito (2016). There, I tried to extend Quicoli's (2008) phase-based account of the locality of anaphor binding. Crucial in the discussion was Chomsky's (1981) generalization that the NIC effect obtains when Tense agrees with the subject. Thus, as Yang (1983) pointed out, the effect is not observed in tensed clauses in Japanese and Korean, which lack ϕ -feature agreement. (1b) is the Japanese counterpart of (1a).

(1) a. *Mary insisted that herself saw it

b. Hanako-wa [_{CP} [_{TP} zibunzisin-ga sore-o mita] to] syutyoosita
Hanako-TOP self-self-NOM it-ACC saw COMP insisted

'Hanako insisted that she (= Hanako) saw it.'

I argued on the basis of this that the complement TP is transferred to the interfaces upon the completion of CP phase only when the C head accompanies ϕ -features. In the absence of ϕ -feature agreement, the $\nu^*P/\nu P$ is instead transferred.

In this squib, I suggest a way to define phases and transfer domains that yields this result. Although it has become a standard assumption since Chomsky (2008) that the complement of a phase head is transferred when the phase is completed, Bošković (2016), for example, resurrects the idea that a phase itself constitutes the transfer domain. I entertain the hypothesis that a phase is transferred upon the completion of the next phase up. I show that this not only leads to a possible explanation for the contrast in (1) but also enables us to maintain that ν as well as ν^* is a phase head, as argued, for example, by Legate (2003), and to account for additional binding facts.

I present the main proposal in the following section after briefly going over Quicoli's phase-based analysis. Then, in Section 3, I discuss the implications and show that the

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proposal has desirable consequences for the analysis of ν Ps while it has little effect on the standard analysis of ν^* P phases and CP phases with ϕ -feature agreement. Section 4 concludes the squib.

2. Phase and ϕ -feature Agreement

I first briefly go over Quicoli's (2008) analysis of the locality of anaphor binding and then extend it to accommodate the lack of NIC effects in languages without ϕ -feature agreement. In the course of the discussion, I make two proposals. One is that Transfer applies to phases, not phase complements, upon the completion of the next phase up. The second is that when T inherits unvalued ϕ -features from C, it inherits phasehood as well.

Quicoli's proposal on the locality of anaphor binding can be summarized as in (2).

- (2) Information on the reference of an anaphor is sent to the C-I interface along with the transfer domain that contains the anaphor.

Let us see how this accounts for the contrast in (3).

- (3) a. John recommended himself
 b. *John thinks that Mary recommended himself

It is standardly assumed that CP and ν^* P are phases and as mentioned above, that their complement TPs and VPs are transferred to the interfaces when they are completed. Given this, the reflexive *himself* in (3a) is transferred when the ν^* P phase is built as in (4).

- (4) [ν^* P John [ν^* [ν P recommend himself]]]

As the antecedent *John* is already part of the structure, the information that *himself* corefers with *John* can be sent to the C-I interface along with the shaded VP. The situation is different in the case of (3b). The reflexive *himself* is transferred when the embedded ν^* P phase is built as in (5).

- (5) [ν^* P Mary [ν^* [ν P recommend himself]]]

In this case, the reference of *himself* cannot be specified when it is sent to the C-I interface. Hence, the reflexive fails to receive an interpretation.

The phase-based account of the locality of anaphor binding is quite promising. Yet, it still requires refinements to achieve the empirical coverage of, say, Chomsky's (1981) condition (A).¹ One of the phenomena to be considered in this respect is the lack of NIC effects in languages without ϕ -feature agreement. Yang (1983) pointed out in support of

¹ This statement, as far as I can see, holds also for more recent phase-based approaches such as Charnavel and Sportiche (2016).

condition (A) that local anaphors in Korean and Japanese can occur in the subject position of an embedded tensed clause. The following Japanese examples contain the subject-oriented local reflexive *zibunzisin* ‘self-self’:

- (6) a. Taroo-ga zibunzisin-o suisensita (koto)
 Taroo-NOM self-self-ACC nominated fact
 ‘Taroo nominated himself.’
- b. Taroo-ga [_{CP} [_{TP} Hanako-ga zibunzisin-o suisensita] to] itta (koto)
 Taroo-NOM Hanako-NOM self-self-ACC nominated COMP said fact
 ‘Taroo said that Hanako nominated herself/*himself.’
- c. Taroo-ga [_{CP} [_{TP} zibunzisin-ga Hanako-o suisensita] to] itta (koto)
 Taroo-NOM self-self-NOM Hanako-ACC nominated COMP said fact
 ‘Taroo said that he himself nominated Hanako.’

(6b) indicates that *zibunzisin* is a local anaphor as it can only take *Hanako* as its antecedent in this example. But (6c) is perfectly fine although the anaphor and its antecedent is separated by a CP boundary. It, like (1b), shows that NIC effects are not observed in the absence of ϕ -feature agreement.²

If CP is a phase and Transfer always applies to its complement TP, the grammaticality of (6c) is not predicted. The anaphor *zibunzisin* could not be interpreted in this example as it would be transferred upon the completion of the embedded CP, that is, before the antecedent *Taroo* is introduced into the structure. This is illustrated in (7).

- (7) [_{CP} [_{TP} zibunzisin-ga [_{v*P} zibunzisin-ga [_{VP} ...] v*]] T]] COMP]

Given this problem, I suggested in Saito (2016) that only v^*P/vP is transferred when ϕ -feature agreement is absent in CP. Then, Transfer applies in the embedded CP of (6c) as in (8a).

- (8) a. [_{CP} [_{TP} zibunzisin-ga [_{v*P} zibunzisin-ga [_{VP} ...] v*]] T]] COMP]
 b. [_{v*P} Taroo-ga [_{VP} [_{CP} [_{TP} zibunzisin-ga [_{v*P} ...] T]] COMP]] say] v*]]

When the matrix v^*P is completed as in (8b), the shaded part, which includes the higher copy of *zibunzisin*, is transferred to the C-I interface. The information that the reflexive corefers with *Taroo* can also be sent to the interface at this point because the latter is already

² See Nakamura (1986) for detailed discussion on the distribution of *zibunzisin*. There are examples in which it seems to allow “long-distance binding” rather freely. Kato (2016), however, argues that it exhibits the pattern in (6) strictly when it takes an inanimate antecedent and cannot be construed as a logophor. This technique to distinguish anaphors from logophors was first proposed by Charnavel and Sportiche (2016).

merged into the structure. The grammaticality of (6c) is thus accounted for.³

The analysis just outlined raises an obvious question that I left unanswered in Saito (2016). Why is it that v^*P/vP is the transfer domain when the CP phase lacks ϕ -feature agreement? TP should be the transfer domain when T carries ϕ -features, as (1a), repeated in (9), indicates.

(9) *Mary insisted that herself saw it

The example is ungrammatical because the embedded TP, containing *herself*, is transferred upon the completion of the embedded CP phase, as illustrated in (10).

(10) [CP that [TP herself ...]]

Then, what needs to be accounted for is the asymmetry in transfer domains shown in (11).

(11) a. [CP [C [TP subject [T_[+AGR] [v^*P/vP ...]]]]]
 b. [CP [C [TP subject [T_[-AGR] [v^*P/vP ...]]]]] (order irrelevant)

The transfer domain is TP with ϕ -feature agreement but is v^*P/vP without.

Here, I would like to suggest that the core case is the transfer of v^*P in (11b). As v^*P is a phase, this leads to the following hypothesis:⁴

(12) A phase is transferred upon the completion of the next phase up.

This hypothesis raises two questions. The first is whether vP is indeed transferred as in (11b), and if so, why it is. I will come back to this in the following section. The second, which I now turn to, is why TP is transferred when T carries ϕ -features as in (11a)?

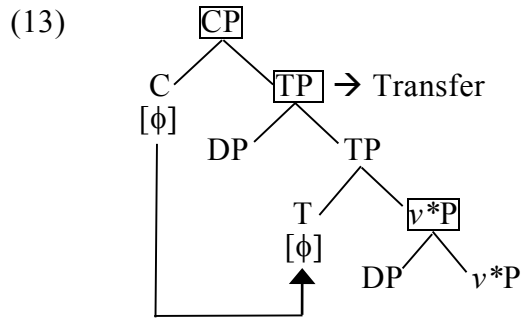
It is proposed in Chomsky (2008) that phase heads are locus of unvalued features. Unvalued ϕ -features then originate in C and v^* , and are inherited by T and V. Given this, suppose that what T inherits from C is not only unvalued ϕ -features but also phasehood. Or alternatively, one can assume that unvalued features on a head make it a phase head. Then, (12) predicts that TP is transferred when T inherits ϕ -features from C as illustrated in (13).

³ The reader is referred to Kato (2016) for an alternative analysis of examples like (6c). Unfortunately, I cannot discuss it here as it would take us too far afield.

(ia-b) probably instantiate the same pattern as (6b-c) although their precise structure is not as clear.

(i) a. *They want very much [for John to nominate each other]
 b. They want very much [for each other to succeed]

⁴ This is in line with the proposal in Bošković (2016), mentioned above, that phases, and not phase complements, constitute transfer domains.



CP and v^*P are phases. Hence, when there is no feature inheritance, v^*P is transferred upon the completion of the CP phase. This is what happens in (11b). However, when T inherits ϕ -features from C, TP becomes a phase. Hence, it is transferred when the CP phase is completed. If this is correct, the pattern in (11a) is a special case that obtains because of ϕ -feature agreement.

3. v as a Phase Head

In this section, I argue, following Legate (2003) and Bošković (2007), among others, that vP constitutes a phase just like v^*P . Given this conclusion, (12) implies that vP is transferred upon the completion of CP, as indicated in (11b). I first point out that (12) itself removes the main obstacle for the assumption that vP is a phase. Then, I present evidence from anaphor binding that vP is indeed a phase.

Legate (2003), for example, argues on the basis of reconstruction phenomenon with *wh*-movement that vP constitutes a phase. The proposal makes much sense on conceptual grounds as well. If v^*P is considered a phase because it contains a verb with all its arguments, vP should also be a phase for the same reason. However, this has not been widely assumed mainly because of examples like (14).

(14) Mary says that there arrived a man (on horseback)

The structure of the embedded clause is roughly as in (15a).

- (15) a. $[_{CP} [_{TP} \text{there} [_{T} [_{vP} v [_{VP} \text{arrive a man ...}]]]]]$
 b. $[_{vP} v [_{VP} \text{arrive a man ...}]]$

Suppose that vP is a phase. Then, if the complement is transferred upon the completion of a phase, VP is sent to the interfaces when Merge yields the structure in (15b). But the Case of the internal argument *a man* is not valued at this point, and this should cause a clash at least at the A-P interface.⁵ This problem is avoided if vP , as opposed to v^*P , is not a phase.

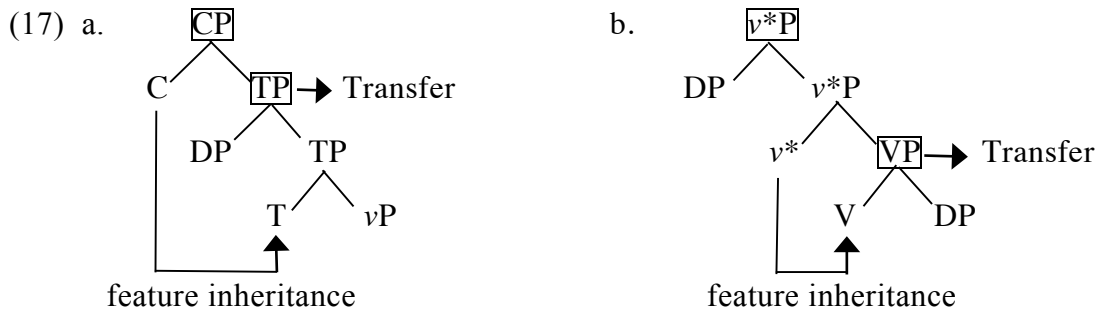
⁵ The argument here assumes that T values the Case of the DP, as proposed, for example, in Chomsky (1995).

On the other hand, the problem with (14) does not arise to begin with if (12) is correct. Suppose vP is a phase. According to (12), a phase is transferred upon the completion of the next phase up. Thus, vP is sent to the interfaces when the CP phase is built, as illustrated in (16).

(16) [CP [TP there [T [v_P v [v_P arrive a man ...]]]]]

The DP, *a man*, is already valued for Case when vP is transferred. So, (12) makes it possible to treat v^*P and vP uniformly as phases. In the remainder of this section, I present empirical evidence for the phasehood of vP .

Although (12) seems to depart radically from the standard assumption that phase complement is transferred upon the completion of a phase, it does not make different predictions for CPs with ϕ -feature agreement and v^*P s. This is so because of the proposal that T inherits phasehood from C along with ϕ -features. Once this inheritance takes place, TP is a phase and is transferred when CP is completed, as illustrated in (17a).



The same process should apply to v^*P s, as shown in (17b). V inherits ϕ -features from v^* , and hence should inherit phasehood as well. Then, VP is transferred upon the completion of v^*P . Thus, CPs with ϕ -feature agreement and v^*P trigger the Transfer of their complements even under (12).

Where the proposal in this squib departs from the standard hypothesis is with CPs without ϕ -feature agreement and vP s. Cases where TPs are not transferred upon the completion of CP were discussed in the preceding section. A relevant example (6c) is repeated below in (18).

(18) Taroo-ga [CP [TP zibunzisin-ga Hanako-o suisensita] to] itta (koto)
 Taroo-NOM self-self-NOM Hanako-ACC nominated COMP said fact
 ‘Taroo said that he himself nominated Hanako.’

As there is no feature inheritance from C to T, the embedded TP in this example is not a phase. Hence, Transfer applies to the embedded v^*P as in (11b), and *zibunzisin* in the subject position can have an antecedent in the matrix clause.

Further, if vP is a phase, as argued above, it is predicted that anaphors are illicit in the

following configuration:

(19) ... antecedent ... [CP [C [TP subject [T_[-AGR] [_{vP} ... anaphor ...]]]]] (order irrelevant)

This is so because *vP*, containing the anaphor, is transferred when the embedded CP is built. And the prediction is borne out by examples like (20).

(20) Taroo-ga [CP [TP Hanako-ga zibunzisin-no kaban-ni tumazuita] to] itta
 Taroo-NOM Hanako-NOM self-self-GEN bag-over stumbled COMP said
 (koto)
 fact
 ‘Taroo said that Hanako stumbled over her own/*his own bag.’

The embedded clause in this example has *vP*, and not *v*P*, because the verb is unaccusative. Yet, the anaphor *zibunzisin* cannot take the matrix subject as its antecedent. The example, then, constitutes evidence for the phasehood of *vP*.

A similar argument can be constructed on the basis of ECM examples in English. First, as noted in Saito (2016), the generalization that TPs are transferred only in CPs with ϕ -feature agreement opens up a way to maintain the CP analysis of ECM complements.⁶ Suppose that ECM complements are CPs and consider the structure in (21).

(21) John expects [CP [TP her [to [_{v*P} her [_v [_{vP} win the election]]]]]]

If the TP complement is transferred upon the completion of the embedded CP, *her* would fail to participate in Agree relation with the matrix verb and have its Case valued. It has been assumed that ECM complements are TPs for this reason. However, given (12), there is no problem with (21) because what is transferred upon the completion of the embedded CP is not TP but *v*P*. Thus, (12) makes it possible to assume that clausal complements with T are uniformly CPs.⁷

Let us now consider (22) with this background.

(22) a. *John expects [the guests to be introduced to himself]
 b. *Mary believes [the speakers to have been introduced to herself]

These are typical examples of the SSC effect on anaphor binding. However, if only CPs and *v*Ps* are phases and ECM complements are TPs, then it is not clear how they can be ruled out. The very first phase in these examples would then be the matrix *v*P*, which contains both the reflexive and its antecedent. Thus, the examples are incorrectly predicted to be

⁶ This analysis has repeatedly been suggested over the years. See Bošković (2007) for a recent proposal to this effect and the relevant references.

⁷ It is also noted in Saito (2016) that the generalization in (11) (and hence (12)) serves to make Hornstein’s (1999) movement analysis of control consistent with the phase theory.

grammatical. However, if ν Ps are also phases and ECM complements are CPs, (12) straightforwardly rules out these examples. The structure of the embedded CP of (22a) is shown in (23).

(23) [_{CP} C [_{TP} the guests [to [_{ν P} be introduced the guests to himself]]]]

When this CP is built, the shaded ν P is transferred to the interfaces. As the reference of the reflexive *himself* cannot be specified at this point, it fails to receive an interpretation. (12), thus, accommodates the examples in (22) with the assumption that ν P is a phase.

4. Conclusion

In this squib, I took the lack of NIC effects in languages without ϕ -feature agreement as a core fact, and proposed (12), repeated below in (24).

(24) A phase is transferred upon the completion of the next phase up.

I suggested in Section 2 that NIC effects arise when T inherits ϕ -features from C and becomes a phase head. Section 3 was concerned with the hypothesis that ν P constitutes a phase. I first showed that (24) removes the main obstacle for this hypothesis. Then, I discussed data that instantiate SSC and require ν Ps to be phases. Although (24) needs to be examined against other types of locality phenomena, I argued that it has some desirable consequences and broadens the empirical coverage of the phase-based analysis of the locality of anaphor binding.

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