

Scrambling across PP-Topic

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Cho, Jai-Hyoung. 1998. Scrambling across PP-Topic. *Linguistics*, 6-2, 1-21. This paper examines NP-topic and PP-topic constructions and shows that PP-topicalization is differentiated from NP-topicalization. It is noted that an NP-topic in Korean is base-generated in the Spec position of TopP, which is located higher than CP, whereas PP-topicalization is derived by movement, i.e., a PP-topic is preposed to the sentence-initial position, and the PP-topic phrase receives only the contrastive interpretation. It is demonstrated that in contrast to scrambling across an NP-topic, scrambling across a PP-topic, as non-operator A'-movement, does not exhibit the WCO effect since it creates a null epithet, which is immune to the WCO Constraint. Finally, it is maintained that unlike scrambling across an NP-topic, scrambling across a PP-topic creates a new anaphor binding relation since it can be an IP-adjunction operation. (Ajou University)

1. NP-Topic and PP-Topic

It is observed in Kuno (1973) that an NP-topic can be freely base-generated in the sentence-initial position in that it need not bind any argument position. In particular, the clause associated with the NP-topic phrase seems to contain no gap or no position from which the topic might have moved. Consider the following examples:

- (1) a. sayngsenhoy-nun kwange-ka choykota.
raw fish Top fluke Nom be the best
'As for raw fish, fluke is the best.'
- b. Pusan-un nalssi -ka yerum -ey maywu tepta.
Top weather Nom summer in very be hot
'As for Pusan, the weather is very hot.'

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- c.. Chicago-nun param -i kyewul-ey maywu seykey pwunta.
Top wind Nom winter in very hard blows
'As for Chicago, the wind blows very hard in winter.'

The fact that the NP-topic does not bind any gap in the argument position indicates that the NP-topic in (1) is not derived by movement, but rather it is base-generated in the sentence-initial position.

As pointed out in Saito (1987), topic constructions are by no means limited to NPs. For instance, a PP can appear with the topic marker *nun/un*, as shown below:

- (2) a. New York-ey-nun John -i sawel-ey kassta.
to Top Nom April in went
'As for to New York, John went there in April.'
b. Pusan-eyse-nun manun haksayngtul -i wassta.
from Top many students Nom came
'As for from Pusan, many students came from there.'

Furthermore, PP topicalization is not clause-bound, as indicated in (3):

- (3) a. New York-ey-nun Mary-ka John -i sawel-ey kassta-ko
to Top Nom Nom April in went Comp
malhayssta.
said
'As for to New York, Mary said that John went there in April.'
b. Pusan-eyse-nun Mary-ka manun haksayngtul -i wassta
from Top Nom many students Nom came
-ko malhayssta.
Comp said
'As for from Pusan, Mary said that many students came from there.'

At the same time, Saito (1987) notes that unlike NP topicalization, PP topicalization always requires a gap. The sentences below show the contrast between NP topics and PP topics in terms of the absence of a gap:

- (4) a. John -i taum cwu-ey New York-ey kal-kes katta.
 Nom next week to go seems
 'John seems to go to New York next week.'
- b. New York-un John -i taum cwu-ey kukos-ey kal-kes
 Top Nom next week there to go
 katta.
 seems
 'As for New York, John seems to go there next week.'
- c. * New York-ey-nun John -i taum cwu-ey kukos-ey
 to Top Nom next week there to
 kal-kes katta.
 go seems
 'As for to New York, John seems to go there next week.'

We can notice that the example (4b), which is the NP-topic construction containing no gap, is well-formed, whereas the example (4c), which is the PP-topic construction with no gap in it, is ill-formed. This indicates that a movement analysis is required for the case of PP topicalization.

Saito (1985) also observes that while NP topicalization does not exhibit subadjacency effects, PP topicalization does. The crucial difference between NP-Top and PP-Top that Saito notes is shown by the contrast between (5b) and (6b):

- (5) a. John -i [[e; New York-ul sileha-nun] salam;]-ul
 Nom Acc dislikes person Acc
 palkyenhayssta.
 found

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'John found a person who dislikes New York.'

- b. New York_j -un John -i [[e_i e_j sileha-nun] salam_i]-ul
 Top Nom dislikes person Acc

palkyenhayssta.

found

'As for New York, John found a person who dislikes it.'

- (6) a. John -i [[e_i New York-ey kakkum ka-nun] salam_i]-ul
 Nom to sometimes goes person Acc

palkyenhayssta.

found

'John found a person who sometimes goes to New York.'

- b. * New York_j-ey-nun John -i [[e_i e_j kakkum ka-nun]
 to Top Nom sometimes goes

salam_i]-ul palkyenhayssta.

person Acc found

'As for to New York, John found a person who sometimes goes there.'

According to Saito, (5b) is grammatical because it is possible for the NP-topic, *New York-un* 'New York-Top', to be base-generated in the sentence-initial position and thus subadjacency is not violated. On the other hand, (6b) is ungrammatical since the PP-topic, *New York-ey-nun* 'New York-to-Top', must have been moved out of the complex NP, yielding a subadjacency violation. Based on this, Saito concludes that in contrast to NP-Top, PP-Top is preposed to the sentence-initial position.

Moreover, Hoji (1985) suggests that PP-Top receives only the contrastive interpretation. The following contrast between NP-Top and PP-Top was drawn to his attention by Mamoru Saito:

- (7) a. John -i sayngsen-un coahanta.

Nom fish Top likes

'John likes fish (as opposed to other things).'

- b. *sayngsen-un* John-i coahanta.
 fish Top Nom likes
 'As for fish, John likes it.'
 (or 'John likes fish (as opposed to other things).')
- (8) a. John -i New York-ey-nun kakkum kanta.
 Nom to Top sometimes goes
 'John sometimes goes to New York (as opposed to other places).'
- b. New York-ey-nun John -i kakkum kanta.
 to Top Nom sometimes goes
 'John sometimes goes to New York (as opposed to other places).'
- * As for to New York, John sometimes goes there.'

As shown in the translation above, *sayngsen-un* 'fish-Top' in (7a) has the contrastive reading while *sayngsen-un* in (7b) has the topic reading as well as the contrastive reading.¹⁾ On the other hand, such a

1. As discussed in Hoji (1985), if we place heavy stress on the topic marker *nun/un*, NP-*nun/un* receives the contrastive interpretation:

- (i) a. *yemso-nun* cong-i -lul meknunta.
 goat Con paper Acc eat
 'Goats, as opposed to other animals, eat papers.'
- b. cong-i-lul *yemso-nun* t_i meknunta.
 paper Acc goat Con eat
 'Papers_i, goats, as opposed to other animals, eat t_i.'
- (ii) a. John-un *sayngsen-ul* coahanta.
 Con fish Acc likes
 'At least John likes fish.'
- b. *sayngsen-ul* John-un t_i coahanta.
 fish Acc Con likes
 'Fish_i, at least John likes t_i.'

The sentences (ia) and (iia), with heavy stress on *nun/un*, yield the contrastive reading on *yemso-nun* 'goat-Con' and *John-un* 'John-Con'. The contrastive

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contrast is neutralized in the PP-Top construction: *New York-ey-nun* in (8a) and (8b) is only taken to be contrastive. That the PP-Top generally tends to be contrastive is also indicated by the following examples:

- (9) a. *ku chayk-un amwuto an ilkessta.*
 that book Top anyone not read
 'As for that book, no one read it.'
 (or 'no one read that book (as opposed to other books).')
- b. *sensayng -i [ku chayk-un amwuto an ilkess-ki*
 teacher Nom that book Top anyone not read
ttaymwuney] hwanassta.
 because was angry
 'The teacher was angry because no one read that book (as opposed to other books).'
 '* The teacher was angry because as for that book, no one read it.'
- (10) a. *miswul pakmwulkwan-ey-nun amwuto an kassta.*
 art museum to Top anyone not went
 'No one went to the art museum (as opposed to other places).'
- b. *sensayng -i [miswul pakmwulkwan-ey-nun amwuto an*
 teacher Nom art museum to Top anyone not
kass-ki ttaymwuney] hwanassta.
 went because was angry
 'The teacher was angry because no one went to the art museum (as opposed to other places).'
 '* The teacher was angry because as for to the art museum, no one went there.'

The topic interpretation is disallowed in non-root clause in Korean and

reading on NP-*nun/un* is also preserved after scrambling takes place.

Japanese (Hoji (1985), Kubo (1992), Whitman (1991)). Thus, according to Hoji (1985), the sentence (9b) becomes acceptable only with heavy stress on *nun* 'Top', which forces *ku chayk-un* 'that book-Top' to be contrastive. However, in contrast to (9b), (10b) is acceptable with normal intonation. Even without heavy stress on *nun* 'Top', *miswul pakmwulkwan-ey-nun* 'art museum-to-Top' receives the contrastive interpretation, indicating again that the PP-Top tends to be contrastive.

2. Scrambling and Weak Crossover (WCO)

It was argued in Cho (1994) that scrambling across a subject, as non-operator A'-movement to the IP-adjoined position, does not induce WCO effects since it creates a null epithet, which is immune to the WCO Constraint. However, scrambling across a topic yields WCO effects, as illustrated below:²⁾

- (11) a. [IP nwukwu_i-lul [IP ku_i-uy chinkwu -ka t_i chingchanhayss]]-ni?
 who Acc he Gen friend Nom praised-Q
 'Who_i his_i friend praised t_i?'
 b. ?* nwukwu_i-lul ku_i-uy chinkwu-nun t_i chingchanhayss-ni?
 who Acc he Gen friend Top praised-Q

2. The following WCO Constraint is assumed in this paper:

(i) WCO Constraint

When a pronoun P and a variable V are both A'-bound by the same Quantifier Q, V must c-command P at LF.

The constraint (i) can be schematized as in (ii):

(ii) * [Op_i [... [... pronoun_i ...] ... t_i ...]]

where neither the pronoun nor the variable c-commands the other.

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'As for [his_i friend]_j, who_i, he_j praised t_i?'

Notice that unlike scrambling across a subject in (11a), scrambling across a topic in (11b) triggers the WCO effect. The WCO effect is expected not to occur if scrambling across a topic, like scrambling across a subject, is an IP-adjunction operation and leaves behind a null epithet, which is not subject to the WCO constraint. This indicates that scrambling across a topic involves a different operation.

2.1. NP-Topic Position: Cho (1996)

At this stage, we need to examine where the NP-topic is base-generated.

First, if we assume that the NP-topic is base-generated in the IP-adjoined position, we cannot account for the difference between scrambling across a subject and scrambling across a topic with respect to WCO. Let us consider the examples (11a) and (11b). In (11a), scrambling across a subject, which moves the wh-phrase *nwukwu-lul* 'who-Acc' to the IP-adjoined position, is non-operator A'-movement, and thus creates a null epithet, not inducing the WCO effect. However, if the topic *ku-uy chinkwu-nun* 'he-Gen friend-Top' were base-generated in the IP-adjoined position, then nothing would prevent the wh-phrase *nwukwu-lul* 'who-Acc' from being moved to the IP-adjoined position by scrambling. If so, the WCO effect would be expected not to show up in (11b).

The next possible site for the NP-topic is the Spec position of CP. Then, the following topic construction containing a wh-phrase poses an immediate question:

- (12) a. John_i-un [_{IP} e_i mwues-ul coaha]-ni?
 Top what Acc like-Q
 'As for John_i, what does he_j like?'

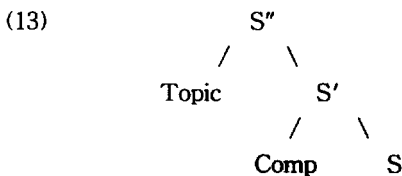
- b. John_i-un [_{IP} e_i way sakwa-lul sileha]-ni?
 Top why apple Acc dislike-Q
 'As for John_i, why does he_i dislike an apple?'

If the topic *John-un* 'John-Top' occupies the Spec position of CP, a wh-phrase, *mwues-ul* 'what-Acc' in (12a) and *way* 'why' in (12b), cannot move into the Spec position of CP at LF and thus the + wh feature located under C cannot be checked under Spec-Head agreement with the wh-phrase. Therefore, the hypothesis that the topic is base-generated in the Spec position of CP is to be abandoned.

Given that the IP-adjoined position and the Spec position of CP are abandoned as the topic position, the Spec position of a Topic Phrase (TopP) remains a candidate for the topic position.

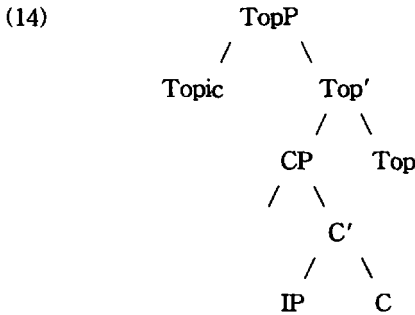
The merit of this hypothesis is that if the NP-topic is base-generated in the Spec position of TopP, it leaves open another operator position, i.e., the CP SPEC position that the wh-operator may move into at LF.

It is worth noting that Korean topic constructions seem quite similar to English Left Dislocation constructions. Chomsky (1977) proposes that Left Dislocation in English involves a base-generated topic under S'' node, as shown below:



We adopt the following phrase structure for Korean topic constructions and English Left Dislocation constructions, where S'' and S' in the above structure correspond to TopP and CP, respectively:

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The scope relation between a topic and a wh-phrase provides support for the structure (14). Consider the following example which contains a topic and a wh-object:

- (15) ku salam -tul-un mwues-ul sass-ni?
 those person PL Top what Acc bought-Q
 'As for those people, they bought what?'

The sentence (15) is ambiguous. On the first interpretation, the NP-topic takes wider scope than the wh-phrase. This reading anticipates a family of answers, such as "John bought a watch, Bob a ring, and Tom a tie." The second interpretation is the group interpretation. This reading anticipates a collective answer, such as "They bought a watch." Consider now the following example which contains a subject and a wh-object:

- (16) ku salam -tul-i mwues-ul sass-ni?
 those person PL Nom what Acc bought-Q
 'Those people bought what?'

In contrast to (15), (16) is not ambiguous. (16) lacks the reading where the subject takes wider scope than the wh-phrase. The only reading available in (16) is the group interpretation. This reading anticipates a collective answer, such as "They bought a watch."

follows:

- (22) [_{TopP} John_i [_{CP} [_{IP} the apple_j [_{IP} he_i likes t_j]]]]

Again, what the ill-formedness of (21a) indicates is that in Korean, two topic positions are not allowed. Lasnik and Saito (1992) also point out that the second type of topicalization in English, i.e., the adjunction of a topic to IP, is quite similar to scrambling. The following Korean sentence involving scrambling supports their reasoning:

- (23) John_i-un sakwa_j-lul ku_i-ka t_j coahanta.
 Top apple Acc he Nom like
 'As for John_i, the apple_j, he_i likes t_j.'

Compare (23) to (21a). When both *John* and *sakwa* 'apple' are topicalized, the sentence is ungrammatical, as in (21a). However, as in (23), if *sakwa* 'apple' is scrambled instead of being topicalized, the sentence becomes improved a lot. This supports our hypothesis that the topic in Korean is base-generated and at most one position is available for the topic.

Finally, note that just as Korean topic construction can contain a wh-phrase in it, English Left Dislocation construction can, too:

- (24) a. [_{TopP} John_i-un [_{CP} [_{IP} nwukwu-ka ku_i-lul/e_i
 Top who Nom he Acc
 coaha]-ni]]
 like-Q
 'As for John_i, who likes him_i?'
 b. LF: [_{TopP} John_i [_{CP} Wh_j [_{IP} t_j ... pronoun_i ...]]]
 (25) a. [_{TopP} John_i [_{CP} who_j [_{IP} t_j likes him_i?]]]
 b. LF: [_{TopP} John_i [_{CP} Wh_j [_{IP} t_j ... pronoun_i ...]]]

As we have argued earlier, in (24a) the topic is base-generated in the Spec position of TopP and hence, the CP SPEC position remains empty.

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If a *wh*-phrase moves to the Spec of CP at LF and has its + *wh* feature checked under Spec-Head agreement with a + *wh* feature located under C, the LF representation of Korean topic construction as in (24b) is the same as that of English Left Dislocation construction as in (25b).

2.2. Scrambling across NP-Topic and WCO

Given the hypothesis that an NP-topic in Korean is base-generated in the Spec position of TopP, scrambling across the NP-topic cannot be an IP-adjunction operation but must be an adjunction operation to the projection higher than IP, that is, a TopP-adjunction operation. Then we can account for the presence of WCO effects exhibited by scrambling across the NP-topic. (11a) and (11b) are repeated below as (26a) and (26b), respectively:⁴⁾

- (26) a. [_{IP} *nwukwu_i-lul* [_{IP} *ku_i-uy chinkwu -ka t_{ei}*
 who Acc he Gen friend Nom
 chingchanhayss]]-ni?
 praised-Q
 'Who_i his_i friend praised t_i?'
 b. ?* [_{TopP} *nwukwu_i-lul* [_{TopP} *ku_i-uy chinkwu-nun t_{vi}*
 who Acc he Gen friend Top
 chingchanhayss-ni?
 praised-Q
 'As for [his_i friend]_j, who_i, he_j praised t_i?'

The *wh*-phrase *nwukwu-lul* 'who-Acc' in (26a) is scrambled across a subject to the IP-adjoined position, i.e., non-operator A'-position, and leaves behind a null epithet *t_e*, which is immune to the WCO Constraint. Thus, the WCO effect does not show up in (26a). On the

4. A variable is represented as *t_v* and a null epithet as *t_e*.

other hand, in (26b) the *wh*-phrase *nwukwu-lul* 'who-Acc' is scrambled across a topic to the TopP-adjoined position, i.e., operator position, and a variable t_v is created. The trace t_v in (26b), which is a variable, does not c-command the coindexed pronoun *ku-uy* 'he-Gen' and hence (26b) is ruled out as a WCO violation.

2.3. Scrambling across PP-Topic and WCO

It was discussed in section 1 that unlike an NP-topic, a PP-topic is derived by movement and receives only the contrastive interpretation. In this section, we examine PP-topic constructions with regard to WCO and demonstrate that scrambling across a PP-topic patterns with scrambling across a subject rather than with scrambling across an NP-topic. Consider the following examples:

- (27) a. ?* [_{TopP} *nwukwu_i-lul* [_{TopP} *Mary-eykey_j* [_{TopP} *ku_i-uy*
 who Acc to he Gen
 sensayngnim-un t_{vj} t_{vi} sokayhayss-ni?]]]
 teacher Top introduced-Q
 'As for [*his_i teacher*]_j, *who_i*, to *Mary_j*, *he_j* introduced *t_j t_i?*'
- b. [_{IP} *nwukwu_i-lul* [_{IP} *Mary-eykey_j* [_{IP} *ku_i-uy*
 who Acc to he Gen
 sensayngnim-i t_{ej} t_{ei} sokayhayss]]]-ni?
 teacher Nom introduced-Q
 'Who_i, to *Mary_j*, *his_i teacher* introduced *t_j t_i?*'

According to our theory, in (27a) the *wh*-phrase *nwukwu_i-lul* 'who-Acc' is scrambled across the NP-topic to the TopP-adjoined position and a variable t_{vi} is generated. The trace t_{vi} , which is a variable, does not c-command the coindexed pronoun *ku_i-uy* 'he-Gen' and thus (27a) results in a violation of the WCO Constraint. By contrast, scrambling across a subject as in (27b) involves movement to the IP-adjoined

position and creates a null epithet. Thus, the WCO effect does not appear in (27b).

Notice then that scrambling across a PP-topic does not yield WCO effects, as illustrated below:

- (28) a. ? nwukwu_i-lul Mary-eykey_j-nun ku_i-uy sensayngnim-i
 who Acc to Top he Gen teacher Nom
 t_j t_i sokayhayss-ni?
 introduced-Q
 'Who_i, his_i teacher introduced t_i to Mary (as opposed to other people)?'
- b. ? nwukwu_i-lul hakkyo-lopwute_j-nun ku_i-uy sensayngnim-i
 who Acc school from Top he Gen teacher Nom
 t_j t_i tonghaynghayss-ni?
 accompanied-Q
 'Who_i, his_i teacher accompanied t_i at least from the school?'

If scrambling across a PP-topic were a TopP-adjunction operation, our theory would predict that WCO effects show up in (28), contrary to the fact. Indeed, Saito (1985) argues that PP-topicalization always involves movement as a subcase of scrambling. Thus, if we maintain, following Saito (1985), that PP-topics are derived by movement to the IP-adjoined position, scrambling across a PP-topic can be an IP-adjunction operation like scrambling across a subject:

- (29) a. ? [_{IP} nwukwu_i-lul [_{IP} Mary-eykey_j-nun [_{IP} ku_i-uy
 who Acc to Top he Gen
 sensayngnim-i t_{ej} t_{ei} sokayhayss]]]-ni?
 teacher Nom introduced-Q
 'Who_i, his_i teacher introduced t_i to Mary (as opposed to other people)?'

- b. ? [_{IP} nwukwu_i-lul [_{IP} hakkyo-lopwute_j-nun [_{IP} ku_i-uy
 who Acc school from Top he Gen
 sensayngim-i t_e t_i tonghaynghayss]]]-ni?
 teacher Nom accompanied-Q
 'Who_i, his_i teacher accompanied t_i at least from the school?'

As shown above, if scrambling across a PP-topic is movement to the IP-adjoined position, we can account for the absence of WCO effects in PP-topicalization constructions. In (29a) the *wh*-phrase *nwukwu-lul* 'who-Acc' is scrambled across a PP-topic to the IP-adjoined position and a null epithet *t_e* is created. Therefore, in our analysis, WCO effects are correctly expected not to occur in (29a) and (29b).

3. Scrambling and Anaphor Binding

3.1. Scrambling across NP-Topic and Anaphor Binding

It was noted in Cho (1994) that while scrambling across a subject creates a new binding possibility for an anaphor it has taken place over (cf. Mahajan (1990), Nemoto (1993), and Cho (1994)), scrambling across an NP-topic does not provide an antecedent for an anaphor. Consider the following examples:

- (30) a. * caki_i-uy chinkwu-ka John_i-ul kosohayssta.
 self Gen friend Nom Acc sued
 'Self_i's friend sued John_i.'
- b. [_{IP} John_i-ul [_{IP} caki_i-uy chinkwu-ka t_i kosohayssta.]]
 Acc self Gen friend Nom sued
 'John_i, self_i's friend sued t_i.'

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(31) a. * *caki*_i-uy *chinkwu*-nun *John*_i-ul *kosohayssta*.

self Gen friend Top Acc sued

'As for self_i's friend, he sued John_i.'

b. ?* [_{TopP} *John*_i-ul [_{TopP} *caki*_i-uy *chinkwu*-nun *t*_i

Acc self Gen friend Top

kosohayssta.

sued

'As for [self_i's friend]_j, John_i, he_j sued t_i.'

Binding Principle A is responsible for the ill-formedness of (30a) and (31a) since the reflexive *caki* 'self' is not bound. On the other hand, (30b) is well-formed because the scrambled phrase *John-ul* 'John-Acc' can serve as an antecedent of the reflexive *caki* 'self'. However, the ill-formedness of (31b) indicates that *John-ul* 'John-Acc' in (31b) which has scrambled across an NP-topic cannot be an antecedent of the reflexive *caki* 'self', yielding a Binding Principle A violation. If we hypothesize that scrambling across an NP-topic is a TopP-adjunction operation and a TopP-adjoined position is an operator position, as argued in Cho (1994), then the ungrammaticality of (31b) directly follows if we adopt the following Binding Principle A, where D is the relevant local domain:

(32) Binding Principle A

If α is an anaphor, interpret it as coreferential with a c-commanding phrase in non-operator position in D.

According to Binding Principle A given above, an element which appears in operator position cannot be an antecedent of an anaphor. In this regard, *John-ul* 'John-Acc' in (31b), which is in the TopP-adjoined position, is in operator position, and thus it cannot serve as the antecedent of the reflexive *caki* 'self' in (31b). Therefore, (31b), which involves scrambling across an NP-topic, is ruled out as a violation of

Binding Principle A.

3.2. Scrambling across PP-Topic and Anaphor Binding

It was shown in section 2.3. that scrambling across a PP-topic is an IP-adjunction operation and thus patterns with scrambling across a subject in that it does not yield WCO effects. In this section, we investigate whether scrambling across a PP-topic creates a new anaphor binding relation. (33a) and (34a) are PP-topic constructions and scrambling takes place over a PP-topic in (33b) and (34b):

- (33) a * na-eykey_j-nun caki_i-uy sensayngnim-i t_j John_i-ul
 I to Top self Gen teacher Nom Acc
 sokayhayssta.
 introduced
 'Self_i's teacher introduced John_i to me (as opposed to other people).
- b. ? [_{IP} John_i-ul [_{IP} na-eykey_j-nun [_{IP} caki_i-uy
 Acc I to Top self Gen
 sensayngnim-i t_j t_i sokaykayssta]]]
 teacher Nom introduced
 'John_i, self_i's teacher introduced t_i to me (as opposed to other people).'
- (34) a * hakkyo-lopwute_j-nun caki_i-uy sensayngnim-i t_j John_i-ul
 school from Top self Gen teacher Nom Acc
 tonghaynghayssta.
 accompanied
 'Self_i's teacher accompanied John_i at least from the school.'
- b. ? [_{IP} John_i-ul [_{IP} hakkyo-lopwute_j-nun [_{IP} caki_i-uy
 Acc school from Top self Gen
 sensayngnimi-i t_j t_i tonghaynghayssta]]]
 teacher Nom accompanied

'John_i, self_i's teacher accompanied t_i at least from the school.'

The ill-formedness of (33a) and (34a) is due to Binding Principle A since the reflexive *caki* 'self' is not bound. On the other hand, the well-formedness of (33b) and (34b) indicates that the reflexive *caki* 'self' can take as its antecedent the scrambled phrase, *John-ul* 'John-Acc', which has scrambled over a PP-topic to an IP-adjoined position, satisfying Binding Principle A in (32).

4. Conclusion

In this paper, we examined NP-topic and PP-topic constructions and observed that PP-topicalization is differentiated from NP-topicalization. We noted that an NP-topic in Korean is base-generated in the Spec position of TopP, which is located higher than CP, whereas PP-topicalization is derived by movement, i.e., the PP-topic is preposed to the sentence-initial position, and the PP-topic phrase receives only the contrastive interpretation. We demonstrated that scrambling across an NP-topic, as operator movement to the TopP-adjoined position, leaves behind a variable and hence yields the WCO effect, whereas scrambling across a PP-topic, as non-operator A'-movement to the IP-adjoined position, does not exhibit the WCO effect since it creates a null epithet, which is immune to the WCO Constraint. Finally, we maintained that scrambling across an NP-topic does not create a new anaphor binding relation since it is operator movement but that scrambling across a PP-topic can be an IP-adjunction operation, namely, a non-operator A'-movement, and thus it provides an antecedent for an anaphor.

References

- Cho, J.-H. 1994. *Scrambling in Korean: Crossover, Reconstruction and Binding Theory*. Doctoral dissertation, University of Connecticut.
- Cho, J.-H. 1996. "Remarks on Topic Constructions," *Humanities Review* 7, 311-339.
- Chomsky, N. 1977. "On WH-Movement," in P. Culicover, T. Wasow, and A. Akmajian, eds., *Formal Syntax*. Academic Press, New York.
- Hoji, H. 1985. *Logical Form Constraints and Configurational Structures in Japanese*. Doctoral dissertation, University of Washington.
- Kubo, M. 1992. *Japanese Syntactic Structures and Their Constructional Meanings*. Doctoral dissertation, MIT.
- Kuno, S. 1973. *The Structure of the Japanese Language*. Cambridge, Mass.: MIT Press.
- Lasnik, H. and M. Saito. 1992. *Move α : Conditions on Its Application and Output*. MIT Press, Cambridge, MA.
- Mahajan, A.K. 1990. *The A/A-bar Distinction and Movement Theory*. Doctoral dissertation, MIT.
- Nemoto, N. 1993. *Chains and Case Positions: A study from Scrambling in Japanese*. Doctoral dissertation, University of Connecticut.
- Saito, M. 1985. *Some Asymmetries in Japanese and Their Theoretical Implications*. Doctoral dissertation, MIT.
- Saito, M. 1987. "Three Notes on Syntactic Movement in Japanese," in T. Imai and M. Saito, eds., *Issues in Japanese Linguistics*. Foris, Dordrecht.
- Whitman, J. 1991. "String Vacuous V to Comp," Paper presented at GLOW.

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