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Some Problems with a Lowering Account of Scrambling

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Bošković and Takahashi (1998) (B&T) propose that scrambled arguments are base-generated in their surface positions (adjoined to IP), but may undergo covert lowering to their canonical positions in order to be assigned a θ-role at LF, in accordance with Last Resort.[1] They argue that since no independent principle of grammar requires it, such movement need not leave a trace, and therefore the Proper Binding Condition does not come into play.

They cite examples, principally from Japanese, showing that the appropriate LF configuration to account for various binding and scope phenomena is that in which the scrambled element appears in its canonical position (and nowhere else). For instance, in (1) (B&T 1998:354) the scrambled dative QP *daremo-ni* 'everyone' cannot take scope over the nominative QP *dareka-ga* 'someone' despite its surface position.

(1) Daremo$_i$-ni dareka-ga [Mary-ga e$_i$ atta to]
everyone-DAT someone-NOM Mary-NOM met that
omotteiru.
thinks
= for some *x, x* a person, *x* thinks that for every *y, y* a person, Mary met *y*
≠ for every *y, y* a person, there is some *x, x* a person, such that *x* thinks that Mary met *y*

Similarly, in (2) (B&T 1998:355) the anaphor *otagai-no* 'each other' cannot be bound by the scrambled argument *Mary to Pam-ni* 'Mary and Pam'.[2]

(2) *[Mary to Pam]$_i$-ni [otagai$_i$-no hahaoya]-ga
Mary and Pam-DAT each.other-GEN mother-NOM
[John-ga e$_i$ atta to] omotteiru.
John-NOM met that think
'Mary and Pam, each other's mothers think that John met.'

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[1] They also propose an alternative mechanism for clause-internally scrambled arguments, but we do not deal with this here.

[2] An account of this based on the A/Ā distinction is of course available, but B&T wish to minimize or eliminate this distinction. In any case, as they point out, it remains possible that the scrambled position in multiple-subject languages like Japanese is in fact a specifier of IP.

However, a number of Korean examples, where the facts differ from those of the corresponding Japanese sentences, raise problems for B&T's account. These examples all suggest that in certain cases the scrambled element must be present in its scrambled or some other noncanonical position at LF.

Consider (3), an approximate Korean counterpart to (1).

(3) [Motun saram]$_i$-ul nwukwunka-ga [Mary-ka e_i
every person-ACC someone-NOM Mary-NOM
mannassta-ko] sayngkakhanta.
met-COMP thinks
= for some *x, x* a person, *x* thinks that for every *y, y* a person, Mary met *y*
= for every *y, y* a person, there is some *x, x* a person, such that *x* thinks that Mary met *y*

According to B&T, in (3) the QP *motun saram-ul* 'every person' must covertly move to the canonical position *e* in order to receive a θ-role from *mannassta* 'met'. But then it is difficult to account for the fact that in this example, as opposed to its Japanese counterpart, a wide scope interpretation is indeed available for the scrambled quantifier.[3] On the other hand, the wide scope interpretation follows naturally if *motun saram-ul* is allowed to remain in the IP-adjoined position at LF.

Now consider (4) (Kim 1995:54), which demonstrates that *wh*-in-situ in an embedded clause takes scope only over that clause.

(4) Ne-nun [Mary-ka nwukwu-lul salanghanun-ci]
you-TOP Mary-NOM who-ACC love-Q
al-ko sip-ni?
know-COMP want-Q
a. 'Do you want to know who Mary loves?'
b. *'Who do you want to know whether Mary loves?'

Given B&T's analysis, we would expect that the scrambled version of (4), with the *wh*-phrase in front, should have exactly the same possible interpretations, since the two would be indistinguishable at LF. But as (5) (Kang and Müller 1996:274) shows, this expectation is not borne out. Rather, the scrambled but not the in-situ *wh*-phrase can take wide scope.[4]

[3] But judgments vary. The coauthor who is a Korean native speaker (Park) accepts the second reading, as do three of the five other Korean linguists consulted, whereas an anonymous reviewer and two of the five Korean linguists do not.

[4] Again, there appear to be dialectal differences in acceptability. An anonymous reviewer finds unacceptable any sentence containing a Q-morpheme in both the embedded and matrix clauses, combined with a *wh*-phrase scrambled to initial position. However, one of us (Park) finds the example perfectly acceptable, as evidently do Kang and Müller; and entirely parallel examples are cited by Kim (1995:58) and Lee (1992:405).

(5) Nwukwu$_i$-lul Shin-Sook-un [Suna-ka e_i
who-ACC Shin-Sook-TOP Suna-NOM
sungbaehanun-ci] a-ni?
admire-Q know-Q
a. 'Does Shin-Sook know who Suna admires?'
b. 'Who does Shin-Sook know whether Suna admires?'

The preceding examples demonstrate that, in Korean at least, there are cases where scrambling can provide interpretive options not available to the unscrambled variant, and further that these options are just those that would be expected if the scrambled element remained in its surface position at LF.

As it turns out, it is also possible for scrambling to rescue ungrammaticality. Consider in this context (6) (J.-H. Cho 1994:103).

(6) Kutul$_i$-ul selo$_i$-uy chinku-ka John-i e_i
they-ACC each.other-GEN friends-NOM John-NOM
kosohayessta-ko malhayssta.
sued-COMP said
'Each other$_i$'s friends said that John sued them$_i$.'

The scrambled pronominal *kutul* 'they' in (6) is apparently a satisfactory binder for the anaphor *selo* 'each other.'[5] This is surprising if, as B&T's analysis assumes, *kutul* winds up in the canonical position *e* (and nowhere else) at LF. And, in fact, the unscrambled version (7) (J.-H. Cho 1994:103) is ungrammatical, a clear Condition A violation.

(7) *Selo$_i$-uy chinku-ka John-i kutul$_i$-ul
each.other-GEN friends-NOM John-NOM they-ACC
kosohayessta-ko malhayssta.
sued-COMP said

The preceding examples suggest that in Korean, as opposed to Japanese, a scrambled element is in some sense present at LF in its surface position. However, other data indicate that scrambled elements must also, or alternatively, be present in canonical position at LF (quite apart from considerations of θ-marking).[6] Consider for instance (8) (J.-H. Cho 1994:159).

(8) [Caki$_i$-uy atul]$_j$-ul ku$_i$-ka sensayng-i e_j ttayryessta-ko
self-GEN son-ACC he-NOM teacher-NOM hit-COMP
sayngkakhanta.
thinks
'He$_i$ thinks that the teacher hit his$_i$ son.'

[5] For the purposes of this squib, we finesse the obvious difficulty that *kutul* is in an Ā-position. In any case, Korean being like Japanese a multiple-subject language, there is likewise the possibility that the scrambled position is a further specifier of IP (see footnote 2), though in fact J.-M. Cho (1994) provides some evidence that the scrambled position is actually lower than the multiple-subject position.

[6] See Frank, Lee, and Rambow 1996 for a detailed discussion of Korean scrambling with respect to Conditions A and C.

The grammaticality of (8) suggests that at LF the DP *caki-uy atul-ul* 'his son', which includes an anaphor, is in its canonical position *e,* where *caki-uy* 'his' can be bound by *ku-ka* 'he'. In a similar vein, the Condition C violation in (9) (J.-H. Cho 1994:88) suggests that the R-expression *John-uy atul-ul* 'John's son' is in canonical position at LF.

(9) *[John$_i$-uy atul]$_j$-ul ku$_i$-ka Mary-ka e$_j$ ttayryessta-ko
John-GEN son-ACC he-NOM Mary-NOM hit-COMP
sayngkakhanta.
thinks
'He$_i$ thinks that Mary hit John$_i$'s son.'

Taken together, these examples suggest that the correct LF configuration, in Korean, is one in which the scrambled argument occurs in both the scrambled and the canonical position. Of course, there is a traditional solution to the problem of an element's needing to be in more than one place: movement from one to the other, crucially (in a theory where there is only one level of interpretation) leaving behind a trace or copy in the original position.[7]

Yet B&T rely on the LF absence of a trace or copy in the base-generated position in order to avoid violation of the Proper Binding Condition. However, the resulting lack of any structural representation of the relation between pre- and postmovement positions opens the field too wide, particularly when combined with their argument that lowering is exempt from Relativized Minimality effects (essentially, because no possible intervening node could c-command the source but not the target of movement, in accordance with Rizzi's (1990) definition). The result appears to be that there are *no* restrictions on scrambling within their system. They are therefore left without an account for the ungrammaticality of (10) (J.-H. Cho 1994:106).

(10) *John$_i$-ul Mary-ka [[e$_j$ e$_i$ coaha-nun] chinkutul$_j$]-ul
John-ACC Mary-NOM like-REL friends-ACC
mannassta.
met
'Mary met the friends who like John.'

J.-H. Cho accounts for the ungrammaticality in terms of Subjacency; but whatever may be the correct formulation in terms of minimalist assumptions, it seems clear that B&T's theory cannot rule out examples like (10), which do not involve binding or scope phenomena and

[7] As an anonymous reviewer points out, the binding-theoretic results in (8) and (9) can be derived without a binder in canonical position, by adopting the segment theory of adjunction. On this basis, *ku* would in fact c-command the scrambled phrases in both (8) and (9), leading to the observed results. This possibility weakens our binding-theoretic arguments for the need to have the relevant phrases in the canonical as well as the scrambled position; but considerations of θ-marking would still seem to require this, and in any case such a line of analysis would not be available under B&T's proposal.

in which the scrambled phrase is an argument, not an adjunct: whatever constraint it is that rules (10) out, it is obviously a constraint concerning either the ''distance'' of the movement or the relationship between the moved element and its trace, and neither sort of constraint is even formulable under B&T's analysis.

A similar problem for B&T's analysis is posed by (11) (Park 1999:109).

(11) *[Sam-i e_i mantulessta-ko]$_j$ [ku umsik]$_i$-ul ne-ka
Sam-NOM made-COMP that food-ACC you-NOM
e_j malhayssta.
said
'You said that Sam made that food.'

In this example the subphrase *ku umsik-ul* 'that food' moves out of the superphrase *Sam-i ku umsik-ul mantulessta-ko* 'that Sam made that food', and the remnant of the superphrase moves even further (illustrating Pesetsky's (1982) ''diving paths'').[8] But again, B&T's analysis seems to open the field too wide. On a raising account, the difficulty with (11) is straightforwardly a violation of the Proper Binding Condition: *ku umsik-ul* does not c-command its trace. But on B&T's account, nothing prevents lowering of the outermost scrambled CP remnant, followed by lowering of its own scrambled direct object, or alternatively raising of the scrambled object into the CP remnant followed by lowering of the whole complex: with either derivation, the result is an LF representation indistinguishable from a sentence with canonical word order.

B&T end by noting that further research is required to establish whether scrambling is crosslinguistically a unitary phenomenon. We have shown that the differences between scrambling in Japanese and scrambling in Korean suggest that it is not. Whether the difference lies in the direction of movement—downward in the case of Japanese, upward in the case of Korean in accord with traditional movement analyses—or whether the difference lies elsewhere, we in our turn leave as a question for further research.

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[8] This appears to support McGinnis's (1999) claim that scrambling is subject to locality restrictions.

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Restrictions on Verb Raising

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1 The Problem

This squib is concerned with a phenomenon that has so far been almost completely unnoticed. In the narrower view it deals with the rule of verb-second (V2) in German; in a broader sense it concerns the process of verb movement in general. As for the former, the allegedly exceptionless rule says that in German a finite verb occupies the rightmost position in subordinate clauses, whereas in main clauses it must be (moved) in(to) the second position; that is, it follows the first XP constituent without exception.

The crucial observation that led to the present investigation was made by Haider (1997). However, Haider only considered one example, involving comparison—namely, (1)–(3) (slightly modified for present purposes). (1) consists of a periphrastic tense construction where the finite verb is an auxiliary that has moved to the V2 position. (2) is the infelicitous attempt to move the full main verb of a simple tense to the V2 position.

(1) Der Wert hat sich weit mehr als verdreifacht.
the value has self far more than tripled
'The value has far more than (only) tripled.'

(2) *Der Wert verdreifachte sich weit mehr als.

(3) weil sich der Wert mehr als verdreifachte
because self the value more than tripled
'because the value more than tripled'