

Reconstruction Asymmetries in Ellipsis: Implications for Scrambling

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1. Introduction

Scoping asymmetries in Korean fragments seem to be problematic in Merchant's (2004) ellipsis analysis of fragments. However, understanding the nature of the typology of movement in syntax along with reinterpretation of interface conditions provides an elegant account for the apparent puzzles. We propose that two distinct types of movement have different reconstruction consequences: movement taking place for discourse purposes doesn't allow reconstruction for scope unlike movement for feature checking that exhibits typical reconstruction effects. We further observe that scrambling in Korean is a non-unitary operation, and propose that the seemingly scrambling phenomena can be reanalyzed either as discourse-driven focus-movement or semantically vacuous adjunction operation, and only the latter operation exhibits obligatory reconstruction.

In some discourse context, a full linguistic utterance can be spoken as a fragment, i.e., a word or a phrase, which is smaller than a grammatically complete sentence, as shown in (1a).

- (1) a. Who did she see?
b. John.

Interestingly, the fragment that consists of a non-sentential DP in (1b) conveys the same propositional content as fully sentential answers

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such as (2) and it has the equivalent assertoric force as its sentential counterpart.

(2) She saw John.

Likewise, with respect to quantifier scope, both fragments and their non-elliptical correlates show parallelism (Merchant 2004:681).

- (3) A: How many diplomats did every translator greet?
 B: a. Three. ($\forall > \text{three}, \text{three} > \forall$)
 b. Every translator greeted three (diplomats). ($\forall > \text{three}, \text{three} > \forall$)

In both the fragment and full clause answers in (3B), *three* can take scope over or under *every*.

This parallelism, at first glance, seems also to be present in fragments in Korean. Consider the following quantifier/negation scope interaction in (4).

- (4) Q: Mary-ka motwu ta an manna-ss-ni? ($\forall > \text{neg}, \text{neg} > \forall$)
 Mary-Nom all all not meet-Past-Q
 ‘Didn’t Mary meet all?’ or ‘Didn’t John meet anybody?’
 A: Ung, Mary-ka motwu ta an manna-ss-ta. ($\forall > \text{neg}, \text{neg} > \forall$)
 Yes, Mary-Nom all all not meet-Past-Dec
 ‘No, Mary didn’t meet all.’ or ‘No, Mary didn’t meet anybody.’

In (4), the universal quantifier *motwu ta* ‘all’ can take scope over or under negation. Thus, (4) can mean that Mary didn’t meet all or that Mary didn’t meet anybody. However, this parallelism is not strictly observed in some other fragments in Korean. Note the following fragment answer to the question (4Q), which is not ambiguous.

- (5) Ung, motwu ta. ($\forall > \text{neg}, * \text{neg} > \forall$)
 Yes, all all
 ‘No, (she didn’t meet) all.’ = ‘She met none.’

Example (5), in fact, only yields wide scope reading of *motwu ta* ($\forall > \text{neg}$): ‘Mary didn’t meet anybody’. Thus, there is a discrepancy between the scope interpretation of the fully sentential answer and

its fragment counterpart. This may create a puzzle under a standard ellipsis analysis of fragments. According to Merchant (2004), a fragmentary utterance such as (1b) is derived via movement of remnant fragments prior to ellipsis of the full-fledged sentential structures, as depicted in (6).

(6) [_{CP} [_{DP} John]_i] [_{TP} She saw _{t_i}]]

In (6), *John* undergoes movement to a sentence-initial Spec-C position prior to ellipsis of the full-fledged sentence structure TP. Hence, fragments are expected to convey the same propositional content as fully sentential answers. Further, the ellipsis analysis predicts that quantifier scope in fragments patterns with one in their non-elliptical correlates.¹ The puzzle seems to be related to the following issue: what is the structure of non-elliptical correlate like prior to ellipsis in (5)? Or more generally, is there syntax internal to the ellipsis site?

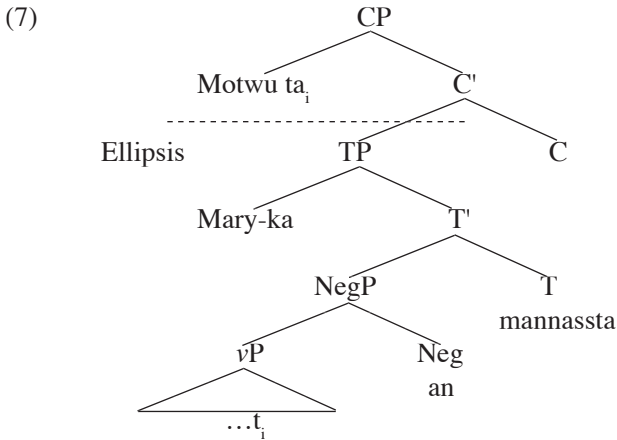
This paper is concerned with various scope facts that are unique to fragmentary utterances in Korean. We will explore the absence or presence of scope rigidity in fragments, which, we hope, further illuminates the tie between scope reconstruction puzzles and the nature of movement. This paper is organized as follows: Section 2 discusses ellipsis analysis of fragments with respect to quantifier/negation and quantifier/quantifier scope interaction in Korean fragments; section 3 discusses crosslinguistic cases of scope rigidity (examples from other languages and other types of construction in Korean); section 4 concludes the paper.

2. Ellipsis Analysis of Fragments and Scope Ambiguity

Merchant (2004:661) argues that ellipsis is preceded by A'-movement of the fragment to a clause-initial position and shows that the combination of movement and ellipsis accounts for a wide range of connectivity and anti-connectivity effects in the fragment construction. We present derivation (7) as the analysis of the Korean fragment in (5) under the spirit of Merchant's (2004) "Move+Delete" approach.

¹The unambiguity of (5) may be a serious problem for a non-sentential analysis of fragments such as Jackendoff & Culicover (2005). Under their analysis, the fragment's interpretation is supplied not through its own syntactic structure but via direct correspondence with the meaning of the antecedent sentence. Hence, the interpretation discrepancy between (4A) and (5) is also unexpected under this analysis.

The surface structure in (5) is derived in the following fashion: *Motwu ta* ‘all’ undergoes movement to Spec-C and the following TP undergoes ellipsis as suggested by the ellipsis analyses in Kim (1997) and Park (2005a,b).²



The question is whether the underlying structure of (7) prior to TP-ellipsis is also unambiguous. Judgment is murky, but it seems that some speakers, including the authors, get ambiguity in the following sentence:

- (8) Ung, motwu ta Mary-ka an mannassta. ($\forall > \text{neg}$, $\text{neg} > \forall$)
 Yes all all Mary-Nom not met
 ‘Yes, Mary didn’t meet all.’ or ‘Yes, Mary didn’t meet anybody.’

To resolve this scope puzzle, we first assume that the remnant fragment moves to a clause-peripheral specifier position of a focus projection (here we simply represent this position as CP for simplicity; cf. Rizzi’s 1997 FocusP). The next question is whether movement into the clause-initial position in non-elliptical construction such as (8) is the same as the one in the elliptical construction as in (7). Let us first of all consider how sentence (8) gives rise to scope ambiguity.³ We suggest that the source of scope ambiguity attested in (8) hinges on two possible syntactic derivations. More specifically, the

² For convenience, we sometimes illustrate trace notations instead of more articulated copies for most representations in the text.

³ We tentatively assume that Korean, unlike English, lacks covert QR. Hence, the scope ambiguity in (8) cannot be obtained by covert QR. Given that Korean lacks

fronted QP in (8) is derived either via Scrambling or Focus-movement.⁴ We adopt the traditional view that scrambled phrases adjoin to XP, here TP.⁵ Focus-movement, by contrast, carries focused XP to Spec-C. We further assume that adjoined phrases must obligatorily undergo reconstruction at LF for independent reasons (cf. Bošković & Takahashi 1998), and hence only scrambled phrases exhibit reconstruction/undoing effects: therefore, a narrow scope reading of the scrambled QP is forced. Focused QP, on the other hand, should remain in Spec-C at LF since it undergoes discourse-oriented movement. It patterns in the relevant respect with the focalized QPs in other languages that typically display anti-reconstruction effects, as will be widely catalogued and discussed in section 3.

Like the analysis advanced here for Korean, Bošković (to appear:8) independently notes that so-called short distance scrambling in Russian can be analyzed as either scrambling or topicalization/focalization.

- (9) *Každoga (čeloveka)_i dva studenta ljubjat t_i.*
 Everyone person-Acc two students-Nom love
 ‘Everyone/every person, two students love.’

The object in (9) takes either narrow or wide scope. For (9), he suggests that the topicalization/focalization option must be responsible for the wide scope of the object, while the scrambling option may only yield narrow scope. Bošković (to appear:9) further notes that the Serbo-Croatian construction in (10) can be ambiguous three ways

covert QR, the only way to get scope ambiguity is through overt syntactic operations, as proposed in the text (cf. Hornstein 1999).

⁴ We exclude the possibility of L(eft) D(islocation) here since QPs in general semantically resist LD. According to Alexiadou (2005:679), in Italian, bare quantificational elements don’t allow LD, while they easily allow focalization.

- (i) a. *Nessuno la ho visto.
 Nobody him have seen
 b. NESSUNO ho visto.

The negative quantifier can’t undergo LD, as shown in (ia), while it can be focalized, as shown in (ib). Ahn & Cho (2006a, 2006c, 2009) observe that LDed phrases in Korean are specific or D-linked, and hence they are generally incompatible with QPs except for *wh*-phrases (if QPs are interpreted as specific, we assume that they no longer bear quantificational forces).

⁵ Saito (1985, 1989), Fukui (1986), and Kuroda (1988) assume that the TP-adjoined position is the landing site of scrambling. Given that scrambling is always to a position without any selectional relation, it seems to be a natural assumption. See also Ahn et al. (1990) and Saito (2003) for related discussion.

in that the fronting object could involve topicalization, focalization, or scrambling.^{6,7}

- (10) Ivana_i tvrdiš da ona voli t_i.
 Ivan-Acc you-claim that she loves
 ‘You claim that she loves Ivan.’

Our proposal is based on the assumption that two types of movement in syntax have different interface properties and semantic consequences: a) Movement taking place purely for discourse purposes (i.e., presumably for surface semantics in general, including focus, topics, presupposition, frame) does not allow scope reconstruction, while b) movement related to feature checking can exhibit typical reconstruction effects.⁸ Given that discourse effects trap the moving element in its derived position, the justification of the absence of reconstruction in movement is provided. Thus, (8) is ambiguous for some speakers since for these speakers, the fronted QP in (8) undergoes either scrambling or focus movement.

⁶ Miyagawa (2006:621) claims that scrambling has an effect on the output. Compare (ia) with (ib):

- (i) a. Dare-ga nani-o katta no?
 who-Nom what-Acc bought Q
 ‘Who bought what?’
 b. Nani-o_i dare-ga t_i katta no?
 what-Acc who-Nom bought Q
 ‘What, who bought?’

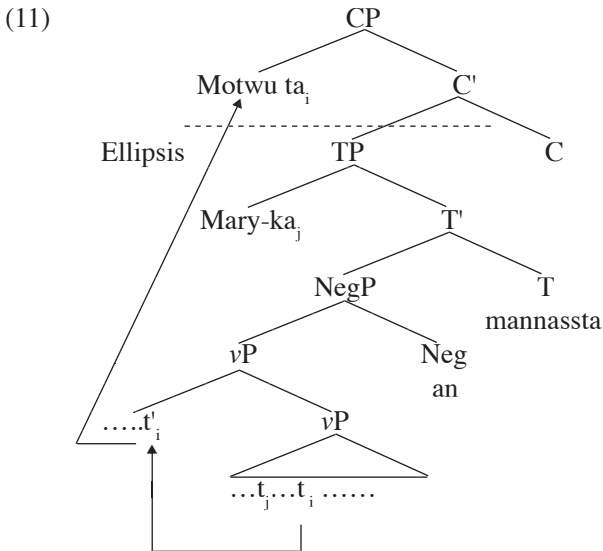
Unlike (ia), *nani* ‘what’ in (ib) refers to a presupposed set of objects and the hearer is supposed to answer who bought it. The interpretational difference between (ia) and (ib) supports Miyagawa’s (2001, 2006) claim that scrambling has some kind of effect on interpretation. At this point, a non-trivial question arises: What is the effect on interpretation? There is a controversy regarding this issue. According to the example noted by Miyagawa (2006), it seems to be topicality. However, according to Kitagawa (1990:15), the effect is focus. He characterizes scrambling as an instance of Move α which has moved and adjoined a focus operator to some higher node dominating its original position.

⁷ Lee (2008) independently comes to a similar conclusion for clause-internal leftward movement in Korean: She suggests that seemingly scrambling constructions in Korean can be analyzed as topicalization, focalization, or pure scrambling (which occurs at PF).

⁸ Park’s (2005b:381) claim, interestingly, is in the direction opposite to our claim: He suggests that unlike *wh*-movement, elements that undergo focus movement may be radically reconstructed (=undone) since focus movement does not need to create an operator variable pair/chain. His approach seems not to be on the right track if our observation is correct for focus movement in Korean.

Now, consider (7), again. The fragment QP, by contrast, cannot be an instance of scrambled QPs, namely, a QP adjoined to TP, because we cannot elide a “segment” TP which is not a proper target of deletion. Note that the terms that can undergo ellipsis must be minimally a “category.”⁹ Focalization, then, is the only option for the remnant fragment QP in (7) which we believe to sit in Spec-C. As a result, the fragment QP cannot undergo reconstruction since focus generally facilitates wide scope. Thus, the widest scope reading of the fronted QP is predicted just as it is with focus movements in other languages.

Note, however, that there is an alternative derivation for (5) in which *motwuta* ‘all’ goes through edge-*v* (outer Spec-*v*) to observe the Phase Impenetrability Condition (PIC) (Chomsky 2001, Ko 2007):¹⁰



⁹ Park (2007: fn. 9) provides an alternative suggestion that scrambling, which is an adjunction operation, is not possible in fragmentary texts since ellipsis is allowed by a head agreeing with its Spec (cf. Lobeck 1990, Saito & Murasugi 1990). Either way, suffice it to say that the fragments in an ellipsis context cannot undergo scrambling for theory-internal reasons.

¹⁰ For our purposes the following Scope Principle is assumed (cf. Aoun & Li 1989, Hoji 1985, Huang 1982):

(i) QP_1 may have scope over QP_2 if QP_1 c-commands QP_2 or a trace of QP_2 .

In (11), t_i is bound by t'_i in edge- v . If the trace left by the movement to edge- v participates in scope determination, the $\text{neg}>\text{all}$ reading is expected to be obtained, contrary to fact.

Several possibilities can be considered to account for the anti-reconstruction effect, namely, the absence of $\text{neg}>\text{all}$ reading in (5).

Possibility #1 is to assume that the edge- v is an A-position in Korean, and that A-movement never reconstructs for scope (see Lasnik 1998; 1999 and Cho & Zhou 2002).¹¹ Alternatively, note that $\langle \text{motwuta}, t', t \rangle$ is a non-uniform chain (since it is A'-A-A chain). Under Chomsky's (2005) parallel movement analysis, two chains are formed: $\langle \text{motwu ta}, t \rangle$ and $\langle t', t \rangle$. Given that only the former chain involves operator-variable relations, the $\langle t', t \rangle$ chain is ignored for scoping. Further, given that the lower copy is bound by the operator in Focus position, it is also inactive for scope determination (following our crucial assumption advanced in the previous section), so the wide scope reading of *motwu ta* 'all' is predicted in (5). Either one of the assumptions in possibility #1 seems to be problematic on empirical and theoretical grounds, and requires independent evidence. Thus, we do not adopt these hypotheses here for our purposes, pending further exploration along these lines.

Possibility #2 is related to nullification of the PIC violation in an elliptical context: Intermediate movement to edge- v to meet the PIC may not be necessary if PIC is a "representational" condition since the violation of the representational condition can be repaired at PF via deletion (see Fox & Lasnik 2003, Merchant 2001, Boeckx & Lasnik 2006, Park 2004).¹² If the operation is unnecessary and

¹¹ According to Lasnik (1998:94), reconstruction never occurs in the case of A-movement. Scope interpretation of the following sentence seems to support his claim.

(i) Every coin is 3% likely to land heads. (every>3% only)

According to his observation, (i) cannot be accurately paraphrased as (ii), although the situation strongly biases the reading towards (ii).

(ii) It is 3% likely that every coin will land heads.

Lasnik (ibid.) notes that the absence of reconstruction effects in the case of A-movement (and even for A'-movement) is hardly a settled issue on both empirical and theoretical grounds. He proposes that the lack of reconstruction effects in A-movement may hinge on the hypothesis that A-movement does not leave a trace/copy (contra Chomsky 1995). Sportiche (2005), however, takes an alternative view for the absence of the lowering interpretation as in (i). The nature of the anti-reconstruction property of A-movement is beyond the scope of this paper (see also Johnson 2004 and Lebeaux 1994 for related discussion).

¹² Movement to the left edge of *phase* for escape, i.e., cyclic movement, is forced by the requirement on cyclic linearization (Fox & Pesetsky 2005). However, since deletion eliminates all contradictory linear order, one fell swoop movement crossing edge- v seems to be possible (and in fact, seems to be forced considering global economy).

superfluous, it must be barred by Economy considerations. Thus, the intermediate movement to edge- ν cannot take place in (5), and hence no reconstruction effects arise. This account, however, hinges on the problematic notion of global economy, and hence may be conceptually undesirable, if Collins (1997, 2001) is right. Thus, we leave this possibility aside here.¹³

Possibility #3, which we are pursuing here, is closely related to possibility #2. Regarding movement to edge- ν , possibility #3 makes a somewhat stronger claim than possibility #2. In possibility #2, we assume that movement to outer Spec of ν cannot occur only if the PIC violation is nullified later, a look-ahead problem. In the case of possibility #3, movement to outer Spec of ν is more restricted. Actually, it is allowed when syntactic motivation is provided and output effects such as scope alternation come into play.¹⁴ In line with this reasoning, in (5), movement to edge- ν is not motivated either syntactically or semantically: Syntactically, movement is unmotivated since this movement doesn't have any effect on Relativized Minimality (RM) considerations; Semantically, movement doesn't alter scoping relations (with respect to the sentential scope of negation), and hence extending Fox's (2000) analysis, this operation must be blocked for economy reasons since it is semantically vacuous and does not affect the interpretation of the output.¹⁵ In what follows, we will demonstrate additional evidence to support possibility #3 concerning the status of movement to Spec- ν in Korean.

In contrast to QP/negation scope data, let us consider QP/QP scope facts that show the absence of scope rigidity effects in fragments. It is a well known fact that scope rigidity effect is observed in Korean (and Japanese) when a QP interacts with a QP (see for example, Hoji 1985, Saito 1985, Ahn 1990, Sohn 1995).

¹³ An anonymous reviewer of *University of Maryland Working Papers in Linguistics 16* points out that global economy issues may not occur here: If an ellipsis feature (Merchant 2001, 2004) is assumed, PIC effects are nullified inside a category with [E] (to undergo PF-deletion). Hence, within such a category, edge- ν movement is prohibited. In this line of explanation, consideration on global economy is not needed. However, given that C head has an [E] feature in fragment answers, it may not be possible that before C is merged, movement to edge- ν is prohibited. Hence, an undesirable look-ahead problem also arises here.

¹⁴ Regarding the PIC, Chomsky (2005:10) states the following possibility: It may be that the PIC holds only for the mapping to the interface, with the effects for narrow syntax automatic.

¹⁵ Fox's (2000) so-called "output economy" basically states that optional operations can apply only if they have an effect on outcome.

- (12) Motun kyoswutul-i sey myeng-uy haksayngtul-ul mannassta.
 All professors-Nom three Cl-Gen students-Acc met
 ‘All professors met three students.’ (all>three, *three >all)

Example (12) is unambiguous: it yields only distributive reading, i.e., (12) strongly favors the reading in which *motun kyoswutul* ‘all professors’ has root wide scope.¹⁶

When scrambled, scope rigidity is relaxed, as is also observed in the previous literature. Thus, the following sentence is ambiguous.

- (13) Sey myeng-uy haksayngtul-ul motun kyoswutul-i mannassta.
 Three Cl-Gen students-Acc all professors-Nom met
 ‘Three students met all professors.’ (all> three, three>all)

Note that scrambled QP *sey myeng-uy haksayngtul-ul* ‘three students’ is adjoined to the TP, as shown in (14).¹⁷

¹⁶ Conflicting judgments and speaker’s variation have been observed in previous work as discussed in Han, Lidz & Musolino (2007). There seem to be at least two other groups of speakers for scope variability: Let us call them Groups I and II. For Group I, a collective (three>all) reading is also possible in (12) in addition to the distributive (all>three) reading. It is not, however, clear whether the collective (three>all) reading that they judge in (12) blends with a specific reading of *three students* for these speakers (cf. Miyagawa 2001). Further, the sentence in (i) containing a scrambled object is not ambiguous for the Group I speakers.

- (i) Sey myeng-uy haksayngtul-ul motun kyoswutul-i mannassta.
 Three Cl-Gen students-Acc all professors-Nom met
 ‘Three students, all professors met.’ (three>all)

Group II speakers exhibit scope rigidity for all instances of QP-QP interactions, as noted in Ahn & Cho (2005). For these speakers, only the following derivational representation seems to be a possible option for (i):

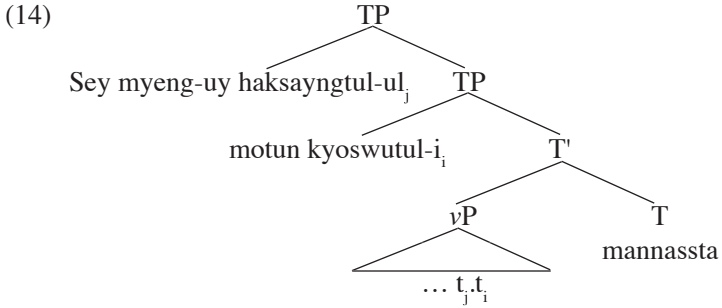
- (ii) [_{CP} Sey myeng-uy haksayngtul-ul [_{TP} motun kyoswutul-i [_{TP} t_i t_i mannassta]]]

Ahn & Cho (2005) claim that in (ii), the QP in Spec-C is expected to take the widest scope since movement to Spec-C is driven only to satisfy EPP in Korean, and the trace *t_i* is not active for scope determination. Thus, *sey myeng-uy haksayngtul-ul* ‘three students’ takes scope over *motun kyoswutul-i* ‘all professors’ or its trace *t_i* because the former c-commands the latter. Scope rigidity, however, seems to be more strongly attested in subject QP and Neg interaction (even for Group I speakers, too; see Ahn 1991 for some discussion):

- (iii) Motwu-(ka) (ta) ku phathi-ey an oassta. (all>neg only)
 All-Nom all the party-at not came
 ‘All didn’t come to the party.’

Here, the specific reading of the subject is not a possible option, and hence (iii) is clearly unambiguous for most speakers including Group I-II speakers. In this paper, for the sake of simplicity we just follow the standard (traditional) scope judgments on QP-QP interactions in Korean, as indicated in Ahn (1990) and Sohn (1995).

¹⁷ Miyagawa (2001) proposes that the scrambled object moves to Spec-T and the subject remains in Spec-v. We assume that subject movement to Spec-T always occurs in Korean to explain impossible bare subjects or Nom-deletion in Korean. See Ahn & Cho (2006c, 2009) for details.



Consequently, *sey myeng-uy haksayngtul* ‘three students’ can take narrow scope under *motun kyoswutul* ‘all professors’ since the adjoined QP must be reconstructed at LF following insights from Bošković & Takahashi (1998).¹⁸

There arises, however, a new puzzle to be resolved. Scope rigidity is not observed in QP-fragments (contra (5)).¹⁹

- (15) a. *Motun kyoswutul-i elmana manhun haksayngtul-ul mannas-ni?*
 every professors-Nom how many students-Acc met-Q
 ‘How many students did every professor meet?’ (all>three, three>all)
- b. *Sey myeng-uy haksayngtul-ul.*
 three Cl-Gen students-Acc
 ‘Three students’ (all>three, three>all)

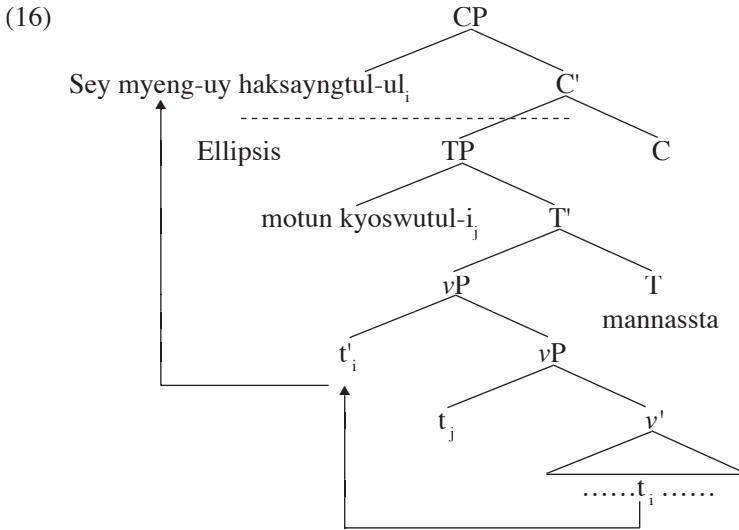
Why is this fact a puzzle? On the face of it, there doesn’t seem to be a mystery at all since the question is ambiguous, and so is the (fragment) answer. Recall, in particular, that the non-elliptical correlate of (15b) is also ambiguous, as seen in (13). Note, however, that unlike (13) the narrow scope reading of the fronted QP in (15b)

¹⁸ Note that the collective (three>all) reading in (13) results from the focus movement of *sey myeng-uy haksayngtul* ‘three students’ to Spec-C. Hence, (13) is ambiguous depending on the choice of movement operations: i.e., scrambling or focus-movement.

¹⁹ As shown in (15a), unlike the object QP as discussed in (12), the object WH can have scope over the subject QP in Korean. It is unclear how we can get a wide scope reading of WH in (15a), given the rigidity of scope relations in Korean. One possibility is that WH in Korean has a peculiar semantic property for (optionally) taking a “widest” scope reading as discussed in Kim (2003). Thus, the object WH in (15a) can take canonical narrow scope based on its syntactic position, whereas its peculiar semantics optionally induces a wide scope reading. In this paper, we put aside the exact nature of the peculiar semantic property of WH in Korean.

cannot be induced by a scrambling configuration, namely, a TP-adjoined structure. As noted earlier, the scrambling option is not available for the QP fragment since the target of an elliptical clause cannot be a “segment” TP. Thus, the fragment QP must always undergo (focus) movement to Spec-C to be stranded by clausal ellipsis. If this is the case for the QP fragment structure, scope rigidity (i.e., only the three>all reading) is expected to be obtained in (15b), contrary to fact.

We propose the following derivation for (15b):



In (16), movement of *sey myeng-uy haksayngtul-ul* ‘three students’ to outer Spec-*v* is syntactically and semantically well motivated. Syntactically, movement to outer Spec-*v* is needed to overcome a Relativized Minimality violation; in other words, the object trace and subject trace in edge-*v* are equidistant to Spec-C, hence $\langle \textit{sey myeng-uy haksayngtul-ul}_i, t'_i, t_i \rangle$ can be a licit chain if there exists an intermediate link in between. Semantically, movement of *sey myeng-uy haksayngtul-ul* ‘three students’ to outer Spec-*v* may alter scoping possibilities. Hence, this movement is not semantically vacuous unlike the movement in (11). Recall that *vP*-internal QP-movement in (11) takes place under NegP, so it doesn’t alter scoping possibilities between Neg and QP. In sum, movement of object QP crossing over subject QP in (16) affects both syntactic and semantic output unlike the *vP*-internal QP-movement in (11), which is neither

syntactically nor semantically motivated. Consequently, we can correctly capture the novel contrast between QP-Neg and QP-QP interactions in fragment answers in terms of (im)possible movement inside an elliptical clause. This lends further support to the claim that there is full-fledged syntax internal to the elliptical structure, hence supporting a PF-deletion analysis of ellipsis/fragments as in Merchant (2004).

3. Scope Rigidity in Other Languages and Other Constructions in Korean

Some scope facts in Hungarian demonstrate that a certain movement doesn't show reconstruction effects. Hungarian has been known to use surface linear order in determining scope (Brody 1990, Kiss 1981, 1987 and others).

- (17) Minden filmet kevés ember nézett meg. (every>few,*few>every)
 Every film-Acc few man-Nom viewed PRT
 'Few men viewed every film.' (Brody & Szabolcsi 2003:21)

If *minden filmet* 'every film' moves from VP-internal position to sentence-initial position, it leaves a copy inside VP, as shown in (18).

- (18) [Minden filmet]_i kevés ember [Minden filmet]_i nézett meg.

Since only *every>few* reading is possible, the copy in a lower position seems to be inactive in determining scope.

Some scope facts in English also show that a certain movement doesn't show reconstruction effects (Kuno 1971).

- (19) a. **On some stage** stood every actress. ($\exists > \forall, * \forall > \exists$)
 b. **Some actress** stood on every stage. ($\exists > \forall, \forall > \exists$)

As shown in (19a), with English locative inversion, scope freezing occurs and an inverse scope reading is not possible in contrast to the standard transitive construction shown in (19b) that exhibits typical scope ambiguity. Given that *on some stage* in (19a) is derived by movement, it leaves a copy in its base-generated position, as shown in (20).

(20) [On some stage]_i stood every stage [on some stage]_i

If the copy in (20) is active in determining scope, as the copy theory of movement predicts, inverse scope should be possible, contrary to fact. So, the puzzle is why the copy left by locative inversion doesn't enter into scoping relations.²⁰ This contrast is discussed in-depth in Nevins & Anand (2003) and Nevins (2004). They advance that scope difference in (19) is due to EPP-only movement of *on some stage* in (19a) vs. feature-checking movement of *some actress* in (19b). They propose that EPP-only movement doesn't reconstruct for scope purposes.

We suggest that English locative inversion and Hungarian fronting result from a specific property of a discourse-related movement, namely, focus movement. We further propose that focus-moved phrases reside in Spec-C, and they do not allow reconstruction on a par with focus-movement in Korean as discussed in section 2. Conceptually, the anti-reconstruction property of focus-moved phrases seems to correlate with the garden-variety of discourse-scope. As noted previously, the sole purpose of focus-movement seems to be related to scoping. If so, it is implausible to reconstruct the focused phrases into the original positions to take the original scope (then, the whole purpose of movement becomes vacuous, and it runs counter to economy considerations).

Note further that the absence of reconstruction in the case of movement to Spec-C is also observed in *wh*-topicalization in Chinese (Wu 1999:88). Consider the contrast between (21) and (22):

- (21) meigeren dou mai-le shenme?
 everyone all buy what
 (a) For every *x*, for which *y*, *x* bought *y*?
 (b) For which *y*, for every *x*, *x* bought *y*?

²⁰ Note in passing that even long-distance A-movement in English, arguably driven by feature-checking, exhibits scope-reconstruction effects, as noted in Lebeaux (1994):

(i) Two girls seem to be expected to dance with every senator. (*two*> \forall , \forall >*two*)

For (i), with *two girls* moved to Spec-T in the root clause, two interpretations are possible, including a narrow scope reading of the raised subject QP.

- (22) shenme_i meigeren dou mai-le t_i?
 what everyone all buy
 (a) *For every x, for which y, x bought y?
 (b) For which y, for every x, x bought y?

As shown in (22), *wh*-topicalization in Chinese induces only a wide scopereading of the *wh*-phrase. Thus, Chinese *wh*-topicalization seems to pattern with English/Hungarian/Korean focus-movement.^{21, 22}

Further, Cho & Zhou (2002) observe that ATB-scrambling of *wh*-phrases in Korean (and Japanese) also exhibits anti-reconstruction effects:

- (23) **Enu salam-ul**_i John-i t_i salangha-ko Mary-ka t_i miweha-ni?
 which person-Acc John-Nom love-and Mary-Nom hate-Q
 'Lit. Which person did John love and Mary hate?'

Cho & Zhou indicate that (23) only yields reading (24a), but not (24b):

- (24) a. which person x, John loves x and Mary hates x?
 b. which person x, John loves x and which person y, Mary hates y?

They suggest that an ATB reading of (24a) is forced since dislocated-WH in (23) doesn't undergo reconstruction. ATB-movement in (23) seems to be analyzed as another instance of movement to Spec-C whose effect is related to discourse effects (but see Cho & Zhou 2002 for an alternative possibility).

²¹ Unlike *wh*-topicalization in Chinese, *wh*-movement in English seems to allow scope reconstruction, as shown in (i): Thus, (a) and (b) are all possible interpretations of (i).

- (i) Who does everyone like?
 a. For which x, for every y, y likes x?
 b. For every y, for which x, y likes x?

When *everyone* takes scope over *who*, *who* in Spec-C seems to allow reconstruction. Under our analysis, *wh*-movement in English is not movement taking place purely for discourse purpose but for feature-checking, as generally assumed. Hence, it departs from discourse-induced movement, and can show reconstruction properties like scrambling but on some different grounds.

²² Wu (1999) suggests that in the case of movement to Spec-C in Chinese, Japanese, and Korean, only the *pro* portion of a *wh*-NP needs to undergo movement for feature checking. As a result, reconstruction doesn't occur. Under our analysis, movement to Spec-C for discourse purposes, say, topicality in (22), isn't related to feature checking. We will not explore the different consequences between Wu's (1999) analysis and ours in this paper.

In sum, the above facts in Chinese, English, Hungarian, and Korean can all be accounted for along similar lines under the assumption that topic/focus movements to Spec-C do not reconstruct for scope purposes in contrast to semantically vacuous movements including scrambling.^{23, 24}

4. Conclusion

In this paper, we have explored scope asymmetry facts that are observed in fragmentary utterances in Korean. Scope rigidity involving negation and universal quantification is accounted for under the assumption that movement purposes in interfaces are closely connected to the presence/absence of reconstruction. We claim that movement driven by discourse reasons, focus-movement particularly, traps the moved element in a derived position for scope purposes. Then, reconstruction effects do not take place, partially accommodating anti-reconstruction effects of QP fragments in Korean. By contrast, movement to edge-*v*, which can only be invoked by syntactic motivation and justified by output semantic effects, may reconstruct for taking scope. This yields scope ambiguity of QP fragments in Korean.

Under our analysis, movement type is also crucial in accounting for scope facts. We adopt and confirm the proposal that scrambling, a semantically vacuous movement, is an adjunction operation that undergoes undoing at LF, accounting for (radical) reconstruction effects of fronted QPs in Korean. Finally, we believe that our analysis of fragments in Korean lends strong support to the move-and-delete approach to fragments advanced in Merchant (2004).

²³ Boeckx & Grohmann (2004) note that on a par with long distance scrambling in Japanese, D-linked *wh*-phrases in general exhibit “radical reconstruction” properties (see also Boeckx 2004). It is not clear how these two phenomena are tied together under our approach. In particular, radical reconstruction property of D-linked *wh*-phrases in other languages requires further investigation.

²⁴ Bočšćović (to appear:2), notes that the following topicalized sentence in English is ambiguous.

(i) Everyone someone thinks that Mary met. ($\exists > \forall$, $\forall > \exists$)

We speculate, however, that this sentence can also be analyzed as either scrambling or focalization on a par with Korean and Russian since QPs in general are incompatible with topicality. Then, the former operation yields the reconstruction reading $\exists > \forall$, while the latter operation induces an anti-reconstruction reading $\forall > \exists$, as predicted.

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