

The Syntax of Afterthoughts in Korean: Move and Delete*

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Park, Myung-Kwan & Kim, Sun-Woong. 2009. *The Syntax of Afterthoughts in Korean: Move and Delete*. *The Linguistic Association of Korea Journal*. 17(4). 25-53. This paper argues following the lead of Chung (2008) that the fragmentary appendix in sentence-final position after the preceding host clause in the afterthought construction is derived from applying Delete to the host clause where it has undergone prior Move out of. First, we argue that the distribution of a modificational expression alone as an appendix renders compelling or possibly conclusive evidence in favor of the movement and deletion approach to the construction in point. Second, we advance the idea that the subadjacency-obeying movement effects of the appendix are attributed to its property of bearing emphatic focus and the behavior of its null correlate expression in the host clause. Third, we show that unexpected non-movement effects of the appendix especially in regard to scope interaction indeed follow from scope parallelism in ellipsis, which is one of the hallmarks of the ellipsis construction.

Key Words: afterthought, right dislocation, Move, Delete, non-constituent, repair-by-ellipsis, host, appendix, scope

1. Introduction

Korean allows a non-canonical word order sentence in (1b) in contrast to the canonical one in (1a). (1b) is generally dubbed as Right Dislocation (RD) in the

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literature on it.¹⁾

- (1) a. John-i Mary-ekey chayk-ul cwu-ess-ta.
 -Nom -Dat book-Acc give-Past-Decl
 'John gave a book to John.'
- b. John-i Mary-ekey cwu-ess-ta, *chayk-ul*. [Object]
 -Nom -Dat give-Past-Decl book-Acc
 'John gave to John, a book.'

In (1b) the object is placed in the sentence-final position. In the construction like (1b), in principle there seems to be no rigid restriction on possible expressions put in sentence-final position. Besides an object, other sentential constituents are apt to RD: subject, adverbial, etc.

- (2) a. Mary-ekey chayk-ul cwu-ess-ta, *John-i*. [Subject]
 -Dat book-Acc give-Past-Decl -Nom
 '(John) gave Mary a book, John.'
- b. John-i Mary-ekey chayk-ul cwu-ess-ta, *ecey*. [Adverbial]
 -Nom -Dat book-Acc give-Past-Decl yesterday
 'John gave Mary a book, yesterday.'

Among various aspects of the construction at issue, the present study pays a particular attention to the following case:

- (3) a. John-i acwu yeppun sinpwu-lul manna-ass-ta.
 -Nom very pretty bride-Acc meet-Past-Decl
 'John met a very pretty bride.'
- b. John-i sinpwu-lul mannassta, *acwu yeppun*.
 -Nom bride-Acc meet-Decl very pretty
 'John met a bride, very pretty.'

In contrast to the canonical sentence (3a), (3b) is derived by placing in

1) For a recent analysis of RD, readers are referred to C.-H. Lee (2009) and W. Lee (2009) in particular.

sentence-final position the prenominal modifier *acwu yeppun* 'very pretty,' which is interpretively associated with the object NP. (3b) is peculiar, in that the left branch element is generally prohibited from undergoing movement. This restriction is called the Left Branch Condition (LBC), which evidently holds for Korean, as shown in (4):

- (4) **Acwu yeppun*, John-i sinpwu-lul manna-ass-ta.
 very pretty -Nom bride-Acc meet-Past-Decl
 'John met a bride, very pretty.'

An immediate question raised about RD is what the syntactic aspects of a RD-ed expression are, how to derive the target string in relation to the canonical sentence, and in particular, how to derive apparently immobile strings like the one in (3b). Section 2 further elaborates on RD in Korean along with a brief review of the previous approaches on it, followed by the discussion in support of the deletion/ellipsis analysis. Section 3 discusses the locality issue in terms of extraction out of ellipsis. A new analysis of the issue will be developed with special emphasis on no 'repair-by-ellipsis' effects. Section 4 explores a favorable consequence of the proposed analysis. Section 5 wraps up the discussion.

2. Movement of Apparently Immobile Strings

For the sake of discussion, let us call the RD-ed expression an appendix and the preceding clause a host clause.²⁾ The discourse function of RD is to supplement the content of the preceding proposition by placing a relevant expression in sentence-final position. In (1b), for example, *chayk-ul* is supplemented sentence-finally, thereby completing an utterance. This is why this expression is called an afterthought. The speaker feels a need to put focus on the expression by adding it to the sentence-final position. Henceforth, for this reason and others that will be clarified in the rest of this paper, we will call (1b) and its kin such as (2a), (2b) and (3b) the afterthought construction.

2) The terms such as appendix and host clause in the text are attributed to Sells (1999) and W. Lee (2009).

There have been several analyses for the afterthought construction in the literature. To the best of our knowledge, they can be divided into two groups: one is the movement analysis, and the other is the base-generation analysis. In addition, each group is cross-sectionally divided into mono- and bi-clausal analyses, as summarized in (5):


(5) Previous analyses of the afterthought construction

	Movement	Base-generation
Mono-clausal	A	C
Bi-clausal	B	D

A: Mono-clausal Movement Analysis (Choe 1987)

This analysis is the most straightforward one. The appendix expression literally moves rightward to the sentence-final position.

(6) John-i _____ Mary-ekey cwuessta, *chayk-ul*.




B: Bi-clausal Movement Analysis (Abe 1999, Chung 2008)

In this analysis, the gap is in fact a null pronoun *pro* in the preceding host clause. In the following clause, the appendix actually moves leftward (not rightward) to the front of its clause and then the 渾昀 *ter* clause undergoes ellipsis.³⁾

3) One of the reviewers of this journal raises a question about why deletion is obligatory in deriving the appendix in the afterthought construction, as we take a deletion approach to it. He/she indicates that deletion is generally optional in syntax, and that the following sentence corresponding to (7) in the text is somewhat degraded where deletion does not apply.

(i) (??)John-i *pro*_i Mary-ekey cwuessta, chayk-ul [John-i Mary-ekey *t*_i cwuessta].

We concur with the reviewer's view of deletion as an optional rule and grammatical judgment of the example in (i). It seems that there are at least two ways of addressing the

- (7) John-i pro_i Mary-ekey cwuessta, *chayk-ul* [~~John-i Mary-ekey t_i cwuessta~~].
- 

C: Mono-clausal Base-generation Analysis (Sells 1999)

This analysis assumes that the afterthought is base-generated intact. The whole sentence is dominated by an E, which is an event projection.

- (8) [_E [John-i Mary-ekey cwuessta], [*chayk-ul*]].

D: Bi-clausal Base-generation Analysis (W. Lee 2009)

Like the analysis C, this analysis states that the whole string is base-generated intact, and the preceding host clause and appendix are dominated by E. The difference of it from the analysis C is that in this analysis the appendix is followed by a null VP which is coindexed with the preceding VP.

- (9) [_E [John-i [_{VP} Mary-ekey cwuessta]_i], [*chayk-ul* [_{VP} e_i]]].

Each of the four different analyses on the afterthought construction has its

reviewer's question. One is a non-syntactic approach, following Grice's (1975) idea of conversational maxims. The idea is that the contrast in acceptability between (i) and (7) in the text can be accounted for by means of the maxim of quantity. The former but not the latter violates one component of this maxim, which is "Do not make your contribution to the conversation more informative than necessary." In (i) the bracketed part of the sentence is redundant and has to be suppressed.

Another is a syntactic approach, adopting Merchant's (2001) idea of E-feature that he proposes appears in a certain functional category and gives an instruction that its complement has to undergo deletion. In other words, the E-feature can be understood to be licensed grammatically at PF when its complement is null. When we pursue this idea, it has as a consequence that the kind of TP deletion that applies in (7) in the text is obligatory in Korean. However, it also seems not impossible to impose obligatoriness or optionality to TP deletion depending on different structural environments where it applies. We suggest that this can be executed in the same way that we postulate strong or weak uninterpretable feature as an obligatory or optional trigger of a syntactic operation. Although in this paper we do not go the length of motivating this suggestion in more details, we assume that the E-feature involved in deletion of TP in the appendix clause is a strong one.

own merits but has some problems (cf. W. Lee 2009). In particular, it seems that the previous analyses have difficulty in explaining the aspect of the construction hinted at in the Introduction: movement of apparently immobile strings like prenominal modifiers. The present study is not to argue against them one by one, but to pursue an ellipsis-based analysis that can accommodate the distribution of apparently immobile appendices most cogently. After considering relevant cases of immobile expressions, we will argue that our approach in which parallel movements take place both in the host and appendix clauses, followed by deletion/ellipsis, is superior to other approaches such as the simple rightward movement (A) or the base-generation approaches (C) and (D). To be more specific, we will argue that the syntax of afterthoughts is best explained only in terms of the movement-cum-deletion analysis.

One big support for the movement-cum-deletion approach to the afterthought construction in Korean comes from the cross-linguistic considerations explored by Grebenyova (2005) regarding the LBC. According to her, LBC violations can be repaired by deletion in the Sluicing construction of English⁴) (contrary to the claims by Merchant (2001) and Lasnik 2000)):

- (10) a. *She bought a rather expensive car but I can't remember how expensive
[she bought [a t car]].
b. She bought a rather expensive car but I can't remember how expensive
[she bought [a t car]].

4) Grebenyova (2005) does not explicitly expand on the rationale behind the repairing of an LBC violation by deletion, but she must have assumed Kennedy and Merchant's (2000: 125) earlier account for it. The thrust of idea advanced by Kennedy and Merchant in their view of the LBC as a PF condition is that modification is mediated by a functional category, which they call F. In particular, on the basis of this idea they suggest that the DP how interesting a book has the following structure:

(i) [_{FP} [how interesting]_i F [_{DP} a [_{NP} t_i play]]]

Furthermore, they argue that F is an enclitic that has to attach to the preceding adjective phrase or degree phrase. In overt syntax, when only the phrase how interesting is extracted out of FP, F will be stranded, violating a version of the Stranded Affix Filter at PF. However, after the phrase is extracted out of FP and the offending F after its extraction is part of elided VP or TP, the resulting structure does not induce a violation of this Filter. Along this line of analysis, the LBC can be understood as a PF condition whose violation can be amnestied by a PF process like deletion.

(10a) violates the LBC; its ungrammaticality, however, is amnestied by deleting an otherwise deficient string as in (10b). What is noteworthy in relation to the LBC is that, in contrast to (10b), when the movement takes place out of an island, it is not repaired by deletion:

- (11) a. *He got stressed because his boss wants a detailed report, but I don't know how detailed [~~he got stressed because his boss wants a t report~~].
 b. *They want to hire someone who writes thorough reports, and wait till you see how thorough [~~they want to hire someone who writes t reprot~~].

When the movement is out of an adjunct island (11a) or a relative clause island (11b), the resulting sentence does not benefit from deleting the deficient portion of it.

We suggest that the same phenomenon in the afterthought construction of Korean should be analyzed in tandem with the 'repair by deletion' effects manifested in (10b). As was pointed out above, a left branch (prenominal) modifier can occur as an appendix in the afterthought construction in Korean.

- (12) John-un sinpwu-lul mannassta, *acwu yeppen*. (=3b)
 -Top bride-Acc meet-Past-Decl very pretty
 'John met a bride, very pretty.'

In (12), when the movement of *acwu yeppen* 'very pretty' proceeds leftward in the appendix clause, the whole string can be salvaged by deleting the deficient portion of the sentence which otherwise would lead to ungrammaticality due to a violation of the LBC. The schematic representation of this derivation is shown in (13):⁵

- (13) John-un sinpwu-lul mannassta, *acwu yeppen* [John-un-
 -Top bride-Acc meet-Past-Decl very pretty

5) We assume that Kennedy and Merchant's account for repair of an LBC violation by deletion at PF as rehearsed in footnote 4 can carry over mutatis mutandis to the Korean example in (13).

~~sinpwu-lul mannassta].~~

If a prenominal modifier moves out of an island, however, the LBC violation is not repaired:

- (14) a. *Mary-nun [John-i sinpwu-lul mannasski ttaymwuney]
 -Top -Nom bride-Acc meet-Past-N because
 cilhwi-ka nassta, *acwu yeppen.*
 jealousy-Nom form-Past-Decl very pretty (N = nominalizer)
 'Mary got jealousy because John met a bride, very pretty.'
- b. *Mary-nun [John-i sinpwu-lul manna-ass-ta-nun
 -Top -Nom bride-Acc meet-Past-Decl-Adn
 somwun]-ul tulessta, *acwu yeppen.*
 rumor-Acc hear-Past-Decl very pretty
 'Mary heard the rumor that John met a bride, very pretty.'

(14a) and (14b) are ungrammatical, in that both involve the movement of a left branch (prenominal) modifier out of an island, namely, an adjunct and a relative clause, respectively. They are ungrammatical for whatever reason (11a) and (11b) are ruled out,⁶⁾ which we will return to in the next section. In short, repair-by-deletion effects evinced in the afterthought construction of Korean in turn give strong supporting evidence for the movement-cum-deletion analysis of it.

One remarkable thing as to a prenominal modifier appendix is that, as C.-H. Lee (2009) indicates, short forms are generally not a liable option as an appendix; in fact, heavy forms are generally required of it, as shown by the contrast between (15a) and (15b):

- (15) a. John-i sinpwu-lul mannassta, *acwu yeppun.*
 -Nom bride-Acc met-Decl very pretty
 'John met a bride, very pretty.'
- b. ?*John-i sinpwu-lul mannassta, *yeppun.*
 -Nom bride-Acc met-Decl pretty

6) For an explanation of why (11a) and (11b) are ungrammatical, see Grebenyova (2005), who suggests a solution in terms of * marking.

'John met a bride, pretty.'

In this regard, it is important to note that the afterthought expression can be a short form, provided that it is stressed or becomes heavier by conjunction, for instance.⁷⁾

- (16) a. ?*John-i sinpwu-lul manna-ass-ta, *yeppun*.
 -Nom bride-Acc meet-Past-Decl pretty
 'John met a bride, pretty.'
- b. John-i sinpwu-lul manna-ass-ta, **YEPPUN**.
 -Nom bride-Acc meet-Past-Decl pretty
 'John met a bride, pretty.'
- c. John-i sinpwu-lul manna-ass-ta, *yeppuko chakhan*.
 -Nom bride-Acc meet-Past-Decl pretty-and docile
 'John met a bride, pretty and docile.'

Additional cases of apparently immobile, non-constituent appendices are found in the following examples:

- (17) John-un [Δ_1 Δ_2 mekesstako] malhayssta, *Mary-ka*₁
 -Top ate-Comp said-Decl -Nom
 *sphakeythi-lul*₂. (Δ =gap)
 spaghetti-Acc
 'John said that *Mary* ate *spaghetti*, *Mary* spaghetti.'
- (18) John-un [Δ_1 Δ_2 Δ_3 mekesstako] malhayssta, *Mary-ka*₁
 -Top ate-Comp said-Decl -Nom
 *spakeythi-lul*₂ *yelsimhi*₃.
 spaghetti-Acc hard

7) This reflects the fact that the appendix functions to add something to the host clause. Incidentally, note that head nouns cannot be an afterthought expression:

(i) *John-i acwu yeppun mannassta, *sinpwu-lul*.
 -Nom very pretty meet-Past-Decl bride-Acc
 'John met a very pretty (bride), bride.'

This may have something to do with the fact that Korean does not have N'-ellipsis, which is required of the derivation of the first host clause in (i).

'John said that **Mary** ate spaghetti hard, Mary spaghetti hard.'

Evidently a subject-object or subject-object-adverbial combination cannot form a constituent in any possible way. Interestingly, however, these combinations can be used as an afterthought expression as shown above. Furthermore, even the expression that comes from two different source clauses can be realized as an appendix in coordination.

- (19) John-un [$\Delta_{1/3}$ $\Delta_{2/4}$ mekesstako] malhayssta, *Mary-ka*
 -Top ate-Comp said-Decl, -Nom
*sphakeythi-lul*₂ kuliko *Sue-ka*₃ *pica-lul*₄.
 spaghetti-Acc and -Nom pizza-Acc
 'John said that **Mary** ate spaghetti and that **Sue** ate pizza, Mary spaghetti and Sue pizza.'

In (19) the two conjuncts of the appendix come from the two different host clauses and are combined together by use of a coordinating conjunction.

In our analysis of the afterthought construction, an appendix composed of multiple sentential expressions is derived by multiple scrambling followed by deletion of TP. For instance, on the one hand, (17) is derived in the following way:

- (20) John-un [Δ_1 Δ_2 mekesstako] malhayssta, *Mary-ka*
*sphakeythi-lul*₂ [_{TP} John-un [t_1 t_2 mekesstako] malhayssta].

In the appendix clause at the end of the sentence, the embedded subject and object are scrambled out of and to the edge of the clause which is about to undergo deletion.

On the other hand, (19) is derived by ATB-style multiple scrambling in the same fashion as (17) except that the appendix involves a coordinating conjunction:

- (21) John-un [$\Delta_{1/3}$ $\Delta_{2/4}$ mekesstako] malhayssta, *Mary-ka*
*sphakeythi-lul*₂ kuliko *Sue-ka*₃ *pica-lul*₄ [[John-un [t_1 t_2 mekesstako]
 malhayssko] [John-un [Δ_3 Δ_4 mekesstako] alhayssta]].

In short, the movement-cum-deletion analysis provides a straightforward account for apparently immobile and non-constituent appendices in the afterthought construction. In the next two sections we will examine the consequences of this analysis for the construction at issue.

3. Extraction out of Ellipsis: No Repair-by-Ellipsis

When we take a movement-cum-deletion approach to the construction in question, we wonder how this approach accounts for a certain locality relation between the appendix and the preceding host clause. Let us start with a baseline example in (22):

- (22) John-i ecey manna-ass-e, *Mary-lul*
 -Nom yesterday meet-Past-Decl -Acc
 'John met yesterday, Mary.'

What becomes of the appendix when it is associated with the host clause in embedded context, which makes the former have a long-distance relation with the latter? Though there is some speaker variation on this kind of resulting sentence (cf. Y.-S. Lee (1993))⁸, examples like (23) are taken to be fine in acceptability.

- (23) Bill-un [John-i ecey manna-ass-ta-ko]
 -Top -Nom yesterday meet-Past-Decl-Comp
 malhay-ss-e, *Mary-lul*
 say-Past-Decl -Acc
 'Bill said that John met yesterday, Mary.'

As W. Lee (2009) claims, however, when either embedding is further

8) The example Y.-S. Lee (1993) reports is as follows:

- (i) ??na-nun Minho-ka coahantako sayngkakhanta, Yenghi-lul
 I-Top Minho-Nom likes think Yenghi-Acc
 'I think that Minho likes, Yenghi.'

enforced or an island is added, the resulting sentences become substantially degraded:⁹⁾

- (24) (??)[Susi-nun [Bill-i [John-i ecey manna-ass-ta-ko]
 -Top -Nom -Nom yesterday meet-Past-Decl-Comp
 sayngkakha-n-ta-ko] malhay-ss-e], *Mary-lul*.
 think-Past-Decl-Comp say-Past-Decl -Acc
 'Susi said that Bill thought that John met yesterday, Mary.'
- (25) ?*Susi-nun [[Bill-i ecey manna-ass-ta-nun]
 -Top -Nom yesterday meet-Past-Decl-Adn
 somwun-ul] tul-ess-tey, *Mary-lul*.
 rumor-Acc hear-Past-is said -Acc
 'Susi is said to have heard that Bill met yesterday, Mary.'

The allegedly degraded locality relation of the appendix to the host clause in (24) deserves some comment. First, this relation can be compared to the filler-gap relation in the example (26), which involves scrambling as an instance of leftward movement:

- (26) (??)Mary-lul [Susi-nun [Bill-i [John-i ecey
 -Acc -Top -Nom -Nom yesterday
 manna-ass-ta-ko] sayngkakha-n-ta-ko] malhay-ss-e].
 meet-Past-Decl-Comp think-Past-Decl-Comp say-Past-Decl
 'Mary, Susi said that Bill thought that John met yesterday.'

It is not clear whether there is a telling difference between the locality relation

9) Grosz and Ziv (1994) note that the afterthought construction in English does not exhibit island effects, while another similar type of right dislocation construction does. The following examples (ia) and (ib) illustrate the former and the latter, respectively.

(i) a. Remember they were telling us all sorts of stories? Well, the story that he told us was very interesting, Bill, I mean.

b. *The story that he told us was very interesting, Bill.

However, Ward and Birner (1996) claim that the right dislocation construction does not either, referring to the example in (ii):

(ii) One thing he'll never be is motivated, that guy.

At first glance, this does not seem to be different from the analysis (B) given in (4). The point we want to make here, however, is that as an appendix in the appendix clause undergoes movement to clause-initial position, so a correlate expression in the host clause which corresponds to the appendix also does so. We argue that the locality restriction between the host clause and the appendix is attributed to the syntactic behaviors both of the appendix and its correlate expression in the clauses that they are in.

To substantiate our argument, we briefly discuss one of the most important conditions that deletion is subject to: the identity/parallelism condition on deletion. It is generally acknowledged that deletion applies when an elided portion is identical or parallel to its antecedent portion. A long-standing question in generative grammar is how to meet the identity/parallelism condition on deletion. This question becomes more intriguing when there is extraction out of an elided portion. A more specific question germane to our discussion of this paper is whether there is a QR-like scope-taking operation corresponding to the movement of the appendix in the ellipsis clause. In fact, Chung et al. (1995), Romero (1998), Fox and Lasnik (2003) and M.-K. Park (2004) all argue for so-called scope parallelism that holds between a moving expression out of a deletion site and its correlate expression in the antecedent clause. The thrust of this argument is that deletion is successful when they take identical/parallel scope.

Under this background, returning to (28), what is the identity of a correlate expression corresponding to the appendix in the afterthought construction of Korean? This expression is not realized overtly in (28). The quick suggestion may be that it is a null pronominal, *pro*. However, provided that the appendix can be an adverbial as in (29), *pro* cannot be a good candidate for it (cf. M.-K. Park (1994)).¹⁰ This further differentiates our analysis from the analysis (B) given above in (4).

10) On the basis of the fact that an adverbial cannot be recovered in the following sentence, M.-K. Park (1994) argues that it cannot be repeated and realized as *pro*.

(i) John-i mescikey norayhayssta. kuliko Mary-to norayhayssta.
 -Nom beautifully sang and -also sang.
 'John sang beautifully. And Mary also sang.'

- (29) John-i norayha-yss-e, *mescikey*.
 -Nom sang-Past-Decl, beautifully
 'John sang a song, beautifully.'

Dismissing *pro* as an option, we assume that a correlate expression in the host clause is a null argument or adjunct. In this regard, we suggest that the afterthought construction should be understood on a par with the Sluicing construction of English with a covert correlate expression in the antecedent clause, as in (30) and (31), extensively discussed by Chung et al. (1995):

- (30) She's reading. I can't imagine what [_{TP} ~~she's reading~~].
 (31) She's writing, but you can't imagine how fast [_{TP} ~~she's writing~~].
 (Ross 1969, 252)

It is instructive to note that the antecedent-less Sluicing construction exhibits island effects, as follows:¹¹⁾

- (32) *Sandy was trying to remember which students wanted to speak, but she wouldn't tell us [who to]_i [_{TP} ~~she was trying to remember which students wanted to speak t_i~~].
 (33) *Sandy is very anxious to see which students will be able to solve the homework problem, but she won't say [how]_i [_{TP} ~~she is very anxious to see which students will be able to solve the homework problem t_i~~].

There is one piece of evidence revealing the behavior of a null correlate expression in the afterthought construction. This evidence has to do with NPI

11) However, when the correlate expression is realized overtly in the antecedent clause, the antecedent-ed sluicing construction does not display island effects, as follows. In other words, the construction shows what is called 'repair-by-ellipsis' effects:

- (i) Sandy was trying to remember which students wanted to speak to some teacher, but she wouldn't tell us [which one]_i [_{TP} Sandy was trying to remember which students wanted to speak to t_i].
 (ii) Sandy is very anxious to see if the students will be able to solve the homework problem in a particular way, but she won't tell us [in which way]_i [_{TP} Sandy is very anxious to see if the students will be able to solve the homework problem t_i].

intervention effects in Korean. Examples like (34) are relevant cases:

- (34) *Amwuto Kyopo-eyse saci ahn-ass-ta-nuntey, *mwusun chayk-ul*.
 anyone Kyopo-at buy not-Past-Decl-is said, what book-Acc
 'No one is said to have bought at Kyopo Bookstore, what book?'

The ungrammaticality of (34) cannot be attributed to the fact that the host clause is a declarative and the appendix is a Wh-indefinite. In fact, the following sentence in (35a) allows for this kind of combination.

- (35)a. John-i Kyopo-eyse sa-ass-ta-nuntey, *mwusun chayk-ul*?
 -Nom Kyopo-at buy-Past-Decl-is said, what book-Acc
 'John is said to have bought at Kyopo Bookstore, what book?'
- b. John-i Kyopo-eyse sa-ass-ta-nuntey, *i kyokwase-ul*.
 -Nom Kyopo-at buy-Past-Decl-is said, that textbook-Acc
 'John is said to have bought at Kyopo Bookstore, this textbook.'

We rather blame the unacceptability of (34) on the presence of NPI in subject position which constitutes a blocking element for the movement of a null correlate expression in the host clause. In this regard, (34) should be understood in the same fashion as (36), noted by Beck and Kim (1997):

- (36) *Amwuto Kyopo-eyse mwusun chayk-ul saci ahn-ass-ni?
 anyone Kyopo-at what book-Acc buy not-Past-Inter
 'No one is said to have bought what book at Kyopo Bookstore?'

This sentence in (36) is ruled out because of the NPI in subject position which prevents the Wh-indefinite from taking appropriate scope at clause-edge position. In contrast to this sentence, when the object Wh-indefinite is scrambled across the NPI subject, the resulting sentence becomes acceptable as in (37):

- (37) Mwusun chayk-ul_i amwuto Kyopo-eyse t_isaci ahn-ass-ni?
 what book-Acc anyone Kyopo-at buy not-Past-Inter
 'No one is said to have bought what book at Kyopo Bookstore?'

Note that in our analysis of the appendix clause, the Wh-indefinite appendix of (34) will precede the subject NPI just like (37) after its movement to clause-initial position and before the immediately following clause undergoes deletion. In this regard, we emphasize the point that what is to blame in (34) is not the appendix itself but the covert movement of a null correlate expression in the host clause. The latter is subject to island constraints including the one ascribed to an NPI intervener.

In light of the parallelism condition on deletion, a blame can also be put upon the behavior of the appendix. One of the important features of the appendix is that it receives emphatic focus accompanied by some stress, as Choe (1987: 52) notes. Enkvist (1980: 135) characterizes emphatic focus as signaling "the relative weight that a speaker wants to attach to a particular element in the speech stream." It seems that emphatic focus is a flip side of contrastive focus. Two types of focus are associated with an assertion (emphatic focus) or negation (contrastive focus) of a presupposition (for example, *Yes, JOHN did it* versus *MARY bought a book, not Peter*). In other words, the speaker uses emphatic/contrastive focus to attach more weight to a particular element "to set right a poorly transmitted or wrongly received part of a message." Enkvist (1980: 135).

Meinunger (1996, 2003) goes one step further to argue that expressions bearing emphatic/contrastive focus are constrained by movement constraints (also cf. Merchant (2008)). The following examples make a point:

(38) John doesn't love his WIFe, but his DAUGHTer.

(39) a. ??John doesn't wonder who saw MArY, but JANE.

b. John doesn't wonder who saw MArY, but who saw JANE.

(40) a. *He didn't investigate the man who invited the ex-convict with the RED shirt, but the BLUE shirt.

b. He didn't investigate the man who invited the ex-convict with the RED shirt, but the man who invited the ex-convict with the BLUE shirt.

To the extent that Reinhart (1991) is right, sentences like (38)-(40) are derived in the following fashion, in particular with the second clause being comparable to a 'fragment' clause. (38) for example can be represented as follows:¹²

- (41) John doesn't love his WIFE, but his DAUGHTer_i [_{TP} John ~~does not love~~ _{t_i}].

The degradedness of (39a) and (40a) is then ascribed to the fact that emphatically or contrastively focused expressions display island effects.

We assert that what we have said about focus movement in English goes *mutatis mutandis* for its counterpart in Korean. As a focus expression is not referential but quantificational (cf. Chomsky (1976)), its movement is compared to movement of an adjunct, not of a referential argument. It follows that an expression with emphatic/contrastive focus displays not subjacency but ECP effects when it moves out of an island.

In Korean, aside from the afterthought construction, the so-called fragment construction as in (42) versus (43) independently shows that it manifests island effects. The emphatically focused fragment in the following B or B' rejoinder cannot be associated with the correlate expression within the island structure of the preceding antecedent clause.

- (42) A: Bill-i John-kwa ku il-ul kongmoha-ayss-e
 -Nom -with the project-Acc collude-Past-Decl
 'Bill colluded on the project with John.'

B: kulay, maca. John-kwa
 yes, right. John with
 Yes, that is right. With John.

B': kuliko, Tom-kwa-to
 and -with-also
 'And also with Tom.'

- (43) A: Kyengchal-i John-kwa ku il-ul kongmoha-n
 police -Nom -with the project-Acc collude-Past-Decl
 salam-ul chephoha-ayss-e

12) One of the reviewers of this journal raises a question about what level of representation the parallelism/identity condition on deletion holds at. As is generally assumed (in particular, see Merchant (2001); Fox and Lasnik (2003)), we assume that it holds in LF. This implies that the contrastively focused NP in the first clause of (41) takes sentential scope in the parallel fashion that the corresponding remnant expression in the second clause does.

man-Acc arrest-Past-Decl

'The police arrested the man who colluded on the project with John.'

B: Kulay, maca. ?*John-kwa.

'Yes, that is right. With John.'

B': Kuliko, ?*Tom-kwa-to.

'And also with Tom.'

If, as M.-K. Park (2001) argues, this rejoinder is derived by deleting the (cleft) clause that the focus fragment/remnant has escaped out of, we can account for its island effects.

We also argue that focus movement of the appendix out of an island results in unacceptability of the following sentence:

- (44) *?[[Nwukunka-ka *kumko-lul/kukes-ul* yen kes]-i hwaksilhata]-ko
 who-Nom safe-Acc/it-Acc open-Nom be.certain-comp
 Yenghi-ka malhay-ss-e, *kumko-lul*.
 -Nom say-Past-Decl safe-Acc
 'Yenghi said it is certain that someone opened it, the safe.'

(44) is a case where the correlate expression corresponding to the appendix is overtly realized. Importantly, we cannot attribute its unacceptability to the behavior of this correlate expression. Rather, the culprit for it is the appendix which as an emphatically focused expression cannot move out of the complex noun phrase.

Before leaving this section, let us return to the (prenominal) adjectival attributive appendix discussed in section 2. C.-H. Lee (2009: 50) claims that this type of appendix exhibits argument vs. adjunct asymmetry, as follows:

- (45) a. Na-nun honcaphan keli-eyse acwu swuncinhan sonye-lul
 -Top crowded street-on very pure girl-Acc
 mannassta.
 met
 'I met a very pure girl on the crowded street.'
- b. Na-nun honcaphan keri-eyse sonye-lul mannassta, acwu swuncinmuuhan

c. *Na-nun keri-eyse acwu swuncinhan sonye-lul mannasse, *honcaphan*

When the appendix is associated with the argument in the host clause, the sentence as in (45b) is acceptable. However, when it is associated with the adjunct in it, the sentence as in (45c) is not. In our analysis, this contrast follows from the effects of the condition on extraction domain (CED) proposed by Huang (1982),¹³⁾ which governs the parallel movement of an appendix and its null correlate expression.

4. Apparent Non-movement Effects

The movement-cum-deletion approach to the afterthought construction makes a reasonable prediction that as there is overt movement in the appendix clause, this movement will induce movement effects. However, it is generally not the case, contrary to the prediction. It will be shown in this section that this failure of the prediction follows from scope parallelism that comes into play in the deletion construction.

We start with examining this prediction by considering the examples discussed by Ko and Choi (2009):

- (46) a. Twu elini-ka motun yenhwa-lul poko isseseyo.
 two child-Nom all movie-Acc watch was.prog
 b. Motun yenhwa-lul_i twu elini-ka t_i poko isseseyo.

13) It seems that the CED is also responsible for the contrast between (ia) and (ib) in the following.

- (i) a. John-un yenghwa-lul poko, Mary-nun hayssta, swukcay-lul.
 -Top movie-Acc see-and Mary-Top did-Decl homework-Acc
 b. *John-un poko, Mary-nun swukcey-lul hayssta, yenghwa-lul.
 -Top see-and Mary-Top homework-Acc did-Decl movie-Acc
 ‘John saw a movie, and Mary did homework, a movie.’

The appendix in (ia) is associated with the second conjunct, whereas the one in (ib) is with the first conjunct. This implies that the first conjunct, but not the second conjunct, should be analyzed as forming adjunct structure which constitutes an island for the movement of the appendix out of it.

- all movie-Acc two child-Nom watch was.prog
 c. Twu erini-ka poko issesseyo, *motun yenhwa-lul*.
 two child-Nom watch was.prog all movie-Acc
 'Two children was watching all the movies.'

As is well-known, in Korean the canonical word order sentence as in (46a) is not interpreted ambiguously; rather only the so called scope rigidity interpretation obtains, as the subject QP takes scope over the object QP. On the other hand, when the object QP is scrambled over the subject QP as in (46b), the sentence is interpreted ambiguously. A question is what happens to the afterthought construction like (46c) in regard to scope interpretation. Ko and Choi (2009) report that this sentence behaves not like (46b) but like (46a), as the subject QP only takes scope over the object QP.

Ko and Choi (*ibid.*) argue that this scope interpretation of the afterthought construction follows from the conspiring interaction of the Word Order Economy and the Output Economy (cf. Fox (2000)). Abstracting away from details, according to their movement-only analysis of the construction at issue, the object undergoes movement not to the outer but to the inner Spec of vP in the course of rightward movement, thereby only taking scope below the subject in [Spec, vP] position.

Though their factual claim and analysis are straightforward, there are two questions we can raise about them. One question is whether it is always the case that rightward movement does not change scope interpretation. It seems, however, that some instance of rightward 'movement' does. The relevant case is the one where an object QP is displaced rightward from a negative host clause as in (47c):

- (47) a. Amwu haksayngto manhun chayk-ul ilkci ahn-ass-e.
 any student many book-Acc read not-Past-Decl
 b. Manhun chayk-ul_i amwu haksayngto t_i ilkci ahn-ass-e.
 many book-Acc any student read not-Past-Decl
 c. Amwu haksayngto ilkci ahn-ass-e, *mahun chayk-ul*.
 any student read not-Past-Decl many book-Acc
 'Noone read many book.'

In canonical word order sentences like (47a), the object QP takes scope either below or over the negation (cf. Sohn (1996); Sells (2005)). When the object is scrambled over the subject, however, sentences like (47b) are interpreted unambiguously, the object only taking scope over the negation. What about the object QP at the right edge as an appendix as in (47c)? This type of sentences are interpreted unambiguously just like (47b), but not like (47a). This means that rightward 'movement' sometimes changes the scope interpretation that would obtain without it.

The second question is whether the scope interpretation of examples like (46c) is indeed at odds with the deletion analysis of them we have argued for. The answer is that in fact, this scope interpretation follows from one of the general properties of the ellipsis construction, that is scope parallelism. To understand this notion, we briefly review some relevant examples in English that have been argued to be governed by it (cf. Fox (2000)).

- (48) a. A boy admires every teacher. A girl does.
 b. A boy admires every teacher. Mary does.

In (48a), the first sentence is interpreted ambiguously. The second sentence involving VP ellipsis is, too. However, (48b) is not interpreted in this way. The first sentence of (48b) is interpreted with the subject existential QP only taking scope over the object universal QP. According to Fox (2000), the other scope interpretation of the former taking scope over the latter is disallowed in the first sentence of (48b). This is attributed to scope interpretation possibility of the second sentence involving VP ellipsis and thereby anaphoric to the first sentence. The second sentence is not interpreted ambiguously as there is no QP available that the universal QP within the elided VP can interact with scope-wise. Fox (*ibid.*) argues that covert parallel movement of the object QP over the referential subject in the second sentence does not have any proper motivation for it, thus being blocked after all. In a nutshell, the ellipsis clause is in parallel relation with its antecedent clause in regard to scope-taking. Only when the two ellipsis and antecedent clauses are potentially ambiguous, they turn out to be ambiguous.¹⁴⁾

B.-S. Park (2003) argues that scope parallelism also holds in Korean ellipsis constructions. The following sentences make a point:

- (49) A: Motun paywu-lul enu namhaksayng-i cohahay.
 every actor-Acc some male student-Nom like
 'Every actor some boy student likes.'
 B: Motun kaswu-to_i [_{TP} enu namhaksayng-i t_i cohahay](ya).
 every singer-also
 'Every singer too.'
- (50) A: Enu namhakysang-i motun paywu-lul cohahay.
 some male-student-Nom every actor-Acc like
 'Some male student likes every actor.'
 B: Motun kaswu-to_i [_{TP} enu namhaksayng-i t_i cohahay]ya.
 every singer-also
 'Every singer too.'

14) This generalization may need modification, given the fact as in (i), where the first sentence is a scrambled one, and the second apparently is not. The example (i) is almost identical to the example in (49) in the text. The difference between them lies in the type of the second sentence:

- (i) A: Motun paywu-lul enu namhaksayng-i cohahay.
 every actor-Acc some male student-Nom like
 'Every actor some boy student likes.'
 B: Enu yehaksayng-to (ya).
 some female student-also
 'Some female student does too.'

Takahashi (2008) claims that the second sentence is interpreted ambiguously in parallel fashion with the first sentence, suggesting that the null object invisibly scrambles to the beginning of the second sentence. Though we acknowledge that the second sentence is ambiguously interpreted, however, it is not clear whether wide scope interpretation of the object over the subject is a bona fide quantificational one or not. Abe (2009) in fact argues that this interpretation comes about not because of invisible scrambling of the object over the subject, but because of the null E-type pronominal topic in front of the second clause, which is responsible for the former taking scope over the latter. To the extent that Abe's null-topic analysis of the scope interpretation in (iB) is right, it obviates the Takahashi-style postulation of pro-scrambling in grammar. Note incidentally that this null topic is generally not available in the first clause as in (49A); otherwise, it would be interpreted ambiguously.

(49) and (50) in Korean manifest the same scope pattern as (48a) and (48b) in English. When both the ellipsis and antecedent sentences are potentially ambiguous, they turn out to be ambiguous, as in the pair of (49). However, when the antecedent sentence is not ambiguous like the one in (50A), the antecedent sentence does not do so. In another respect, we can say that in the ellipsis-antecedent pair sentences, one ambiguous sentence does not make the other sentence ambiguous, which is the nature of scope parallelism.

Returning to (46c), repeated below as (51), the unambiguous interpretation of this example can be accounted for by virtue of scope parallelism:

- (51) Twu erini-ka poko issesseyo, *motun yenhwa-lul*.
 two child-Nom watch was.prog all movie-Acc
 'Two children is watching all the movies.'

(51) is an instance opposite to (48b) with respect to scope parallelism. The first host clause is potentially not ambiguous, but the second appendix clause is. In this regard, in light of scope parallelism it is fair to say that there is no scope interaction between the existential and the universal QPs.

What about (47c), repeated below as (52), where the appendix is a QP expression and the host clause contains negation:

- (52) Amwu haksayngto ilkci ahn-ass-e, *mahun chayk-ul*.
 any student read not-Past-Decl many book-Acc
 'Noone read many book.'

(52) is exactly identical to (51) in regard to scope possibility of the first and the second clauses. The first clause does not say anything about the scope interaction between negation and the appendix QP. This makes it impossible for the appendix QP in the second clause to be under the domain of negation.

Now we move on to the second case of afterthought construction where movement of the appendix before deleting the immediately following clause does not induce movement effects. This case which involves variable binding is also drawn from Ko and Choi (2009) with two related sentences:

- (53) a. Motun sara-i ku-uy emeni-lul kuriwehay.
 every person-Nom his mother-Acc miss
 b. *Ku-uy emeni-lul motun sara-i kuriwehay.
 his mother-Acc every person-Nom miss
 c. Motun sara-i kuriwehay, *ku-uy emeni-lul*.
 every person-Nom miss his mother-Acc
 'Everyone misses his mother.'

(53a) is a canonical word order sentence where the bound variable (BV) pronoun within the object NP can have dependency relation with the QP in subject position. When, however, the object NP scrambles over the QP in subject position that has bound the BV pronoun within it, the sentence in (53b) becomes substantially degraded. Given this background, the sentence we are interested in is the afterthought construction in (53c). Note that this sentence does not behave like (53b) but like (53a). This would be a surprising fact, in that if the movement-cum-deletion approach to the construction at issue is right, there is movement of the object expression over the subject QP in the appendix clause; thus, (54) is expected to behave in parallel fashion to (53b) rather than to (53a), contrary to fact.

The problem that variable binding poses to the movement-cum-deletion approach to the afterthought construction is only apparent. Note that regardless of whether there is movement or not in the appendix/second clause, the subject QP in the first clause allows for dependency relation with the BV pronoun in the second clause, as follows:

- (54) Motun haksayng-i tochakhaysse, *ku-uy emeni-wa hamkkey*.
 every student-Nom arrived his mother-with together
 'Every student arrived, together with his mother.'
 (55) Motun haksayng-i tochakhaysse, *ku-uy emeni-to*.
 every student-Nom arrived his mother-also
 'Every student arrived, and his mother too.'
 (56) Motun haksayng-i noray-lul pwulu-ko,
 every student-Nom song-Acc sing-Conj
 ku-uy emeni-ka chwu-ul chwuess-e.

his mother-Nom dance-Acc danced
 'Every student sang a song, and his mother danced a dance.'

(54) is the afterthought construction. (55) is the stripping type of construction whose second clause can be understood as a fragment clause that is derived in the same fashion as the appendix clause is (cf. (42B/B') above). In these examples the subject QP of the first clause can have dependency relation with the BV pronoun of the second clause. It is noteworthy that this relation can obtain even when the second clause does not involve movement nor deletion as in (56). Variable binding in this type of sentences is independent of movement or deletion.

A final note is in order about the difference between two versions of scope parallelism employed in section 3 and 4, respectively. The first one in section 3, on the one hand, was that as far as the appendix moves, its null correlate expression in the host clause can (move that far and) take scope, or vice versa. The second one in section 4, on the other hand, was scope parallelism respected by canonical quantificational expressions. Therefore, the first one is confined to a null correlate expression, but the second one applies to QPs in general.

5. Summary and conclusion

So far we have examined the aspects of the afterthought construction in Korean. Departing from the previous approaches, we have explored an analysis for it on the basis of the two syntactic operations Move and Delete. In particular, we have argued that our movement-cum-deletion analysis provides a superior explanation for the apparently immobile or non-constituent strings like prenominal modifiers and multiple-constituent appendixes. In addition, we have showed that the proposed analysis can most cogently account for the locality relation between the appendix and the host clauses. Finally, we have shown that the scope parallelism is respected by QPs in the host and appendix clauses of the afterthought construction. All in all, we have argued that the apparently peculiar properties of the construction in question can only be accommodated by our proposed movement-cum-deletion analysis.

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