

On the Edges of Korean NP*

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Yoo, YongSuk. (2021). On the edges of Korean NP. *The Linguistic Association of Korea Journal*, 29(3), 129-141. This paper shows that a particular pattern in Korean Possessor Raising constructions can be accounted for if only the highest specifier of NP counts as a phasal edge. This paper contributes to the ongoing debate of the contextuality of phasal edgehood: The status of a Spec/adjunct regarding the phasal edge can be affected by the syntactic context in which the Spec/adjunct appears. In particular, only the highest specifier of NP counts as a phasal edge and the lower specifier of NP is only accessible when the highest one undergoes movement. This article also discusses issues regarding the syntax and semantics of adjectives and possessors in Korean nominal phrases, arguing that adjectives and possessors in Korean are NP-adjuncts and there is no functional projection such as DP. This also sheds a new light on the discussion of Korean possessor raising constructions.

Key Words: phase, edge, NP, Korean, possessor raising

1. Introduction

This paper investigates Korean Possessor Raising involving more than one possessor, showing that their extractability is affected by the presence of a preceding possessor. In particular, it will be shown that when there are multiple possessors modifying the head noun, only the highest possessor can undergo movement. Possessor Raising (henceforth, PR) involves extraction out of NP as shown in (1) (Kuo, 2009; Tomioka & Sim, 2005; Yoon, 1997).

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- (1) chayk-ul₁ pyungronkatul-i [NP t₁ [pyoji]]-lul kukchanhayssta.
 book-ACC critics-NOM cover-ACC praised
 ‘The critics praised the cover of the book.’

In (1), the possessor chaykul ‘book’ moves out of the NP, stranding its head noun pyoji ‘cover’. There is a battery of arguments for cases and movement of PR (Kuo, 2009; Tomioka & Sim, 2005; Yoon, 1997 among many others). The literature has been focusing on whether PR involves movement. However, to the extent of our knowledge, PR hasn’t been discussed when there is more than one possessor. In the following sentence, the head noun pyoji ‘book’ is modified by two possessors.

- (2) pyungronkatul-i [NP_{saphwaka-uy} [NP_{chayk-uy} [pyoji]]-lul kukchanhayssta.
 critics-NOM illustrator-GEN book-GEN cover-ACC praised
 ‘The critics praised the illustrator’s cover of the book.’

The syntactic structure of NP under the intended interpretation is illustrated in (3), where the two modifiers do not form a constituent:

- (3) [NP saphwaka_{uy} [NP chayk_{uy} [pyoji]]]

The example in (4) shows that the two possessors cannot change their word order. I assume here that the word order restriction imposed here is caused by their semantic type difference, following Bošković and Hsieh (2012). The gist of Bošković and Hsieh (2012) is that the restrictive possessors have the semantic type of <e,t>, whereas the non-restrictive possessors would have different types. This means that the two possessors in (4) needs to be ordered in a particular way for the purpose of their successful semantic computation.

- (4) *chayk-uy saphwaka-uy pyoji
 book-GEN illustrator-GEN cover
 Intended: ‘the illustrator’s cover of the book’

Now, let us turn into the construction which involves PR when there is more than one possessor. The sentence turns out to be ungrammatical when the target possessor is preceded by another possessor in their base position.

- (5) *chayk-ul₁ pyungronkatul-i [NP saphwaka-uy [NP t₁ [pyoji]]-lul kukchanhayssta.
 book-ACC critics-NOM illustrator-GEN cover-ACC praised
 Intended: 'The critics praised the illustrator's cover of the book.'

Assuming that the possessors in question have the same structural status, the ungrammaticality in (5) means that PR is blocked when there is a preceding possessor.

This paper argues that the ungrammaticality observed in (5) shows that the lower specifier of a phase does not function as an edge position (Bošković, 2016; Yoo, 2021). A careful investigation on the issue of the outmost edge effect and PR and NP in Korean is in order. This paper is organized as follows. Section 2 discusses the outmost edge effect. Section 3 reviews PR and NP. Section 4 accounts for the data in question. Section 5 concludes this paper.

2. The Outmost Edge Effect

Bošković (2016) argues the phasal edge status of a Spec or an adjunct of phase XP is determined by whether it is located at highest position. The outmost edge effect refers to the situation where the lower specifier of a phase does not function as an edge position. While he discusses crosslinguistic data patterns in this term, let us consider some representative cases here. The following example involves Left Branch Extraction of a complement of predicative adjectives.

- (6) a. *Na tebe sam vidio [Jovanovog ponosnog oca].
 of you am seen Jovan's proud father
 'I saw Jovan's father who is proud of you'
 b. Na tebe₁ sam vidio [pososnog t₁ oca]
 of you am seen proud father (Bošković 2016: (25))

While (6b) shows that the extraction of the complement of AP (na tebe 'of you') is allowed as in (1b), it is suddenly disallowed when it is preceded by a possessor. Bošković (2016) argues that the patterns observed in (6) indicates that the edge status of specifiers/adjuncts of NP is clearly affected by the preceding specifiers/adjuncts.

To analyze the patterns in (6), the nominal structure of Serbo-Croatian has to be

investigated. The main purpose here is to identify the syntactic status of the two modifying elements in question that are supposedly located at the specifier/adjunct positions of NP. Bošković (2016) argues that Serbo-Croatian NPs do not have the DP-layer (Bošković, 2012; Bošković, 2005; Despic, 2011). The absence of DP layer means that DP-elements such as possessors are treated as NP-adjuncts like adjectives. This prediction is then confirmed by the evidence shown in (7)-(8), which contrasts in the relevant respect with English data in (7).

- (7) a. His_i latest movie really disappointed Kusturica_i.
 b. Kusturica_i's latest movie really disappointed him_i.
- (8) a. *[_{NP} Kusturicin_i [_{NP} najnoviji film]] ga_i je zaista razočarao.
 Kusturica_i's latest movie him is really disappointed
 'Kusturica_i's latest movie really disappointed him_i.'
 b. *[_{NP} Njegov_i [_{NP} najnoviji film]] je zaista razočarao Kusturicu_i.
 his latest movie is really disappointed Kusturic
 'His_i latest movie really disappointed Kusturica_i.' (Despić, 2013, p. 245)
- (9) a. *[_{NP} Brojn_i [_{NP} Kusturicin_i [_{NP} filmovi]]] su ga_i zaista razočarali.
 numerous Kusturica_i's movies are him really disappointed
 'Numerous movies of Kusturica_i really disappointed him_i.'
 b. *[_{NP} Ovaj [_{NP} Kusturicin_i [_{NP} najnoviji film]]] ga_i zaista razočarali
 this Kusturica_i latest movie him really disappointed
 'This latest movie of Kusturica_i really disappointed him_i.' (Bošković, 2014, p. 32)

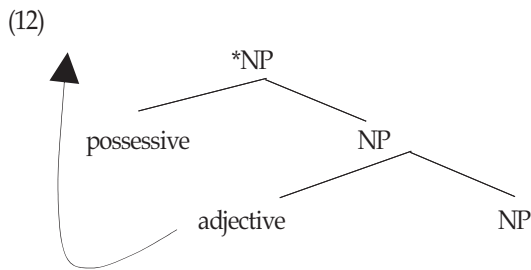
In contrast to English (7), there are Condition B and C violations in SC (8)-(9). Despić (2011) argues that this means that possessors in SC are NP-adjuncts. Crucially, the addition of an adjective and demonstrative in shown (9) still involves the violations of (8), which means that the modifying elements in question are all adjoined to NP as illustrated in (10).

- (10) [_{NP} possessive/adjective [_{NP} possessive/adjective [_{NP} ...]]]

Assuming that the possessors and adjectives are all NP-adjoined, Bošković (2016) argues that examples like (6) (as repeated in (11)) show that extraction from the lower specifier of a phasal edge is disallowed, showing the outmost edge effect.

- (11) a. *Na tebe sam vidio [Jovanovog ponosnog oca].
of you am seen Jovan's proud father
'I saw Jovan's father who is proud of you'
- b. Na tebe sam vidio [pososnog oca]
of you am seen proud father (Bošković 2016: (25))

The ungrammaticality of (10b) thus suggests that the lower specifier of a phase does not count as a phasal edge. The relevant point of the derivation for (11)b is given in (12); I will refer to the effect in question as the outmost edge effect, as in (13).



- (13) The outmost edge effect
Only the outmost edge counts as the phasal edge

The outmost edge effect accounts for the ungrammaticality of extraction out of the lower specifiers of a phase head. The investigation in this term also contributes to the general understanding of the concept of phasal edge. In the next section, we will conduct a comparative investigation of Korean possessor construction in terms of (12).

3. Possessor Raising Construction in Korean

3.1. Data

This section analyzes Possessor raising (PR) constructions like (14) and (16) in Korean. The main puzzle to be addressed concerns the limited distribution of PR in Korean: It is allowed in constructions like (14) but not (15) and it is disallowed in constructions with more than one possessor, like (16b).

- (14) chayk_i-ul pyungronkatul-i [_{NP} t_i [pyoji]]-lul kukchanhayssta.
 book-ACC critics-NOM cover-ACC praised
 ‘The critics praised the illustrator’s cover of the book.’
- (15) *John-ul_i pyungronkatul-i [_{NP} t_i [chayk]]-ul kukchanhayssta.
 John-ACC critics-NOM book-ACC praised
 ‘The critics praised John’s book.’
- (16) a. pyungronkatul-i [_{NP} saphwaka-uy [_{NP} chayk-uy [pyoji]]]-lul kukchanhayssta.
 critics-NOM illustrator-GEN book-GEN cover-ACC praised
 ‘The critics praised the illustrator’s cover of the book.’
 b. *chayk-ul pyungronkatul-i [_{NP} saphwaka-uy [_{NP} t_i [pyoji]]]-lul kukchanhayssta.
 book-ACC critics-NOM illustrator-GEN cover-ACC praised
 ‘The critics praised the illustrator’s cover of the book.’

I will argue that the ungrammaticality of (16b) provides additional evidence for the outmost edge effect from (13). Before giving an account of these examples, a short digression is in order to introduce the relevant background concerning the underlying structure of (14), (15), and (16).

3.2. Background 1: Possessor Raising in Korean

This section briefly summarizes properties of Possessor Raising (PR) constructions in Korean, and provides evidence for the constituent approach to the underlying structure of PR. PR is a context where the possessor receives the same Case as its host noun instead of its usual genitive Case. Hence in the following example, the possessor Mary receives accusative.

- (17) John-i Mary-lul phal-ul capatta.
 John-NOM Mary-ACC arm-ACC grabbed
 ‘John grabbed Mary’s arm.’

One of the important properties of PR is that the possessor can also be separated from its host NP via scrambling (in contrast to genitive possessors), as shown in (18).

- (18) Johni-ul Mary-ka [t_i phal]-ul ttalessta.
 John-ACC Mary-NOM arm-ACC hit
 'Mary hit John's arm.'

Importantly, there is a semantic restriction on PR in that only inalienable possessors can undergo PR (see Choe 1987, Yoon 1990, Ura 1996, Ko 2005). Hence (19) is ungrammatical since the possessor is alienable to the host NP.

- (19) *John_i-ul Mary-ka [t_i cha]-lul phalassta.
 John-ACC Mary-NOM car-ACC sold
 'Mary sold John's car.'

The syntactic properties of PR in (19) have been discussed extensively in the literature (see Choe, 1986; Chun, 1985; Ura, 1995; Ko, 2005 among many others, for discussion of the syntax and semantics of PR in Korean). The proposed analyses can be divided roughly into two lines of research regarding the underlying structure of the possessor and the possessee. One line argues that the possessor and the possessee form a constituent as in (20a) (i.e. the constituent approach; see Choe 1987, Ura 1996, Ko 2005, among others, for Korean). The other argues that the possessor is an argument of the verbal predicate, and the possessor and the possessee do not form a constituent in the underlying structure, as in (20b) (i.e. the non-constituent approach). This pattern will provide evidence for the former approach.

- (20) a. [_{NP} Possessor [Possessee]]
 b. [_{VP} Possessor... [NP Possessee]]

While the debate in general has not been fully settled, Ko (2005) provides an important piece of evidence that favors the constituent approach. Consider examples in (21) with special attention paid to the word order patterns of the possessor and the possessee (the host noun).

- (21) a. John-i Mary-lul phal-ul capatta.
 John-NOM Mary-ACC arm-ACC grabbed
 'John grabbed Mary's arm.'

- | | | | |
|-------------|----------|----------|----------|
| b. Mary-lul | John-i | phal-ul | capatta. |
| c. Mary-lul | phal-ul | John-i | capatta. |
| d. *phal-ul | John-i | Mary-lul | capatta. |
| e. *phal-ul | Mary-lul | John-i | capatta. |

(21b,c) indicate that both the possessor and the possessee can undergo scrambling. Crucially, there is an ordering effect between them as illustrated in (21c,d), which shows that the possessee cannot move over the possessor. Ko (2005) points out that it is rather difficult to account for the word order effect under the non-constituent approach.

What is assumed in the theories that advocate the non-constituent approach is that the possessor in PR is an argument of the verb and it is base-generated in a separate position from the possessee. Thus, this approach argues that the underlying structure of PR which is similar to the ditransitive structure, where both arguments can also be marked with the accusative Case, as illustrated in (22). However, there is no ordering effect like (22) here, as shown in (23). This indicates that the underlying structure of PR should not be treated in the same way as the ditransitive structure.

- | | | | | | |
|---------|--------------------------------|--------------------------|-------------|----------------|--------------------------|
| (22) | Chelswu-ka | [_{VP} Mary-lul | chayk-ul | cwuetta] | |
| | Chelswu-NOM | Mary-ACC | book-ACC | give | |
| (23) a. | Mary ₁ -lul | chayk ₂ -ul | Chelswu-ka | t ₁ | t ₂ cwuessta. |
| | Mary-ACC | book-ACC | Chelswu-NOM | | gave |
| | 'Chelswu gave a book to Mary.' | | | | |
| b. | chayk-ul | Mary-lul | Chelswu-ka | t ₁ | t ₂ cwuessta. |
| | book-ACC | Mary-ACC | Chelswu-NOM | | gave |
| | 'Chelswu gave a book to Mary.' | | | | |

More generally, I will argue that the ordering patterns in (21) and (23) indicate that there is a constraint on movement that is closely related to how the underlying structure of the relevant elements is created. I argue that the ordering paradigm from (21) is the result of the outmost edge effect, which furthermore for principled reasons does not work in (23).

3.3. Background 2: The nominal structure of Korean

This section investigates Korean NP structures with special attention paid to their phasehood and word order restrictions. In particular, it will be shown that possessors in Korean

are adjoined to NP based on tests discussed in Bošković (2008, 2012) and Kang (2014).

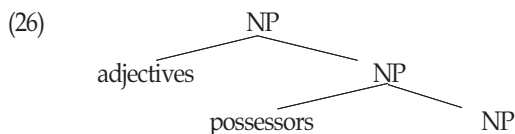
To begin with, let us consider examples in (21), which concern the NP-adjunct status of possessors in Korean.

- (24) a. *John_i-uy pwumeylang-i ku_i-lul chy-ess-ta
 John-GEN boomerang-NOM he-ACC hit-PERF-DECL
 'John_i's boomerang hit him_i.'
- b. *ku_i-uy pwumeylang-i John_i-ul chy-ess-ta
 he-GEN boomerang-NOM John-ACC hit-PERF-DECL
 'His_i boomerang hit him_i' (Kang, 2014)

(24) shows that the pronoun and the name cannot be coindexed here, indicating that the possessor of the subject c-commands outside of the subject, resulting in violations of Condition B/C. As discussed with respect to SC possessives, these data can be accounted for if Korean possessors are NP-adjuncts and Korean lacks DP, which would confine the c-command domain of the possessor. Kang (2014), furthermore, observes that the grammaticality of sentences in (24) does not improve when an adjective precedes the possessor.

- (25) a. ketalan *John_i-uy pwumeylang-i ku_i-lul chy-ess-ta
 big John-GEN boomerang-NOM he-ACC hit-PERF-DECL
 'John_i's big boomerang hit him_i.'
- b. ketalan *ku_i-uy pwumeylang-i John_i-ul chy-ess-ta
 big he-GEN boomerang-NOM John-ACC hit-PERF-DECL
 'His_i big boomerang hit him_i'

Following the standard assumption that adjectives are adjoined to NP, what (25) shows is that both adjectives and possessors are NP-adjuncts in Korean, as illustrated in (26).



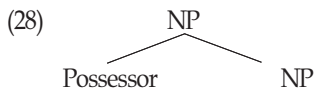
To summarize, this section has shown that Korean lacks the DP-layer based on the binding tests, and that adjectives and possessors are adjoined to NP. Armed with these assumptions, let us analyze the core data of this paper.

4. The Outmost Edge Effect in Korean Possessor Raising

Armed with the previous assumption that the possessors in Korean are all NP adjuncts, we can investigate the extractability of possessors when it is preceded by another possessor. As discussed above, an inalienable possessor can undergo PR:

- (27) chayk_i-ul pyungronkatul-i [_{NP} t_i [pyoji]]-lul kukchanhayssta.
 book-ACC critics-NOM cover-ACC praised
 ‘The critics praised the illustrator’s cover of the book.’

In the underlying structure of the NP in question, the inalienable possessor adjoins to the NP. Assuming that NP is a phase in Korean, this position is at a phasal edge. Thus, PR is possible in this structure.



Now, let us consider the (5) (as repeated in (29)), where the PR is blocked by the preceding possessor.

- (29) a. pyungronkatul-i [_{NP} saphwaka-uy [_{NP} chayk-uy [pyoji]]]-lul kukchanhayssta.
 critics-NOM illustrator-GEN book-GEN cover-ACC praised
 The critics praised the illustrator’s cover of the book.’
 b. *chayk-ul pyungronkatul-i [_{NP} saphwaka-uy [_{NP} t_i [pyoji]]]-lul kukchanhayssta.
 book-ACC critics-NOM llustrator-GEN cover-ACC praised
 The critics praised the illustrator’s cover of the book.’

The underlying structure, the NP in (29b) has the same word order as (29a), given that the alienable possessor must precede the inalienable possessor for the purpose of

semantic composition. Since both possessors are adjoined to NP, the underlying structure of the NP then involves two edges of the NP-phase, as shown in (30).

(30) [_{NP} saphawaka [_{NP} chayk [_{NP}]]]

The ungrammaticality of (29b) indicates that PR of the lower edge is illicit. Therefore, the patterns in (27) and (29) can be explained as the outmost edge effect in (13): PR is possible only from the outmost edge of the NP-phase.

It should be noted here that there is another interpretation where the possessor saphwaka ‘illustrator’ modifies the possessed noun chayk ‘book’. Under this interpretation, the illustrator is a modificational possessor of chayk ‘book’, and illustrator’s book is an argumental possessor of pyoji ‘cover’. This is illustrated in (31), where the labeling is consistent with the above discussion. As expected under the analysis proposed here, the complex possessor, where the illustrator possesses the book, can undergo PR here, as shown by (32).

(31) [[_{NP} saphawaka [_{NP} chayk]] _{NP}]

(32) [Saphwaka-uy chayk-ul]_i pyungronkatul-i [_{t_i} pyoji]-lul kukchanhayssta.

Illustrator-GEN book-ACC critics-NOM cover-ACC praised

‘The critics praised the cover of the illustrator’s book.’

*‘The critics praised the illustrator’s cover of the book.’

To summarize, there is a correlation between the word order and the possibilities for PR in that only the NP initial possessor can undergo movement. This can be captured if only the outmost edge counts as the edge of a phase for the purpose of the PIC. The current analysis also supports the constituent approach to PR constructions given that the base word order between the two possessors determines the availability of PR.

5. Conclusion

In this paper, the outmost edge effect in Korean PR is observed. The structural properties of possessors in Korean shows that they are all NP-adjuncts. In the traditional terms of edge, they would be treated as edge positions. However, PR is blocked when it

is preceded by another possessor. This means that the edge status of the relevant element can be affected by its syntactic context. This observation also supports the argument that PR involves movement.

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