

Distributional Properties of Pronouns and Adjectives in the Korean Noun Phrase*

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Park, Hyunjung. “Distributional Properties of Pronouns and Adjectives in the Korean Noun Phrases.” *Studies in English Language & Literature* 45.4 (2019): 211-234. I discuss in this paper the distributional properties of adjectives as the prenominal modifiers in relation to the Pronoun-Noun Constructions (PNC) in Korean. Mainly focusing on two domain theory of nominal modification based on Larson’s (1998) analysis, I propose structural properties of two types of adjective that can be realized in the Korean PNC: one type is Reduced Relative Clause (RRC)/DP-modifier and the other type is Attributive Adjective Phrase (AP)/NP-modifier. The main idea is that the pronoun in the Korean PNC plays a crucial role to determine a boundary between DP and NP modifiers. In other words, DP-modifiers are situated in the higher position than the pronoun whereas NP-modifiers are situated in the lower position than the pronoun. This fact is verified by a great deal of empirical evidence drawn from the Korean PNC. I also show the interesting behavior of the Korean color adjectives in relation to its morphology. That is, the domain of modifier of color adjective is flexible depending on its morphological variation. The current analysis provides a principled account of distributional properties of DP and NP modifiers in terms of the pronoun within the PNC in Korean. (Kyungpook National University)

Key Words: Pronoun-Noun Constructions, DP and NP modifier, boundary, color adjectives, morphological variation

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I. Introduction

In English, a pronoun of non-possessive form is placed immediately before a noun and then these two elements can construct a noun phrase, and usually the noun phrase is referred to as the Pronoun-Noun Construction (PNC).¹ The following examples are the PNC found in some languages including English.

- | | | |
|----------------------|-----------------|-------------------|
| (1) a. we linguists | <i>English</i> | |
| b. watasitati kanzya | <i>Japanese</i> | (Furuya 2008:152) |
| we patients | | |
| ‘we patients’ | | |
| c. Emis i glossologi | <i>Greek</i> | (Choi 2014:14) |
| we the linguists | | |
| ‘we linguists’ | | |

The examples in (1) exhibit PNCs in English, Japanese, and Greek in that the first person plural pronominal form *we* appears in the noun phrase. Interestingly, apparently parallel patterns can be observed in Korean, as in (2).^{2,3}

¹ See Postal (1969), Noguchi (1997), Furuya (2009), Radford (2009), Panagiotidis and Marinis (2011), among others for further details on the PNC.

² As the pronominal form in (2), the Korean second person pronoun *nehuy* is not included. In Korean, the second person pronoun *nehuy* means *ney* ‘your’ as shown in (i).

- (i) *nehuy nala-eyse-nun ettekey insahay?*
 your country in -Top how greet Q
 ‘How do people greet in your country?’

Here, it seems that genitive Case is assigned for *nehuy*, and thus we can say that *nehuy* is the form in which genitival affix is omitted. Therefore, the pronoun *nehuy* is not allowed as the pronominal form in the PNC since the pronoun in the PNC can only be a form of non-possessive pronoun. In English, however, it does not seem to be the case since the following expression is allowed as the PNC in English.

- (ii) you students

- (2) a. wuli/kutul enehakcatul
 we/they linguists
 ‘we/they linguists’
 b. wuli/kutul hwancatul
 we/they patients
 ‘we/they patients’

As shown in (2), a pronoun and a noun constitute the PNC as the noun phrase in Korean. In addition, when we take adjectives into account, Korean allows PNCs containing the adjectives, as exhibited in (3).⁴

- (3) a. [wuli **hankwuk** haksayngtul]-un yelsimhi kongpwu -hayyahan -ta.
 we korean-AP students -Top hard study should -Dc
 ‘We korean students should study hard.’
 b. thacka wiew [twukkewun wuli/kutul chayk] -i nohyeiss -ta.

Given this, in fact, the Korean counterpart corresponding to the expression in (ii) seems to be possible as in (iii).

- (iii) nehuy haksayngtul
 you students
 ‘you students’

Thus, the pronoun ‘nehuy’ in Korean seems to bear dual meaning: possessive and non-possessive meaning. I will leave this issue for future research.

³ Regarding PNCs in Korean addressed in this paper, I assume that there is a predication relationship between the pronoun and noun as a small clause and propose that the PNC of predication structure projects two types of the R head, based on den Dikken’s (2006a, 2006b) RP (Relator Phrase) structure. However, analyzing the RP structure is not a main goal in this paper and will certainly take us far afield. Thus, I will not go into too much detail here. But, one point that I would like to note briefly for the current discussion in this paper is that in Korean, the first/third person plural pronoun occupies the specifier position in the RP structure, but not the D head. See a simplified structure illustrated in (11) in the main text and footnote 12 in chapter 3 for further relevant discussion.

⁴ In (3), RRC and AP stand for Reduced Relative Clause and Attributive Adjective Phrase respectively and they are reviewed in detail in the next chapter.

desk on thick-RRC we/they book -Nom lie -Dc

‘On the desk our/their thick book lies.’

c. [**chincelhan** wuli **kwulispich cwungkwuk** haksayng]-i

kind-RRC we bronzed-AP Chinese-AP student-Nom

sey myeng -i -ta.

three -Cl -Cop -Dc

‘Our kind bronzed Chinese students are three.’

The expressions in brackets in (3a-c) are PNCs, and the data shows that each PNC can constitute a combination with a variety of adjectives. Besides the above examples, there exists plentiful data regarding the distribution of adjectives in the Korean PNC. In the following chapters, providing a variety of relevant examples drawn from Korean PNCs, this paper suggests that the pronoun in PNCs plays a significant role to determine a boundary between DP and NP modifiers. That is, DP-modifiers are situated in the higher position than the pronoun whereas NP-modifiers are situated in the lower position than the pronoun. The analysis of the pronoun as a boundary between DP and NP domain in modification leads to new perspective regarding the merge position of DP and NP modifiers within PNCs in Korean. Under the new proposal in the current study, DP modifiers are generated in the left side of the pronoun and NP modifiers in the right side of the pronoun in linear order in PNCs. Accordingly, assumption of the pronoun as a criterion of division of domain of DP/NP modifiers seems to provide a straightforward account for the distribution of RRC and AP in the Korean noun phrase. Moreover, this paper shows that there is a close correlation between the adjectival distribution and morphology and argues that in particular, color adjectives in Korean, which are regarded as pure NP modifiers, can also behave as DP modifiers thanks to the inflection/morphological variation. Before delving into my argument, I introduce the theoretical background which serves for the base of the current proposal in the following chapter.

II. Two types of Adjectives

2.1 Larson’s (1998) Analysis

In this section, I present two types of adjective placed in prenominal position, mainly focusing on Larson’s (1998) analysis. Larson (1998) argues two different sources in prenominal modification: Reduced Relative Clause (RRC) and Attributive Adjective Phrase (AP). Two modifiers - RRC and AP - of nominal modification observed by Larson (1998) are referred to as DP modifiers and NP modifiers, respectively; the former expresses temporally episodic and stage-level (S-level) properties, and the latter expresses generic and individual-level (I-level) properties. Consider the following examples regarding two domain of nominal modification (Larson and Takahashi 2004:113).

(4)	<u>OUTER</u>	<u>INNER</u>
a.	visible TEMPORARY PROP	visible stars ENDURING PROP
b.	Thursday DEICTIC	Thursday lecture GENERIC
c.	beautiful INTERSECTIVE	beautiful dancer NON-INTERSECTIVE

Representation collected together in (4) exhibits outer modifier and inner modifier contrasts. Outer modifiers refer to DP modifiers and inner modifiers NP modifiers. *visible*, *Thursday* and *beautiful* which are outer modifiers are interpreted as temporary, deictic, and intersective meaning, which represents intrinsically predicates. Each interpretation concerning outer modifiers in (4a-c) is as follows: stars being temporarily visible, lecture taking on some particular Thursday, and a dancer who is beautiful. On the contrary, *visible*, *Thursday* and *beautiful* which are inner modifiers

are interpreted as enduring, generic and non-intersective meaning. Under these readings, each expression concerning inner modifiers in (4a-c) means stars being “intrinsically” visible, lectures recurring regularly on Thursdays, and a dancer who dances beautifully (Larson and Takahashi 2004:110-112).

According to Larson, as shown in (4), concerning proximity to head noun, NP modifiers must follow DP modifiers and occur closer to the head noun than DP modifiers. In addition, NP modifiers exhibit an ordering restriction, while DP modifiers order freely among themselves. Under the perspective suggested by Larson (1998), RRC that has S-level meaning is base-generated into higher position over than AP, which has I-level meaning. This base-generation analysis will work as a useful theoretical tool in explaining the characteristics of adjectives with respect to the pronoun within the PNC.

2.2 Reduced Relative Clause (RRC) and Attributive Adjective Phrase (AP) in Korean

Byun (2014) adopts base-generation approach by Larson (1998) and Cinque (2010) in study on the distribution of adjectives in Korean.⁵ She argues that Korean also has two types of adjective, which are RRC (S-level/DP-modifier) and AP (I-level/NP-modifier), in prenominal position.^{6,7} The point to note, in particular, in

⁵ Cinque (2010) also claims that two types of adjective exist in prenominal position in the same line of reasoning by Larson (1998). See Cinque (2010) for relevant discussion.

⁶ Issue regarding two types of adjectival modification in the Korean NP has been discussed by Kang(2006) as well. Kang demonstrates the distinction between attributive adjectives, which correspond to NP modifiers, and predicative adjectives, which correspond to DP modifiers, based on two origins of adjective proposed by Cinque (1994, 2005b).

⁷ Concerning a distinction between S-level and I-level, Larson and Takahashi (2004) argue that prenominal relatives in Korean display ordering preferences based on whether they express S-level versus I-level properties. That is, RRCs expressing I-level and S-level properties do not show ordering restriction respectively within its own level, whereas when the two types of RRC are combined, they order strictly, as shown in (i) (Larson and Takahashi 2004:103).

her argument is as follows. First, in realizing a hierarchy of stacked adjectives in Korean, RRCs (DP modifier) enter higher position than AP (NP modifier) within the DP. These two types of DP and NP modifiers are distinguishable in Korean through morphological realizations. In Korean, NP modifiers do not show any inflections, while DP modifiers should be inflected by suffix *-n*.⁸ Second, NP modifiers that are not affixed with suffix *-n* are three categories of adjective: color, nationality, and material. More importantly, under the Scott's (2002) hierarchy, color adjective that is the left-most category that bears no suffix as an NP modifier is a boundary from which suffixes cannot appear and AOR appears in Korean.⁹ This means that these three categories of adjective are strongly restricted in order, as well as cannot have any suffix since they are closest to the head noun as NP modifiers whereas relatively a number of DP modifiers are allowed in prenominal position and the ordering restriction among DP modifiers does not occur. Relevant examples are given in (5) below (Byun 2014:39-40).

- (5) a. porasayk pidan sinpal / *pidan porasayk sinpal
 purple silk shoe / silk purple shoe
 'purple silk shoe'

-
- (i) a. [nay-ka ecey manan][tampay-lul piwunun] salam-un Chelswu-ta
 [I-NOM yesterday met][tobacco-ACC inhales] person-TOP C.-DEC
 'The person who smokes who I met yesterday is Chelswu.'
 b. ?*[tampay-lul piwunun][nay-ka ecey manan] salam-un Chelswu-ta.

In (i a-b), S-level should precede I-level in the Korean RRC. However, in this paper, I aim to show the syntactic distribution of DP-modifiers (S-level) and NP-modifiers (I-level) in relation to pronoun within PNCs. Hence, I will not be concerned with structures like (i a-b) in this paper.

⁸ According to An (2014), *-l*, and *-uy* as well as *-n* can be a word-final morpheme functioning as a prenominal modifier in Korean.

⁹ Scott's adjective ordering restriction (AOR) (Scott 2002:114)

Determiner > ordinal number > cardinal number > subjective comment > evidential >
 size > length > height > speed > depth > width > weight > temperature > wetness >
 age > shape > colour > nationality/origin > material > compound element > noun

- b. hoysayk khaynata kom-tul / *khaynata hoysayk kom-tul
 gray Canadian bear-Pl. / Canadian gray bear-Pl.
 ‘gray Canadian bears’

The adjectives in (5a-b) are NP modifiers; color, nationality, and material. We can observe that there exists a strict ordering restriction among these three categories of adjective, corresponding to Scott’s AOR.

With respect to Scott’s AOR shown in footnote 9, there is one category we should note. It is an age adjective that is classified as a DP modifier. The interesting fact is that age adjectives such as *say* ‘new’ in Korean are classified as NP modifiers. The empirical fact regarding this issue is found by Kang (2006). According to Kang, Korean attributive adjectives that have a direct modification source have other indirect modification counterparts in the Korean nominal phrase.¹⁰ Consider (6) (Kang 2006:83).

- (6) a. say cha
 new car
 ‘A new car; that has just been produced’
 b. say-rou-n cha
 new car
 ‘A new car; that it is a newer model with respect to the previous one’
 c. i cha-ka design-eyse cen kes pota *say/say-rop-ta
 this car-NOM design-in former one more new-DCL
 ‘This car is new with respect to the previous one in the design’

In Korean, *say* ‘new’ and *sayroun* ‘new’ that correspond to *new* in English are two forms of the adjective which have the same meaning but overtly show the

¹⁰ Classification between direct and indirect modification is based on Cinque (2010).

morphological difference. In (6b) and (6c), Kang claims that *sayroun* and *sayrop* are identical and it is only for phonetic reasons that the consonant *-p* is transformed into the vowel *-u* and then *-n* is added in attributive position (AP). This means that only *sayroun* in (6b) can appear in predicative position (RRC). On the basis of this observation, Kang proposes that *sayroun* in (6b) can be an indirect modification (RRC) deriving from a relative clause, but *say* is a direct modification (AP) since this form cannot appear in predicative position (Kang 2006:83). Put differently, *say* in (6a) is an NP modifier and *sayroun* in (6b) is a DP modifier. In this sense, *say* ‘new’ in Korean, but not *sayroun* ‘new’, can be classified as an NP modifier.¹¹

In short, adopting Larson’s (1998) and Byun’s (2014) analyses in that Korean adjectives can be divided into two modification domain, i.e., DP modifiers (RRC) and NP modifiers (AP), I explore the syntactic distribution of adjectives that order with PNCs, providing a great deal of empirical evidence in Korean in the next chapter.

III. Pronoun-Noun Constructions and Adjectives

3.1 Pronoun as a Boundary between DP and NP Modifiers

Consider the following examples.

-
- (i) a. ?*say ppalgan* cha (cf. *ppalgan say* cha)
 new red car
 ‘A/the new red car’
 b. ?*say kun* cha (cf. *kun say* cha)
 new big car
 ‘A/the new big car’

(i a) and (ib) indicate the fact that *ppalgan* ‘red’ and *kun* ‘big’ which are affixed with suffix *-n* are RRCs, i.e., DP modifiers and these elements must precede *say* ‘new’ which is AP, i.e., an NP modifier.

- (7) a. ttokttokha-n [*wuli/kutul cwungkwuk* chinkwu]
 smart-RRC we/they Chinese-AP friend
- b. *ttokttokha-n *cwungkwuk* [*wuli/kutul/tangsin* chinkwu]
 smart-RRC Chinese-AP we/they/you(Pl.) friend
 ‘our/their smart Chinese friend’
- c. pwutulewun [*wuli/kutul pwunhong yengkwuk*
 soft-RRC we/they pink-AP British-AP
myen sonswuken]
 cotton-AP handkerchief
- d. *pwutulewun *pwunhong* [*wuli/ kutul yengkwuk*
 soft-RRC pink-AP we/they British-AP
myen sonswuken]
 cotton-AP handkerchief
- e. *pwutulewun *pwunhong yengkwuk* [*wuli/kutul*
 soft -RRC pink-AP British-AP we/they
myen sonswuken]
 cotton-AP handkerchief
- f. *pwutulewun *pwunhong yengkwuk myen*
 soft -RRC pink-AP British-AP cotton-AP
 [*wuli/kutul* sonswuken]
 we/they handkerchief
 ‘our/their soft pink British cotton handkerchief’

The examples in (7a-f) show the linear sequence of adjectives that surface with PNCs in Korean. The expressions in brackets are PNCs. Careful observation seems to show the fact that the pronouns *wuli* ‘we’, *kutul* ‘they’ in PNCs in (7) above serve as something important in relation to grammaticality. (7a) and (7c) are all grammatical. On the contrary, (7b) and (7d-f) are ungrammatical. There is the only one difference that we can capture in the data above. That is, NP-modifiers

cwungkwuk ‘Chinese’, *pwunhong* ‘pink’, *yengkwuk* ‘British’, *myen* ‘cotton’ exhibited in (7a) and (7c) are all on the right side of the pronoun. In (7b) and (7d-f), on the other hand, such NP-modifiers are situated in the left side of the pronoun. This phenomenon seems to indicate that the pronoun in PNCs has an effect on NP modifier domain. The speculation becomes more clear if we consider examples like (8).

- (8) a. thunthunha-n **phalan** [*wuli/kutul* yengkwuk namwu uyca]
 strong-RRC blue-RRC we/they British-AP wooden-AP chair
 b. *thunthunha-n **phalan** **yengkwuk** [*wuli/kutul* namwu uyca]
 strong-RRC blue-RRC British-AP we/they wooden-AP chair
 c. *thunthunha-n **phalan** **yengkwuk** **namwu** [*wuli/kutul* uyca]
 strong-RRC blue-RRC British-AP wooden-AP we/they chair
 ‘our/their strong blue British wooden chair’

The examples in (8a-c) show crucial empirical evidence in determining the merge position of the DP and NP modifiers. Byun (2014) claims that such three categories as color, nationality, and material adjectives are pure NP modifiers in which suffixes cannot appear and AOR appears in Korean. However, the examples in (8) can be counterexamples against Byun’s argument and at the same time they provide a significant fact in motivating the merge position of the DP and NP modifiers. In (8a), we can detect that color adjective *phalan* ‘blue’ is inflected by suffix *-n* and is placed in the left of pronoun *wuli* ‘we’/ *kutul* ‘they’.

More importantly, this fact is contradictory to Byun’s analysis that the color adjective itself has none of the suffixes and obeys the ordering restriction strongly. Obviously, the behavior of *phalan* ‘blue’ is different from that of color adjective *pwunhong* ‘pink’ shown in (7d-f). This observation indicates that color adjectives such as *phalan* ‘blue’ inflected by suffix *-n* including *ppalkan* ‘red’, *nolan* ‘yellow’ etc. should be classified as the same DP modifier as another DP modifier

thunthunhan ‘strong’ in (8).

If this is the case, classification of modification domain with respect to color adjectives should be reconsidered. In other words, color adjectives affixed with suffix *-n* belong to DP-modifier and those not affixed with *-n* remain only as NP-modifier. On the contrary, in (8b-c), nationality and material adjective *yengkwuk* ‘British’ *namwu* ‘wooden’ which cannot be inflected by suffix *-n* occupy the left side of the pronoun and as a result, these expressions are ruled out.

Consequently, the data in (8) reveals one more significant point as well as the property of pronoun as a boundary that differentiates between DP and NP domain. Contrary to Byun’s argument, some color adjectives can be affixed with suffix *-n* and thus these color adjectives should be classified as DP modifiers and base-generated in DP domain.

Based on the fact observed so far, I propose that the pronoun plays a role as a boundary between DP and NP modifiers. In other words, the left side of the pronoun corresponds to DP modifier domain and the right side of the pronoun corresponds to NP modifier domain. In short, based on the property of the pronoun as a boundary between DP-modifier and NP-modifier, we can conclude that DP-modifiers (RRCs) are situated in the higher position than the pronoun whereas NP-modifiers (APs) are situated in the lower position than the pronoun in the syntactic structure.

3.2 Further Evidence

I present a further piece of evidence in Korean to support my argument that the pronoun is a boundary between DP-modifier and NP-modifier, by showing behavior of other NP adjectives except for NP adjectives -color, nationality, and material-attested in (7) and (8) above.

In discussing Kang’s (2006) analysis in the preceding chapter, I have shown that age adjectives such as *say* ‘new’ in Korean are classified as NP modifiers by

empirical facts. According to Kang, *hen* ‘old, used’ and *yeys* ‘old, antique’ also belong to the category of attributive adjectives. Concerning PNCs, among these NP modifiers I examine the behavior of *say* ‘new’ and *yeys* ‘old, antique’. Let us consider the examples represented in (9) and (10) below.

- (9) a. wuli/kutul say cha
 we/they new-AP car
 ‘our/their new car’
 b. *say wuli/kutul cha
 new-AP we/they car
 c. saylowun wuli/kutul cha
 new-RRC we/they car
 ‘our/their new car’
 d. wuli/kutul saylowun cha
 we/they new-RRC car
- (10) a. socwunghan wuli/kutul yeys chwuek
 dear-RRC we/they old-AP memory
 ‘our/their dear old memory’
 b. *yeys wuli/kutul socwunghan chwuek
 old-AP we/they dear-RRC memory
 c. *yeys socwunghan wuli/kutul chwuek
 old-AP dear-RRC we/they memory
 d. wuli/kutul socwunghan yeys chwuek
 we/they dear-RRC old-AP memory

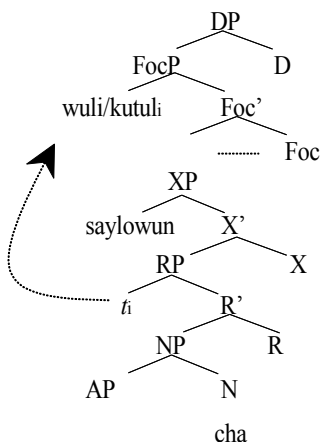
The examples in (9a) and (9c) are grammatical since NP-adjective (AP), *say* ‘new’ is positioned on the right side of the pronoun, which is NP-modifier domain and DP-modifier (RRC), *saylo-un* ‘new’ is on the left side of the pronoun, which is DP-modifier domain. However, (9b) is ruled out since NP-adjective (AP), *say* ‘new’

occupies the left slot of the pronoun. Given this fact observed in (9a-c), we can safely conclude that the pronoun, *wuli* 'we'/*kutul* 'they' which precedes DP-modifier (RRC), *saylo-un* 'new' as in (9d) receives a focus interpretation after it raises up from an original position to a focus position.

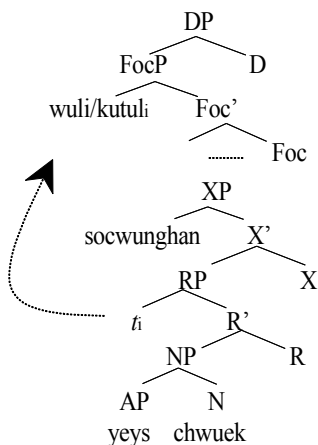
Kang's (2006) claim that *yeys* 'old' is also a kind of attributive adjectives is verified by the examples with respect to PNCs in (10). (10a) is grammatical since RRC, *socwunghan* 'dear' is positioned on the left side of the pronoun and AP, *yeys* 'old' is on the right side of the pronoun. On the contrary, (10b-c) is ungrammatical. In case of (10b), RRC, *socwunghan* 'dear' and AP, *yeys* 'old' are not properly generated from their own modifier domain respectively, based on generalization regarding pronoun as a boundary between DP and NP modifiers. In (10c), also, attributive adjective, *yeys* 'old' is situated in domain of DP modifier. Interestingly, moreover, the observation in (10d) leads us to conclude that pronoun, *wuli* 'we'/*kutul* 'they' moves across DP adjective, *socwunghan* 'dear' and then is fronted to a focus position. In short, the treatment of pronoun as a boundary between DP and NP modifiers examined in the current study can be more clearly justified by solid empirical grounds given in (9) and (10) above. Furthermore, this consequence provides a straightforward account on a focus movement shown in (9d) and (10d). The derivation process for (9d) and (10d) is illustrated below.¹²

¹² As shown in (11a-b), I propose that a pronoun and a noun form a DP-internal small clause in Korean, and label it as Relator Phrase (RP) based on den Dikken 2006a. The RP structure establishes a predication relationship between the pronoun and noun; the former is a subject and the latter a predicate. I divide this predication relationship into the two kinds; one is *predicative relationship* (A is B), and the other *predicate of possession* (bearing possessive meaning between the pronoun and noun). In RP structure, the pronoun that is a subject occupies specifier position and the noun that is a predicate is placed in complement position. More importantly, it is a crucial fact in Korean that the pronoun in the PNC cannot occupy the position of the D head contrary to a general assumption. We can find the reason in that Korean is a head-final language. That is, if we adopt the assumption that the pronoun sits in the D head, in case of *wuli enehakcatul* 'we linguists', the resulting word order will be **enehakcatul wuli* 'linguists we' in the Korean PNC and thus ruled out. Further discussion on the RP structure goes beyond the purpose of this paper, thus I will not go into details any more.

(11) a.



b.



(11a) represents the syntactic structure for (9d) and shows that the pronoun *wuli/kutul* that occurs in the Spec position in the RP structure embedded within the DP undergoes nominal-internal focus raising to the Spec of a Focus Phrase (FocP) in case it is focused. (11b) shows the derivation process for (10d). As in (11a), the pronoun *wuli/kutul* that occupies the specifier position of the RP moves to the Spec

of FocP when it is focused as well.

As theoretical background for the structure in (11a-b), I basically adopt Cinque's (2010) and Truswell's (2009) analyses. Cinque divides prenominal adjectives into two kinds; the attributive adjectives and the predicative adjectives. The former enters directly into the DP and thus can be referred to as direct modification and has inherent and enduring property to the head noun. The latter, on the other hand, does not enter directly into the DP and thus can be referred to as indirect modification and has non-inherent and temporary property to the head noun. In other words, the attributive adjectives (AP) are NP modifiers and the predicative adjectives are DP modifiers which occur as a form of reduced relative clauses (RRC). Cinque argues that attributive adjectives directly modify the head noun and predicative adjectives take scope over attributive adjectives. That is, RRC precedes AP. Consequently, Cinque proposes the structure for two different sources in prenominal adjectives. Following Cinque (2010), "X" shown in (11) indicates a functional head that host the relevant class of adjectives in their specifier. That is, X category can be regarded as an adjective head that introduces DP-modifiers (RRC) in its specifier. On the contrary, AP is NP modifiers and enters directly into the DP and thus syntactically is closer to the head noun than RRC.

The labelling of X comes from Truswell's (2009) scheme illustrated in (12) (Truswell 2009:528).

- (12) [DP D [XP AdjP* subjective X [NP AdjP* intersective N]]]

The structure in (12) reflects the fact that the subjective adjectives correspond to DP-modifiers and the intersective adjectives to NP-modifiers, respectively. Subjective adjectives always precede intersective adjectives. Thus, DP-modifiers always dominate NP-modifiers syntactically. Following Truswell, I label the adjective head which is DP-modifier in (11) as X. Furthermore, as noticed in its labelling, the *XP*

can mean much greater freedom of order among multiple adjectives in domain of DP modifiers. On the contrary, NP modifiers which show strict ordering are adjoined to the NP, occupying rather a fixed position than X.

IV. Color Adjectives and their Morphology in Korean

4.1 Morphological Variation of Color Adjectives

In this chapter, I examine the interesting behavior of color adjectives in Korean concerning their word order. Let us consider (13-15) below.

- (13) a. *twungkun* [*wuli/kutul* **choloksayk** *cayngpan*]
 round-RRC we/they green-AP tray
 b. **choloksayk** *twungkun* [*wuli/kutul* *cayngpan*]
 green-DA round-RRC we/they tray
 ‘our/their round green tray’
 c. [*wuli/kutul* **kalsayk** *say cha*]
 we/they brown-AP new-AP car
 d. **kalsayk** [*wuli/kutul* *say cha*]
 brown-DA we/they new-AP car
 ‘our/their new brown car’
 e. *yeyppun* [*wuli/kutul* **pwunhongsayk** *sinpal*]
 pretty-RRC we/they pink-AP shoe
 f. **pwunhongsayk** *yeyppun* [*wuli/kutul* *sinpal*]
 pink-DA pretty-RRC we/they shoe
 ‘our/their pretty pink shoes’
- (14) a. *twungkun* [*wuli/kutul* **cholokpich** *cayngpan*]

- round-RRC we/they green-AP tray
- b. **cholokpich** twungkun [*wuli/kutul* cayngpan]
green-DA round-RRC we/they tray
'our/their round green tray'
- c. yeypun [*wuli/kutul* **pwunhongpich** sinpal]
pretty-RRC we/they pink-AP shoe
- d. **pwunhongpich** yeypun [*wuli/kutul* sinpal]
pink-DA pretty-RRC we/they shoe
'our/their pretty pink shoes'
- (15) a. twungkun [*wuli/kutul* **cholok** cayngpan]
round-RRC we/they green-AP tray
- b. ***cholok** twungkun [*wuli/kutul* cayngpan]
green-AP round-RRC we/they tray
'our/their round green tray'
- c. yeypun [*wuli/kutul* **pwunhong** sinpal]
pretty-RRC we/they pink-AP shoe
- d. ***pwunhong** yeypun [*wuli/kutul* sinpal]
pink-AP pretty-RRC we/they shoe
'our/their pretty pink shoes'

The examples in (13a-f) and (14a-d) are all grammatical, but (15b) and (15d) are not. The difference between (13-14) and (15) can be found in the morphological form in color adjectives. Color adjectives in (13-14) appear as a word that ends with *sayk/pich*. In (15), on the other hand, color adjectives appear as a form that does not end with such a word *-sayk/pich*. In fact, *cholok* 'green' and *choloksayk/cholokpich* in Korean have the same meaning as *green* in English. More significantly, *cholok*, *choloksayk*, and *cholokpich* 'green' are defined as morphological variants that hold same meaning in Korean grammar.¹³ This fact is verified in that *choloksayk* and

¹³ According to Lee (1992), *sayk* and *pich* are lexical items that bear the same meaning. Lee argues that

*cholo**k**pich* play a role as an adjective like *cholo**k* which modifies the head noun in the noun phrase.

Essentially, under the fact observed in the data given in (13-15), I suggest that both color adjectives taking a word form that ends with *sayk/pich* and does not end with *sayk/pich* function as an adjective within the Korean noun phrase. Furthermore, the data above indicates that there must be a close relationship between the distribution of color adjectives and their morphology. That is, as exhibited in (13-14), color adjectives that have word forms that end with *sayk* and *pich* can be generated in DP domain as well as in NP domain, and thus they can behave as DP modifiers in DP domain. By contrast, color adjectives, which take word forms that do not end with *sayk* and *pich*, in (15) function only as NP modifiers. In this sense, I refer to color adjectives that have a word form accompanied with *sayk* and *pich* as DA (DP-Adjective) in order to distinguish them from RRC, which is affixed with *-n*.

Based on strong empirical evidence seen so far, I propose that in Korean color adjectives regarded as pure NP modifiers may behave like DP modifiers thanks to morphological variation and that the morphological variants should be regarded as adjectives bearing the same meaning but taking the different word form.¹⁴

this fact is proved in that the two lexical elements were used as the identical meaning in Korean grammar in the 16th century (Lee 1992:307).

¹⁴ Sproat and Shih's (1991) analysis also seems to reflect a close relationship between adjectival distribution and morphology. Consider the following examples.

- (i) a. xiao-de lǚ-de huaping
small-DE green-DE vase

- b. lǚ-de xiao-de huaping
green-DE small-DE vase
'small green vase'

(Sproat and Shih 1991:565)

- (ii) a. xiao lǚ huaping
small green vase

- b. *lǚ xiao huaping
green small vase
'small green vase'

(Sproat and Shih 1991:566)

4.2 Suggestion

Ultimately, I would like to suggest modification on the two important facts that Byun (2014) overlooks as to color adjective in Korean. First, contrary to Byun's analysis that the color adjective itself has none of the suffixes and obeys the ordering restriction strongly, under empirical motivation so far, I suggest that the color adjective can be generated in both DP and NP domain of modification depending on the absence/presence of suffix *-n* which is DP modification marker. That is, color adjectives that are affixed with suffix *-n* are classified as DP-modifier and in such cases, ordering restriction does not appear. In contrast, color adjectives that are not inflected by suffix *-n* function only as NP-modifier, except for color adjectives that end with *-sayk/pich*, and they display rigid ordering.

Second, I propose that color adjectives that have a word form that ends with *-sayk/pich* like *hoysayk* 'gray', *kalsayk* 'brown', *namsayk* 'navy', *payksayk* 'white', *cholo

k

pich* 'green', *pwunhongpich* 'pink' etc. should be treated as DP adjectives (DA), which is the fact that Byun (2014) does not capture. The color adjectives that end with *-sayk/pich* can be either DP or NP modifiers, so that they can be positioned both in the right and left side of the pronoun, but those realized without *-sayk/pich* like *cholak* 'green', *pwunhong* 'pink' can be only NP modifiers, and thus they should be situated on the right of the pronoun.

Crucially, the empirical facts regarding color adjectives observed thus far lead to the conclusion that only color adjectives which appear without *-sayk/pich* and suffix *-n* should be regarded as pure NP-modifiers, which should occur only in the right side of the pronoun.

Consequently, the significant fact to note is that color adjectives in Korean show

The examples in (i a-b) show that modifiers marked by *de*, which is the indirect modifier marker in Mandarin, order freely in Mandarin. In (ii a-b), on the other hand, direct modifiers without *de* exhibit a strict restriction in ordering. This observation seems to have a significant implication in that there must be a close correlation between ordering of adjectives and their morphological variation.

an explicit morphological variation, which is not realized in English, between DP and NP modifiers and that such a flexibility of adjectival status depends on the absence/presence of morphological variation. If this morphological explanation is correct, it seems reasonable to say that the determination on status of DP/NP modifiers in Korean is closely connected with morphological variant of adjectives and this morphological variant has an crucial effect on the position of adjectives and ordering restriction.

The idea that the pronoun is a boundary between DP-modifier and NP-modifier sheds light on base-generation analysis. We have seen in this paper a great number of relevant examples to show that modifiers generated outside their own domain are all ruled out. For instance, if nationality adjective, *cwungkwuk* ‘Chinese’, *yengkwuk* ‘British’ and material adjective *namwu* ‘wooden’, which are pure NP modifiers, get out of NP modifier domain and occupy DP modifier domain, the structure results in ungrammaticality. In short, the issue with respect to the position of DP/NP modifiers realized in the Korean PNC is concerned with base-generation analysis, but not with movement operation.

V. Conclusion

In this paper, according to two domain theory of nominal modification, I have demonstrated the distributional properties of DP and NP modifiers realized in the Korean PNC. Under the current analysis, I proposed that the pronoun plays a significant role to determine a boundary between DP and NP domain for prenominal adjectives, based on numerous empirical facts. The analysis of the pronoun as a boundary between DP and NP domain in modification leads to a new view regarding the merge position of DP and NP modifiers in terms of PNCs. Under new perspective proposed, in PNCs DP modifiers are generated in the left side of the

pronoun and NP modifiers in the right side of the pronoun. These results appear to give further evidence for so-called DP and NP domain theory of nominal modification, in the sense of Larson (1998) and Cinque (2010) in verifying the fact that DP-modifiers (RRCs) are situated in the higher position than NP-modifiers (APs). Moreover, I addressed in this paper an interesting behavior of color adjectives in Korean. Color adjectives regarded as pure attributive adjectives can function as DP modifiers depending on morphological variation. Color adjectives that either are inflected by suffix *-n* or end with *-sayk/pich* are allowed to surface in the domain of DP modifier.

With respect to the pronoun, there have been numerous analyses previously proposed in the literature (Benveniste 1971, Pesetsky 1978, Huang 1984, Ritter 1995, Campbell 1996, 1998, Kratzer 2009 etc.). However, to the best of my knowledge, it seems that the issue regarding the structural distribution of the pronoun within the PNC and the adjectives has not received much attention in the literature until recently. In this sense, the current discussion provides new perspective and has implications for noun phrase structure in Korean in that the analysis that the pronoun motivates the merge position of DP and NP modifiers draws the fact that the pronoun can be placed low in noun phrase structure in Korean unlike English that it appears in the left-most position in the structure.

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