# Agreement phrases in DP*

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## Abstract

In this paper, assuming that there is an intermediate functional category called Agreement Phrase (AGRP) in DP, I argue that an adnominal modifier such as a pre-nominal adjective or relative clause (RC) is base-generated in Spec,AGRP. In particular, I distinguish between Restrictive Adnominal Modifiers (RAM) and Non-restrictive Adnominal Modifiers (NAM), and argue that the NAM in head-final languages moves overtly out of the scope of the determiner to Spec,DP, while the NAM in head-initial languages moves covertly in LF. Finally I claim that the movement of the NAM to Spec,DP is due to a NON-FOCUS feature of the determiner and the NAM in terms of the feature-checking theory (Chomsky 1995).

## 1 Introduction

Given that an RC or pre-nominal adjective in a head-final language like Korean occurs in Spec,AGRP, as illustrated in (1a) and (2a), we then need an explanation for the position of the adjective in (1b) or the RC in (2b). The examples and the word order given in (1) and (2) are perfectly acceptable.

(1)  a.  $[_{DP} [_{D}^{0} Ku]$  $[_{AGRP} [_{Adj}$ ketaran] $AGR^{0}$ $[_{NP}$ namwu]]]
            the             big             tree

  b.  $[_{DP} [_{Adj}$ ketaran] $[_{D}^{0}$ ku] $[_{NP}$ namwu]]
          big         the      tree

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(2)	a.	$[_{DP}$ $[_D{}^0$ ku] $[_{AGRP}$ $[_{RC}$ ton-i manhun] AGR$^0$ $[_{NP}$ holapi]]]
			the		money-Nom be many		widower
		'the widower who has a lot of money'

	b.	$[_{DP}$ $[_{RC}$ ton-i manhun] $[_D{}^0$ ku ] $[_{NP}$ holapi]]
			money-Nom[1] be many the		widower
		'the widower, who has a lot of money'

The paper is organised as follows. In section 2, following the DP-hypothesis (Abney 1987), I show that there is an honorific and/or plural agreement between adnominal modifiers and their head nouns in the DP; there is a functional category called AGRP between DP and NP in Korean. In section 3, I claim that attributive adjectives and relative clauses are both base-generated in Spec,AGRP occurring between DP and NP. In section 4, I propose that restrictive relatives and adjectives (or restrictive adnominal modifiers) have a FOCUS feature and non-restrictive RCs and adjectives (or non-restrictive adnominal modifiers) have a NON-FOCUS feature, and I argue that the movement of a non-restrictive modifier to Spec,DP is due to the NON-FOCUS feature of the non-restrictive modifier. Section 5 is the conclusion.

## 2 AGRP in Korean NPs

Following the DP-hypothesis argued for in Abney (1987), I assume that Korean noun phrases are headed by the determiner D$^0$, as illustrated in (3) below.

(3)	a.	DP
			╱ ╲
		D	NP

	b.	ku/ce/i	salam
		the/that/this	person

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[1]Nom indicates Nominative, Acc Accusative, AM Adnominal Modifying Marker, Dec Declarative, Gen Genitive, Hon Honorification, Imp Imperative, Loc Locative, Neg Negative, Pst Past, Prog Progressive, Pl Plural.

In addition to the determiner, honorific and number agreement[2] can be observed in noun phrases. The examples in (4) are reproduced from J.-Y. Yoon (1990).

(4)    a.    Sensayng-*nim*-uy   eme-*nim*[3]
                teacher-Hon-Gen   mother-Hon
                'teacher's mother'

       b.    *Hain-uy     eme-*nim*
                servant-Gen  mother-Hon
                (Lit.)  'servant's mother'

       c.    Sonnim-*tul*-uy      tochakkwangkyeng-*tul*
                guest-Pl-Gen       arrival scene-Pl
                'the scenes of the guests' arrival'

       d.    *Han sonnim-uy   tochakkwangkyeng-*tul*
                one    guest-Gen   arrival scene-Pl
                'the scenes of one guest's arrival'

In (4) the occurrence of the honorific marker *'nim'* between the genitive NP and its head NP indicates that there is honorific agreement in noun phrases. In (4a) the genitive noun *sensayngnim* 'teacher' is socially superior to the speaker and the head noun contains the honorific marker *nim*. In (4b), on the other hand, the genitive NP *hain* 'servant' is, socially speaking, inferior to the speaker and the usage of the honorific marker *nim*

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[2]See J.-Y. Yoon (1990) for a discussion of honorific and number agreement in a clause.

[3]*'Nim'* is an honorific marker for noun phrases. This honorific marker *'nim'* is different from the honorific marker *'si'* which is attached only to a predicate.
    (i)   Apeci-*nim*-i        o-*si*-n-ta.
         Father-Hon-Nom   come-Hon-Prog-Dec
         'Father is coming.'
    (ii)  Emeni-*kkese*        alumtawu-*si*-ta.
         Mother-Nom+Hon  beautiful-Hon-Dec
         'Mother is beautiful.'
*'Kkese'* is the honorific variant of the subject marker *'i/ka'*. The honorific marker *'si'* in the predicate is selected by a corresponding honorific marker *'nim'* or *'kkese'*.

results in a violation of honorific agreement and an infelicitous derivation. As the examples in (4c-d) indicate, number agreement is also needed in noun phrases. In (4c) both the genitive NP and its head NP are plural and they are plural-marked, as expected. But in (4d) the genitive NP is singular and the head noun contains the plural marker, violating number agreement.

Furthermore, we can observe that there is honorific agreement between a pre-modifying adjective (or RC) and its head noun. The honorific marker is optional in the pre-modifying adjective.

(5)    a.    [DP Ku [AP emha-(*si*)-n]    [NP sensayng-*nim*-i]]        o-si-ess-ta.
              the        strict-Hon-AM      teacher-Hon-Nom              come-Hon-Pst-Dec
              'the strict teacher came'

       b.    *[DP ku [AP emha-*si*-n]    [NP chinkwu-*nim*-i]]        o-si-ess-ta.
              the        strict-Hon-AM      friend-Hon-Nom              come-Hon-Pst-Dec
              'the strict friend came.'

       c.    *[DP ku [AP emha-*si*-n]    [NP chinkwu-ka]]    o-ass-ta.
              the        strict-Hon-AM      friend-Nom              come-Pst-Dec
              'the strict friend came.'

       d.    *[DP ku [AP emha-n]        [NP chinkwu-*nim*]]
              the        strict-AM    friend-Hon
              'the strict friend'

       e.    [DP ku [AP emha-n] [NP chinkwu-ka]]        o-ass-ta.
              the        strict-AM    friend-Nom                  come-Pst-Dec
              'the strict friend came.'

(6)    a.    [RC Seoul-ey        ka-(*si*)-n]    [NP ape-*nim*]
                        Loc        go-Hon-AM father-Hon
              'my father who went to Seoul'

       b.    *[RC Seoul-ey  ka-*si*-n]    [NP chinkwu]
                  Loc go-Hon-AM  friend
              'my friend who went to Seoul'

In (5) and (6) the occurrence of the honorific marker *si* in an adjective (or in an RC) and *nim* in the head noun indicates that there is honorific agreement between a pre-modifying adjective and its head noun. The honorific marker is attached to the adjective when the adjective modifies a head noun which is superior to the speaker.

   The fact that there is agreement[4] in Korean noun phrases enables us to suppose that there is a functional category called Agr(eement)[5] Phrase in DP. Since the determiner appears preceding the whole Adj(or RC)+NP and the head noun appears following the adnominal modifier such as a pre-nominal adjective and RC, as seen in (5)-(6), the AGRP should be located following the determiner and preceding the head noun. Therefore, I suppose that the AGRP in DP appear between $D^0$ and $N^0$, as illustrated in (7) below.

(7)          DP
          ╱    ╲
       D    AGRP
              ╱    ╲
          AGR    NP
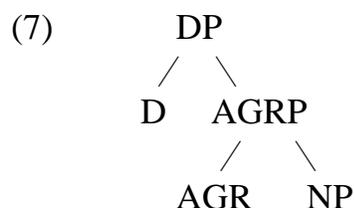
## 3 The position of adnominal modifiers

### 3.1 The nature of pre-nominal adjectives and relative clauses

I suggest that Korean (and Japanese) relative clauses and pre-nominal modifying adjectives have a similar formation [RC or Pre-nominal adjective + AM marker + Noun] and the same function (i.e. modifying the nominal). Relative clauses have the AM marker *'(nu)n'* as in (9). Other subordinate clauses as in (8) do not have the AM marker.

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[4]In Kim (1995), it is assumed that there are AGRPs (or $AGR_sP$ and $AGR_oP$) in Korean clauses and that  the subject in VP should move to Spec,AGRsP to check nominative case and the object also to Spec,AGRoP to check accusative case.

[5]Chomsky (1995: pp 349-355) eliminates AGR in a clause even though he does not mention AGR in DP-structure. In this paper, I assume that there is AGR in DP in Korean.

(8)    a.    [Mary-ka John-ul  salanghan-ta *myen*] nay-ka ttenakess-ta.
            Nom        Acc        love-Dec      if      I-Nom  will leave-Dec
            'If Mary loves John, I will leave.'

       b.    [Mary-ka John-ul  salanghan-ta *ko*]    na-nun        saynggakhan-ta.
            Nom        Acc        love-Dec      that  I-Top          think-Dec
            'I think that Mary loves John.'

       c.    [Mary-ka pap-ul    mekul    *ttae*]      na-nun   cako-issess-ta.
            Nom        rice-Acc eat        when        I-Top    sleep-was-Dec
            'When Mary ate boiled rice, I was sleeping.'

(9)    a.    (Ku)  [ nay-ka        salangha-*n*] namca
            (the)  I-Nom          love-AM       man
            '(the) man whom I love'

       b.    (Ku)  [Na-lul        salangha-*n*] namca
            (the)  I-Acc          love-AM       man
            '(the) man who loves me'

When an adjective is used as a pre-nominal attributive modifier, it takes the same AM marker as the relative clause, as shown in (11); when it is used as a predicate, as shown in (10), it does not have the AM marker but the sentence declarative ending, 'ta'.

(10)   a.    Ku     kkot-i        yeppu-*ta.*
            the     flower-Nom  pretty-Dec
            'The flower is pretty.'

       b.    Ku     namca-ka      yengriha-*ta.*
            the     man-Nom    clever-Dec
            'The man is clever.'

(11)   a.    Ku     yeppu-*n*      kkot
            the     pretty-AM   flower

b.    Ku    yengriha-***n***  namca
        the   clever-AM  man

Some Japanese adjectives ('-na' adjectives) exhibit the same phenomenon. When they are used as predicates, the sentence ender, '-da', is attached. When they are used as pre-nominal modifiers, on the other hand, the '-na' morpheme is attached showing an alternation similar to that of the Korean adjective.

(12)  a.    Ano  hana-ga    kirei-***da.***
            that  flower      pretty-Dec

      b.    Ano  kirei-***na***    hana
            that  pretty-na    flower

This observation supports our claim that the RC and pre-nominal adjective in Korean and Japanese have the same structure and function, resulting in the same word order [Modifier + AM[6] + Head noun]. Now we can characterise them both by the formula 'Adnominal Modifier + AM + Head noun.'

(13)  a.    (ku)  [$_{RC}$ nay-ka   cohaha-*nun*] yeca
            the    I-Nom       like-AM    woman
           '(the) woman whom I like'

      b.    (Ku)  [$_{AP}$ yepp-*un*] yeca
           the    pretty-AM  woman
           '(the) pretty woman'

According to Bach (1968), where attributive adjectives are supposed to be derived from underlying relative clauses because they both have the same function, Korean data can be regarded as providing independent motivation for including pre-nominal modifying adjectives in the same category as the relative clause.
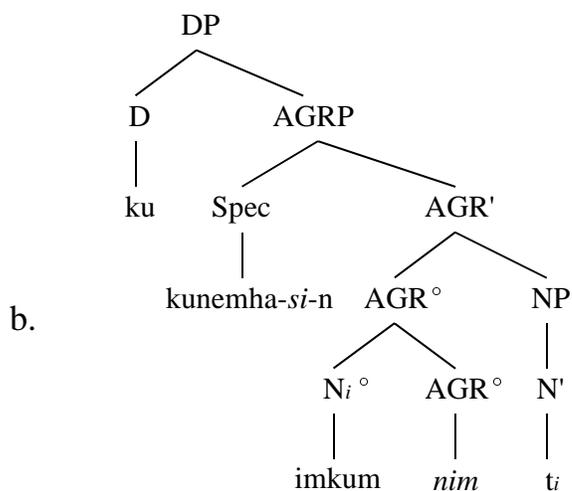
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[6]There are assumed to be four Adnominal Modifying (AM) markers linking RCs and their head nominal: '*nun*', '*(u)n*', '*(u)l*', and '*ten*'; see H.-S. Lee (1991) for details of the four AM markers. For pre-nominal adjectives, '*(u)n*' only is used as the AM marker.

With respect to the position of where the adnominal modifier appears, it is my argument that both the relative clause and the pre-nominal attributive adjective in Korean are base-generated in the same position preceding the head nominal and following the determiner.

### 3.2 The structure of pre-nominal adjectives and relative clauses in DP

The positioning of the functional category AGRP between DP and NP makes possible the agreement (plural or honorific) feature checking between the adjective (or RC) in Spec,AGRP and the head noun adjoined to $AGR^0$. Then (14a) will have (14b) as its structure.

(14)  a.  Ku    [$_{AP}$ kunemha-*si*-n]  imkum-*nim*
          the    dignified-Hon-AM king-Hon
          'the dignified king'

b.

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                        DP
                      /    \
                    D       AGRP
                    |      /    \
                   ku   Spec     AGR'
                         |      /    \
                 kunemha-si-n  AGR°    NP
                              /   \     |
                           Nᵢ°    AGR°  N'
                            |      |     |
                          imkum   nim   tᵢ
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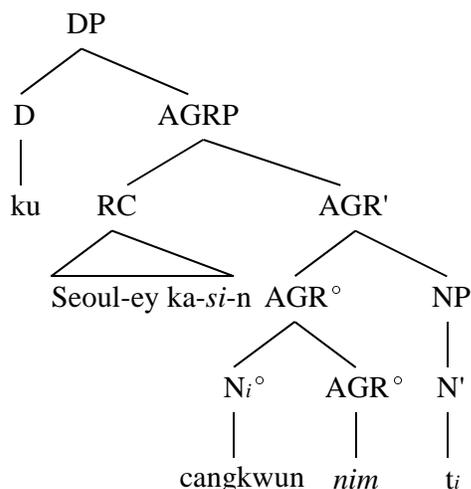
Let us turn to the case of a Korean relative clause and its structure as illustrated in (15) and (16), respectively.

(15)  Ku    [$_{RC}$ Seoul-ey ka-*si*-n]  cangkwun-*nim*
       the    Loc went-Hon-AM    general-Hon
       'the general who went to Seoul'

*phrases in DP*

(16)

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                    DP
                  /    \
                 D      AGRP
                 |     /    \
                ku   RC      AGR'
                    / \     /    \
           Seoul-ey ka-si-n AGR°     NP
                         /    \       |
                      Nᵢ°    AGR°    N'
                       |      |       |
                   cangkwun  nim     tᵢ
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In Korean a pre-nominal adjective or RC appears in Spec,AGRP and checks its agreement features against corresponding features borne by the head noun which has moved to $AGR^0$ from $N^0$.

To sum up, the structure for Korean pre-nominal adjectives is the same as that for RCs: they are both base-generated in Spec,AGRP and their head noun is base-generated in $N^0$ and raises to $AGR^0$ to check its agreement features.


## 4 The movement of non-restrictive adnominal modifiers

## 4.1 Introduction

Within the framework of the feature-checking theory assumed in Chomsky (1995), this section characterises the major differences between restrictive and non-restrictive relative clauses in Korean (more generally, the differences between restrictive and non-restrictive adnominal modifiers), and shows that non-restrictive relative clauses (or non-restrictive adnominal modifiers) in Korean should move to Spec,DP out of the scope of its determiner in overt syntax.

## 4.2 Feature-driven movement

What is directly relevant for the present paper is that the feature-checking theory (Chomsky 1995) replaces the notion of free movement with that of feature-driven movement. For example, when NPs have case features that they must check in a derivation, the NPs will move to check these features. Failure to check a Case feature can lead to an uninterpretable structure at PF or at LF. This feature-driven movement implies that movement without a reason leads a syntactic derivation to crash; syntactic movement must have a reason.

## 4.3 The distinction between an RRC and an NRC in Korean

Let us consider the contrast in word order between Restrictive Relative Clauses (RRCs) and Non-restrictive Relative Clauses (NRCs) in Korean. The RC in (17a) appears between the determiner and the relative head nominal while the RC in (17b) occurs preceding the determiner. The word order in RRCs is different from that in NRCs.

(17)  a.     Ku    [$_{RC}$ nay-ka    tosekwan-eyse manna-n] yeca --------- RRC
             the    I-Nom         library-Loc      met-AM   woman
             'the woman whom I met at the library'

      b.     [$_{RC}$ nay-ka    tosekwan-eyse manna-n] ku     yeca --------- NRC
             I-Nom         library-Loc      met-AM    the     woman
             'the woman, whom I met at the library'

   The examples in (18) show a clear contrast in semantics (interpretation) between the RRC and NRC as well as a contrast in word order, according to restrictiveness.

(18)  a.     [Ku [$_{RC}$ pusirenha-n]   chwungkwukintul-i]    kyengce-lul cipayhan-ta.
             the  industrious-AM   Chinese-Nom              economy-Acc dominate
             'The Chinese who are industrious dominate the economy.'

/

    b.    [[$_{RC}$ pusirenha-n]    ku chwungkwukintul-i]    kyengce-lul cipayhan-ta.
            industrious-AM    the Chinese-Nom    economy-Acc dominate
            'The Chinese, who are industrious, dominate the economy.'

According to Bowers (1974), the sentence in (18a) states that there is a subclass of the class of Chinese, namely just those who are industrious, which dominates the economy; the second sentence in (18b), on the other hand, expresses the claim that the Chinese dominates the economy and that the relative clause adds the information that the Chinese are industrious people.

   Let us consider another example showing the contrast in interpretation between an RRC and an NRC in Korean.

/

(19)    a.    Peter-nun [$_{DP}$ [$_{D}^{0}$ku]    [$_{RC}$ ton-i manh-un]    [$_{NP}$ yeca]]-lul cohahan-ta.
            Topic         the    money-Nom many-AM woman-Acc like-Dec
            'Peter likes the woman who has a lot of money.'

/

    b.    Peter-nun [$_{DP}$[$_{RC}$ ton-i manh-un]    [$_{D}^{0}$ ku]    [$_{NP}$ yeca]]-lul cohahan-ta.
            Topic    money-Nom many-AM    the    woman-Acc like-Dec
            'Peter likes the woman, who has a lot of money.'

   Semantically, (19a) is interpreted as an RRC and (19b) as an NRC. The reference set of the woman in the RRC in (19a) is restricted and determined by its modifying RC while that in the NRC in (19b) is fixed and determined regardless of its modifying RC. In (19a) the speaker implies that the woman whom he is speaking of refers to '*the woman who has a lot of money*' but not '*the woman who does not have a lot of money*'. On the other hand, in (19b) the speaker assumes that the hearer identifies and knows the woman, and the speaker just adds a piece of information 'the woman has a lot of money'.

   Furthermore, Japanese RCs[7] also show a clear syntactic and semantic difference between an RRC and an NRC, as illustrated in (20) below.

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[7] Kayne (1994) suggests that all the RCs in Japanese have just one type of word order, namely [RC + (Det) + Noun].

<pre>
                           /
(20)  a.      Ano  [watashi-ga katta]    hon
              that  I-Nom        bought  book
              'that book which I bought'


                           /
      b.      [Watashi-ga katta ]    ano  hon
              I-Nom         bought   that book
</pre>

(20a) is interpreted as an RRC and (20b) as an NRC. The referent of 'book' in (20a) is restricted by its RC and that in (20b) is not influenced by its modifying RC, just like in Korean.

Another point to note concerning restrictiveness in relative clauses is that RRCs receive a FOCAL stress while NRCs do not, as seen in (17)-(20) above. This implies that RRCs have a relationship with FOCAL Stress but NRCs do not.

To sum up, first, the RRC follows the determiner and precedes its head noun while the NRC precedes both the determiner and its head noun. Second, from the semantic viewpoint, the RRC and the NRC exhibit a clear contrast in interpretation: that is, the RRC participates in determining the reference set of its head nominal while the NRC does not play any role in fixing the referent of the head nominal. Third, a focal stress falls on RRCs but not on NRCs.


## 4.4 The contrast between an RA and an NA in Korean

In this subsection, I argue that the contrast in word order shown between the RRC and the NRC may apply to pre-nominal adjectives[8] in Korean.

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[8]Whitman (1981) also notes that there is a semantic and syntactic distinction between a restrictive adjective and a non-restrictive adjective in Japanese.

<pre>
      (i)   a.   [Aoi    ano    meo]   omoidasu dake-demo  kyuuni       ai-ta-ku naru.
                 blue    that   eye    remember just-even  immediately  see-want-start
                 'Just remembering those blue eyes, (I) immediately start wanting to see (him/her).'
            b.   [Ano    aoi    mi-o]        taberu na.
                 That    blue   berry-Acc    eat Neg Imp
                 'Don't eat those blue berries.'
</pre>

According to Whitman (1981), the interpretation of the adjective in (ia) is non-restrictive. This adjective

(21)  a.      /
              Ku      yeppun       sonye
              the     pretty       girl
              'the pretty girl'

      b.                      /
              Yeppun     ku      sonye
              pretty             the     girl
              'the pretty girl'

The adjective in (21a) is called a Restrictive Adjective (RA) and the adjective in (21b) a Non-restrictive Adjective (NA). The RA in (21a) follows the determiner and precedes its head noun while the NA in (21b) precedes both the determiner and its head nominal. Furthermore, the RA receives a FOCAL stress but the NA does not.

    The same semantic contrast shown in an RC can be found with an adjective. The referent for 'girl' in (21a) is restricted by its modifying adjective, 'the ***pretty*** girl' not 'the ***ugly*** girl'. In contrast, the referent for 'girl' in (21b) is identified and fixed regardless of its modifying adjective. The hearer and the speaker know the referent for the girl whom they are talking about. The speaker just adds a piece of information 'pretty'.

    Now it can be argued that the pre-nominal adjective in Korean has the same syntactic and semantic contrast in restrictiveness as the RC.

## 4.5 Movement of NAMs to the pre-determiner position

Based on Kayne's analysis of the movement of English NRCs in LF, I propose that NAMs (i.e NRCs and NAs) both in English and Korean move to the pre-determiner

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does not play any role in identifying the NP referent. He says that the speaker of (ia) is asserting that the eyes in question are blue, whether the hearer is aware of that fact or not.

    On the other hand, the adjective in (ib), is restrictive and therefore participates in identifying the NP referent. The hearer does not seem to know which berries the speaker indicates; therefore the speaker restricts the reference set of the berries by adding the adjective *aoi* 'blue'.

position.[9]/[10]/[11] The difference between English and Korean is that NAMs in English move covertly while NAMs in Korean move overtly.

To sum up, Korean adjectives and RCs express their semantic differences overtly by being placed in different positions: RAs and RRCs occur below the determiner and precede their head noun while NAs and NRCs are placed in the position preceding the determiner. Another point to remember is that the FOCAL stress falls on the RAM only.

## 4.6  The structure of relative clauses

**4.6.1 Kayne's (1994) structure**. Much research has been done by Fukui & Speas (1986), Larson (1988), and Hoekstra (1992) among others to constrain the standard X-bar theory of the Principles and Parameters framework.

Kayne (1994) takes an important step towards the goal of restricting the set of possible phrase structures. He abandons the standard X-bar assumption (Chomsky 1986) and proposes that order reflects structural hierarchy universally. Specifically, he proposes the Linear Correspondence Axiom[12] (LCA) which states that asymmetric c-command imposes a linear ordering on terminal elements; any phrase marker that violates this LCA condition is barred. According to the LCA, there is a universal Spec-Head-Complement (SVO) ordering, and specifiers are in fact adjuncts. The only X-bar structure which is consistent with  the LCA is a one-level binary branching structure allowing the adjunction of at most one constituent, as illustrated in (22).
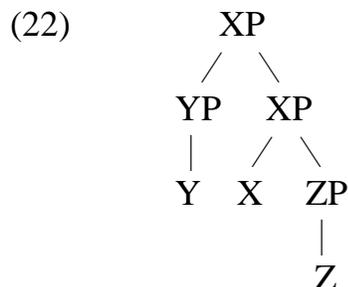
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[9]For the sake of convenience, an RRC (and an RA) is called an Restrictive Adnominal Modifier (RAM), an NRC (and an NA) an Non-restrictive Adnominal Modifier (NAM).

[10]Kayne (1994) does not include the NA in the LF-movement of the NAM.

[11]According to Kayne (1994), the NRC in English moves to the pre-determiner position in LF, even though the NRC in English occurs following the determiner in overt syntax.

[12]See Kayne's (1994) Antisymmetry (pp. 3-12) for the detailed notion of the LCA.

*phrases in DP*

(22)
```
                XP
              ╱    ╲
           YP      XP
            │     ╱  ╲
            Y    X    ZP
                       │
                       Z
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   According to the LCA, a traditional right-adjoined configuration for postnominal relative clauses is excluded. Kayne (1994) proposes that the relative clause must be generated in a complement position; however, relative clauses are not theta-marked, and cannot be complements to a lexical head. This leads Kayne (1994) to argue that the only plausible candidate is a functional head; that is, the relative clause is c-commanded by the determiner $D^0$ and linearly follows it, as shown in (23) below. In other words, the relative clause is the complement of the determiner.

(23)   $[_{DP} D^0 CP]$

Kayne (1994) argues that in certain structures the presence of an RRC seems to  license a determiner, using examples of the type in (24) as a piece of independent evidence (cf. Vergnaud 1975).

(24)   a.      the Paris  that I love / *the Paris
       b.      the three books of John's *(that I read)

The grammaticality of the above sentence is determined by the existence of the clause (CP) 'that I love'.  The determiner 'the' seems to have some relationship with 'that I love' rather than 'Paris'.

**4.6.2 N-final relative clauses.** In many languages (N-final languages), the relative head noun follows its relative clause. Kayne (1994) claims that given the LCA, N-final relative clauses must also involve the same $[D^0 CP]$ structure that N-initial relatives have. Based on the evidence of Amharic, Kayne (1994) proposes that the relative clause in N-final languages moves into Spec,DP. However, if in the $[D^0 CP]$ structure the entire CP moved to Spec,DP, then the head noun N would not follow D. Remember that the head

noun of the relatives occurs in Spec,CP. Therefore, he concludes that the relative clause that precedes the definite article in N-final languages is not CP, but IP. If the movement of IP to Spec, DP rather than that of CP to Spec,DP is assumed, it is possible to obtain a post-D noun, resulting in the word order [IP + D + Noun].

**4.6.3 The structure of NRCs.** Kayne (1994) proposes that the structure for RRCs differs from that for NRCs only in LF but not in the overt syntax[13]. NRCs also partake of the same '[$D_0$ CP]' structure as RRCs. RRCs differ from NRCs in that the former are in the scope of the definite article whereas the latter are not in the scope of the definite article.

This difference in scope is taken not to be a fact about overt syntactic structure but to be a fact about LF. According to Kayne (1994), both RRCs and NRCs have the same structure [$_{DP}$ Det [$_{CP}$ NP$_i$   [$_C$ IP ... [e]$_i$ ... ]]], where NP has moved into Spec,CP from within IP. English RRCs and NRCs share this property in the overt syntax. However, in NRCs further movement takes place in LF, namely, IP moves to Spec,DP, as illustrated in (25) below.

(25)    [$_{DP}$   [$_{IP}$ ...t$_j$...]$_i$ $D^0$ [$_{CP}$ [$_{NP}$ Head Noun]$_j$ $C^0$  t$_i$ ]]]

The LF movement enables the IP of the NRC  to move out of the scope of $D^0$. This LF movement for NRCs is attributed to a syntactic feature (or the intonation break) which is present in the overt syntax. This feature is deleted immediately after  IP-movement takes place. In an N-initial language like English, that deletion will take place at LF; in N-final languages like Korean or Japanese the syntactic feature is not present in overt syntax since the movement of all the relatives (irrespectively of whether they are RRCs or NRCs) to Spec,DP takes place overtly and the feature is deleted. Notice that RRCs and NRCs in N-final languages must all appear in Spec,DP in Kayne's [$D^0$ CP] structure.

The syntactic difference between RRCs and NRCs in N-initial languages is this: the overt syntax of NRCs is identical to that of RRCs and the only difference lies in the LF derivation. The non-restrictive (appositive) interpretation results from the leftward movement of its relative clause to Specifier position of the external determiner in LF while the restrictive reading does not involve any movement of its relative clause in either overt syntax or LF. In the case of N-final languages, on the other hand, the movement of the relative clause is obligatory before Spell-Out, regardless of whether it is an RRC or an NRC. There is only one type of RCs in N-final languages.

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[13]Strictly speaking,  there is a difference at PF: only non-restrictive relatives have an intonation break.
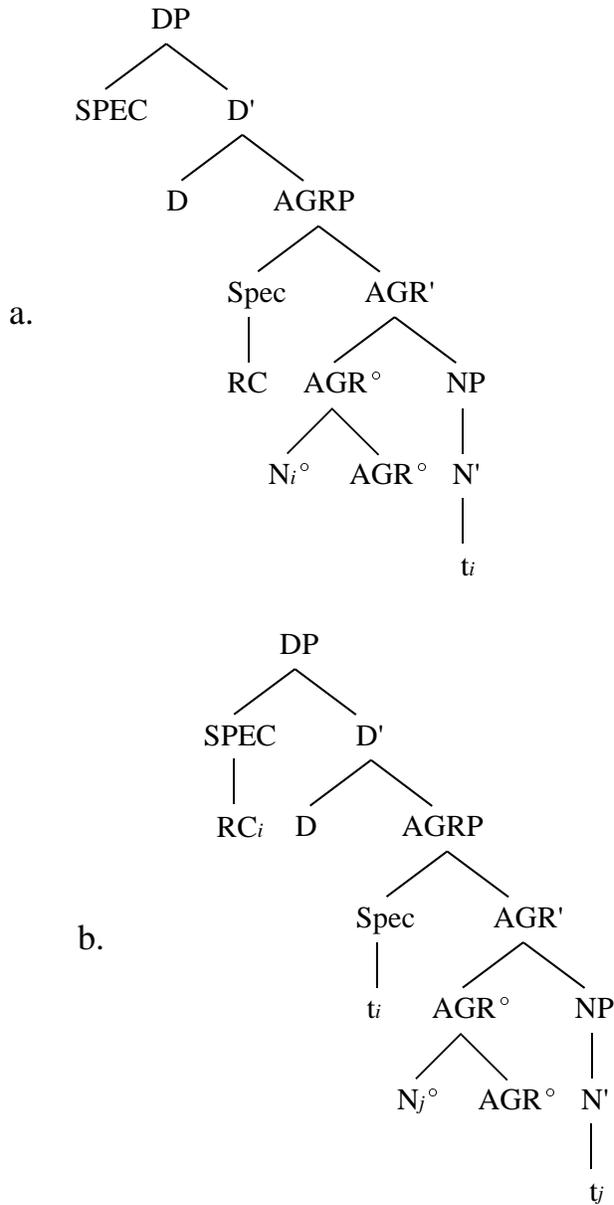
**4.6.4 An alternative structure of RCs in an N-final language.** Korean relative clauses like (2) pose a problem[14] for Kayne's (1994) [$D^0$ CP] structure which cannot express any syntactic and semantic difference between RRCs and NRCs in N-final languages. Notice that in Kayne's analysis there is only one type of RCs in N-final languages like Japanese but that there is a clear contrast in word order as well as in interpretation between an RRC and an NRC in Korean, a N-final language, as seen in (2), (17), (18) and (19). For example, in (2a), the RC clearly intervenes between the determiner and the head noun, unlike in Kayne's (1994) analysis. The RC in (2a) cannot be accommodated in Kayne's [$D^0$ CP] structure; it has no place to occur in (or move to) Kayne's [$D^0$ CP] structure. There is no place between $D^0$ and CP for RCs like (2a).

To solve the problem arising from Kayne's analysis, in section 3, I proposed that RCs in a N-final language like Korean, are base-generated in the specifier position of AGRP occurring between DP and NP, and in subsection 4.4, I argued that non-restrictive relative clauses only move to the pre-determiner position, or Spec,DP, as illustrated in (26) below.

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[14]Contra Kayne's (1994) [$D^0$ CP] analysis in which the relative head NP appears inside the relative clause, Borsley (1996) and Manzini (1994) both argue that the relative head should occur outside the relative clause.

(26)

a.

```
                    DP
                  /    \
              SPEC      D'
                       /  \
                      D    AGRP
                          /    \
                       Spec     AGR'
                        |       /   \
                       RC    AGR°    NP
                            /   \     |
                          Nᵢ°   AGR°  N'
                                       |
                                      tᵢ
```

b.

```
                    DP
                  /    \
              SPEC      D'
                |      /  \
              RCᵢ    D     AGRP
                          /    \
                       Spec     AGR'
                        |       /   \
                        tᵢ   AGR°    NP
                            /   \     |
                          Nⱼ°   AGR°  N'
                                       |
                                      tⱼ
```

The head noun moves to $AGR^0$ to check its agreement feature with the corresponding feature of the RC in Spec,AGRP.

   This is to say that an RC is base-generated in Spec,AGRP, regardless of whether it is an RRC or NRC, and then the RRC remains in situ while the NRC only moves to the pre-determiner position, that is, Spec,DP.

The analysis and structure given in (26) can accommodate relative clauses like (2a) as well as those like (2b) unlike Kayne's [D$^0$ CP] structure.

However, my analysis of the structure for adnominal modifiers is also totally compatible with Kayne's (1994) general theory which excludes right-adjunction. Notice that in our structure an RC appears in the specifier position of AGRP (or left-adjoins to AGRP but not right-adjoins to AGRP in the sense of Kayne (1994)).

## 4.7 Focus and non-focus features in adnominal modifiers

In this subsection, I examine the function of FOCAL Stress in adnominal modifiers, and what drives the movement of non-restrictive adnominal modifiers into the pre-determiner position, Spec,DP.

In the preceding subsections we noticed that the restrictive modifier remains in situ, having Focal stress while the non-restrictive adnominal modifier does not have Focal stress and must move out of its original position to the pre-determiner position. The movement of the NAM takes places in syntax for Korean and in LF for English. We attribute Focal stress to a contrastive FOCUS feature. It is worth pointing out that the Focused modifier must remain in its original position and the De-focused modifier only should move out of the position. Based on this, I claim that Spec,AGRP is the FOCUS position (or the adnominal modifier only having a focus feature appears in Spec,AGRP) and therefore the De-focused modifier should move out of the Spec,AGRP position. If a de-focused modifier remains in Spec,AGRP, the feature-checking between AGR$^0$ (having a FOCUS feature) and the de-focused element (not having a FOCUS feature) in Spec,AGRP would crash, resulting in an ungrammatical derivation. To avoid this undesired result, the de-focused (non-restrictive) modifier should move out of Spec,AGRP to some other position.

Concerning the movements of non-restrictive relative clauses (NRCs) or adjectives (NAs), I propose that the NAM is assigned[15] a NON-FOCUS feature which triggers its

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[15]Based on Chomsky (1995), I suggest that D can be assigned a NON-FOCUS feature when it is chosen for the numeration, and that this feature of NON-FOCUS in D is [-interpretable] and must be checked and deleted either at overt syntax (for Korean) or at LF for English; the NON-FOCUS feature is strong in Korean but weak in English. This feature may be checked by an adnominal modifier such as an adjective or RC which has a NON-FOCUS feature and moves to the checking domain of the D. With respect to the assignment of NON-FOCUS feature to a NAM, I assume that when a focal stress

syntactic movement from Spec,AGRP to some other place. Notice that when the adnominal modifier does not have Focal stress, it appears outside the scope of the determiner. The non-restrictive relative clause or adjective in Korean-type languages is base-generated in Spec,AGRP and then the NRCs or NAs only move further up because of the NON-FOCUS feature. Based on Kayne's (1994) claim that the restrictive RC remains in situ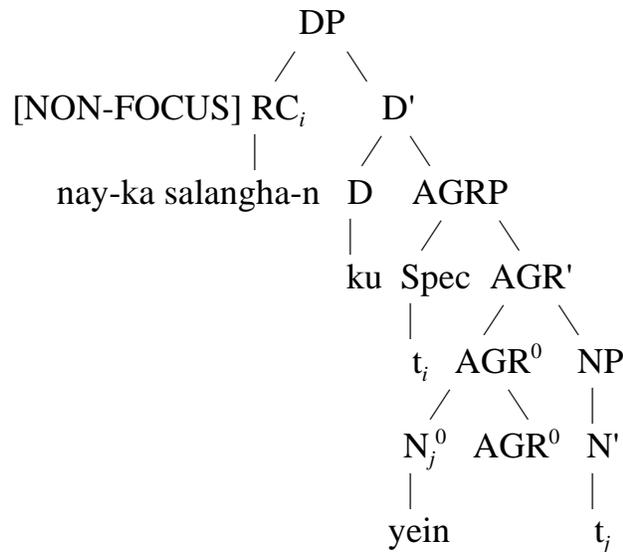 while the non-restrictive RC should move out of the scope of the determiner, I argue that the restrictive adnominal modifier has a FOCUS feature and remains in Spec,AGRP while the non-restrictive adnominal modifier has a NON-FOCUS feature and moves to some other position out of Spec,AGRP. The FOCUS feature is a kind of feature which participates in restricting/delimiting the reference set of its head noun.

  With this background in mind, let us turn to the case of Korean RCs and their syntactic structures, as illustrated in (27) and (28), respectively.


(27)  a.    Ku    [nay-ka        salangha-n]  yein
            the    I-Nom         love-AM      woman
            'the woman whom I loved'


      b.    [Nay-ka        salangha-n]  ku yein
            I-Nom          love-AM      the woman
            'the woman, whom I loved'


---

falls on an adnominal modifier, the adnominal modifier is assigned a FOCUS feature while when a focal stress does not fall on an adnominal modifier, the adnominal modifier is assigned a NON-FOCUS feature.

*phrases in DP*

(28)  a.

```
                    DP
                  /    \
                 D      AGRP
                 |     /     \
                ku  RC [FOCUS]    AGR'
                     /\         /     \
              nay-ka salangha-n  AGR°     NP
                              /    \      |
                           Nᵢ°    AGR°   N'
                            |            |
                          yein          tᵢ
```

b.

```
                        DP
                      /    \
          [NON-FOCUS] RCᵢ    D'
                     |      /  \
          nay-ka salangha-n  D   AGRP
                            |   /    \
                           ku Spec   AGR'
                               |    /    \
                              tᵢ  AGR⁰   NP
                                 /   \    |
                               Nⱼ⁰  AGR⁰  N'
                                |         |
                              yein       tⱼ
```

In Korean an RC is base-generated in Spec,AGRP. An RRC having a FOCUS feature remains in Spec,AGRP; an NRC having a NON-FOCUS feature moves further to Spec,DP to check its [NON-FOCUS] and to receive a non-restrictive reading, as exemplified in (28) above. The elements which are not focused move out of Spec,AGRP.

The de-focused adnominal modifiers are taken as having a NON-FOCUS feature.

   From these observations, I propose that the movement of non-restrictive adnominal modifiers is due to a NON-FOCUS feature. This NON-FOCUS should be checked and deleted. Any adnominal modifying element which has a NON-FOCUS feature moves out of Spec,AGRP into Spec,DP. In contrast, an adnominal modifier having a FOCUS feature should remain in situ and check its FOCUS feature against a corresponding feature borne by AGR. This analysis is consistent with the minimalist framework Chomsky (1995) in which movement is described as being morphologically motivated.

   The argument that the restrictive modifier has a FOCUS feature and the non-restrictive one has a NON-FOCUS feature is supported by Jaggar (1997). He notes that the restrictive relative clause in Hausa has only the FOCUS form of INFL while the non-restrictive relative clause has either the FOCUS or NON-FOCUS form. That is, the NON-FOCUS feature is related only to the NRCs and never to the RRCs.

   Jaggar (1997)[16] argues that the differential FOCUS: NON-FOCUS behaviour is attributable to the semantic fact that, unlike Restrictive RCs, NRCs do not uniquely restrict/define/identify their antecedents, and that NRCs do not restrict the domain of relativization, but merely add some (parenthetical) information because they are not subject to the same FOCUS tense-aspect constraints as Restrictive RCs. NRCs do not specify their antecedent like RRCs and therefore they allow a wider range of tense-aspect options. According to Jaggar (1997), in NRCs, some speakers permit either the FOCUS form of the INFL as occurs in RRCs, or the NON-FOCUS form of the INFL as an alternative. With regard to the choice of FOCUS form of INFL, Jaggar says (1997: 38):

> According to Schuh (1985), the choice of the specific/presuppositional FOCUS form in narrative discourse is attributable to the semantic fact that the speaker has a specific time and /or place in mind when the actualised event took place, and also presupposes that the hearer shares this assumption. Use of the definite/specific FOCUS form acts to narrow down the temporality of the single, actualised events of the historical narrative, all of which have a clear and specific end result.

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[16]Parsons (1981) was the first to recognise that in Hausa there is a distinction between Restrictive and Non-restrictive RCs. Parsons (1981) proposes that the RRC requires the FOCUS form of the verbal tense-aspect while the NRC requires either the FOCUS form or the NON-FOCUS from. In other word, the NON-FOCUS form of the verbal complex can be present only in Non-restrictive RCs but not in Restrictive RCs.

## 5 Conclusion

This paper has discussed the structure of DP and the movement of NAM within the DP in Korean. Assuming that there is an intermediate functional category called AGRP occurring between DP and NP, I have made the following three arguments.

First, there is in Korean an honorific and plural agreement between adnominal modifiers and their head nouns in the DP structure.

Second, the pre-nominal attributive adjective and the relative clauses in Korean have the same structure as well as the same function, and that they are both base-generated in Spec,AGRP.

Third, the RAM remains in situ while the NAM is moved to Spec,DP because of a NON-FOCUS feature; the restrictive relatives and adjectives (or restrictive adnominal modifiers) have a FOCUS feature and the non-restrictive RCs and adjectives (or non-restrictive adnominal modifiers) have a NON-FOCUS feature.

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