NOMINAL STRUCTURE AND INTERPRETATION:

ON THE SYNTAX OF THE KOREAN DETERMINER PHRASE

by

SOO JUNG CHANG

(Under the Direction of Keith Langston)

ABSTRACT

This dissertation focuses on definite/indefinite markings and the occurrence of nominal phrases that are projected by a determiner head, such as articles and demonstratives, in Korean. Traditionally, Korean nominals are categorized as NPs and demonstratives as adjectives (Fukui, 1995). This idea has been prevalent in analysis of Korean nominals since the DP Hypothesis (Abney, 1987). In addition, Lyons (1999) claims that DPs cannot be projected in Korean syntax due to the lack of the grammatical D category, and inclusiveness cannot be realized because Korean has "no formal marking of definiteness." However, I argue that DPs are universal and are not parameterized cross-linguistically.

Adopting Chomsky's (1995, 2001) Minimalist Program, Chierchia's (1998) Nominal Mapping Hypothesis, Longobardi's (1994) N-to-D raising, and Baptista's (2007) T-chain approach, I present syntactic differences between NPs and DPs by suggesting that nominals with [+ref] are DPs while NPs are either non-arguments or non-referential nominals. Licensing the syntactic aspects, [+ref] triggers N to move to D covertly at LF in Korean. To support existing D elements in Korean, I show various cross-linguistic data of nominals in languages such as English, Italian, Japanese, Chinese, Spanish, Romanian, and Creoles.

Following Guéron (2006) and Baptista (2007), I suggest that DP with multi-layers such as ClP, NumP, and QP, has inherent T-features, such as [+generic] and [+episodic] tense features. Those T-features should be eliminated in nominals as they are not categorical features of the nominals. Also, I argue against the ideas that interpretation of bare nouns is determined by predicate types or case particles. This study demonstrates that arguments with definiteness/specificity are only merged with DP, instead of ClP. Demonstratives, as a Functional Category, have various base-generated positions across languages; in the case of Korean, demonstratives co-occur with possessives since demonstratives do not compete for the same position with possessives.

This dissertation validates the DP-Hypothesis which can explain parallels between the domains of sentences and nominals even in languages without articles by allowing demonstratives and null D to be heads. DPs are internal arguments, external arguments, and non-arguments with [+ref]. Korean common nouns, as *derived mass nouns*, are headed by D.

INDEX WORDS: Argument, Bare Noun, Classifier Language, DP Hypothesis, Demonstratives, Episodic, Feature-Checking, Generic, NP, Mass Noun, Minimalist Program, Predicate, Tense-Features

∗To clarify any confusion regarding the composition of my committee, it should be stated that Dr. Baptista directed this dissertation, and as such, is my sole major professor. However, as she resigned from the University of Georgia in summer 07 to take a new position at the University of Michigan, the UGA graduate school would not allow her to remain my major professor on paper without becoming adjunct faculty. As she declined that option, Dr. Keith Langston graciously accepted to fulfill the role of my major professor on paper only.

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DEDICATION

To my grandmother, *Soon Rye Chang,* and my grandfather, *Ha Wook Chi*, who are now in heaven

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My life in Georgia was motivated by my father, who was a visiting scholar at the University of Georgia a long time ago. At that time, I was a visiting student at UGA, and one of the memorable moments was when I met my dissertation advisor, Dr. Marlyse Baptista; she kindly allowed me to audit her syntax class, and experiencing a linguistics class in the US for the first time gave me a sense of pride. Since I came back to Georgia again as a graduate student, Dr. Baptista has been my major professor, and I am much blessed to have her guidance, encouragement, and inspiration as my dissertation advisor, supporter, and mentor. I still remember the emotional moment when I burst into tears as soon as I saw her in front of her new office at the University of Michigan, Ann Arbor. She has always been watching over me wherever she has been and has never given up on me or my study. I do not know how I thank her enough. Without her long-term support, patience, and guidance, this dissertation would not have been completed.

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thanks go to my grandfather and my aunt who convey heartful caring all the way from Youngju, Korea; at the same time, I am grateful for two of my beautiful family members who passed away recently: my late uncle and my late cousin. Although I cannot see them anymore, I hope they would be glad to see my completion. Also, I would like to thank to my brother-in-law, Soon-Gon Kim; his constant support for Gouk Haeng and his sincere caring for my parents and Soo Im were crucial for my achievement. I am so grateful to my wonderful sisters, Gouk Haeng and Soo Im, for giving their great love to me who has been a selfish sister to them. It is a blessing that mutual interactions with my sisters have enriched my life as a linguist, harmonizing with Gouk Haeng's literary sensibility as a writer and Soo Im's brilliance as a scientist. Their cheering messages from Korea have inspired and encouraged me and were indispensable for my study. Most of all, the three of us have been best friends throughout our lives, and our love is the best present given me by my parents. I am so thankful to all my family again, for making me feel very blessed to be a member.

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GLOSSARY

ACC: Accusative / Accusative Case Particle

AgrP: Agreement Phrase

ATT: Attributive Genitive

ClP: Classifier Phrase

COMP: Complementizer

DEC: Declarative Marker

[+def]: Definite Feature

DEP: Dependent Noun

DP: Determiner Phrase

FTR: Future

GEN: Genitive / Genitive Case Particle

HK: Hearer Knowledge

NOM: Nominative / Nominative Case Particle

NumP: Number Phrase

PST: Past

PRES: Present

PL: Plural / Plural Marker

Pl: Semantic Singular

Pl*: Semantic Plural

POL: Polite Level Speech Marker

PST: Past Tense

QP: Quantifier Phrase

QS: Question Marker

QT: Quotative Particle

[R]: Referential Feature

[+ref]: Referential Features such as [+def, +spec], [+def, -spec], and [-def, +spec]

SK: Speaker Knowledge

Spec: Specifier

[+spec]: Specific Feature

TOP: Topic Marker

TopP: Topic Phrase

LIST OF LANGUAGES

Bosnian

Cape Verdean Creole (CVC)

Chinese

Egyptian Arabic

English

French

Hungarian

Italian

Japanese

Korean

Modern Greek

Romanian

Spanish

Syrian Arabic

CHAPTER 1

INTRODUCTION

1.1 The DP-Hypothesis

This dissertation aims to pursue the unified structure of nominals across languages presenting common semantic features affecting the interpretation of nominal phrases within generative syntax. This study, focusing on the internal structures of noun phrases based on the distinction between DPs and NPs, mainly explores the Korean language, which has been traditionally considered as an NP language (Fukui, 1995; Lyons 1999 among others) due to the lack of articles.

One of the most important issues to be examined is how (in)definiteness is realized in the determinerless nominal systems such as bare nouns in Korean or Japanese, which are analyzed in a different way from many Western languages such as English and Italian that possess articles. With regard to the syntactic realization of (in)definiteness, nominal structures across typologically different languages such as Japanese, Chinese, English, Italian, Korean, and Cape Verdean Creole will be extensively discussed.

Throughout the literature regarding (in)definiteness and the referential status in relation to nominal determinations, such as demonstratives and articles, many controversial ideas defining the structure of nominals into a dichotomy are presented—broadly, nouns in languages with overt determiners have been analyzed as nominal phrases projected with functional categories, DPs; however, those counterparts without articles have been NPs. This idea starts

from the simple assumption that languages without overt determiners are NP languages (1 b), but others are DP languages (1 a) (Fukui, 1995; Chierchia, 1998; Lyons, 1999).

(1)

a. languages with articles b. languages without articles

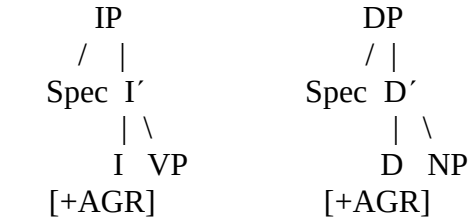
In the case of a uniformity of grammatical categories, Abney's (1987) study of the parallel structures between nominal and verbal phrases has provided one of the most influential theories in generative grammar and has become a cornerstone for projecting functional categories with lexical categories within both nominal and verbal phrases analogously. Therefore, the DP-Hypothesis, as the most often cited work, has been strongly supported by empirical evidence cross-linguistically.

Following Stowell (1981) and Chomsky (1986a, 1986b), which introduce functional categories C and I as heads of sentences and clauses respectively, Abney (1987) explains both semantic and syntactic aspects of nominal structures that behave similarly to verbal structures within the frame of X-bar theory, which claims structural similarities (Chomsky, 1970; Jackendoff, 1977). The DP-Hypothesis states that a functional category governs a lexical category (i.e., NP is a complement of D head) and implies the linear ordering between D and N such as restrictions of co-occurrence among English determiners like articles, the possessive morpheme (-'s), and demonstratives, including pronominal possessives (e.g., * *John's the book*). This phenomenon is closely related to an essential constraint on phrase structures displayed in X-bar theory. As one specifier and one complement are present, only one single head, as an essential category, is allowed within one maximal projection (namely XP headed by an X), and

therefore, restrictions of co-occurrence of English determiners empirically proves that more than two heads are illegitimate in X-bar structures.

Abney (1987) proposes the following structures for nominals that NP is governed by a maximal projection DP headed by D where D is a position for determiners. His DP-Hypothesis has given theoretical influence to many studies in generative grammar that pursue a unified account between sentential and phrasal projections. His DP-Hypothesis attempts to distinguish lexical categories from functional categories; a lexical category, NP, is dominated by a functional category, DP, like the parallel symmetry between VP and IP (TP):

(2)



a. sentential domain b. phrasal domain

The DP-Hypothesis suggests that the nominal domain DP (2 b) parallels the verbal domain IP (TP) (2 a) headed by INFL where tensehood is encoded[1]; likewise, a D element (articles or determiners) has its fundamental function that N cannot perform alone, which is to pick out an entity that is not specified by N and to refer to it—a deictic property.[2]

It is also worthwhile to note that Abney (1987) further explains one of the restrictions of co-occurrence in English, e.g. pronominal possessives, articles and demonstratives, because they are all D heads residing in the same syntactic position, D, and he captures flaws in the following examples (3 a-d):

(3) a. * John's the book b. * a John's book c. * the this book d. * that the book

[1] Under the Split-Infl Hypothesis, Pollock (1989) replaces IP with AgrP for agreement and TP for tense.
[2] The reference function of D is also noted by Longobardi (1994).

With respect to the parallel between verbal and nominal structures, Abney provides the following examples:

(4) (a) [John] destroyed the spaceship

(b) [John's] destruction of the spaceship

(c) [John's] destroying the spaceship (adapted from Abney, 1987, p.14 (ex. 3))

In (4 a-c), Abney (1987) observes that Nom or Gen (*John* and *John's*) is encoded with the thematic subject, *John*, and PP (*of the spaceship*) or DP (*the spaceship*) is a complement of the deverbal nominals, such as *destruction* and *destroying*. These distinctions are caused by a different property, relative to the category V or N; however, the subject agreement (AGR) is overtly performed within both projections; for instance, *John* is a thematic subject of the three analogous structures of a verb (4a), of a nominal (4b), and of a gerundive (4c). Abney (1987), therefore, argues that the DP-Hypothesis explains the subject agreement due to the presence of the functional D category, which is analogous to the inflectional category in a verbal projection. To support his premise, Abney (1987, p.16) illustrates Hungarian data cited from Szabolcsi (1987):

(5) (a) az en kalap-om, (b) az te kalap-od (c) a Peter kalap-ja

the I-NOM hat -1sg the you-NOM hat -2sg the Peter hat - 3sg

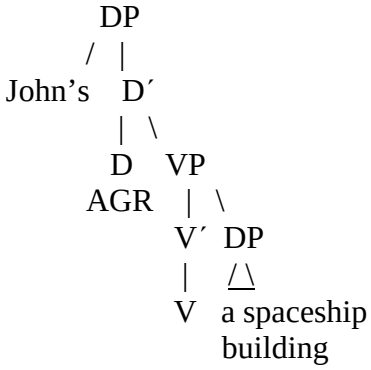
'my hat' 'your hat' 'Peter's hat'

Based on the nominative-assigned possessor (i.e., a nominative possessor) data from Hungarian in (5 a, b, c), Nom is assumed to be the co-occurrence of AGR and Case under government. He, therefore, suggests that "The obvious hypothesis concerning AGR in the noun phrases is that it

occupies a similar Inflectional position; i.e., that the structure of noun phrase and sentence are parallel in Hungarian" (p.16-17).[3]

The DP-Hypothesis provides another powerful argument in favor of a concrete structure for the dual nature of English gerundive constructions as in (6), consequently ruling out the exocentric structure [NP NP VPing]: *John's building a spaceship* (Abney, 1987, p. 19)

(6)



Externally, the whole constituent in (6) is a nominal phrase; internally, V (*building*) takes a DP (*a spaceship*) as a complement, and VP (*building a spaceship*) is in turn a complement of the head D, i.e. the possessive morpheme, –*'s*. Therefore, the example of the English gerundive nominal structure in (6) shows dual aspects of nouns and verbs simultaneously.

As previously shown in (3), the DP-Hypothesis also explains that determiners such as articles, demonstratives, and quantifiers cannot occur with pronominal possessives (e.g., my, your, John's and etc.), the D heads; therefore, the following ill-formed nominal structures in (7) are excluded due to the co-occurrence of dual heads relative to possessives under this theory:

(7) * John('s) the/that/some book (Abney, 1987, p. 172)

However, he raises a delicate issue with respect to the possibility of double Ds in the following examples in (8 a, b), which illustrate that a proper noun possessive can appear with a quantifier as an exceptional co-occurrence in English:

[3] An overt agreement appears morphologically in Hungarian noun phrases. Abney (1987) also shows Yup'ik

(8) a. John's every book (p. 171)

b. John's every wish (p. 172)

By exemplifying the examples above, as the exception to "AGR in D does not co-occur with lexical determiners," he assumes, based on this exception to the general constraint with respect to *every* and the possessor, that "the possessor does not appear in the same position as lexical determiners, despite appearances" (p.172). Moreover, Abney (1987) prefers *the's-as-case-marker analysis* for the following two reasons in relation to UG:

> (1) historically, *'s* was a case morpheme; synchronically, analyzing it as a case marker is more intuitive than analyzing it as a determiner; and (2) *the 's-as-case-marker analysis* does not generalize to language like Hungarian, where possessors and lexical determiners (i.e., AGR and lexical determiners) do co-occur; *the 's-as-case-marker analysis* does generalize to (these) languages. (p. 56)

For instance, see the examples in (9 a-c) below:

(9) a. il mio libro

that my book (Italian; Giorgi & Longobardi; 1991)

'my book'

b. nay ku chayk

my that book (Korean)

'my book'

c. John-no ko-no hon

John's this book (Japanese; Fukui; 1995)

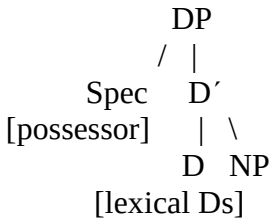
'John's book'

---

language nominals containing, AGR, an infl-like element, which "is identical that on the verb" (p. 30).

In Italian, the definite article *il* in (9a) co-occurs with a pronominal possessive *mio*. The Korean example in (9b) shows that a demonstrative *ku* can appear with a pronominal possessive *nay*[4] and, in the same vein, in Japanese in (9c), the proper noun possessive *John* co-occurs with a demonstrative *ko-no*. Therefore, in the case of Korean, Japanese and Italian, D elements such as demonstratives and pronominal possessives do co-occur, and a possessor is assumed to be located in Spec DP as noted by Abney (1987) as in (12):

(12)



However, besides pronominal possessives, the DP-Hypothesis currently fails to account for the phenomenon of the co-occurrence of double lexical determiners in, such as demonstratives and articles that are widely used as well-formed nominal structures in some languages as shown below in (13):

(13) a. hal-be:t

this-the-house

'this house'

b. han-n«swa:n

these (those)-the women

'these women' (Syrian Arabic; Cowell, 1964)

c. ez a könyv

this the book

[4] Even the scrambled form, *ku nay chack* lit. 'that my book' is acceptable according to my intuition; however, this is reported as ill-formed in Jo (2000). Here, I do not argue about the possibility of the two forms in Korean or about their syntactic position in relation to linear order of determiners.

'this book' (Hungarian; Spencer, 1992)

d. a vel-ed való minden/ezen/melyik találkozás

the with-2sg being every/this/which meeting

'every/this/which meeting with you' (Hungarian; Szabolcsi, 1994)

e. to kathe pedhi

the every child

'every child' (Greek; Szabolcsi, 1994)

f. afto to vivlio

this the book

'this book' (Greek; Horrocks & Stavrou, 1986)

g. om-ul acesta

man-the this

'this man' (Romanian; Giusti, 1993)

These cross-linguistic data in (13 a-g) show that demonstratives, definite articles, and quantifiers can co-occur in languages such as Syrian Arabic, Hungarian, Greek, and Romanian; furthermore, the data potentially suggest that the co-occurrence should not be restricted to only these languages. Because of the co-occurrence of D elements, all such morphemes, subcategorized as determiners and previously corresponding to D heads in Abney's hypothesis, need to be split into various functional projections headed by each relevant element projecting different positions and functions. However, the idea that Quantifier Phrase (QP) and Adjective Phrase (AP) were already projected within DP is evident in Abney (1987), which implies that complex intermediate levels do exist between D and N. Therefore, by opening the possibility for

intermediate functional levels, his DP-Hypothesis also suggests that overt determiners are not merely a realization of (in)definiteness.[5]

Since Abney's influential work based on the GB framework, much research has established the validity of DP-Hypothesis's attempt at unifying nominal and verbal structures, i.e., in favor of treating nominal structures analogous to verbal structures. His proposal has been strongly supported by empirical data across languages and developed through the Minimalist Program. For example, overt N movement to D in Italian by Longobardi's (1994) N-to-D raising provides strong support for the presence of a (null) D in Romance and Germanic languages such as Italian and English, respectively. Basic (2004) also asserts that nominals in Serbian, one of the languages that lacks overt articles, are projected as DP headed by a functional head D just like English, but the determiner-like elements in the language are positioned in Spec DP, in contrast to those of English, following Progovac (1998) and Pereltsvaig (2004) which provide empirical evidence of a DP projection in Slavic languages such as Serbian and Russian. The pioneering spirit of Abney (1987) has still influenced recent research of nominal phrases including this dissertation on Korean bare nominal structures.

1.2 N-to-D Raising

Longobardi (1994) proposes that a nominal can play the role of an argument only if it occurs with a D element that is associated with a referential feature [R], endowing a nominal with referentiality, a property required for the noun to function as an argument. The obligatory association of D elements with a nominal in Italian argument positions manifestly suggests distinct contrasts between argument DPs and predicate NPs in terms of the movement or extraction in relation to [R]. Additionally, these different behaviors provide a convincing

[5] Abney (1987) suggests QP and AP "exceedingly many very beautiful women" or KP "dozens of the men" are projected within DP (p. 216: example (403); p. 223: examples (424-5)).

argument for DP projection, even in languages which lack overt determiners, in pursuing the DP hypothesis in the frame of UG.

As for the null D, Longobardi (1994) suggests that, when D is empty, proper names should raise to a D position in Italian, or D should be filled with articles. He observes that a proper name can be preceded by a determiner in Italian in (14b) and proposes that *Gianni*, the head N, moves overtly to D, the other head in (14a):

(14) a. *Gianni* mi ha telefonato

Gianni called me up

b. Il *Gianni* mi ha telefonato

Gianni called me up (Longobardi, 1994, p. 622)

Although this movement does not render the distinctions in interpretations, he claims, in relation to the presence of possessives such as *mio*, that *Gianni* in (14a) is not just an optional choice or the alternation of the pair with an overt determiner in (14b); when *Gianni* appears with the determiner *il*, it follows the possessive *mio*; however, it precedes the possessive when it is alone as shown in (15) below:

(15) a. Il mio *Gianni* ha finalmente telefonato

the my Gianni finally called up

b. * Mio *Gianni* ha finalmente telefonato

my Gianni finally called up

c. *Gianni* mio ha finalmente telefonato

Gianni my finally called up (Longobardi, 1994, p. 623)

According to Longobardi (1994), based on the ill-formed case in (15b), generics and proper names have similar interpretations at LF. Both are interpreted referentially, which is different

from pronouns in the nature that they are base-generated in D (e.g., **the you*, **the I* and etc.) and are not interpreted as names or as a kind-referring category. Kind-referring bare plural generics are the "proper names of the kind" (Carlson, 1977); therefore, they should be raised to D to check off the referential feature (i.e., [+ref]). Pronouns and determiners are base-generated in D while common nouns and proper names are base-generated in N and are raised to D for feature checking when they are interpreted referentially. See more of his examples below:

(16) a. [beavers [big e]] build dams

b. [water [fresh e]] is often drinkable

c. [John [old e]] came in

d. Il mio Gianni

the my Gianni

d´ Gianni mio

Gianni my

d´´ * Mio Gianni

my Gianni (adapted from Longobardi, 1994, p. 623-43)

Examples in (16 a-c) show English bare nominals, such as *beavers*, *water* and *John*, move to the D position at LF; whereas, in Italian in (16 d´´) the proper noun, *Gianni*, crashes if left *in situ* when a determiner is not present. Longobardi's observations provide evidence that D is the locus of referentiality. Based on these examples, Longobardi (1994) argues that an Italian proper name moves to D before Spell-Out; on the other hand, an English N-to-D raising takes place only at LF.

According to Longobardi (1994) "a 'nominal expression' is an argument only if it is introduced by a category D" (p. 620), or for nominals to function as arguments, they should have

a lexically-filled D category. Without those D, bare nouns are treated as predicates, NPs. Therefore, D has a function of converting NPs into referential expressions, DPs. He also argues that bare nouns in Italian (or Romance) are not so bare; bare plurals in Italian can occur only in restricted positions, and assigning a null D explains the legitimate distribution and interpretation of arguments due to its property of syntactic licensing (e.g., type-shifting in Chierchia, 1998). Moreover, a null D, restricted to lexically-governed positions (i.e., object positions), is associated with an existential reading; therefore, only an indefinite DP argument can occur post-verbally because the empty D should be properly governed by a verb in order to satisfy ECP. His proposal has been supported by many studies with cross-linguistic evidence.

In this study, I will also argue in favor of DP and show that the overt realization of a D head is subject to parametric variations. Following Longobardi (1994) in relation to the restriction of syntactic positions and interpretations, I will examine Korean bare nominals in Topic positions (i.e., TopP) which are not lexically-governed. In Chapter 3, I will show that Korean TopP can be associated with both generic and existential readings, which is different from what Longobardi (1994) observes with indefinite Italian bare nominals that are limited to lexically-governed positions.

1.3 Nominal Mapping Hypothesis

Chierchia (1998) proposes the Nominal Mapping Hypothesis which semantically explains typological variation in terms of the ability or inability of bare nominals mapped as arguments; argument NPs are either of type <e> (i.e., semantic arguments) or of the type of Generalized Quantifiers, and all arguments are referential; in other words, nominals are differentiated into two different types based on their semantic differences—nominals in DPs as arguments versus nominals in NPs as predicates:

(17) a. [$_{DP}$ the [$_{NP}$ dog]]

b. DP => e, GQ (Generalized Quantifiers) [arg]

DPs are arguments

c. NP => < e, t > [pred]

NPs (common nouns) are predicates

d. N => [+arg, +pred]: either arguments or predicates (English)

e. N => [+arg, -pred]: arguments (Chinese)

f. N => [-arg, +pred]: predicates (French)

(adapted from Chierchia, 1998, p. 342)

Bare NPs in Romance languages like Italian and French (i.e., (17 f) [-arg, +pred] type) do not appear as arguments in the lexicon; determiners in those languages select NPs to make them into arguments; on the other hand, Chinese, Japanese and Korean arguments come out of the lexicon as a level of (bare) NPs, as (17 e) [+arg, -pred] type languages, which do not possess determiners in syntax. Only determiner-like elements such as quantifiers and demonstratives select NPs (in his view, these NPs are arguments themselves because they are "kinds") and shift them into predicates. Therefore, due to the property of "a kind," bare NPs in languages such as Korean do not necessarily indicate countability, such as singularity and plurality in other languages, and the mass interpretation of Korean nouns lack pluralization, which is the counting system for atom-like instances. Languages such as Korean have a unique number system for counting mass nouns because "pluralizing them makes no sense" (Chierchia, 1998. p. 347). Since nouns in languages like Chinese (namely Korean and Japanese) come out of the lexicon as mass nouns sharing similarity with plurals that denote a set of individuals, in order for them to be individuated, as a

result, classifiers are widely exploited in Korean for counting nouns just like mass nouns in English such as *a loaf of bread* or *two cups of coffee*.[6]

Chierchia (1998), asserting that bare nouns are not really bare in Italian, observes an asymmetry between subject and object positions in Italian; both Italian and French are typologically characterized as [-arg, +pred] languages in which determiners make kind NPs into arguments as discussed in (17); however, bare nouns can appear in argument positions in Italian, which is not possible in French. Therefore, he follows Longobardi's (1994) proposal that the bare nouns are licensed when a null D is lexically-governed in Italian, and the interpretation of the bare nouns is limited to an indefinite reading because of the property of a null D which is associated with an existential reading.

Then, can a null D only appear in [-arg, +pred] languages like Italian and French?; or are there any other grammatical systems in Korean as Cheng and Sybesma (1999) propose in Chinese, such as the head of ClP (the Classifier Phrase) that plays the compensating role of D? In a later chapter, I will show that, following Abney (1987), Longobardi (1994), and Baptista (2003, 2007), a null D is the locus for definiteness or referentiality even in so called [+arg, -pred] languages due to the unique and inherent property as a null head which links to definiteness; as a consequence, a null D is projected in Korean as well.

Longobardi (1994) and Radford (1997) state that nominals with [+ref] are DPs that can appear in argument positions while NPs are non-arguments such as a vocative, an exclamative, or a predicative. Following Longobardi (1994), Chierchia (1998) proposes that nominals of Chinese-type languages, which come out of the lexicon as bare forms, are directly used as

[6] Similarity between mass and plural denotation, i.e. *cumulative reference* or *cumulative property*, is also noted by Link (1983) and Gillon (1992). With respect to more discussion about mass and plural denotation by Chierchia (1998), see The Inherent Plurality Hypothesis in Chierchia (1996) from which his basic idea comes.

arguments; without an overt type-shifting functor, namely a D category (i.e., articles in English), type-shifting occurs covertly in Korean mainly depending on subject or object positions that the verb takes. If Chierchia's (1998) approach is valid, referentiality and argumenthood should be encoded together and reflected in Korean syntax as NPs instead of DPs. In Chapter 2, however, I will show an incompatibility and discrepancy between (non)referentiality and (non)argumenthood, and the following questions will be explored: are non-referential nominals, having [-def, -spec], in argument positions NPs or DPs, or are referential nominals in non-argument positions NPs or DPs? As a result, a problem of combining them into one NP layer in Korean nominals will be discussed. Following Cheng and Sybesma (1999), Ishii (2000), Li and Shi (2003), Guéron (2006), and Baptista (2003, 2007), among others, I postulate that not only D but also additional functional categories (i.e., multi-layered DPs by Baptista, 2003) such as NumP or CLP should be projected between D and N in Korean nominals.[7] If my premise is valid, Chierchia's (1998) typological analysis of [$\pm$ arg, $\pm$pred] with determinerless languages (the so called the Nominal Mapping Hypothesis) should be reconsidered.

In this dissertation, therefore, an alternative account that treats referentiality and argumenthood separately is proposed within the multi-layered functional categories that DP projection holds. According to Chierchia (1998), however, Chinese-type nominals like Korean are mass-denoting. This view makes it reasonable to assume that classifier phrases (i.e., ClP) used for counting are projected in Korean nominals, which highlights my approach of treating Korean nominals in terms of individuating functions as Longobardi (1994) points out. According to Longobardi (1994), D in relation to referentiality has a function of individuating (p. 634); an

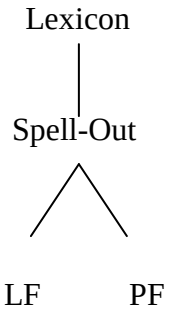
[7] Cheng and Sybesma (1999), dispensing with a functional layer D in either Mandarin or Cantonese, do not favor DP arguments in Chinese. Instead, they suggest NumPs and ClPs for indefinite and definite NPs respectively.

instance that is described by N can be picked out by D, and the identical function, which I assert in Korean, is performed in ClP or with demonstratives.

1.4 The Minimalist Program

In this dissertation, I adopt the Minimalist Program (Chomsky, 1995) to explain how the linguistic phenomena such as head movement, feature-checking, theta roles and case assignment/checking fulfill the DP projection in Korean in terms of generative grammar.[8]

(18)



In the Minimalist Theory, *Logical Form* (LF) and *Phonological Form* (PF), replaced with *D-structure* and *S-structure* in the previous GB Theory, are the only linguistic levels which are interpreted as sound and meaning; in other words, they are two interface representations (i.e., *articulatory-perceptual* and *conceptual-intentional* systems respectively) proposed by Chomsky (1993, p. 2). Lexical items are endowed with Case and Agreement features such as *ϕ-features* like person, number and gender, and all features should be checked off in order to satisfy *Full Interpretation* (FI) within a checking domain, which is locally obtained via Spec-Head or Head-Complement. Otherwise, the derivation *crashes*. According to the feature-checking process, the principle of *Greed*, which implies that every movement must satisfy the morphological property of the moved element itself, prefers *procrastinating* processes of feature-checking to LF, as one of *the Economy Principles* in the Minimalist Program.[9]

[8] Case assignment and case filter envisaged in *Government and Binding* (GB) theory have been refined as case checking theory in the Minimalist Program.

[9] *Greed* states that "move raises α only if morphological properties of α itself would not otherwise be satisfied in the

In this computational system, two operations are used as crucial operations: one is *Merge* and the other is *Move*: *Merge* "takes a pair of syntactic objects and replaces them by a new combined syntactic object" (Chomsky, 1995, p. 226). *Move*, traditionally applied to the whole category, is revised as a movement of features, which occurs in order to satisfy the morphological property, based on the principle of *Greed*. The principle of *Economy* in this program plays an important role in that the more economical derivation is selected as the legitimate operation (Chomsky, 1991, 1993, 1995, 2001). Therefore, Chomsky (1995) asserts that feature movement is more economical than category movement in regard to the economy condition on movement because "F (feature) carries along just enough material for convergence" (p. 262).

The interaction of features also functions as one of the important devices in this program: *a strong feature* associated with phonological forms is visible to PF and must be eliminated before *Spell-Out*; on the other hand, since *a weak feature* is not visible to PF, it can be left after *Spell-Out*. Phonological requirements trigger overt movement of categories in syntax, but LF movement, which is covert feature movement, does not because covert movement is not legitimate at the PF level. Likewise, if a strong feature remains unchecked before *Spell-Out*, it will cause the derivation to crash at PF because it is uninterpretable according to the principle of *Full Interpretation* (FI) for convergence:

> Interpretability of features is determined in the lexicon by Universal Grammar (UG) we assume, and the distinction must be indicated not only at that stage but throughout the derivation. The natural principle is that the uninterpretable features, and only these, enter

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derivation" (Chomsky, 1995, p. 261). Frascarelli (2000) explains *Procrastination* and *Last Resort* in the following way: "'Procrastination' implies that LF movement is less costly for the system than an overt operation, so when not driven by morphological requirements, move α is realized in the covert component. 'Last Resort' allows the insertion of an element into the computational system when convergence cannot be otherwise met" (p. 5).

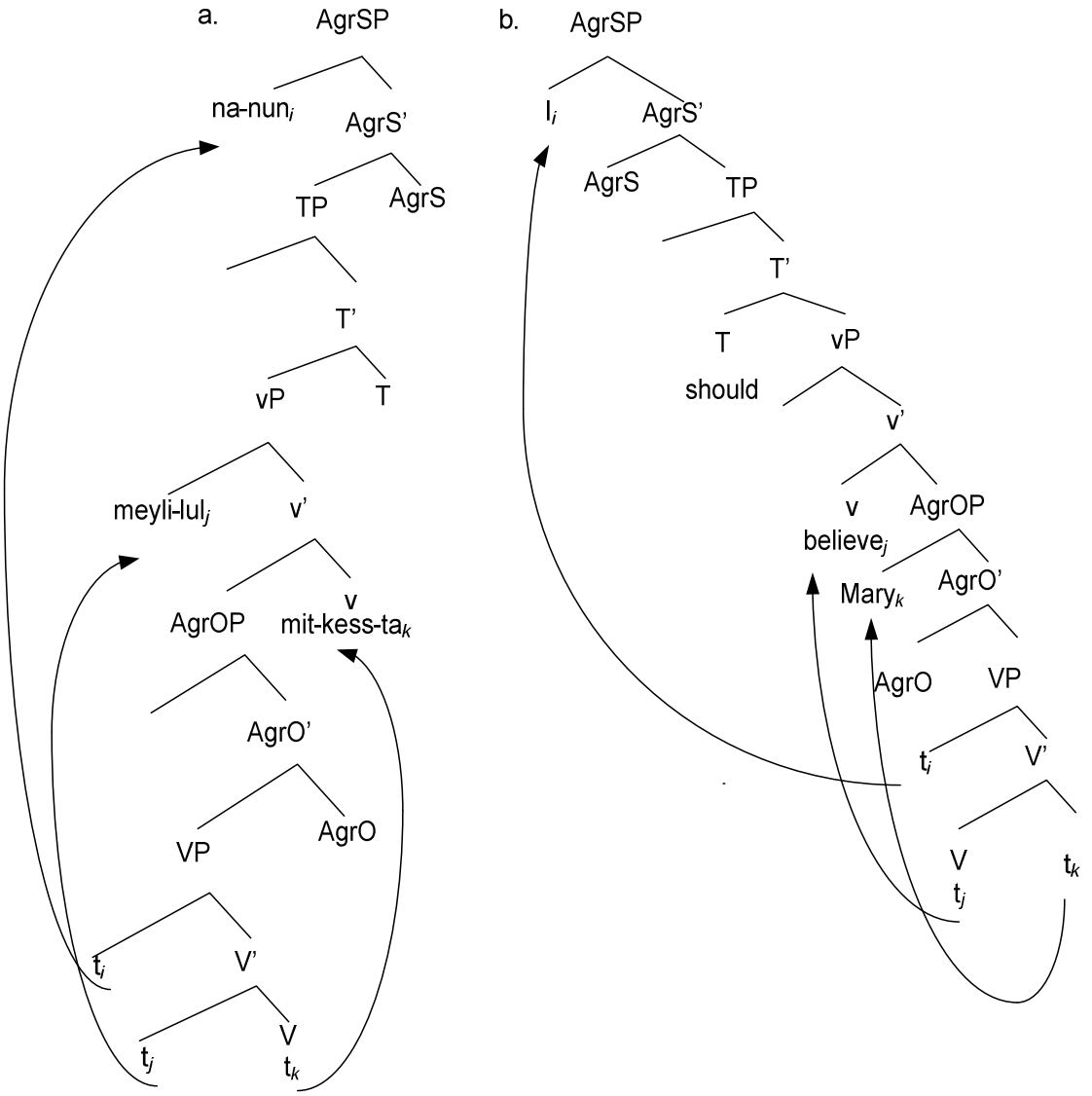
> the derivation without values, and are distinguished from interpretable features by virtue of this property. (Chomsky, 2001, p. 5)

For a subject DP to be Nom-checked, for instance, it moves to Spec TP position of the head TP in which the feature, [+nom], is endowed, and those matching features in agreement relations are erased by the end of the derivation in order to keep from violating Full Interpretation (FI), since unchecked features are uninterpretable. The structure in (19) adapted from Chomsky (1993, p. 7) illustrates the feature-checking process in English, in comparison with Korean.[10]

Korean is a head-final language, which displays leftward-branching nodes, in contrast to English, a head-first language, which has rightward-branching nodes analogously. According to the Minimalist Program, the distribution of strong and weak feature distinctions is subject to parametric variation across languages. First, I will show how the operation of feature-checking takes place in a Korean sentence in comparison with a parallel sentence from English:

[10] Korean is a head-final SOV language; in contrast to right-branching, Korean has left-branching structures which

(19)



Formal features, such as Case, Tense, and agreement features, should be erased for the derivation to converge at LF; specifically, verbs raise to TP to check tense features, and the nominals such as subjects and objects should move to Spec AgrSP and Spec AgrOP respectively in order to check off their agreement features via Spec-Head relations. However, verbs in some languages such as French are assumed to be overtly located in AgrS (Pollock, 1989), whereas I assume that

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are different from those of English in terms of *the Directionality Parameter*.

both English and Korean verbs are overtly located in v. Chomsky and Lasnik (1993) argue that an object's raising to Spec AgrOP always occurs covertly. However, according to Koizumi (1993, 1995), the movement is overt, driven by a strong feature, in contrast to Chomsky and Lasnik (1993). Koizumi's (1993, 1995) *split-VP hypothesis* proposes that V raises to a higher position (i.e., "shell V") via AgrO, and, as a result, his hypothesis can explain the word order difference between English (SVO) and Korean/Japanese (SOV) in relation to the verb position; in other words, an object precedes a verb in Korean/Japanese. Following Koizumi (1993, 1995), I propose that an object in Korean moves up to Spec vP, via Spec AgrOP, as shown in (19b), in contrast to English whose object stays in Spec AgrOP, as shown in (19a). Due to the strong features of the Korean object, it overtly moves up to Spec vP; however, weak features in the English object do not cause the object to overtly move. On the contrary, I assume the Korean auxiliary *kess* moves to the T-head only at LF; the English auxiliary *should* is overtly realized in the T head, because of the strong T-feature in English, whereas the counterpart in Korean *keyss* with weak features is merged with the verb *mit-ta*, without undergoing overt raising to the T-head at PF level. Therefore, in terms of the sentential domain between English and Korean, the parallel structures in (a) and (b) illustrate that parametric variation, based on the strength of features, is licensed by the Minimalist Program. However, I do not highlight the influence of the head-directionality with respect to the nominal domain any further in this section. In Chapter 4, I will discuss case particles as D elements in the domain of DP, and I will revisit word order difference between articles in Western languages and case particles in Korean.

In relation to *Move* and the principle *of Economy*, the following examples in (20 a, b) illustrate economical and convergent derivation:

(20) a. It seems that [John$_i$ was believed [t$'_i$ to be [t$_i$ in the room]]]

b. * John$_i$ seems that [t´´$_i$ was believed [t´$_i$ to be [t$_i$ in the room]]]

(Chomsky, 1994)

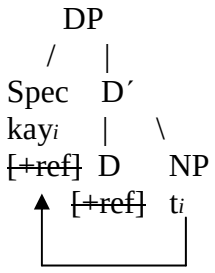
John, the subject of the embedded clause in (20 a), satisfies the morphological requirements; 1) the Nom feature was checked off via Spec-Head relations with the verb *was*, and 2) *John*, in the embedded clause, satisfies the principle of *Greed* because further movement is not economical; therefore, (20a) is grammatical. However, (20b) is ill-formed for the following reason: *John* does not need to move to the subject position of the matrix clause because this further movement is only to satisfy the verb *seems*, which violates the principle of *Greed*; therefore, since the previous movements (i.e. t$_i$->t´$_i$ and t´$_i$->John$_i$) are legitimate, this raising sentence (20b) violates one of *the Economy Principles* and crashes at LF.[11]

The notion of LF movement in the Minimalist Program provides a clue for analyzing a null D and bare nominal structures in Korean through this dissertation, in relation to the DP hypothesis along with N-to-D raising in Longobardi (1994). See the example below for LF movement in Korean:

(21) **kay**-nun chwungsilhan tongmul-ita

dog-TOP faithful animal-DEC

'The/A dog is a faithful animal'



[11] GB theory explains this ungrammaticality in terms of ECP violations.

The bare noun *kay* (dog) in (21) refers to a dog-kind, i.e., *generic*; therefore; it possesses the feature, [+def, -spec], which is referential ([+ref], cf., [R] in Longobardi (1994)), based on the definition of referentiality,[12] as is examined in the previous section adopted from Carlson (1977) and Chierchia (1998). *Kay* moves to Spec DP, and the feature ([+ref]) is checked in a Spec-Head relationship at LF. While this structure is realized in various ways in English such as *the dog*, *a dog*, or *dogs*, the Korean generic nominal is restricted to a bare nominal structure with a null D due to the lack of overt determiners. In other words, a referential feature exists in syntax and triggers N to move to D at LF in the Korean bare nominal structure because, derived by a weak feature, no phonological requirement forces this movement overtly.

Ura (2000) refers to *nominal features* as "ϕ-features like gender, person, or number, Case-features like nominative or accusative, and categorical features like D-feature" (p. 16). Based on his notion of features in terms of the Minimalist Program, I propose [+ref] as one of the formal nominal features encoded in a lexical item, nouns. For [+ref] to be realized in either overt syntax or in covert syntax is a matter of parametric variation; for example, in Italian, [+ref], strong and visible at PF, should be checked and eliminated in overt syntax. In the case of articleless languages such as Korean, however, this process is invisible at PF and is deleted at LF by the principle of *Procrastination*. Therefore, DP should be projected in Korean for providing an appropriate functional domain in which a process of head movement and feature-checking occur within the frame of UG as is also pursued in the spirit of the Minimalist Program. In Chapter 2, I examine more empirical data that show immense use of bare nominals in Korean and their different interpretations relative to [+ref] in detail.

1.5 Referentiality

[12] See the next chapter for Lyons (1999) and others' definitions of "referential."

We have noticed from the literature that, cross-linguistically, argumenthood and referentiality are closely related with respect to defining the distinction between DP and NP as referentiality is assigned by the functional category, D (Szabocsi, 1984; Abney, 1987; Ritter, 1991; Stowell, 1991; Cinque, 1994; Longobardi, 1994; Radford, 1997; Chierchia, 1998; Baptista 2003, 2007 among others). Before defining and exploring the referentiality and the referential feature (i.e., [+ref]) in Korean nominals in later chapters, I will outline some theoretical issues with respect to referentiality in syntax, semantics and pragmatics.

Arguments, participants of actions, bear thematic (θ) roles such as *agent*, *theme* and *goal*, and "each argument bears one and only one θ-role, and each θ-role is assigned to one and only one argument" (Chomsky, 1981, p. 36). External arguments denote artuments in subject positions, which is outside of VP, while internal arguments are objects within VP. Although referential expressions regarding nouns began as subparts of early semantics, argument structures and θ-criteron, originated from semantics, have been popular topics in generative syntax since GB theory. See the following examples of non-referential NPs from Radford (1997):

(22) a. Do all syntacticians suffer from asteriskitis, *doctors*? (vocative)

b. Dick Head is *head of department* (predicative)

c. *Poor fool*! He thought he'd passed the syntax exam (exclamative) (p. 156)

These italicized nominals, without determiners, function as (22a) a vocative, (22b) a predicative, and (22c) an exclamative, which makes plausible the observation that only argument nominals are DPs. Therefore, the nominals in the sentences above clearly show that DPs are referential expressions while NPs, without articles, have the property of predicates as adjectives do. Then, would other referential expressions without articles, such as pronouns and anaphors, be NPs, due to the lack of overt realization of articles? If the overt determiners, such as articles, were

obligatory for DPs in the strict sense, this identification would cause a mismatch between the grammatical role and the interpretation of nouns (in terms of referentiality). For example, the pronoun *he* in *he ate an apple*, without overt determiners, plays both the role of *agent* (based on θ-criterion) and as an external argument successfully.

This puzzle leads to the elaboration of the internal structures of nominals, which are associated with bare nominals in Korean and other typologically similar langauges, and their interpretations in terms of the unified DP analysis. As argumenthood is realized in the structure of languages without articles in syntax, an explanation of those structures without any flaw within UG may be valuable; if this idea is true, it may be also fruitful to supply relevant empirical data as evidence to help answer the following questions: 1) how is this property 'referential' applied to nominals in determinerless languages to make them into arguments? 2) or, without overt determiners, such as articles, can bare nouns indicate referentiality? 3) in addition, without projection of functional categories, then, how can demonstratives or Korean-peculiar (Japanese as well) function words such as case particles be categorized in syntax? For the issue regarding demonstratives, case particles, and the position of D, I also follow Guéron (2006) and Baptista (2003, 2007) who propose the idea that D hosts not only definite articles but also demonstratives. However, one of the noticeable phenomena in Korean, in terms of projecting demonstratives (or Italian definite articles), is the frequent co-occurrence of demonstratives with the possessive pronoun. I propose Spec DP may be functionally compensated with the D head in this determinerless language; in the case of the left-peripheral co-occurrence of function words outside NP, I argue that a θ-role assignment plays an important role where there is a constraint of linear order, a preceding element, (i.e., an article), that takes

Spec DP position, and the following element, (i.e., a possessive), is either 1) base-generated in NP, with a θ-role assigned or 2) base-generated in D without a θ-role assignment.

As for a preliminary setting, it is worthwhile to delineate the notion of referential or referential reading that will work throughout this dissertation. A referential reading is used when the speaker intends to refer to a referent and the reading also tends to be used in referentially transparent, *extensional, de re,* or specific contexts, in contrast with a non-referential reading that indicates a referentially opaque, *intensional, de dicto*, or non-specific contexts (Lyons, 1999, p. 166).[13]

In the case of the definition of a referential reading, distinctions between referential and non-referential have been debated in relation to specificity and identifiability; in the semantics literature, one view has argued that indefinites are not referential, regardless of their status as being specific, because they are not identifiable referents for the hearer. Another view, treating them as "a matter of pragmatics," limits reference to "singular terms" such as demonstratives, personal pronouns and proper names; according to Kripke (1977), Neale (1990), and Ludlow and Neale (1999), neither definites nor indefinites are "semantic referring." For the third view, Lii (1972), Fodor and Sag (1982), Lyons (1999) and others consider a specific referent as being referential, regardless of the presence of definiteness or identifiability, because "there is a particular object which the speaker is thinking of as motivating the choice of description" (Lyons 1999, p. 166). The examples (23a,b) below give a better understanding of the notion of *referential*:

(23) (a) I bought a car (in the context that I ran into a friend on the street).

(b) Pass me a book **(**in the context that I do not know which one).

[13] See Lyons (1999, p.166-8) for detailed English examples.

Indefinite specific *a car* in (23a) is treated as referential because it denotes a particular entity picked out in *my mind* during discourse; however, for *a book* in (23b), on the contrary, it is obviously non-referential being neither specific nor identifiable to the hearer. Therefore, following Lii (1972), Fodor and Sag (1982), and Lyons (1999), I claim that a referential reading is a matter of interpretation (associated with the speaker's recognition) within the context, rather than a matter of quantification.

With respect to bare nouns and scope ambiguity in the literature, the Carlsonian view identifies bare nouns as kinds, an explanation of bare nouns associated with the obligatory narrowest scope behavior (Carlson, 1977; Chierchia, 1998 among others). According to Carlson (1977), bare nouns do not possess scope-like proper names for specific individuals; therefore, kind-referring bare plural generics are equally compatible with the "proper names of the kind." Furthermore, this notion *generic* is associated with two types of predicates –*individual-level* (stable) and *stage-level* (spatio/temporal), which are to be treated distinctively in sentences with bare plurals. He also argues that bare plural subjects of *stage-level* predicates cause either a generic or an existential reading; however, the counterpart of *individual-level* only renders a generic interpretation. The following sentences have a *stage-level* predicate, *available*; see examples in (24a,b):

(24) a. Firemen are available.

(*Ambiguous: generic or existential*)

b. There are firemen available.

(*Unambiguous: existential*) (Diesing, 1992)

Regardless of the same *stage-level* predicate, *available*, in (24b) only an existential reading obtains whereas (24a) can be interpreted as either generic or existential. In regard to ambiguity

embedded in two analogous structures with the same bare noun, Carlson (1977) proposes that, instead of a bare noun itself, the different environments in which the bare noun appears force it to be construed distinctively.[14] In this dissertation, the notion *generic*, defined by Carlson (1977), plays a crucial role associated with the referential feature (i.e., [R] in Longobardi (1998) and [+ref] in this study) which renders a referential construal to nominals in Korean. Adopting the Carlsonian view, I will explain syntactic movement within generic DP in relation to [+ref] in Chapter 2.

For definiteness effect in the syntactic approach, the binary feature sets such as [+/-spec] and [+/-def] also play an inevitable role that allows referentiality as asserted in the previous section. I argue referentiality is obligatorily encoded in English nominals with a definite article, *the*, as it implies hearer knowledge (i.e., [+def, +spec]), but referentiality is not necessarily endowed in nominals with an indefinite article, *a* (i.e., [-def, -spec]).[15]

On the matter of indefinites, it will be useful to note that they can be classified into two: referential or quantificational expressions (Fodor & Sag, 1982; Heim, 1991). According to Fodor and Sag (1982), a nominal is referential if the speaker is familiar with a referent and intends to speak about this particular individual. Indefinites can be referential because "an indefinite can be used for the purpose of making an assertion about an individual, even though the individual in question is not identified by the speaker" (p. 380). They also propose that English indefinites are ambiguous between specific and non-specific readings; the examples, which bear semantic

[14] This notion in the non-ambiguity Carlsonian view is developed as Derived Kind Predication (DKP) in Chierchia (1998b), which seeks a unifying treatment of generic and existential readings of bare nominals through semantic rules grounded in a kind-based approach.

[15] Some literature explains that referentiality is directly reflected on a nominal structure; Lyons (1999) shows that distinctive articles are used in Samoan depending on the presence/absence of referentiality such as referential DPs and non-referential DPs respectively (p. 58).

ambiguity, discussed in Fodor and Sag (1982, ex. (7) and (8)), are repeated below, with which the nominal itself is realized in the same DP structure:

(25) a. *specific (referential) indefinite*

A man just proposed to me in the orangery (though I'm much too embarrassed to tell you who it was).

b. *non-specific (quantificational) indefinite*

A man is in the women's bathroom (but I haven't dared to go in there to see who it is).

(Fodor & Sag, ex. (7) and (8))

A man in (25a) is specific because the speaker intends to refer to a particular referent; this is a referring expression; on the contrary, *a man* in (25b) is non-specific due to the lack of the same intention; this is a quantificational expression.[16]

In order to define referential features and referentiality, a pragmatic approach attempts to account for the endowment of definiteness in syntax in terms of hearer and speaker knowledge. The table in (26) shows a realization of referentiality as a feature associated with the binary feature set of [+ speaker knowledge] and [+hearer knowledge]:

(26) The Binary Feature Set: SK=*speaker knowledge*, HK=*hearer knowledge* (adapted from Fodor & Sag (1982))

[16] The property of this quantificational indefinite nominal is similar to that of quantifiers, for example, *no*, *many* and *every* such as *no man*, *many men* and *every man*. See Fodor and Sag (1982) and Heim (1991) for more explanation of *scopal* and *epistemic specificity*.

Knowledge	Definiteness/Specificity	English Articles
a. [+SK, +HK]	[+Def, +Spec]	*the*
b. [-SK, +HK]	[+Def, -Spec]	*the*
c. [+SK, -HK]	[–Def, +Spec]	*a*
d. [-SK, -HK]	[–Def, -Spec]	*a*

The table above shows definiteness is encoded with hearer knowledge or ability to identify a referent, and specificity represents speaker knowledge. I suggest (26a-c) should be assigned referential denotation because only (26d) is not an identifiable referent to both the speaker and the hearer.

According to Heim (1988), definiteness correlates with familiarity; on the other hand, indefiniteness relates to the situation when a novel referent is introduced. Abbotte (2001) also asserts that the English definite article is relative to familiarity which possesses a discourse-pragmatic property. Before Heim (1988), Kempson (1975) treats definiteness in terms of identifiability in relation to the use of the definite article *the*; the feature [+Def] is assigned to the earlier mentioned referent, and the hearer identifies the definite referent which is spelled out as *the*. Similarly, Birner and Ward (1994) attribute the felicitous use of the definite article to "the hearer's (presumed) ability to uniquely identify the referent" (Birner & Ward, 1994, p. 6).

As shown in the table (26) above, the combination of definiteness and specificity contributes to conveying unique meanings with each binary feature set. Even though the same *the* or the same *a* is used coincidently in discourse (for example, *The apple is mine!* vs. *The apple is a fruit* or *I bought a book this evening* vs. *Pass me a book*), they do not guarantee the identity of the two referents in terms of the inherent property such as specificity or definiteness; for

instance, [+def, +spec] (26a) and [+def, -spec] (26b) are overtly realized as *the* whereas [-def, +spec] (26c) and [-def,-spec] (26d) are realized as *a* in English. However, Lyons (1999), regarding definiteness as a grammatical feature in English, points out that in some languages definiteness "can be described in terms of identifiability or inclusiveness. These uses represent 'semantic definiteness,' but this is not what articles encode" (p. 159). Agreeing on the relations between definiteness and hearer knowledge argued by Kempson (1975), Heim (1988), and Birner and Ward (1994), I assume that the spelling-out the feature [+Def] as *the* in English is a pragmatic presupposition; therefore, the phonetic realization of definiteness lies in parametric variation across languages. I will return this issue of definiteness and hearer knowledge in relation to referentiality in Chapter 2 with Korean bare nominal structures.

Following Fodor and Sag (1982), Ionin et al. (2003, 2004) present a lucid explanation about [+Def] and [+Spec] through the interaction of a speaker and a hearer:

> Definiteness and Specificity: informal definitions
>
> If a Determiner Phrase (DP) of the form [D NP] is...
>
> a) [+definite], then the speaker and hearer presuppose the existence of a unique individual in the set denoted by the NP
>
> b) [+specific], then the speaker intends to refer to a unique individual in the set denoted by the NP, and considers this individual to possess some noteworthy property.
>
> (Ionin et al., 2004)
>
> A specific indefinite is used if the speaker intends to refer to a unique individual x, where x is in the restrictor set denoted by the NP.
>
> (Ionin et al., 2003, p246).

Briefly, they point out both speaker and hearer knowledge is reflected on definiteness, yet specificity is realized by the speaker only.

In relation to the issue of referentiality, Longobardi (1994) provides an influential syntactic phenomenon of a variety of bare nominals relative to (overt/covert) movement cross-linguistically. Longobardi's (1994) discussion of N-to-D raising in determinerless nominals describes a situation in which we might encounter the crucial questions: how can this phenomenon be realized in Korean, a language without articles?; and how can the covert movement be explained in that language? Baptista (2007) assumes that determinerless noun structures are projected as full DPs in her study of Cape Verdean Creole nominals, and she analyzes bare NP as DP with "empty determiners" due to their argumenthood status. Similarly, I propose that the referential feature in a bare noun triggers N to move to D at LF in Korean, which follows Longobardi (1994) and Baptista (2003, 2007).[17]

In Chapter 1, I have discussed some theoretical issues substantially associated with the DP-Hypothesis such as N-to-D raising, the Nominal Mapping Hypothesis, feature-checking in the Minimalist Program, and the theta-criterion as a preliminary to my work. Hypothesizing that the DP layer is projected in Korean, I will support the argument, as strong evidence of the existence of UG and parameters, that the main function of D is associated with referentiality.

The organization of the dissertation is as follows. Chapter 2 introduces Korean nominals. I will show that Korean nominals, subcategorized as mass nouns, are headed by D based on the interpretation of bare nominals and the properties of demonstratives. This issue of demonstratives in Chapter 2 challenges the traditionally held belief that demonstratives are subsumed as a category of adjectives in Korean; however, I will show that demonstratives rarely

[17] More examples are examined in which [+ref] is closely related to syntactic movement. See Putnam (2006) regarding "middle field scrambling" in *West Germanic.*

share the same characteristics with attributive and predicative adjectivals. In order to support my argument that they are characterized as one of the D elements, I will show that they behave identically with determiners in so-called DP languages. I will discuss the internal structures of Korean nominals with the projection of functional categories relative to scrambling in Korean as well.

Chapter 3 offers nominal structures and interpretations of Japanese and Chinese that have been traditionally categorized as so called NP languages, including typologically different languages such as English, Italian, Cape Verdean Creole and more. Definite/indefinite, specific/non-specific, generic/existential and referential/non-referential readings are examined in relation to the DP projection of a variety of languages. By adopting Longobardi's (1994), Guéron's (2006), and Baptista's (2003, 2007) null D-Hypothesis, I will argue against NP projection or one NP layer with the recursion of N′ for articleless languages in Fukui (1995) and Chierchia (1998).

Chapter 4 discusses case-marking, case particles, topicalization and possession constructions in terms of the locus of referentiality in multiple-DP layers. An important syntactic aspect of referential expressions I will revisit in this chapter is topicalization in Korean, which is realized not only syntactically (i.e., sentence-initially) but also morphologically with case particles. Observing the fact that a Korean-peculiar topic phrase (i.e., TopP) is inserted in the extraordinary nominal position, which is a non-argument position governing TP, I will focus on the fact that [+ref] feature-checking in the non-argument nominal projection is a legitimate process, and, therefore, argumenthood in Korean is licensed in Spec TopP. I will further argue that, in Korean, nominative case is checked by T as it is in English within the framework of the Minimalist Program. This section also discusses syntactic categories of determiner-like elements

between D and N, which do not necessarily indicate overt determiners. I will investigate number marking, Number Phrase (NumP) and Quantifier Phrase (QP) in Korean in comparison with those categories in Cape Verdean Creole, Chinese, Japanese, and English. I will show that these systems compensate for the lack of overt articles and the restricted use of countability (plurality). Therefore, different syntactic behaviors of (multiple) internal positions within argument DPs are in charge of encoding each piece of information; for instance, a set of a classifier phrase and a pre- or post-nominal, (i.e., either [N + QP] or [QP + N]) and their grammatical roles are closely related to various (in)definite interpretations. For this reason, it is not possible to draw a clear-cut boundary of grammatical (in)definiteness in noun phrases solely in relation to overt determiners such as definite or indefinite articles.

Chapter 5 concludes the dissertation.

CHAPTER 2

DEMONSTRATIVES

2.1 Overview

This chapter discusses Korean nominal phrases in the view of the DP framework in relation to demonstratives. Following the idea that demonstratives are the overt realization of D elements that inherently possess [+def], this chapter proposes that either the lexically-overt DP (i.e., visible at PF) or covert DP is determined by parametric variations across languages.

In this chapter, the characteristics of Korean demonstratives and their positions will be discussed in relation to definiteness and definite articles in other languages such as English, Spanish, Japanese and Cape Verdean Creole. In order to compare the definite article and demonstratives in English with Korean counterparts, most of my English examples are taken from Lyons (1999) and Baptista (2007).

Korean is well-known as a language that lacks overt marking of definiteness by the definite article; however, definiteness can be expressed either with bare nouns or with demonstratives. The definite article bears both identifiability and inclusiveness while demonstratives, possessing identifiability, lack inclusiveness. In regard to inclusiveness, Lyons (1999) states that "the reference is to the totality of the objects or mass in the context which satisfy the description. . . . identifiability is what links demonstratives with the definite article" (p. 11).[1] His remark implies that demonstratives are not concerned about a matter of inclusiveness which is encoded by the definite article:

(1) a. Pass me **the** book

b. Pass me **that** book (adapted from Lyons, 1999, pp. 17-8)

The book in (1a) implies that there must be one book, and the book denotes the totality of the objects in the contexts that the speaker has in mind; on the other hand, *that book* in (1b) suggests the possibility that there are more books than one, and the speaker might accompany the statement with a gesture to point out which book she/he has in mind.

> Likewise, demonstratives have the function of "pointing out," equivalent to *deixis*; Deixis is the property of certain expressions and categories (including tense and grammatical person) of relating things talked about to the spatio-temporal context, and in particular to contextual distinctions like that between the moment or place of utterance and other moments or places, or that between the speaker, the hearer, and others. Demonstratives like *this* and *that* are deictic because they locate the entity referred to relative to some reference point in the extralinguistic context. (Lyons, 1999, p. 18)

In terms of deixis in English; *this* and *that* are categorized as *proximal* and *distal* demonstratives respectively. The following examples give information about the referents associated with demonstratives in relation to distance:

(2) a. Show me **that (?this)** letter you have in your pocket.

b. Tell her to bring **that (?this)** drill she has.

c. **this** article = i) 'the article which I am reading'

ii) 'the article which you and I are discussing'

iii) 'the article which you, I and they are interested in'

(Lyons, 1999, p. 18)

[1] See Chapter 1 for the definition of identifiability.

The example (2a) shows that *the letter* is closely related to the hearer, and *the drill* in (2b) is associated with the third person; neither (2a) nor (2b) refers to the item that is associated with the speaker. On the contrary, (2c) is associated with "first person" only; the diverse possibilities with *the article* above show that *this* refers to something that is close to the speaker or "a set of individuals which includes the speaker."

As is previously shown in (1a) and (1b), inclusiveness is rather a characteristic of the definite article, and deixis is the property of demonstratives; however, Lyons points out that demonstratives can also be neutral with respect to distance:

(3) a. She prefers her biscuits to **those** I make.

b. I want a coat like **that** described in the book.

Those and *that* in (3) refers to *the (specific) biscuits* and *the (specific) coat* respectively; for this reason, *that* and *those* are assumed to possess neutrality with respect to distance like *the*, which leads to the further idea that *the* and *that/those* may share the feature [-Prox] in English.[2]

According to Lyons (1999), a referent that can "be inferable on the basis of knowledge of the world" is expressed by the definite article, while a referent expressed by a demonstrative, playing the role of "pointing out," is concerned with immediate accessibility to the hearer. See the following examples:

(4) a. I got into the car and turned on **the engine**.

b. *I got into the car and turned on **this/that engine**.

The ill-formed sentence with demonstrative(s) in (4b) is explained by the fact that cars are known to have engines, which is inferable to everybody as knowledge of the world. Therefore, by indicating the referent, *this/that engine*, the speaker leads the hearer to pay attention to a

[2] Lyons provides Egyptian Arabic demonstratives as examples denoting no deictic contrast such as *da* ("this" or "that"); vice versa, some other languages exhibit deictic distinctions with definite articles. Confining to distance,

specific car, which is irrelevant in a context such as (4b) because the hearer is already aware of the presupposition.[3]

In 2.1, I have introduced various interpretations and usage of demonstratives in English sentences from Lyons (1999). In 2.2, following Lyons (1999), I argue that demonstratives in Korean also inherently bear definiteness and referentiality. Demonstratives, visible at PF, are lexically-filled D elements for indicating a referent previously mentioned in the discourse context. In comparison with English and Cape Verdean Creole, 2.3 shows that demonstratives in Korean can also be neutral in terms of distance, like those in English and Cape Verdean Creole. 2.4 introduces functional categories, such as TP and DP, and their cross-linguistic characteristics. Based on 2.4., I argue that demonstratives belong to a functional category, instead of being adjectives. In addition, in 2.6, I will show that they manifestly trigger DP to be projected for the checking domain of [+ref] as a piece of evidence for the universal structure for nominals across languages.

2.2. Demonstratives in Korean

I propose that, unlike English, Korean demonstratives have both the properties of the definite article and demonstratives such as inclusiveness and identifiability; in other words, the roles of those two determiners are combined in demonstratives, which are assumed to compensate for the role of the definite article in so called DP languages. The following example, which repeats Lyons's example in (1), illustrates that Korean translations do not exhibit the distinction between inclusiveness and identifiability syntactically:

(5) a. Pass me **the** book = **ku** chayk cwue

however, I will discuss the property of Korean demonstratives with respect to deictic expressions, similar to English.

[3] Hawkins (1978) explains this characteristic of demonstratives with "matching constraint," compared with the definite article, which directs the hearer to match the entity which is visible and identifiable to the hearer based on previous discourse.

that book receive

b. Pass me **that** book = **ku** chayk cwue

that book receive

Ku (*ku chayk*: the book) in (5a) may refer to the totality of the books in the context, which implies the situation that the speaker and the hearer know that there must be one book; on the other hand, *ku* (*ku chayk*: that book) in (5b) suggests the possibility in the context that there are more books than one, and the speaker might point out (accompanying a gesture, probably) which book she/he has in mind as shown in English example (1b). Here, one important fact I point out is that the Korean demonstrative *ku* has a function of denoting "totality" that is compatible with the definite article in English as shown in (5a), regardless of its main function of deixsis; therefore, the Korean demonstrative *ku* has the fusion of the dual functions of *the* and *that* in English.

The table below shows the comparison between English and Korean in terms of the overt marking of (in)definiteness, which is based on Gundel, Hedberg, and Zacharski's (1993) *Givenness Hierarchy* which presents the degree to which a referent noun is presumed to be known to the hearer[4]:

(6) Demonstratives and their meanings

[4] According to Gundel et al. (1993), *Activated* and *Familiar* are properties of demonstratives based on *Cognitive Status*; however, in this study, I combine the two original cells into one cell, *deictic/matching*, and add *inferable/inclusive* in the next cell for the definite article in order to clarify the semantic meanings.

morphological marking	in focus	deictic/ matching	totality	inferable/inclusive/uniquely identifiable	indefinite
English	it	this/that	the	the	a/an
Korean	kukes	i/ku/ceo	ku	--	--

As shown in table (6) above, Korean does not have articles. In addition, Korean grammar does not list the term *determiners*; instead, *pre-nouns* or *unconjugated adjectives* indicate equivalent elements of determiners as in English such as *this* and *that.* Therefore, demonstratives, possessive pronouns, and quantifiers are the plausible candidates for the category of D.[5]

In general, demonstratives make a twofold distinction between *pronouns* and *adjectives* that play roles as nouns and modifiers respectively. English demonstratives, *this* and *that*, possess dual functions as (pro)nouns and adjectives, namely *demonstrative pronouns* and *demonstrative adjectives*:

(7) a. *This* book is red. *That* book is yellow. (a demonstrative adjective)

b. *This* is mine. *That* is yours. (a demonstrative pronoun)

However, in Korean, those two functions illustrated in (7a) and (7b) are not distinguished because Korean does not possess a category of *demonstrative pronouns* in a strict sense:

(8) a. **i** chayk-un ppalkansayk-ita. **ku** chayk-un noransayk-ita.

This book-TOP red-DEC that book-TOP yellow-DEC

'This book is red' 'That book is yellow' (a demonstrative adjective)

b. **i**-kes-un nay kes-ita. **ku**-kes-un ney kes-ita.

[5] However, I will discuss possessives and quantifiers in Chapter 4 and, in this chapter, demonstratives are the main focus.

this-thing-TOP my thing-DEC that-thing-TOP your thing-DEC

'This is mine' 'That is yours.' (a demonstrative determiner)

In Korean, a demonstrative cannot occur alone, which is different from the case of English counterparts illustrated in (8b); as shown in (8a,b), the demonstrative *i* and *ku* have to co-occur with a noun they modify (i.e., (8a *this/that* + *book*) or (8b *this/that* + *thing*). Therefore, the equivalents of English demonstrative pronouns are always preceded by either common nouns such as *chayk* (book) in (8a) or by *dependent nouns*, such as *kes* (which means a *thing* and is used to refer to inanimate referents) in (8b), which is the Korean-peculiar phenomenon.[6]

With respect to demonstrative determiners in Korean, refer to the following examples in (9):

(9) a. ku **kes**-ul nwu-ka mek-ess-ni?

that thing-ACC who-NOM eat-PST-Q? 'Who ate that?'

b. ku **il**-ul nwu-ka hay-ss-ni?

that thing-ACC who-NOM do-PST-Q? 'Who did that?'

The dependent noun *kes* in (9a) is used when the status of the referent is simple or small while *il* in (9b) denotes the referent is rather abstract or complicated; however, both dependant nouns are translated as the demonstrative pronoun, *that*, in English. Therefore, I assert that Korean does not possess *demonstrative pronouns,* but it does possess *demonstrative determiners*.

In 2.1, I introduced English demonstratives in terms of deixis, namely, *this* as proximal and *that* as distal. Regarding deixis, an interesting fact to note in Korean demonstratives is that Korean has three types of demonstrative determiners. Korean possesses another distal

[6] In Korean, there are several dependant nouns which cannot be used alone; for instance, *kes* (thing), *i* (person), and *ttaymun* (reason) are examples of *dependent nouns* that are always preceded by other modifiers such as a demonstrative determiner, a clause or another preceding noun. See also table in (10). Sohn (1994, pp. 204-5) names them as *defective nouns*. Regarding these types of nouns, see Sohn (1994) for more detail.

demonstrative indicating distance away from both the speaker and the hearer (i.e., *ce*): the table below in (10) illustrate that *i*, *ku*, and *ce* are used as bound morphemes:

(10)[7] Deixis in Korean

	Near Speaker	Near Hearer	Away from both S & H
determiners	**i**	**ku**	**ce**
person(honorific)	**i**-pwun	**ku**-pwun	**ce**-pwun
thing	**i**-kes	**ku**-kes	**ce**-kes
place	**i**-kos	**ku**-kos	**ce**-kos
time	**i**-ttay	**ku**-ttay	**ce**-ttay

Similar to *this* in English, *i* is used for a referent which is close to the speaker. *Ku* is for a referent that is close to the hearer but away from the speaker, which is similar to *that* in English. When a referent is away from both discourse participants, *ce* is used; however, English does not include the equivalent of *ce*, meaning *that over there*, within the system while Japanese does, as (11) shows:

(11) Morphmes of demonstratives in Korean and Japanese I

distance	Near Speaker	Near Hearer	Away from both S & H
Korean	i-	ku-	ce-
Japanese	ko-	so-	a-

Based on the table in (11), I provide a morphological comparison between Japanese and Korean demonstratives in the following example (12), adapted from Chung's (2001) lists of the parallel

[7] Influenced by deixis, Korean has triple *demonstrative locative nouns* such as *ye-ki* (here), *ke-ki* (there) and *ce-ki*

morphological structure between *wh*-expression and demonstratives in English, Japanese, and Korean:

(12)[8] Morphmes of demonstratives in Korean and Japanese II

Languages (this/that/that over there)	Japanese	Korean
person (honorific)	ko-re	i-pwun
	so-re	ku-pwun
	a-re	ce-pwun
thing	ko-no	i-kes
	so-no	ku-kes
	a-no	ce-kes
place	ko-ko	i-kos
	so-ko	ku-kos
	a-ko	ce-kos

Table (12) shows that Japanese also possesses a distal demonstrative indicating distance away from both the speaker and the hearer, i.e. *ano*, whose counterpart is *ce* (that over there) in Korean; *ko*- (this), *so*- (that), and *a*- (that over there) in Japanese are used as bound morphemes as Korean *i*, *ku*, and *ce.*

(yonder), which are equivalents of place determiners such as *i-kos*, *ku-kos* and *ce-kos* in table (10).

[8] Chung (2001) states that *wh*-expression in both languages is "a paradigmatic relation with demonstratives,"embracing Tsai (1994) who discusses English *wh*-expression, which is analogous to that of Japanese/Korean:

a. English: who, what, when, where, which, etc..
b. Japanese: *dare* 'who', *doko* 'where', *dono* N 'which N', *doshite* 'how', *nani* 'what', *naze* 'why'
c. Korean: *eti* 'where', *encey* 'when', *ettehkey* 'how', *enu/etten* N 'which N', *elma* 'how much' (Chung,

Assuming Japanese demonstratives behave like Korean ones as shown in this section, I revisit Fukui's (1995) analysis for Japanese demonstratives. Fukui (1986, 1995) argues that Japanese demonstratives lack the property of determiners in article-languages, for example, *the, a, le, un*, and etc.; therefore, they cannot be projected as a D head in Japanese (Fukui, 1986, 1995; Tsujimura, 1996). As opposed to English, which does not allow the co-occurrence of determiners such as **John's this/that/the book*, Japanese (and Korean) demonstratives behave like English modifiers (attributive adjectives) such as *john-no kono/sono/ano hon* (John's this/that/that over there book). Based on these Japanese data which behave in a different way from English, Fukui (1995) proposes that demonstratives in Japanese are not instances of determiners but a subtype of adjectives; moreover, Japanese nominals are a projection of recursive N′ where there is no Spec position in Japanese, as shown in (13):

(13) john-no ko-no hon lit. "John's this book"

[N′ john-no [N′ ko-no [N′ [N hon]]]]

Fukui (1986, 1995, 2003), therefore, argues that Spec is the property of a Functional Category, and Japanese nominals cannot posses Spec as they are a Lexical Category due to their recursive N′ projection as shown in (13). However, I will argue against Fukui's idea that they are listed in a Lexical Category (i.e., adjectives, in 2.3 and 2.4). Based on empirical data within the framework of *the Minimalist Program* and *the DP-hypothesis*, I will provide a different perspective on Fukui's (1986, 1995, 2003) analysis of Japanese, and will show that a determiner such as demonstratives in both Korean and Japanese behave like those of article-languages, occupied in the D head, in the rest of Chapter 2.

2.3 Interpretations of Demonstratives

1996).

In previous sections, I have introduced various interpretations and usage of demonstratives in English and Korean. In 2.3, I will show that, besides the function of deixis, demonstratives in Korean can be also neutral in terms of distance, by providing examples that indicate a referent previously mentioned in the discourse context. Here, I follow Baptista's (2003, 2007) analysis of Cape Verdean Creole determiners such as *kel* (this) and *kes* (these). I will compare the similarity of *kel* (this) with Korean demonstratives in terms of the phenomena that demonstratives in both languages have multiple functions such as anaphoric determiners and definite markers.

According to Baptista (2003, 2007), demonstratives in Cape Verdean Creole such as *kel* (sg.) and *kes* (pl.) possess another role: a definite determiner, which can display synchronic/diachronic linguistic evidence that demonstratives trace back to definite articles. The following Cape Verdean sentences are all based on Baptista (2007), which are compared with Korean counterparts in this section.

When definiteness in CVC nominals appears, *kel* and *kes* are used as definite markers; therefore, they have dual functions of the definite article and a demonstrative: for instance, the combination of English *the* and one of *this/these/that/those*. *Kel* in the following example is used for its main function, the demonstrative:

(14) a. N ben faze **kel** kaza li ki pai di fidju da-m.

I came make this house here COMP father of son gave-me

'I came to build this house that my son's father gave me'

b. wuri atul-uy abeci-ka na-ekye cu-n **i** cip-ul ci-urye ow-ass-ta

we son-Gen father-Nom I-Loc give-Rel this hous-Acc build-Int come-Pst-Dec

The Korean counterpart provides the equivalent determiner, *i* (*i-cip* 'this house') as shown in (14b), which shows that *kel* and *i* perform as demonstratives in each language as distance is involved.

The examples below also provide the similarity of CVC and Korean in terms of the co-occurrence of a demonstrative and a numeral:

(15) a. N sta na poder di *kel un* fidju

I am in power of that one child

'I depend on that one child'

b. Na-nun *ku han* ai-lul uycihan-ta

I-Top that one child-Acc depend on-Dec

'I depend on that one child'

Kel un and *ku han* (that one) in (15a) and (15b) propose that they are not the clusters of the definite and indefinite articles. Therefore, *kel* and *ku* are clearly demonstratives.

Based on data (14) and (15), we have noticed that, without an earlier mention, not only *kel* but also *ku* obviously perform the role of demonstratives; on the contrary, they can also be anaphoric markers with an earlier mention. In CVC, in contrast to Korean, *kel* refers to a definite entity possessing familiarity and saliency, as *the* in English behaves. Baptista (2007) attributes this dual function of *kel/kes* to non-systematicity derived from language development by stating that "the systematic use will arise when the demonstrative eventually becomes morphologically distinct from the definite determiner avoiding the current functional overlap and ambiguity." The anaphoric function, however, is also found in Korean with demonstratives; both *kel* and *ku* are used for known entities in each language, but they do not denote deixis in (16):

(16) a. Mas ami, N ta trabadja azagua.

but me I TMA work rainy season

'As for me, I work during the rainy season' (CVC)

b. N ta munda *kel azagua* mi so.

I TMA weed DEF rainy season myself

'I weed during the rainy season' (CVC)

c. Na-nun cangmachul-ey ilhan-ta

I-Top rainy season-Time work-Dec

'As for me, I work during the rainy season' (Korean)

d. Na-nun *ku-ttay* honca cecho-han-ta

I-Top that-time alon weed-Dec

'I weed during the rainy season' (Korean)

The first occurrence of *azagua* 'the rainy season' is not marked by *kel* in CVC as shown in (16a); however, in (16b), *azagua* is preceded by *kel*, as a previously introduced known entity. *Kel azagua* in (16b) is interpreted as the definite article-marked English noun, *the rainy season*; likewise, the counterpart of Korean in (16d) can only be realized with the demonstrative, *ku* (that), due to the lack of the definite article in this language. Therefore, Korean and CVC share the identical function in terms of the usage of the demonstrative: both *ku* and *kes* are used for referring to the previously mentioned entity in discourse, instead of deixis. As previously noted in the table (10) in 2.2, in Korean, a structure of [the demonstrative *ku* + the dependant noun] for time *ttay* (*ku-ttay* 'that time') are preferred to the one with [*ku* + common nouns] in (16d) (i.e., *ku cangmachel* 'that rainy season'). Both (16a) *azagua* and (16c) *cangmachel* also illustrate a similar pattern between these languages that bare forms are preferred when they are introduced for the first time, instead of being modified by determiners such as *kel* and *ku*.

We have seen that the use of *kel* in CVC and *ku* in Korean are closely related to specificity or referentiality from (14-16).[9] It is also interesting to note that non-specific/non-referential referents are still modified by *kel* in CVC, whose equivalent uses of *ku* with those never occur in Korean. *Kel*-marked nominals in (17) illustrate that they are interpreted as non-specific:

(17) a. N ta abanta nha, tres ora madrugada, N po *kel midju* na pilon mi kun ha fidju.
I TMA get up woman three hour early morning I put DEF corn in pestle, me with my child
'I get up, woman, at three o'clock in the morning. I put the corn in the pestle, me and my child.'

b. Ta resebeba kel dinheru na'N kumpra *kel batata*, *kel midju* pa nu po katxupa,
TMA received the money for I buy the potatoes. the corn for we put katxupa
ta kunpra *kel fixon* pa nu po riba.
TMA buy the beans for we put on stove.
'We would receive the money so that I would buy the potatoes, the corn for the katxupa, we would buy the beans to cook on the stove.'

The first mentioned *corn*, *money*, *potatoes*, and *beans* are preceded by *kel*, which also carries the situation at the same time in (17a) and (17b) that *kel* is used when deixis is not involved. For this reason, *kel* is hard to be restricted to a definite or specific interpretation only.

[9] According to Baptista (2007), *specific* is synonymous with *referential* and *non-specific* with *non-referential*, which is different from my view; as previously noted in Chapter 1, I propose that *non-specific* can be *referential* as long as a discourse participant can imagine the entity in his/her mind such as *a dog* in *A dog is a faithful animal.* Therefore, in this dissertation, I define only [-def, -spec] as non-referential.

The following pair of examples in (18) shows more complex interpretations with *kel* because it can be specific/referential on one hand, as shown in (18a), and non-specific/non-referential on the other hand, as shown in (18b):

(18) a. Joana kre da *kel jugador* kel prezu-ma e ka kre rasebe-l d'el.

'Joana wants to give the prize to the player – but he doesn't want to receive it from her.'

b. Joana kre da *kel jugador* kel prezu-ma e ten ki spera te fin di jogu.

'Joana wants to give the prize to the player – but she must wait till the end.'

Kel jugador (the player) in (18) conveys two different readings; (18a) exhibits a specific/referential reading as *kel jugador* is already identified by the hearer, whereas the counterpart to that in (18b) shows a non-specific/non-referential reading as the speaker and the hearer do not yet know the particular player based on the context.[10] The same variability in interpretations does not occur in Korean with *ku* as *kel* in (17) and (18); therefore, Korean demonstratives are restricted to inherent definiteness, unlike those of CVC.

Given this aspect of multiple functions and language evolution, CVC determiners tend to mingle more various functions than Korean determiners can:

(19) Functions of demonstratives

	Languages		
	English	CVC	Korean
A. Familiarity/Saliency	**the**	**kel**	N/A
B. Anaphoric	**the**	**kel**	**ku**
C. Deixis	this/that	**kel**	i/**ku**/ce

[10] Baptista (2007) asserts that bare nouns with an empty category or a null determiner is favored in CVC if sufficient information is provided such as "the immediate context, prior discourse, or (in)animacy of the noun." The use of

With respect to (inherent) definiteness, in the table (19), English covers the functions A and B with *the*, and *ku* in Korean, which lack the function A, covers B and C; moreover, *kel* in CVC is rather broadly used to cover those functions.

Demonstratives display interpretive variability across languages, and their uniquely distinguished functions (either multiple or separated) captures parameters as a language-specific device relative to definiteness. Due to demonstratives' lack of "descriptive content," however, their interpretations, restricted to (grammatical) definiteness, result in the projection of a functional head D and, in turn, the selection of a lexical element as its complement (i.e., NP). Therefore, I argue that, in the same line with CVC and English determiners, Korean demonstratives, which possess the properties of determiners, both syntactically and semantically, share [+deictic] and [+ref] with CVC and English; therefore, Korean demonstratives are not adjectives. In 2.4, the semantic property of demonstratives will be explored in depth based on Abney (1987) and Fukui (2003).

2.4 Functional Categories

Ever since Aristotle, linguists have attempted to differentiate Functional Categories from Lexical Categories; Abney (1987), Fukui (1995), Chamtzky (2000) and many others distinguish Functional Categories from Lexical Categories in that Functional Categories lack the semantic value which is associated with Lexical Categories. Therefore, Functional Categories are defined as "words without meaning" as they lack "descriptive content." In other words, Functional Categories are known as "closed" classes because they are the group of words without "descriptive contents."

Abney (1987) provides the following properties of Functional Categories[11]:

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bare nouns and their interpretations across languages will be discussed in depth in Chapter 3.

[11] Abney (1987) suggests that "none of the following properties are *criterial* for classification as a functional

(20) 1. Functional elements constitute closed lexical classes.

2. Functional elements are generally phonologically and morphologically dependent. They are generally stressless, often clitics or affixes, and sometimes even phonologically null.

3. Functional elements permit only one complement, which is in general not an argument. The arguments are CP, PP, and (I claim) DP. Functional elements select IP, VP, NP.

4. Functional elements are usually inseparable from their complement.

5. Functional elements lack what I will call "descriptive content." Their semantic contribution is second-order, regulating or contributing to the interpretation of their complement. They mark grammatical or relational features, rather than picking out a class of objects. (pp. 43-4)

Presenting the important role of semantic features in dividing those two categories as shown in (20), Abney (1987) offers the following definition in (21) especially based on the distinctive characteristics between syntactic (or category) projection (i.e., *c-projection* and semantic projection (i.e., *s-projection*):

(21) β is an s-projection of α iff

a. β = α, or

b. β is a c-projection of an s-projection of α, or

c. β f-selects an s-projection of α

According to Abney (1987), the maximal *c-projection* of V is VP but the maximal *s-projection* of V is CP (p. 39). In the same analogy, the maximal *s-projection* of both I and C are CP like V because *s-projection* is "the path of nodes along which its descriptive content is 'passed along.'"

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element" (p. 43).

Therefore, although Functional Categories do not possess "descriptive content," they assist Lexical Categories in "passing along" the content of Lexical Categories.

Fukui (2003) embraces some ideas from Abney in order to make distinctions between Functional Categories and Lexical Categories in the following way (p. 393):

(22) (i) Lexical categories: the "conceptual" aspects of linguistic structure.

(ii) Functional categories: the "computational" aspects of linguistic structure.

Fukui (2003, p. 394) also emphasizes that Functional Categories are not involved with semantic interpretations, restricted to "grammatical" or "computational" aspects of language (23). Below illustrates definitions of those two categories in terms of features:

(23) (i) Lexical categories = {categorical features, theta-features (theta-roles/theta-grids), subcategorization features, phonological features, etc.}

(ii) Functional categories = {categorical features, agreement features, subcategorization features, phonological features, etc.}

As shown in (23), Lexical Categories are involved in theta-role assignment to other phrases, while Functional categories, without bearing theta-roles, are not. According to Fukui (2003), the projection of a Lexical Category is recursive and "continues to project" because the process of discharging its theta-feature is recursive.[12] On the other hand, the projection of a Functional Category is closed due to its "one-to-one" relation with agreement features based on Fukui (1986) and Kuroda (1988)[13]; therefore, further projection is impossible in Functional Category. Moreover, Fukui argues that only Functional Categories trigger movement in syntax: NP moves to Spec IP (TP) in passive and raising or a *wh*-phrase moves to Spec CP; therefore, Spec in a

[12] For this reason, Fukui (2003) proposes a different definition of *maximal projection* from the one in X′-theory as follows: "The maximal projection of X is a category X that does not project further in a given configuration" (p. 394)

[13] The projection is assumed to be closed when agreement occurs (Fukui, 1986).

Functional Category is “the landing site for movement.” However, Lexical Categories do not possess Spec because “they do not have agreement features to license Specs.” This proposal by Fukui (2003) strongly supports my belief that *DP-internal NP movement* in relation to demonstratives does occur in Korean syntax. I will further discuss this in 2.4 by means of an intermediate projection between DP and NP. Therefore, I will argue that demonstratives in Korean are not lexical elements but functional elements which trigger movement of DP-internal NP.

I adopt Abney’s idea which suggests crucial assumptions about Korean determiner systems with respect to Functional Categories. As previously discussed in table (10), Korean demonstratives *i, ku,* and *ce,* cannot occur alone; they are always followed by either dependant nouns or common nouns. The following examples in (24) repeat (8) and (9):

(24) a. **i** chayk-un ppalkansayk-ita. **ku** chayk-un noransayk-ita.

This book-TOP red-DEC that book-TOP yellow-DEC

‘This book is red’ ‘That book is yellow’ (a demonstrative adjective)

b. **i**-kes-un nay kes-ita. **ku**-kes-un ney kes-ita.

this-thing-TOP my thing-DEC that-thing-TOP your thing-DEC

‘This is mine’ ‘That is yours’ (a demonstrative determiner)

c. ku kes-ul nwu-ka mek-ess-ni?

that thing-ACC who-NOM eat-PST-Q? ‘Who ate that?’

d. ku il-ul nwu-ka hay-ss-ni?

that thing-ACC who-NOM do-PST-Q? ‘Who did that?’

These examples in (24) illustrate that Korean demonstratives only function as being *adjectival* not *pronominal* due to their property that they cannot separate from nouns. Therefore, (24b-d)

shows that *i* and *ku* in Korean are not used as pronouns, unlike their English counterparts *this* and *that*. This fact is also noted by Abney (1987) as the 4th property of Functional Categories such as "functional elements are usually inseparable from their complement."

Another syntactic evidence can be found from feature distinctions—adjectives (A) are [-F] while determiners (D) are [+F]. The following scheme shows that [±F] captures the dichotomy of Functional Categories and Lexical Categories:

(25)

	[-F]	[+F]
[-N]	V, Aux, P(?)[14]	I, C
[+N]	N, A, Q, Adv	D

(Abney, 1987, p. 43)

(25) shows functional elements such as I, C, and D contain a feature [+F] and select lexical elements as their complements such as NP, AP, and VP.[15] Lexical elements enter into the thematic relations such as theta-role assignment and adjunct licensing, which is different from functional elements that are not associated with the thematic relations. This is how Abney derives the two distinctive features [+/- F]. A functional element is [+F]; however, a lexical element and its complement enter into thematic relations with [-F]. Returning to the controversial issue of categorizing Korean demonstratives as a subtype of adjectives, demonstratives' lack of "descriptive content" makes them restrictively reside in a Functional Category. In addition, as the Korean examples in (24) and the 4th property of Functional Categories from Abney explain—"functional elements are usually inseparable from their complement," Korean demonstratives are elements of Functional Categories because they are inseparable with their complements (i.e., either dependant nouns or common nouns which are lexical elements). Attributive adjectives

[14] According to Abney (1987), the question-marked P means that P stands on both sides of functional and thematic elements.

[15] I use the term *thematic elements* in Abney (1987) as a synonym of *lexical elements* in this study. *F-selection* is "the syntactic relation between a functional element and its complement" (p. 39).

with [-F], describing nominals' physical and emotional states, serve to convey meanings to them while determiners as D elements with [+F] are not related to "descriptive content." Korean demonstratives are both syntactically and semantically distinct from adjectives; therefore, they may be adjectival but are not adjectives.

In 2.4, I have argued that demonstratives are D elements following Abney (1987). I claim that demonstratives "pass along" N's descriptive content but specify N with [+deictic]; the maximal *s-projection* of N is DP headed by a determiner as a D head, which is analogous to the verbal domain of the maximal *s-projection*—Tense in TP specifies VP headed by a V head. This syntactic parallelism also shows that determiners are Functional Categories not Lexical Categories.

2.5 Demonstratives as Elements of a Functional Category

Traditional Korean grammar has specified *i* (this), *ku* (ku), and *ce* (that over there) as adjectives due to their syntactic behavior of modifying nouns, which is similar to attributive adjectives in English. As mentioned earlier, in Korean, a definite/indefinite article does not exist in syntax, and those three demonstrative determiners render definiteness to a noun that is modified by one of them, in a similar way as attributive adjectives in English do. Therefore, it seems plausible to have treated them as so called adjectives or *demonstrative adjectives* in Korean grammar. However, in this chapter, I argue against the idea that they are listed in a Lexical Category (i.e., adjectives), by showing that they are D elements in Korean.

Adjectives are distinguished into two types depending on how they associate with nouns. An adjective one that precedes a noun, as a modifier, is *an attributive adjective*, and the other that follows a noun they describe is *a predicative adjective*. Korean also has these two types of adjectives; however, the distribution is different from that in English as illustrated in (26):

(26) a. **hen** cha-lul pal-ko **say** cha-lul sa-ss-ta

old car-ACC sell-CONJ new car-ACC buy-PST-DEC

'I sold an old car and bought a new car.'

b. nay cha-nun **hen** kes-iko ney cha-nun **say** kes-ita

my car-TOP old thing-CONJ your car-TOP new thing-DEC

'My car is old, but yours is new.'

In Korean, **hen** (old) and **say** (new) are only used as attributive adjectives as shown in (26a-b); *hen* and *say* modify *cha* (car) and the dependant noun *kes* (thing) in (26a) and (26b) respectively. On the contrary, the English translation clearly shows the dual distinctive distributions of *old* and *new*, namely *attributive* (26a) and *predicative* adjectives (26b). For this reason, in traditional Korean grammar, determiners, *i*, *ku*, and *ce*, have been categorized as adjectives due to the same syntactic behavior as *hen* (old) and *say* (new) whose functions are restricted to preceding and modifying nouns, as previously shown. Attributive adjectives *hen* (old) and *say* (new) possess "descriptive content" with [-F]; on the contrary, Korean demonstratives, *i*, *ku*, and *c*, do not describe emotional or physical status. Therefore, they cannot be a subtype of a lexical category due to [+F] as discussed in 2.4. In terms of the property of determiners, I argue that *hen* (old) and *say* (new) behave like demonstratives; however, they are manifestly adjectives. On the contrary, *i*, *ku*, and *ce* are adjectival but are not adjectives. For this ambiguous nature between Lexical Categories and Functional Categories that exist in Korean, Abney (1987) already notes that "none of the following properties are *criterial* for classification as a functional element" (p. 43) as shown in the five properties Abney (1987) proposes in 2.4. However, once demonstratives are analyzed as D elements, the categorial ambiguity does not remain as a controversial issue i.e. whether they are determiners or adjectives. Even though Abney (1987) opens the possibilities of

compatibility between those two categories, I will show in 2.5 and 2.6 that demonstratives in Korean are determiners whose behaviors are closely related to the property of a Functional Category. My analysis, following the DP-Hypothesis, therefore, attempts to show that demonstratives are D elements, and Korean (and Japanese) nominals are projected as DP, contrary to Fukui (1986, 1995, 2003) as discussed later this section.

With respect to first/second language acquisition theory, much research has reported that Functional Categories are acquired at a later stage of children's first language acquisition (Radford, 1990). According to UG-based maturational theory, a lexical category such as N and V is acquired at an earlier stage of L1 acquisition than Functional Categories such as D and I, because the former is assumed to have more concrete meanings so that it is more identifiable by children than the latter (Radford, 1990). On the contrary, O'Grady (1993, 1997) makes a strong argument that a given category of words in one language is different from the same category of another language. He provides data showing the later acquisition of both demonstratives and other determiner-like elements in Korean and states that their late emergence is not a matter of functional categories; they are lexical categories whose counterparts of English are also acquired at a later stage of L1 acquisition. Therefore, O'Grady (1993) rejects Radford's (1990) UG-based theory with respect to the later acquisition of functional categories, and argues that the relatively late emergence of both English and Korean demonstratives is not caused by the fact that they are functional categories but by the fact that both determiner-like elements possess relatively abstract meanings which, as a result, make children need more time to acquire them. Yamashita (1998) also attributes the later emergence of the determiner-like elements in Japanese children's L1 acquisition to semantics (i.e., abstract semantics), replicating O'Grady's Korean data (1997) and following Fukui (1986)'s proposal that Japanese determiners are adjectives. However, I disagree

with O'Grady's (1993, 1997) proposal that determiners are adjectives. His idea is closely related to Fukui's (1995) analysis of Japanese nominals as projections of recursive N´ where there is no Spec position. The following examples in (27) repeat (13) in 2.2:

(27) a. **John's this/that/the book*

b. john-no ko-no hon lit. "John's this book"

[N´ john-no [N´ ko-no [N´ [N hon]]]]

Based on the data illustrating the possible co-occurrence of Japanese determiners such as (27a,b), Fukui (1986, 1995, 2003) proposes that Japanese demonstratives cannot be projected as D head because they behave like English prenominal modifiers or attributive adjectives; instead, they are a subtype of adjectives, and Japanese nominals are projections of recursive N´ where there is no Spec position as shown in (27b). However, I argue against the idea that they are listed in a Lexical Category (i.e., adjectives). As shown in 2.4, demonstratives do not possess "descriptive content"; in addition, even though 2.3 has shown that demonstratives perform as multi-functional markers such as deictic, anaphoric, and definite markers, these are limited to grammatical aspects without contributing to conveying meanings (i.e., "descriptive content" such as physical or emotional status) to nouns. Due to the lack of semantic features, therefore, they are [+F]. In terms of syntax, Fukui (1995) argues that a demonstrative does not close off a nominal phrase in Japanese because more than one prenominal modifiers can appear to the left of it as shown in the following examples:

(28) a. John-no kono hon

John-GEN this book

'(lit.) John's this book'

b. ookina John-no ano kuruma

big John-GEN that car

'(lit.) big John's that car'

In (28), we observe that the nouns, *hon* and *kuruma*, appear in the rightmost position in Japanese with prenominal modifiers. As opposed to Japanese, Romanian nominals have postnominal modifiers. However, N's left- or right-peripheral position does not guarantee the recursive N´ node; see the following Romanian example Giusti (1997) provides in relation to N-to-D raising:

(29) băiat-ul acesta (frumos)

boy-the this nice

'this nice boy'

This Romanian nominal structure in (29) shows that the demonstrative *acesta* and the adjective *frumos* appear to the right of N *bäiat*. If Fukui (1995) is applied to Romanian in (29), all the postnominal elements may simply be projected as N´ nodes, only with their head-directions opposite to Japanese: [[[boy-the N] this N´] nice N´]. According to Giusti (1997), however, N *bäiat* adjoins to the definite article *ul* which is base-generated in D; only the demonstrative, *acesta*, based-generated below DP, moves to Spec DP at LF to check referential features, and this LF movement is obligatory in Romanian. Embracing Giusti's (1997) proposal, I suggest that DP-internal NP movement does occur in Japanese and Korean, and a demonstrative is base-generated in a functional category below DP.[16] Recapitulating Fukui's recursive N´ structure based on Abney (1987) and Giusti (1997), I propose a new structure in (30b), a multi-layered DP:

(30) a. john-no ko-no hon (lit. "John's this book")

b. [DP [DP john-no] [D ko-no [NP [N hon]]]]

[16]I will investigate DP-internal NP movement in Korean in more details in 2.6 in the same line with Romanian and Spanish. Even though I take over Giusti's (1997) idea of DP-internal NP movement, I disagree with her proposal

The Japanese nominal phrase in (30) is projected as DP, headed by the demonstrative *ko-no* (this) denoting [+deictic] which should be checked off via Spec-Head relations in DP. I also propose that the landing site of the possessive *john-no* is Spec DP.[17]

Based on 2.4, I have shown that demonstratives in Japanese and Korean are functional elements and projected up to a DP level rather than N' level by examining both semantic and syntactic aspects; therefore, I argue against Fukui's (1986, 1995, 2003) proposal that demonstratives in Korean (and Japanese) are a subtype of a Lexical Category. In 2.6, pursuing the syntactic universality with respect to *DP-Analysis*, I will show cross-linguistic evidence from other languages such as Spanish and Romanian, and investigate syntactic aspects of demonstratives (i.e., DP-internal NP movement) within multi-layered DP in depth.

2.6 Demonstratives in DP: Comparative Study

Various theories have been proposed about the internal structure of DP, based on the properties of demonstratives and their positions relative to the definite article and the noun. For example, N-to-D raising and DP-internal NP movement have been examined cross-linguistically. In this section, my analysis, based on cross-linguistic universality, focuses on the position of demonstratives in Korean, a language which lacks the definite article. However, I argue that parametric variation exists in three ways: 1) the base-generated position of demonstratives, definite articles, and possessives are differ across languages; 2) the final landing site of those elements also exhibit cross-linguistic distinctions; 3) movement for feature-checking such as [+ref] and [+deictic] occurs either before Spell-Out or after Spell-Out, depending on the language.[18]

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that demonstratives are lexical elements. I will examine this issue in detail in 2.6 as well.

[17] In 2.6, I argue that possessives and demonstratives are base-generated in the intermediate XP (i.e., AgrP) between DP and NP, and raise to DP before Spell-Out in Korean.

[18] In terms of the cross-linguistic varieties relative to the internal structure of the noun phrase, Bernstein (2000)

As previously introduced in 2.5, Giusti (1993, 1997), the most popular cited works with respect to demonstratives and DP internal structures, propose that demonstratives are generated in Spec AgrP (a functional projection) which is projected below DP, and they raise to Spec DP universally. This proposal explains the phenomenon in Germanic and Romance languages that there is linear order in the internal structure of nominals relative to the definite article and demonstratives (and adjectives); the example (31) is Romanian:

(31) a. acest băiat frumos

this boy nice

'this nice boy'

b. băiat-ul (acesta) frumos

boy-the (this) nice

'this nice boy'

c. frumos-ul băiat

nice-the boy

'this nice boy'

d. băiat-ul acesta (frumos)

boy-the this (nice)

'this nice boy'

e. * frumos-ul acesta băiat

nice-the this boy

'this nice boy' (Romanian; Giusti, 1997)

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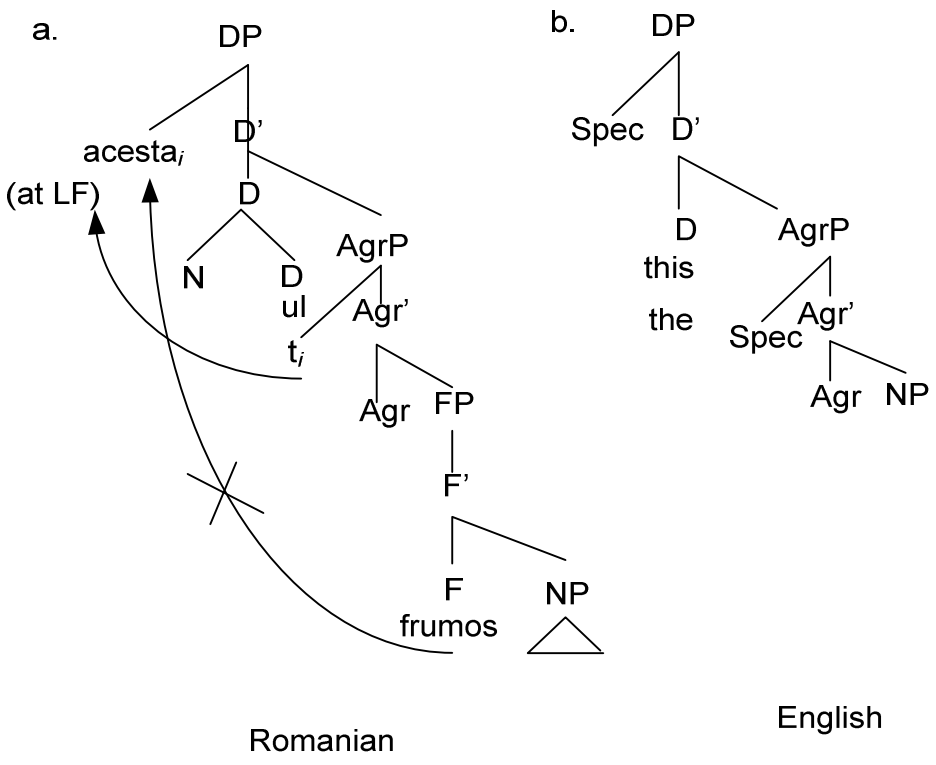
explains those various phenomena as "robust" or "weak" movement; for example, nouns in Spanish and Italian (robust) raise higher than nouns in French (weak).

According to Giusti (1997), a demonstrative is base-generated in Spec AgrP, which is a Functional Category below DP, and moves to Spec DP universally. As shown in (31b-d), merging of the article –*ul* with **A** *frumos* and **N** *băiat* trigger the encliticized elements such as băiat-*ul* and *frumos*-*ul* to move, by creating a new Spec position where the demonstrative can move at LF level. However, (31e) shows that AP movement across the demonstrative *acesta* is ruled out because Spec DP is the landing site for the demonstratives at LF; therefore, this movement is blocked by the demonstrative *acesta* because Spec DP cannot host two nodes (i.e., Adj *frumos* and Dem *acesta*). Based on this assumption, Giusti argues that demonstratives in Romanian, without having the same distribution with the definite article, are not intermediate heads; if they were, the Head Movement Constraint (HMC) would be violated. According to Giusti (1997), demonstratives are prenominal modifiers, base- generated in the extended NP, and they are, therefore, lexical elements like adjectives, not D elements.

The structure (31d) is given in (32a) in comparison with the English counterpart, (32b):

(32)



According to Giusti (1997) and Brugé (2002), the Romanian demonstrative, *acesta*, in (32a) moves up to Spec DP only at LF to check off its [+ref] and [+deictic] after Spell-out.[19] However, in the case of English as shown in (32b), both the demonstrative *this* and the definite article *the* are located in D, and no further movement is necessary.

As briefly noted with the English counterparts in (32b), there are more shortcomings in Giusti's (1997) generalizations, which cannot explain the impossible co-occurrence of the definite article with a demonstrative across languages as shown below:

(33) a. * this the book / * the this book (English)

b. * le ce livre-ci (French)

the this book-here

c. * el este libro (Spanish)

the this book

If Giusti (1997) is on the right track, there is no reason that (33a) *this the book* in English is ill-formed because *this* moves to Spec DP overtly, and *the* is base-generated in D with *book* in-situ in N; therefore, it could be grammatical. In the same line of reasoning, Giusti (1997) cannot account for (33 b,c) successfully. See the following example in (34) from Giusti (2000) which can be even argued in a similar fashion by Bernstein's (1997, 2000) head movement hypothesis:

(34) a. **acest** (frumos) băiat

b. băiat-ul **acesta** (frumos)

'this nice boy' (Romanian; Giusti, 2000)

Different from (34b), the demonstrative *acest*, which is the reduced form of *acesta*, in the highest position in (34a) can be explained by assuming that it moves to the D head because there is no

[19] Bhattacharya (1998) considers the intermediate head (i.e., a head in AgrP) as *an escape hatch* for N-to-D movement.

reason for D to remain empty in this case. This argument is also widely supported by the traditional assumption that demonstratives are D elements. For this reason, Bernstein (1997, 2000) argues that prenominal demonstratives and the definite article may occupy the same position, a D head (cf., *this* and *the*). In turn, Bernstein's (1997, 2000) proposal provides the solution to (33) examples that illustrate the impossible co-occurrence of the definite article with the demonstrative in English, French and Spanish. However, it faces another problem in the following example, the Greek DP:

(35) afto to vivlio

this the book (Alexiadou et al., 2007)

The Greek example in (35) shows that the two elements do not occupy in the same position, which is closely related to the phenomena in Korean and Japanese—the co-occurrence of the possessive with a demonstrative as discussed in the previous section (i.e., *john-no ko-no hon* and *john-uy ku chayk* "John's that book"). Therefore, I argue against Giusti's (1993, 1997) and Brugè's (2002) proposals that demonstratives are possible candidates for lexical elements possessing semantic values, and the final landing site for demonstratives (in relation to the impossible co-occurrence with the definite article as shown in (33)) is universally Spec DP; for example, in Romanian that allows the co-occurrence of both categories, as Giusti (1993, 1997) proposes, demonstratives are base-generated in Spec AgrP[20] and move to Spec DP overtly; however, the definite article is base-generated and remains in the D head, which shows the different distribution of the two categories in Romanian; in English, I suggest that once demonstratives move from Spec AgrP to the D head, they need not move to Spec DP further, because their deictic features can be checked *in-situ*, and superfluous movement violates *The*

[20] As Brugè (2002) suggests, both AgrP and FP can be possible candidates for an intermediate-level phrase between DP and NP. In this study, I use AgrP, following Giusti.

Economy Principle. Therefore, the final landing site for demonstratives need not be universally Spec DP; in addition, demonstratives' compatibility with other determiners (such as possessives and the definite article) or choice of their landing sites should be reconsidered in terms of parametric variation.

In support of Giusti (1997), Brugè (2000, 2002) proposes that parameters play crucial roles in both movement to Spec DP (or *in-situ* below DP) and the choice of position of demonstratives (i.e., head D, Spec DP, or lower than DP) depending on the strong/weak referential features; in other words, the strength of [+ref] can account for the various appearance of demonstratives (i.e., either the base-generated position in Spec DP before Spell-Out or Spec DP); however, Brugè (2000, 2002) postulates that the base-generated position of demonstratives is identical across languages, which is a Spec FP.

In Spanish, when the demonstrative appears pre-nominally, it is in a complementary distribution with the definite article, as in English. The following examples in (36) illustrate that they cannot appear together:

(36) a. *este el libro

the this book

b. *el este libro

this the book

Based on the observation, therefore, I propose that Spanish determiners, such as the definite article and the demonstrative, are base-generated in the same position (i.e., Spec FP), because they compete for the same position and, therefore, both examples (36a-b) are ill-formed.[21]

[21] The demonstrative of Spanish in FP projection is based on Brugè (2002). However, I propose Spec AgrP as the equivalent structure below DP in order to allow for universality between the nominal domain and the sentential domain, which possesses AgrSP and AgrOP, following Giusti (1993) who initially proposes the intermediate AgrP level below DP.

Although in Spanish, the co-occurrence of determiners is not allowed in overt syntax as in English, the following example in (37d) illustrates that, particularly, the co-occurrence of the definite article with the post-nominal demonstrative is obligatory:

(37) a. *este el libro this the book

b. *libro este book this

c. este libro this book

d. el libro este the book this (adapted from Brugè, 2002, p.18)

Brugè (2002) explains the insertion of the definite article in (37d) in terms of a *last resort* following Chomsky (1995c).[22]

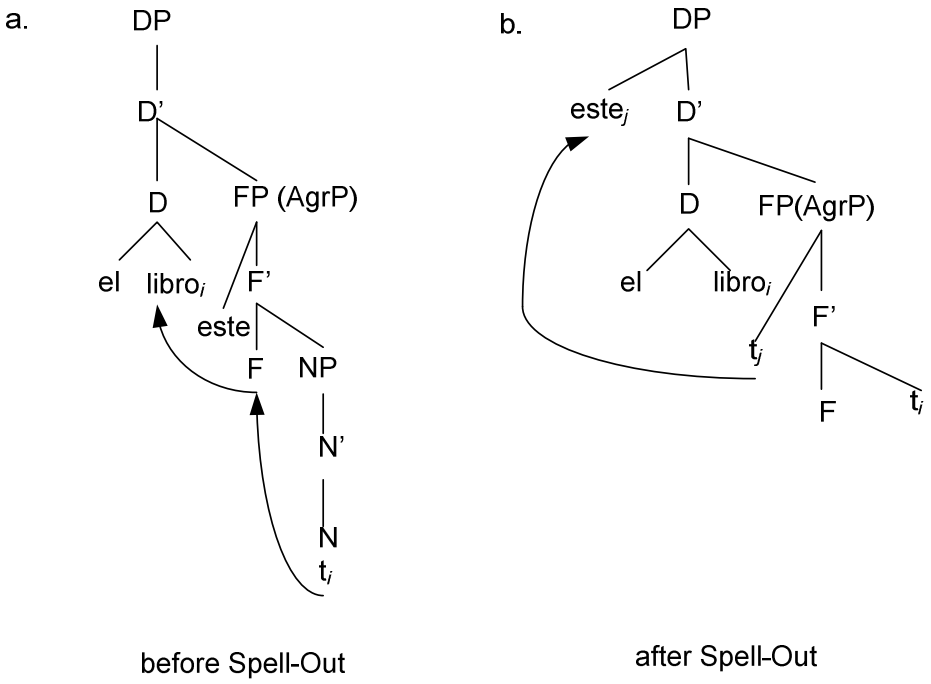
In addition, Brugè (2002) adopts the proposal by Dimitrova-Vulchanova and Giusti (1998) who explain that "a Functional Projection must be visible at all levels of representation: by (a) making the Spec visible and/or (b) making the head visible" (p.346) Embracing Dimitrova-Vulchanova and Giusti (1998) and Brugè (2002) who adopt *a last resort*, I additionally postulate that the occurrence of the post-nominal demonstrative *este* with the lexically filled DP projection in (37d) is assumed to be a language-specific phenomenon, exhibited particularly in Spanish, but not in English or in Korean. I also claim that the insertion of the definite article *el* with *libro este* in (37d) satisfies *the Economy Principle* as well because t*he Economy Principle* prohibits superfluous operations from being used unless they must apply to. Similarly, when the demonstrative *este* already modifies the noun *libro* as in, *este libro*,

[22] According to Chomsky (1995c), in the English sentence *Do you love me?*, for example, dummy *do*-support is used as a *last resort* because it is used only in order to satisfy the grammatical requirement, i.e., a strong interrogative COMP should be filled with *do* when there is no other choice; otherwise, this sentence crashes as the requirement is not fulfilled. Moreover, in English interrogatives, for example, *wh-movement* is obligatory in order to satisfy the grammatical requirement of filling COMP overtly; on the contrary, Korean and Japanese, as *wh-in-situ*-languages, do not need to fill COMP in overt syntax. Therefore, both syntactic behaviors, *wh-movement* and *wh-in-situ*, are determined by strong/weak features as parametric variation across languages. Likewise, in Spanish, the insertion of the definite article makes the DP projection "visible" at PF, determined by a strong feature, which is assumed to be the grammatical requirement that should be satisfied (Dimitrova-Vulchanova & Giusti, 1998).

which is overtly visible, and the use of the definite article *el* is superfluous; as a result, the co-occurrence of Spec DP and Head DP violates *The Economy Principle,* such as * *este el libro* in (37a).

Based on Brugè's syntactic behaviors of Spanish, including the overt N-to-D raising, I provide the successive formation of example (37d) in (38) below:

(38)



before Spell-Out

after Spell-Out

As shown in (37d), in Spanish, when the demonstrative appears post-nominally, the definite article should be in DP because this language requires that DP should be realized lexically in syntax. Spanish demonstratives can move to Spec DP optionally before Spell-Out such as (37c); however, the demonstrative must move to Spec DP obligatorily at LF after Spell-Out such as (37d) which is (38b), in order to check off the features such as [+Referential] and [+Deictic], following Longobardi (1994): "All D positions are universally generated with an abstract feature ±R (suggesting 'Referential'), which must be checked with respect to at least one of its values" (p. 659). Therefore, I argue that N-to-D raising in Spanish overtly occurs due to strong features

of N (before Spell-Out), by satisfying the Visibility Condition proposed by Dimitrova-Vulchanova and Giusti (1998) because the D head is overtly filled by *el*. On the other hand, because of weak features of the demonstrative *este*, it moves to Spec DP only at LF (after Spell-Out). To sum up, this derivation converges at both LF and PF: 1) [+ref] and [+deictic] in *este* are checked off at LF; 2) the D head is visible with *el* even at PF, as well as at LF (i.e. the DP projection should be visible after Spell-Out in Spanish as shown in (38d) and (38d)). Brugè (2002) elaborates more about the strategy that, by realizing D overtly, Spanish can avoid being interpreted existentially, besides the presence of the demonstrative and the intrinsic property of *libro* itself. Therefore, based on Longobardi (1994), Brugè further argues that the demonstratives in Spanish raise to Spec DP optionally before Spell-Out; however, they should raise to Spec DP obligatorily at LF.

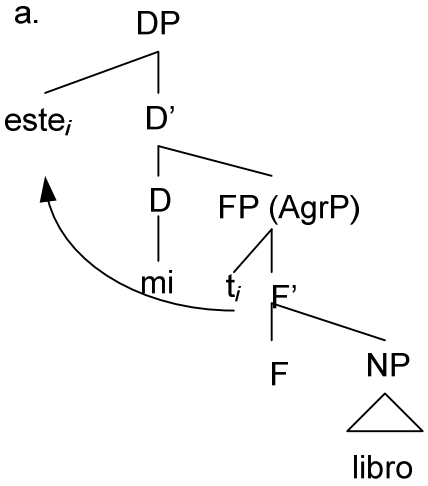
According to Brugè (2002), Spec DP is a derived position for the Spanish demonstrative to which it should move obligatorily at LF for [+ref] checking. In relation to the possessive in Spanish, Brugè (2002) explains that the head D is the position for the possessive; in other words, only the demonstrative is generated in Spec FP (AgrP) while the possessive is generated in the D head. With respect to D head for the possessive, see the following examples:

(39) a. * Este mi libro de sintaxis this my book on syntax

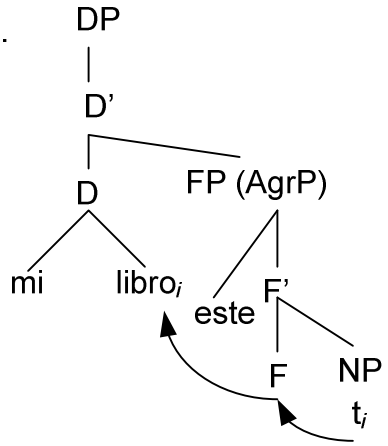
b. * Mi libro este de sintaxsis my book this on syntax

If the possessive is generated in the D head, as Brugè argues, I suggest that (40a, b) should be well-formed as shown in the following derivation in (40):

(40) a.



b.



The derivation in (40a) may crash at PF by violating the Visibility Condition because both Spec DP and Head DP are overtly filled. However, (40b) cannot be explained from the same point of view, either; *este* in (40a), which is base-generated in Spec FP, raises to Spec DP before Spell-Out via Spec-to-Spec; in the same way, *mi* in (40b), base-generated in D head, adjoins with *libro*, which raises form N to D via another head F (i.e., N-F-D successively) in (40b). In addition, avoiding the Minimality Violation, *este* in (40b) raises to Spec DP obligatorily to check off its [+ref] after Spell-Out at LF; as a result, this derivation should be grammatical in exactly the same way as previously attested in (38) and Giusti's (1997) analysis (ex) *băiat-ul acesta (frumos)*). Therefore, these flawless derivations in (40), which are not able to capture the ill-formedness in derivation with determiners, suggest that Brugè's (2002) explanation is not valid; therefore, Brugè's (2002) proposal that the possessive is generated in the D head in Spanish cannot be justified. For this reason, I argue against Brugè (2002) by proposing that both the demonstrative and the possessive in Spanish, base-generated in Spec FP, compete for the same position, and the complementary distribution of them leads to ungrammaticality in the derivation.[23] In Korean, demonstratives do not compete for the same position with the

[23] I will revisit and elaborate the relationship between the possessive and Spec NP (DP) in terms of theta-role assignment in Chapter 4.

possessives; in English, on the contrary, the analogous competition causes the co-occurrence of those two elements to be ungrammatical. Therefore, I argue that the internal structure relative to demonstratives is determined by the nature of competition among D elements rather depending on the strength of [+ref] features (although I do not exclude the function of definite features in demonstratives (such as [+ref] and [+deictic]) and their applicability to parametric variations in language).

Korean is not constrained by linear order among prenominal modifiers, in contrast to other languages we have seen, such as English, Spanish and Romanian, which exhibit rather strict order; however, Korean does not exhibit postnominal modifiers in syntax.[24] Similar to Korean, Bosnian does not display the definite article in syntax; however, it has both pre- and post- nominal modifiers as shown in (41):

(41) a. knjiga ova ovdje o sintaksi

book this here of syntax

b. ova knjiga ovdje o sintaksi (*ovdie)

this book here of syntax

c. ovaj/onaj lijep momak

this(Masc. Sing. Nom)/that(Masc. Sing. Nom) nice boy

d. ? lijep momak ovaj/onaj

nice boy this(Masc. Sing. Nom)/that(Masc. Sing. Nom)

(Bosnian; Brugè, 2002)

[24] I assume that head-directionality is not related to displaying modifiers either prenominally or postnominally; for instance, Spanish has both types of modifiers but is a head-initial language like English, which does not allow postnominal modifiers in a phrasal level—an exceptional case is relative clauses. Also, Bosnian has a very similar behavior to Spanish, but it does not exhibit the definite article in syntax.

According to Brugè (2002), demonstratives in a language without articles are assumed to move to Spec DP as other article-languages behave; moreover, demonstratives are base-generated in Spec FP which is "lower than all the functional projections containing APs." In fact, the Bosnian example (41d) shows that movement of Adj *lijep* is blocked by Dem *ovaj/onaj*, and Brugè's proposal seems to be applicable to even languages without the definite article. However, Korean, which also lacks the definite article, does not behave the same way as Bosnian.

Before examining the dissimilarity between Bosnian and Korean, more Korean examples will be explored with respect to the linear order within DP in comparison with Spanish and Romanian repeated here as (42) and (43):

(42) a. *este el libro this the book a′. ? i ku chayk

b. *libro este book this b′. *chayk i

c. este libro this book c′. i chayk

d. el libro este the book this d′. *ku chayk i

Although (42 a′) is not perfect, it is relatively more acceptable than (42 b′) and (42 d′) because Korean completely excludes postnominal modifiers. Both Spanish and Korean DPs in (42c) and (42 c′) are well-formed with the structure of [Dem-NP]. The following examples also illustrate Korean in comparison with Romanian:

(43) a. acest băiat frumos a′. *i sonyen chakhan

this boy nice

'this nice boy'

b. băiat-ul acesta frumos b′. *sonyen i chakhan

boy-the this nice

'this nice boy'

c. frumos-ul băiat c′. chakhan (ku) sonyen

nice-the boy

'this nice boy'

d.* frumos-ul acesta băiat d′. chakhan i sonyen

nice-the this boy

'this nice boy'

As with the Spanish examples in (42), the Romanian examples in (43) shows that Korean does not allow postnominal modifiers such as (43a´) and (43b´); however, demonstratives in Korean can be preceded by adjectives as shown in (43c´) and (43d´).[25] The Romanian demonstrative blocks movement of AP across it as (21d) shows, while the identical structure is grammatical in Korean. As long as modifiers appear prenominally, Korean DP is licit, less affected by linear order. Therefore, no strong evidence of Brugè's (2002) proposal can be found in Korean, which states that the demonstrative occupies the lowest Spec, FP, which is even lower than APs.[26]

Nevertheless, it is interesting to note that a linear order constraint cannot be completely excluded in Korean as shown in (44) below:

(44) a. *?* ku mina-uy chayk

that Mina-Gen book

b. mina-uy ku chayk

Mina-Gen that book

'that book of Mina's'

c. ppalkah-ko cakun mina-uy chayk

[25] As Korean lacks the definite article, I use *ku*, the demonstrative as the counterpart of Romanian *-ul*.

[26] As previously mentioned in Chapter 1, *ku nay chayk* lit. 'that my book' is acceptable according to my intuition, however, this is reported to be ill-formed in Jo (2000). However, I assume that in terms of the possibility of the prenominal modifiers in Korean, there is far less restriction in their choice of syntactic positions in relation to linear

red-Conj small Mina-Gen book

'lit. the red and small book of Mina's'

d. mina-uy ppalkah-ko cakun chayk

Mina-Gen red-Conj small book

'lit. the red and small book of Mina's'

The Korean examples illustrate that (44b) in which the demonstrative is adjacent to the N head is better than (44a). In contrast to the demonstrative, a cluster of the possessive and adjectives in (44c) and (44d) does not exhibit the same constraint as already discussed. Based on this phenomenon, I assume that the demonstrative's [+deictic] and [+ref] attract N's matching features, and they should not be blocked by barriers. This argument is plausible because, in the special situation that the speaker and the hearer are referring to the same entity, *Mina* in (44a), *Mina* can be marked by the demonstrative *ku mina* 'that Mina,' which is acceptable in Korean. This phenomenon, therefore, strongly supports Abney's DP-Hypothesis which entails that demonstratives are elements of a Functional Category because, without "descriptive content, Functional Elements are usually inseparable from their complement" (p. 43).

Although Giusti (1997, 2002), Brugè (2002), and Bernstein (1997, 2000) can hardly capture the generalized syntactic property of demonstratives, their attempts to argue for universality with principled explanations have strongly inspired my further research with Korean. In support of Giusti (1997, 2002), Brugè (2002), and Bernstein (1997, 2000), I finally discuss Korean demonstratives in terms of their positions within DP.

The Korean example in (45) below also suggests that Spec DP is not a universal landing site for demonstratives. Following Giusti (1993), I claim that demonstratives in Korean are also base-generated in AgrP, the intermediate projection between DP and NP; however, the generated

---

order of determiners than those in Romance languages (and English).

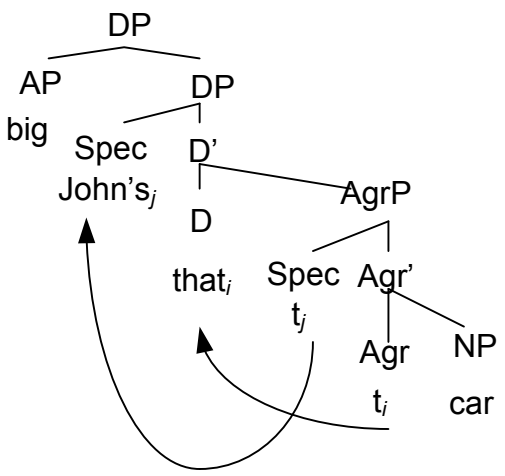
position is Head AgrP, not Spec AgrP, because demonstratives in Korean can co-occur with possessives. The following example in (45) illustrates that demonstratives and possessives occupy different positions:

(45) a. kun cha? kun, John-uy ku cha?

Big car big John-GEN that car (Korean)

'lit. John's that big car?'

b.



As discussed previously, the occurrence of AP in Korean is not constrained by other modifiers. Therefore, I assume AP *kun* 'big' is generated initially in (45b). Demonstratives in Korean are base-generated in the head Agr and then obligatorily move to the head D in overt syntax via head-to-head movement. Since this derivation does not violate HMC (the Head Movement Constraint), it does not violate *a locality condition*, either.[27] Due to the lack of the definite article in Korean, both 1) the [+deictic] feature-checking before Spell-Out and 2) the movement of demonstratives to D head at PF level (triggered by strong features) make definiteness visible prenominally in Korean syntax. On the other hand, a possessive in Korean is base-generated in

[27] Head movement cannot skip heads and can proceed only locally through the next higher head (Chomsky, 1991; Rita, 1992 among others).

Spec AgrP so that it does not compete for the same position with the demonstrative. Therefore, I argue that demonstratives which possess [+deictic] and inherent [+def] are closely related to referentiality. Consequently, movement of demonstratives triggered by feature-checking in the DP domain and their definite interpretations in Korean are legitimate both syntactically and semantically in the framework of the Minimalist Program.

Overall, in languages that allow the co-occurrence of the definite article with demonstratives, such as Romanian and Modern Greek, demonstratives are base-generated in Spec AgrP (or any intermediate-level phrase such as FP in Brugè (2002)), whereas the definite article is base-generated in the D head. However, in English, a language that does not allow the co-occurrence of the definite article with a demonstrative, both are base-generated in Spec AgrP, and, move to D obligatorily at PF level for [+ref] and [+deictic] checking; therefore, their co-occurrence, which leads to ungrammaticality, keeps them from competing for the same position. Moreover, the possessive pronoun in English is also assumed to be base-generated in the same position as both the definite article and demonstratives: Spec AgrP, and moves to the D head. Therefore, the co-occurrence of any two elements among those makes English nominals ill-formed.[28] Moreover, overt N-to-D movement does not occur in English, which shows an example of parametric variations between English and Spanish: the latter performs overt N-to-D raising in syntax. Based on Spanish examples, exemplifying demonstratives' complementary distribution with the definite article or possessive pronouns, I assume that determiners in Spanish are base-generated in Spec AgrP as are determiners in English. However, the co-occurrence of the definite article with a post-nominal demonstrative is a parametric variation caused by the

[28] Following Abney (1987), I assume the well-formed co-occurrence of the possessive pronoun and the quantifier in John's every wish is regarded as an exceptional idiomatic expression in English, which does not follow the generalization.

language-specific requirement—this requirement is satisfied by the insertion of the definite article as *a last resort*.

Parametric variation can be found in the behaviors of Korean and Japanese demonstratives as well: they co-occur with possessives. As shown in (45) in the Korean example, the demonstrative is base-generated in AgrP head and then moves to D obligatorily at PF level. On the other hand, the possessive in these languages is base-generated in Spec AgrP, so it does not compete for the same position with the demonstrative. Since Korean does not possess overt (in)definite articles, demonstratives function as the definite article, as found in Cape Verdean Creole counterparts proposed by Baptista (2003, 2007). I assert that languages compensate for the lack of another category; dual functions of demonstratives are caused by absence of another element, and the demonstratives (especially, *ku*, *sono*, and *kel*) perform the compatible role of the definite article in Korean, Japanese and CVC.

Due to the absence of the definite article in Korean and Japanese, the movement of demonstratives to the D head at PF level makes the definiteness visible pre-nominally in syntax. The feature-checking is triggered by strong [+ref] before Spell-Out in these languages. Throughout in Chapter 2, I have shown that DP is a locus for [+ref] checking across languages; therefore, DP should be projected in languages without articles as well. This argument is valid because none of movement violates *the Economy Principle* such as *the Minimality Condition*, *a locality condition* and HMC, and the derivation is attested in the framework of the Minimalist Program.

This study strongly supports the existence of UG; in terms of a generating position for demonstratives, the intermediate level, which is assumed to be AgrP (between DP and NP), is universal cross-linguistically. However, there are two different starting positions for

demonstratives within DP-internal AgrP across languages (either Head AgrP or Spec AgrP), and the diverse generating positions account for the existence of parametric variations. Language parameters also allow various landing sites for demonstratives in overt syntax; on the contrary, feature-checking triggered by [+ref] and [+deictic] in DP domain at LF is universal. Demonstratives with both [+deictic] and [+ref] are D elements possessing one more features than the definite article has as it does not contain [+ref]. Therefore, languages without (definite) articles, e.g., Korean, Japanese, CVC, and Bosnian, are able to denote definiteness in syntax due to [+ref] in demonstratives. Demonstratives have multiple functions and behave in various ways across languages but are still functional elements.

CHAPTER 3

BARE NOUNS IN KOREAN

3.1 Diesing (1992)

In Chapter 3, I discuss Korean bare nominals and their interpretations in comparison with English, Japanese and Cape Verdean Creole. This chapter also explores the functors and condition that affect the interpretations of bare nominals in terms of syntax. In this chapter, based on Longobardi's (1994) N-to-D raising and Baptista's (2003, 2007) null D hypothesis, I will review the syntactic aspect of bare nominals with referential features (i.e., [+ref]), as demonstrated so far in Chapter 1 and Chapter 2. This section will also verify the whole array of the hypothesis that the Functional Category D attracts not only referential features (i.e., [+ref] or R in Longobardi (1994)) in N but also T-feature in N (i.e., 1) [+Generic] or [±gen], 2) [±Existential] or [±exist]) in order to check off the uninterpretable [+ref] or [±gen]/[±exist]) in D.

3.1 reviews Diesing's (1992) Mapping Hypothesis which explains that predicates, such as state-level predicates and individual-level predicates, are different from each other: stage-level predicates are associated with raising INFL, and individual-level predicates are associated with control INFL. The different construal of subjects in each structure is closely related to those types of predicates that take either control INFL or raising INFL. However, in 3.2, I demonstrate that, based on Guéron (2006) and Baptista (2007), the different interpretations of bare nominal subjects are not necessarily determined by those two types of predicates; instead, I argue that tense (T), as a binder, plays an important role in the interpretations of subjects. In 3.3, I will

recapitulate Guéron's (2006) and Baptista's (2007) T-chain approach and develop my proposal in relation to the feature-checking process which affects the interpretations of bare nominals cross-linguistically. As a result, I will show that we can maintain the VP-Internal Subject Hypothesis, upheld within the framework of the Minimalist Program.

Milsark (1974) and Carlson (1977) have influenced the grammaticality and interpretations with respect to bare nouns; for example, the theory of the quantified meaning of a subject in a sentence, such as indefinite bare plurals, generics, and an existential/universal reading, has been pursued as syntax-semantics interface. Carlson's (1977) distinctions between the two types of predicates, such as *stage-level* predicates and *individual-level* predicates are originally introduced in Milsark's (1974) proposal regarding the distinctions between *state-descriptive* and *property* predicates. Carlson (1977) states that "A stage is conceived of as being, roughly, a spatially and temporally bounded manifestation of something…An individual, then, is (at least) that whatever-it-is that ties a series of stages together to make them stages of the same thing" (p. 68). Later, these two distinctions are developed more in Kratzer (1988) and Lumsden (1988); Kratzer (1988) proposes that individual-level predicates lack an "inherent spatiotemporal argument" while stage-level predicates hold it. Lumsden (1988) also claims that stage-level predicates denote events whereas property is involved with individual-level predicates. These contrasts are exemplified by the following examples:

(1) a. **Dogs** have ears. -> Universal reading

b. **Dogs** run into the house -> Existential reading

Dogs in (1a) denotes a universal reading because all dogs have ears; however, *dogs* in (1b) represents an event in which some, not all, dogs run into the house. Therefore, (1) illustrates that the same bare nominal phrase (bare NP, conventionally) render different interpretations

determined by different VP. I provide more predicates in the following table that affect the interpretations of bare nominals based on Carlson (1977, 1979):

	Objects	Stages	Kinds
Types of Predicates	know how to dance	run into the room	be extinct
	have ears	found a match	be widespread
	(be) intelligent	be sick	be common
Readings	Universal	Existential	Generic

Objects are regarded as a set of possible individuals that constitute entities, which select a universal reading; *stages* are spatiotemporal pieces of individuals that opt for an existential reading, and *kinds* are embodied as individuals due to their allocation of individual's realm. An interpretation, particularly entailed by *kinds*, is termed a generic reading that distinguishes itself from a universal reading associated with the broad range of the category, *individual*. In this study, however, universal (objects) and generic (kinds) are regarded as the same terms.

Additionally, it should be noted that the strict dichotomy of the predicates in determining the meanings of the sentence reveals shortcomings because diverse interpretations of bare nouns, such as existential or universal, do not depend entirely on the predicate types. For example, Levise (1975) points out that the quantified meaning of a bare plural subject can be determined by adverbs:

(2) a. Flags *sometimes* have stripes on them.

b. *Some* flags have stripes on them.

c. Flags *always* have stripes on them.

d. *All* flags have stripes on them.

According to the table above, based on Carlson (1977), *have + NP* should entail a universal reading because this structure belongs to *Objects*, a set of individuals that constitute the whole entity. However, as shown in (2a,c), the italicized adverbs affect the different interpretations, such as an existential reading with *sometimes* in (2a) and a universal reading with *always* in (2c). In addition, those sentences with adverbs can be rephrased with an existential quantifier *some* and an universal quantifier *all* as (2b,d) show respectively. Therefore, examples in (2) show that the predicate itself does not trigger the meaning of the bare plural subject.

In the similar fashion, the following examples show the puzzle of whether the interpretation of bare nouns is elicited from the predicates or the quantifier *all*:

(3) a. Dogs have ears.

b. *All* dogs have ears.

c. Koreans eat Kimchi.

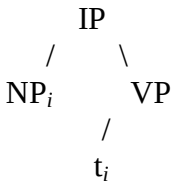
d. *All* Koreans eat Kimchi.

Based on the observations in (2) and (3), attributing the universal/generic reading to the predicate types only may require more stipulation in order to seek for triggering factors beyond their types. Therefore, I claim that syntactic structure should be examined mutually with a condition placed on the interpretations of bare nouns because the semantic aspects of the predicates themselves cannot provide a crucial device to solve this puzzle. The next section considers syntactic aspects as possible factors that affect the interpretations of bare nouns across languages.

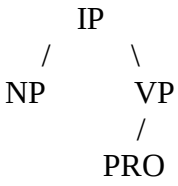
Diesing (1992) classifies predicates into two classes (i.e., *stage-level* and *individual-level* predicates); this approach was a semantically based distinction established earlier by Carlson (1977) in relation to the emergence of different interpretations of bare plurals. As previously mentioned, particular temporal/spatial instantiations are termed a *stage* while the union of the

whole sets of the kinds is *individual* (Carlson, 1977); however, this type of purely semantic contrast could not capture the syntactic distinction, and Diesing (1992) sheds light on the two types of predicates in terms of syntax. According to Diesing (1992), the subject of the stage-level predicate is VP-internal (Spec VP) and successively moves to Spec IP, while the subject of the individual-level predicate is base-generated in Spec IP, and Spec VP is occupied by PRO; a bare plural subject obtains an existential reading if one is dominated by VP at LF because bare plurals contain indefinites. Additionally, existential closure is only allowed at the VP node in a tree. The following structures show that external arguments are assigned to Spec VP or Spec IP depending on the predicate types:

(4) a. Stage-Level Predicate



b. Individual-Level Predicate



According to Diesing (1992), the subject in Spec IP is interpreted either as specific/generic or existential in Spec VP in (4a); on the other hand, in (4b) with an individual-predicate, Spec IP is the only subject position due to PRO in Spec VP and, as a result, is interpreted as specific or generic. Following Heim (1982), who elaborates on tripartite quantificational structures, originally from Lewis (1975), Diesing (1992) hypothesizes that syntactic structures are correlated to tripartite quantificational structures, and this idea is summarized as the Mapping Principle (Diesing, 1992, p. 15). She explains that “material from VP is mapped into the nuclear scope, material from IP is mapped into a restrictive clause.” However, Korean sentences with bare nominals present counterexamples to the generalization because the interpretation of the subject of an individual-level predicate does not follow what Diesing (1992) proposes:

(5) a. [[[kay-***ka*** cicnun-kes[1] ∃[2]] ***un*** ∀] tangyeonhata *I-level*]

dog-Nom bark-Dep-Top natural

'It is natural that dogs, and no others, bark.'

b. [[[kay-***nun*** cicnun-kes ∀] ***i*** ∃] tangyeonhata *I-level*]

dog-Top bark-Dep-Nom natural

'As for dogs, it is natural for them to bark (rather than anything else).'

According to Lee (1984), the interpretations of the identical bare nouns with the same individual-level predicate *tangyeonhata* 'natural' can be determined differently (i.e., either universally or existentially) depending on the case particles; in (5a), the embedded clause itself with the nominative-marked bare noun *kay* (i.e., *kay-ka cicnun-kes*) has an existential meaning (∃) due to the nominative marker *-ka*; however, the matrix sentence, whose subject is the topic-marked embedded clause [*kay-ka cicnun-kes +un*], has a universal reading (∀). On the contrary, in (5b), the embedded clause, in which the topic-maker *-nun* appears, has a universal reading (∀); however, the matrix clause obtains an existential reading (∃) due to the nominative-marker –*ka* which appears as a subject of the matrix sentence. Therefore, the meaning of the entire sentence in (5b) holds an existential reading regardless of the individual-predicate *tangyeonhata*. Similar to Lee (1984), the following examples reveal that the individual-level predicate does not always guarantee a generic interpretation of a bare subject:

(6) [[[haksayng-***i*** kongpwu yeolsimhi hanun-kes ∃] ***un***∀] paramcikhata *I-level*]

---

[1] *Kes*, literally *thing*, in (5) is a type of *dependant noun* in Korean. There are several dependant nouns which cannot be used alone; for instance, *kes* (thing), *i* (person), and *ttaymun* (reason) are examples of *dependant nouns* that are always preceded by other modifiers such as a demonstrative determiner, a clause or another preceding noun. Here, the dependant noun *kes* is preceded by the clauses, *kay-ka cicnun* or *kay-nun cicnun* 'for dogs to bark.' See also table in (10) in Chapter 2. Sohn (1994, pp. 204-5) names them as *defective nouns*. Regarding these types of nouns, see Sohn (1994) for a more detailed discussion.

[2] According to Heim (1982), indefinites are regarded as variables, and the quantificational elements such as *every, some, not*, and abstract existential (∃) are operators that bind indefinites unselectively. On the contrary, ∀ is a

student-Nom study hard do-Dep-Top desirable

'It is desirable that students, and no others, study hard.'

[[[haksayng-***un*** kongpwu yeolsimhi hanun-kes ∀] ***i*** ∃] paramcikhata *I-level*]

student-Top study hard do-Dep-Nom desirable

'As for students, it is desirable for them to study hard (rather than anything else).'

The subject of the matrix clause *kes-un* and *kes-i* respectively show that the former with a topic marker denotes a universal reading due to the topic marker, while the latter with a nominative-marker has an existential reading, based on Lee (1984). Lee argues that case particles are functor expressions that map common nouns to bare nouns with quantified meanings. I acknowledge that, technically, those sentences in (5) and (6) may have different meanings because, obviously, each sentence is expressed with different case particles. In terms of pragmatics, however, Lee's proposal is not convincingly defended because the case particles in (5) and (6) are interchangeable in colloquial Korean without significantly affecting meaning; therefore, my idea is not entirely in agreement with Lee (1984) even though I concede that the individual-level predicate does not always ensure a generic interpretation of a bare subject.

Additionally, as I have demonstrated in this section, which supports Jun (1999), I argue against the idea that case particles, such as the Korean topic marker *un/nun* and the nominative marker *i/ka*, trigger or determine the various meanings of the sentence, such as a generic and an existential interpretation. The counterexamples in (7) further support my findings that the different types of predicates are not necessarily distinguished by case markers in both Korean and Japanese:

(7) a. Mina-***nun*** [yeowu-***ka*** kyohwalhata-ko] sayngkakha-ess-ta (Korean)

a′. Mina-***wa*** [kitune-***ga*** zuru-to] omo-tta (Japanese)

---

universal quantifier, which denotes *all*.

Mina-TOP fox-NOM cunning-QT think-PST-DEC

'Mina thinks that foxes are cunning.'

b. Say-ka Mina apey ddeleci-ess-ta.

bird-NOM Mina front fall-PST-DEC

'A bird fell in front of Mina.'

Mina-***nun*** [say-***ka*** cwuk-ess-ta-ko] sayngkakha-ess-ta (Korean)

b′. Mina-***wa*** [tori-***ga*** shinda-to] omo-tta (Japanese)

Mina-Top bird-NOM die-PST-DEC-QT think-PST-DEC

'Mina thought that the bird was dead.'

If a case particle triggered a given interpretation in the embedded clause as Lee (1984) argues, embedded clauses in both languages in (7) should have an existential reading due to the identical nominative-marker *ka* and *ga* in both languages. However, (7a,a′) with the bare nominal subject *yeowu* and *kitune* 'fox' and the individual-level predicates (*kyohwalhata* and *zurui* 'cunning') emerge with a generic reading in spite of the nominative markers *ka* and *ga*. On the other hand, (7b,b′) with the stage-level predicates (i.e., *cwukta* and *shin* 'die') have an existential reading with the same subject in (7a,a′) with the individual-level predicates (i.e., *kyohwalhata* and *zurui* 'cunning').

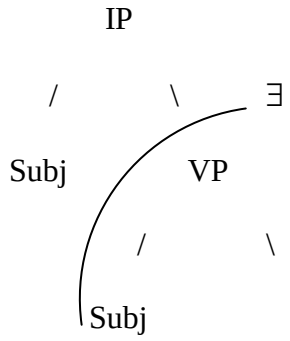
As shown in (5), (6), and (7), the inconsistent interpretations in relation to case particles, within the embedded clauses, reveal the shortcomings of the traditional approach that attempts to attribute the diverse interpretations of bare nouns to either predicate types or case particles.

In 3.2 and 3.3, I further attempt to account for the various readings and the functor expressions of Korean bare nouns syntactically. In order to capture the problem of the traditional analysis relative to the bare nominal interpretations and the predicate types, Diesing (1992)

should be reconsidered in depth. Therefore, I will revisit Diesing and develop my own proposal in the rest of this section; in addition, not only new relations between case particles and nominal/sentential interpretations but also another type of functor expression that affects their interpretations will be presented.

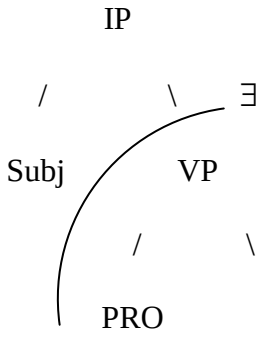
As already mentioned, a bare plural subject obtains an existential interpretation only when it has a stage-level predicate. Diesing (1992) attempts to explain the phenomenon in German and English with a syntactic device that triggers the various interpretations of bare nominals in the following way: the subject of the individual-level predicate is restricted to Spec IP, and INFL assigns a theta-role to Spec IP; however, V also assigns a theta-role to Spec VP, but this assignee is PRO since it does not contain Case. On the other hand, in the structure of the stage-level predicate, the subject is base-generated in Spec VP and is assigned a theta-role by V; this subject in Spec VP moves to Spec IP to receive Case. The subject of the stage-level predicate can occur either in Spec IP or Spec VP at LF, and a bare plural subject is in Spec VP since no indefinite can receive an existential reading outside VP at LF. The following schemes in (8) summarize Diesing's (1992) assumption:

(8) a. Stage-Level Predicate



<Raising INFL>

b. Individual-Level Predicate



<Control INFL>

Diesing (1992) refers to the INFL in (8a) as “raising INFL” since the subject in Spec VP, after receiving a theta-role, raises to Spec IP to receive Case, and refers to one in (8b) as “control INFL” because they have a control relation between the subject in Spec IP and PRO in Spec VP. The structures in (8) illustrate that both are in the domain of the existential closure. When the bare plural subject is outside the ∃ domain, the sentence receives a generic/universal reading because the generic operator binds the variable. Therefore, a generic reading is possible for an indefinite (bare plural) subject in either type of predicate as long as the generic operator binds the bare plural subject outside the ∃ domain. However, only the subject of the stage-level predicate with a bare plural subject in Spec VP at LF can receive an existential reading since the subject in this position can be assigned the theta-role, caught under the scope of existential closure (∃); therefore, no existential reading is obtainable for any indefinite (bare plural) subject outside the ∃ domain at LF. Diesing’s assumption can be concisely summarized in the following way: 1) Stage-Level Predicate => either a generic or existential reading; 2) Individual-Level Predicate => a generic reading. However, these schemes are not necessarily related to raising or control INFL due to its imprecision; for example, the sentence with the stage-level predicate may not occur with raising INFL (unlike the structure of the stage-level predicate) given in the structure in (8a). The examples below in (9), regarding the approach to the individual-level predicate associated with control INFL, illustrate the empirical problem:

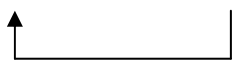
(9) a. Kay-ka (Dogs) [$_{VP}$ PRO [$_{V}$ cic-nun-ta (bark)]]

|_____|

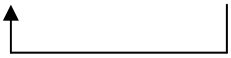
b. Kay-ka (Dogs) [$_{VP}$ PRO [$_{V}$ cic-***ess***-ta (bark+***ed)***]]

|_____|

b′. Kay$_i$-ka (Dogs$_i$) [$_{VP}$ t$_i$ [$_{V}$ cic-ess-ta (barked)]])



c. Kay$_i$-ka (Dogs$_i$) [$_{VP}$ t$_i$ [$_{AdvP}$ ci-kum (now)] [$_V$ cic-nun-ta (bark)]]



As proposed by Diesing (1992), (9a) is a control INFL structure since *dogs* receives a generic reading with an individual-level predicate. However, (9b) obtains an existential reading because the past tense indicates the meaning that *some dogs barked* at a certain period of time in the past. The predicate *barked* does not maintain the same tense as in (9a), which shows that tense itself can change the type of the predicate (i.e., from individual-level denoting [+present] to stage-level denoting [+past]); as a result, the interpretation of *dogs* changes from generic to existential as well. Therefore, we encounter a puzzle whether the control INFL structure should be maintained as in (9b) or not. If Diesing (1992) is on the right track, I suggest that sentences with specific temporal features such as [+past] in (9b) and (9b´) and the adverb *now* in (9c) should be reanalyzed as a raising INFL structure because the bare subjects manifestly undergo the semantic change (i.e., from the conventional generic reading to the existential reading) in this situation; even though the subject *dogs* stays in Spec IP, it remains in Spec VP at LF to receive an episodic interpretation. As a result, there is no reason to support *barked* or *bark now* as a generic/universal reading as shown in (9b) and (9c). Based on the observation above, in the case that tense is specified with tense features such as (9b´) and (9c), categorizing the predicate type into *individual* or *stage* does not guarantee the correct interpretation. Therefore, it is misleading to divide the predicates between raising INFL and control INFL categories. Otherwise, we may maintain the type of *barked* or *bark now* as an individual-level predicate and assume that *dogs* is lowered to Spec VP in order to be inside the ∃ domain; however, this assumption is incorrect because the movement is blocked by PRO in Spec VP, and rightward movement is prohibited.[3]

[3] Following Kayne's (1994) 'antisymmetry proposal' and Jeong's (2003) 'additional *wh*-effect' in head-final

For this reason, I hypothesize that subjects are base-generated in Spec VP universally. The examples (10) and (11) below also show the fact that the temporal approach convincingly explains that the interpretations of both bare nominals in CVC and the proper noun with the individual-level predicate in English can be interpreted existentially:

(10) a. If ***the child*** has a toy, she is happy (universal reading)

b. Yesterday, whenever ***the child*** had a toy, she was happy. (non-universal reading)

c. a. Si ***mininu*** ten brinkedu, el ta fika ketu. (Generic)

if child has toys, s/he TMA stays quiet

'If a child has toys, s/he stays quiet.' ((50), (51) & (52) in Baptista, 2007, p. 77)

Baptista (2007) explains that the example (10a) with the definite generic *the child* in English receives a generic/universal reading when the tense is generic; specifically, (10a) bears generic tense, while (10b) has episodic tense. The equivalence of (10a) is illustrated in (10c), the CVC sentence with the bare nominal, *mininu* 'child,' which is also affected by generic tense in the same way as English, and accordingly, it gets a generic/universal reading. Regarding the individual-level predicate, the examples below also present straightforwardly:

(11) a. John is French

b. John was French (from (36) in Kim, 1993, p. 201)

The example (11a) bears a generic tense, whereas (11b) with the past tense demonstrates that *John is not French anymore*. Therefore, Kim (1993) argues that while the present tense cannot change the individual-level predicate into the stage-level predicate, the past tense can; in other words, [+present] cannot be compatible with the individual-level predicate, but [+past] implies "change of property."

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languages, such as Korean and Japanese, I assume that only leftward adjunction is legitimate, regardless of the head-directionality. Kayne (1994) explains that "specifier-head-complement, and not the reverse, is the only order

The examples in (12) below illustrate how the past tense can affect interpretation, in line with the temporal approach with respect to the interpretations of bare nominals in Korean as well:

(12) a. sang-ul pat-ta = to take a prize (a stage-level predicate)

prize-Acc receive-DEC

a´. yongkamha-ta = to be brave (an individual-level predicate)

brave-DEC

b. sungca-nun sang-ul pat-***nun***-ta = Winners ***take*** a prize (universal)

winner-Top prize-Acc receive-PRES-DEC

b´. sungca-nun sang-ul pat-***ass***-ta = Winners ***took*** a prize (existential)

winner-Top prize-Acc receive-PST-DEC

c. sungca-nun yongkamha-ta[4] = Winners ***are*** brave. (universal)

winner-Top brave-DEC

c´. sungca-nun yongkamha-***ess***-ta = Winners ***were*** brave. (existential)

winner-Top brave-PST-DEC

d. sungca-nun lisepseon-ey chotay-toy-***n***-ta = Winners ***are*** invited to the reception.

winner-Top reception-Loc invite-become-PRES-DEC (existential)

d´. sungca-nun lisepseon-ey chotay-toy-***ess***-ta = Winners ***were*** invited to the reception

winner-Top reception-Loc invite-become-PST-DEC (existential)

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available to the subcomponents of a phrase" (p. 36). See Kayne (1994) and Jeong (2003) for more discussions.

[4] Following Jun (1999), I argue that the sentence with the nominative-marked *sungca-ka* (winner-Nom) in (9c) is also a generic sentence. The only difference between the topic-marked *sungca-nun* (winner-Top) and the nominative-marked *sungca-ka* (winner-Nom) is that the former is *a topic-generic* and the latter is *a contrast-generic* sentence, so called, *speaking of winners* vs. *winners, no others* respectively, in the case of a generic reading as in (9b) and (9c). However, with these examples, I do not discuss the Korean case particles' compatibility with the subject or the distribution of them. Chapter 4 will provide a more detailed discussion regarding the interpretations of Korean nominals with the case particles in terms of the DP-Hypothesis.

Sang-ul pat-ta (to take a prize) in (12a) itself is a stage-level predicate; however, the bare noun subject *sungca* in (12b) receives a universal reading as the identical subject with the individual-level predicate *yongkamhata* (brave) in (12c). Based on Diesing (1992), I assume that both *sungca* in (12b) and (12c) is in Spec TP (IP) at LF, due to the distinction caused by the existential closure between TP (IP) and VP—the bare noun subject *sungca* receives a universal reading outside the closure. Therefore, it is difficult to generalize that the predicate type determines the interpretations of bare nominals. Instead, the past tense-marked counterparts of each sentence in (12b´) and (12c´) (i.e., [+past]) show that both subjects *sungca* (winners) are interpreted existentially. In addition, the subjects of stage-level predicates with [+present] in (12d) and [+past] in (12d´) pair have an existential reading. We have observed here that the stage-level predicate is associated with either a universal or an existential reading (i.e., (12b) vs. (12d)) as explored in Carlson (1977), Krazter (1989), and Diesing (1992); however, [+past] is only related to an existential reading, regardless of the predicate type, and the interpretations of bare nouns are more strongly controlled by tense than the type of the predicate itself in Korean as well.

I argue that if there is no tense (i.e., [-tense] which is neither [+present] nor [+past]), there is no distinction between the stage- and individual-type. I provide small clauses as evidence for this phenomenon in (13). With respect to tense as a functor of a nominal interpretation, Kim (1993) supports my proposal in the following way: the temporal approach can account for why nominals in small clauses do not carry the contrast between the individual-level and the stage-level predicate in terms of the interpretations of the subject as illustrated in the examples below:

(13) a. I saw [someone naked]

b. I consider [someone intelligent] (adapted from Kim, 1993)

Small clauses in (13a) and (13b) do not denote overt tense, which is [-tense]. The perceptual verb *see* selects the stage-level predicate *naked* in the small clause in (13a), whereas the individual-level predicate *intelligent* is allowed to occur with *consider* in (13b), which takes "a permanent property denoting verb" (Park, 1996).[5] According to Diesing (1992), an existential reading is only licensed by a stage-level predicate. However, the example (13b) with the individual-level predicate, *intelligent*, can be also compatible with an existential reading, and the subject in the small clauses above have the same quantified subject (i.e., *someone*); regardless of the predicate type, an existential reading with the quantified subject *someone* can occur in both sentences which contain [-tense]. Therefore, Kim (1993) points out that these small clauses in (13a) and (13b) exemplify that various interpretations of nominals are determined by tense, rather than the predicate type.

I claim that 1) if a temporal element is specified within a sentence (no matter what the tense-related element is), (e.g., tense features such as [+past] or time adverbs such as *always*, *now* and *sometimes*), or 2) if no tense is marked, such as [-tense] in a small clause, an individual-level predicate is not necessarily related to a universal reading. I argue that time or T plays an important role in the interpretation of bare nominals. A universal reading, which is associated with generic tense, can be called a generic reading; on the other hand, an existential reading is associated with episodic tense, and entails an episodic reading, as opposed to a generic reading. Unidentified tense refers to a non-specific time, which is analogous to a generic entity that refers to non-specific members of a kind/species/category in the world.

As I have asserted in 3.2, when treating tense in relation to the interpretation under this predicate type approach, a crucial factor must be verified: tense in a generic reading is tenseless, while tense in "a present reading" contains grammatical tense feature, [+present], which is also

[5] According to Higginbotham (1983) and Svenonius (1993), *see* and *want* are *perception* verbs or *emotive* verbs.

pointed out by Kim (1993). As shown in (12), [+present] is not compatible with the individual-level predicate, given in the ungrammatical sentence such as **dogs bark now* and **firemen are intelligent now*. Kim (1993) supports this argument that tense "binds the arguments involved in the event if they are variables. In other words, the so-called default existential quantification is possible only when tense or other binder appears" (p. 194). Likewise, since tense in (12d) is realized as [+present] that is a binder, the subject *sungca* is quantified as a variable; as a result, it receives an existential reading. On the other hand, since tense is not obtainable in (12b) and (12c) as a quantifier, the subject *sungca* is not able to be quantified, regardless of the predicate types. Similarly, the following small clause pair, which repeats (13), illustrates that the predicate type itself does not necessarily play an important role in the interpretations of a quantified subject as well:

(14) a. I saw [someone$_i$ / Mina$_i$ [t_i naked]]

b. I consider [someone$_i$ / Mina$_i$ [t_i intelligent]]

c. na-nun [nwukwunka-ka$_i$ / mina-ka$_i$ [t_i palkabes-unkes-ul]] po-ass-ta

I-TOP someone-NOM / Mina-NOM naked-DEP-ACC see-PST-DEC

'I saw someone / Mina naked'

d. na-nun [nwukwunka-ka$_i$ / mina-ka$_i$ [t_i ciceki-lako]] sayngkakha-n-ta

I-TOP someone-NOM / Mina-NOM intelligent-QT think-PRES-DEC

'I consider someone / Mina intelligent'

The only difference in examples between (13) and (14) is that I provide the proper noun *Mina* as another possible subject. (14c) and (14d) are Korean counterparts of (14a) and (14b) respectively. Let us consider the sentences with the pronominal subject *someone*. First, both (14a) and (14b) fail to obtain default existential quantification simply because there is no tense,

as a binder, which is supposed to quantify a subject, as I have argued. Now, there are two remaining options: universal/generic or specific. In the case of a bare (plural) subject as in (12b) or (12c), it receives a universal/generic reading; however, those two readings are not possible in (14) because the quantified pronominal subject *someone* prevents itself from being interpreted universally or generically. As a result, a specific reading is attained as a possible choice with the subject in the small clauses that bear no tense in the examples above. Let's consider Korean data. The Korean small clause, as a complement, occurs before a verb because Korean is SOV language. Therefore, the Korean equivalents show the contrasting verb position between the English and the Korean sentences. Lee (1984) argues the (bare) nominals in Korean or Japanese nominals are affected by case particles, so that the meaning change (stage vs. individual) caused by the case particle is unavoidable in these languages. However, contrary to Lee (1984), I argue that case particles are not distinguishable based on the property-denoting individual-level predicate (e.g., *ciceki-ta* 'intelligent' in (14d)), and the emotive stage-level predicate (e.g. *palkabes-ta* 'naked' in (14c)). Instead, both predicates maintain the same nominative marker *ka*. What is significant here is that the Korean pronominal subject *nwukwunka* 'someone' also obtains a specific reading, regardless of the predicate type, in the same way that its English counterpart does: *nwukwunka* in (14c) and (14d) fails to obtain default existential quantification since there is no binder, tense, which has the function of quantifying a subject. A universal or generic reading is impossible as well because of the inherently quantified meaning of the lexical item, *nwukwunka* 'someone.' Consequently, a specific reading is the only possible interpretation for the Korean and analogous English examples in (14) because small clauses inherently contain no binder (i.e., [-tense]). In terms of the Minimalist Program's syntactic movement at LF, therefore, I argue that all subjects are base-generated in Spec, VP. Specifically, the subject

someone (or *nwukwunka* in Korean) and *Mina* are all base-generated in the internal position of both embedded clauses (i.e., small clauses) with theta-marked; then, it raises to the external position of the embedded clause in order to get Case from the matrix verb (i.e., ACC is checked via Spec-Head relations in AgroP in the matrix clause with *saw* in (14a) and *consider* in (14b)). In short, the subject of an individual-level predicate (i.e., *intelligent* in (14b) and *ciceki-ta* in (14d)) explicitly undergoes raising in the same way as a stage-level predicate. Likewise, we have observed that Kim's (1993) English examples and my Korean empirical data strongly support *the VP-Internal Subject Hypothesis*[6] which entails that the subject is theta-marked by V and base-generated in Spec VP (Kuroda, 1988; Koopman and Sportiche, 1991; Radford, 1997; Yoshimoto, 1999[7], and many others), regardless of the predicate type cross-linguistically. As there is no necessity to maintain control INFL which corresponds to the individual-level predicate in Diesing (1992), we can assure that all subjects are base-generated in Spec VP and undergo raising to Spec TP (IP) in order to check off Case.

In this section, I have demonstrated that the conventional approach to explaining the bare nominals' interpretations with predicate types, initially developed from Carlson (1977) and Milsark (1974), has shortcomings; for example, Diesing's (1992) syntactic structures based on the predicate types are at odds with the situation in which tense is involved; also, Kim (1993) inadequately accounts for the mechanism of bare nominals' receiving universal/generic or existential/episodic interpretations in relation to case particles. For these reasons, I suggest that

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[6] Since Pollock's (1989) Split-INFL Hypothesis, the head I in IP should be split into two projections: AGR for agreement features and T for temporal features. In 3.1, it was not necessary to consider linear order between AGR and T. In 3.3, however, I will use TP as the equivalent phrase for IP in 3.1 and 3.2. because tense is involved as an important functor in relation to the interpretations of bare nominals.

[7] Following Chomsky's (1995, p. 315) Minimalist Program, Yoshimoto (1999) proposes *vP-Internal subject Hypothesis*. Yoshimoto (1999) argues that the subject in Japanese is base-generated not in VP but in vP, i.e. a maximal projection of a light verb, in order to resolve the conflict between Tateish (1994) who argues that the subject in Japanese is typically base-generated outside VP (i.e., Spec, AgrP); however, I try to suggest in this section that the subject of a predicate is universally base-generated inside VP, regardless of the types, the so called the

tense plays a more fundamental role than the distinctions between the stage- and the individual-level predicate. Accordingly, we can propose that all subjects are base-generated in Spec VP and undergo raising to Spec TP (IP) to check off its Case, which makes the VP-Internal Subject Hypothesis licit. In 3.2, I develop the idea in depth about how tense affects the interpretations of bare subject nominals, based on Guéron (2006) and Baptista (2007).

3.2 Guéron (2006) and Baptista (2007)

Diesing's (1992) approach with stage- vs. individual-level predicate distinctions, proposed by Milsark (1974) and Carlson (1977) has significantly influenced the field of syntax-semantic interface in terms of the interpretation of (bare plural) nominals. However, Diesing's (1992) line of approach has presented inadequacies, for instance, the unwarranted interpretations between those two types of predicates in relation to bare nominals when tense is involved; specifically, when a small clause (or an embedded clause in Korean) is projected, bearing [-tense], the interpretations of bare subjects are not determined by the type of predicates, as shown in the previous section. Fernald (2000) also points out Diesing's unclear association between the predicate type and raising INFL in the following paragraph:

> Diesing is inexplicit about what prevents ILPs (individual-level predicates) from appearing with the raising INFL. If the dependency is due to category selection, Diesing would have to posit that ILPs and SLPs (stage-level predicates) are distinguished by some syntactic category feature. If the distinction were to be made by semantic selection, the restriction imposed on VP by Infl would have to follow from the assignment of a particular theta-role to VP, rather than simply the presence or absence of a theta-role assigned by Infl to the specifier of IP. (pp. 51-2)

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individual-/stage-level. Therefore, in this section, I do not discuss the conflict regarding this specific position further.

Likewise, I argue that various interpretations of the (indefinite) bare nominals are not entirely determined by the different types of predicates; following Kim (1993), Park (1996), Guéron (2006), and Baptista (2007), I suggest that tense contributes to the determination of the interpretation of bare nominals rather than the type of the predicate itself.

Among several others, Baptista (2007) provides a convincing explanation for the data of CVC bare nominals with respect to tense and aspect (p. 61-105). In this section, I explore Baptista (2007) which offers a novel approach toward the interpretation of bare nominals. Her findings from CVC data will pave the way for investigating not only Korean but also other cross-linguistic data that show tense crucially affects the interpretation of bare nominals. Based on Guéron's (2006) proposal, Baptista (2007) makes distinctions between Speech time and Event time, which are associated with C and T. I call Baptista's (2007) explanation *the T-chain approach* because nominal interpretations are dealt with in the chain-linked construction between C and T. Baptista (2007) points out that CVC bare nominals are also affected by tense:

> . . . episodic and generic tense also affects the interpretation of the bare noun whether it is in subject or object position. More precisely, other elements in the sentence such as Tense, Aspect or a topic time (i.e., adverbial, see below) can lead the hearer to correctly interpret whether the bare noun is referential (definite/indefinite) or generic. In sum, episodic versus generic tense can predictably affect the interpretation of bare noun. . . . In CVC, the bare noun is interpreted as referential when tense is episodic; if the tense is generic, the bare noun is interpreted as non-referential/generic.

According to Baptista (2007), a nominal interpretation can be a type of interaction between T and C, the sentential units. C is associated with Speech time and T with Event time; both C and T can be indexed 0, 1 or 2, and it is called a "matching index" when they are indexed with the same

number; Present and Past are indexed 1 and 2 respectively, and if T is indexed 0, a generic reading appears because event space and discourse space are not linked to each other in such a setting. Therefore, operators, such as generic or existential, are not necessary to differentiate episodic from generic sentences, as opposed to Diesing (1992). In (15) below, I provide Guéron's proposal from Baptista (2007)[8]:

(15) Guéron's basic assumptions:

The constraint in (i) plays a pivotal role in LF structures:

(i) The situation a given sentence describes must be placed in the space and time of the discourse world, i.e., the world of the speaker or a world which the grammar makes accessible to the speaker.

(ii) vP is viewed as the domain of spatial interpretation whereas TP/CP is the domain of temporal interpretation.

(iii) A sentence is episodic if its tense node bears a positive tense index and generic if its tense node carries a zero index or no index. This entails that a sentence is ambiguous between an episodic construal and a generic construal. The same syntactic structures derive both episodic and generic sentences. In other words, across languages, the same DPs refer to either real entities ('real dogs'[9] for instance) or to the mental concept associated with the lexical item ('the concept of dog').

(iv) To reflect the interaction at work between sentential units, Guéron proposes a T-chain rooted in the complementizer node C associated with the Reference or

[8] I will use TP instead of IP, based on Pollock's (1989) Split-INFL Hypothesis, the head I should be split into two projections: AGR for agreement features and T for temporal features.

[9] Following Cheng and Sybesma (1999), I argue that real entities, for example, "real dogs" are encoded with DP while NP refers to the mental concept, "the concept of dogs." See Chapter 2 for a detailed explanation.

> Speech time, continues with the tense node T associated with the Event time and ends with V. If C is indexed 1 for Speech time and T is also indexed 1for Event time (1 for Present and 2 for Past), then the Event time is construed as anaphoric to the Speech time and results in an episodic present. For Generic, T has a zero index. In a generic sentence, there is no link established between event space and discourse space. The basic hypothesis is that the on/off setting of the index on T is sufficient to distinguish episodic from generic sentences. If so, no generic operator is needed.[10] (pp. 78-9)

Based on these assumptions by Guéron, Baptista (2007) explains the system and the contrast between episodic tense and generic tense with CVC bare nominals in (16), which is adapted from Porterfield and Srivastav (1988, p. 266):

(16)[11] a. Si ***mininu*** ten brinkedu, el ta fika ketu. (Generic)

if child has toys, s/he TMA stays quiet

'If a child has toys, s/he stays quiet'

b. (Gosi) ***mininu*** ten brinkedu, el ta fika ketu. (Episodic)

now child has toys, s/he TMA stays quiet

'(Now) the child has toys, s/he will stay quiet.' (from Baptista's (54) & (55))

The diverse interpretations of *fika ketu* 'stays quiet,' (i.e., either generic or episodic), in (16) can be explained on the grounds of the different indexing of the T-chain. In (16a), the T-chain connects C (for Speech time) that is indexed 0 to T (for Event time) that is indexed 0, and a

[10] Baptista (2007) lists six tenets of Guéron's proposal, but I select four out of them; for more detailed discussion, see (Baptista, 2007, pp. 78-9).

[11] The examples in (16) are CVC equivalents of English sentences, adapted from Porterfield and Srivastav (1988, p. 266), as previously introduced in the examples (10) in 3.1:

a. If the child has a toy, she is happy (universal reading) -> generic tense

b. Yesterday, whenever the child had a toy, she was happy (non-referential reading)-> episodic tense

generic interpretation appears because “The Event time cannot be construed as anaphoric to the Speech time” (p. 79). On the contrary, in (16b), both C and T are indexed 1, which denotes that the sentence receives an episodic reading because “the Event time is construed as anaphoric to the Speech time” (p. 79). This interpretation mechanism distinguished by number-indexed T and C can be represented in the following structures below:

(17) a. [CP C1 [TP mininu T0 [VP ten brinkedu]]] (Generic interpretation)

b. [CP C1 [TP mininu T1 [VP ten brinkedu]]] (Episodic interpretation)

(Baptista, 2007, p. 79)

Both (17a) and (17b) contain the same syntactic structure; on the other hand, within the T-chain, they carry a different index on their T. Without a time adverbial, however, the topic time is licensed because “the Event time interval must be bounded in order to satisfy that interface constraint”; also “One way to bound a time interval is to place the event the sentence denotes in the scope of a bounded topic time” (p. 79). In addition to this proposal, Baptista (2007) extends the TP-chain to DP domain in order to explain a generic/episodic interpretation in bare nominals in languages such as CVC and Korean and proposes more in the following way:

> . . .if T carries a zero index and ends within VP (the domain of spatial interpretation, then D will also carry a zero index whether D is filled or not, yielding a generic, non-anaphoric interpretation for the sentence. If in contrast, T carries a 1 or 2 (index for present or Past), then D will match the index and the episodic, anaphoric reading will then emerge. . . the subject of a sentence is linked to the discourse world by the anaphoric or non-anaphoric construal of its determiner. The anaphoric construal of the determiner is obtained by matching D1 to T1 and the non-anaphoric construal by pairing D0 to T0. (pp. 79-80)

By providing an alternative proposal to Diesing's (1992) raising/control structure, Guéron's (2006) and Baptista's (2007, p. 79-80) explanation of CVC nominal interpretations and structures with T-chain above further support my argument that the conventional functor expressions, such as individual/stage-level predicate (Carlson, 1977; Diesing, 1992), case particles in Korean or Japanese (Lee, 1984), and raising/control structure (Diesing, 1992), do not entirely account for the interpretation of nominals. As there is no necessity to maintain control INFL which corresponds to the individual-level predicate in Diesing (1992), we can assure that all subjects are base-generated in Spec VP and undergo raising to Spec TP (IP) in order to check off Case. As a result, *the VP-Internal Subject Hypothesis* can be maintained as a universal device. Also, the view of a generic operator as an unnecessary device in Guéron's (2006) and Baptista's (2007) T-chain model corresponds to *the Economy Principle* in the Minimalist framework. Contrary to English that displays overt determiners encoding definiteness *the* and indefiniteness *a*, the Korean DP, inherently bare nouns, are not modified with determiners. For instance, in English, the DP subject within a generic sentence is realized with the indefinite article (i.e., *a child* in (16a)), whereas the counterpart in an episodic sentence is encoded with the definite article (i.e., *the child*). Similar to CVC nominals, however, the Korean DP is not encoded with articles in both sentences. For this reason, it is useful to account for how the interpretation of bare nominal subjects in CVC and Korean emerge generically or episodically without the overt marking of definiteness, as opposed to other Western languages such as English *a child* and *the child* in (16), adapted from Porterfield and Srivastav (1988, p. 266). The next section, based on the universal T-chain system, takes a new approach to contributing to an explanation for the interpretations of Korean bare nominals.

3.3. The Revised T-chain Approach and the Application to Korean Bare Nominals

Following Baptista (2007), I attempt to explain the diverse interpretations of Korean nominal phrases and suggest a more elaborate structure that marks more specific tense with binary features in a tree. Baptista's (2007) DP extension of the TP-chain, based on Guéron's proposal, implies that the matching construal exists between D and T, for example, D0/T0 and D1/T1, and is associated with feature-checking in the Minimalist Program.

I propose two distinctive T features are realized in a tree: T indexed with 0 entails [+generic] for a generic/universal interpretation and T indexed with 1 or 2 carries [+episodic] for an episodic/existential interpretation; due to their complementary distribution (i.e., [-generic]) refers to the latter and [-episodic] to the former respectively. I propose that those matching features in both T and the (bare) nominal subject DP are erased in order to satisfy the principle of full interpretation (Chomsky, 1995) because the remaining unchecked feature at LF would cause the sentence to crash. The problem we face is that whether [+generic] and [+episodic] are interpretable semantic features or uninterpretable grammatical features. I suggest the following: when they are realized on T, they contribute to determining meaning because they have semantic content as category features (i.e., T-features); however, when they are realized on nominals, which are base-generated in Spec VP, they are not category features of those nominals; therefore, those T-features in subjects should be checked off against the matching features in T in Spec-Head relations by raising to Spec TP. Consequently, the uninterpretable features are erased in order for the derivation to converge at LF; otherwise, the derivation crashes with the remaining uninterpretatible features. Under this further tenet, not only can T-features in the (bare) subject nominals and those on T be checked but this also provides an explanation which is consistent with the Minimalist framework's licensed feature-checking. For a detailed consideration, refer to the following ambiguous examples:

(18) a. Kay-ka cikum cic-nun-ta. (‘Dogs bark now’: existential/episodic)

a´. Well-trained dogs run fast now. (existential/episodic)

b. Kay-nun/ka cic-nun-ta. (‘Dogs bark’: universal/generic)

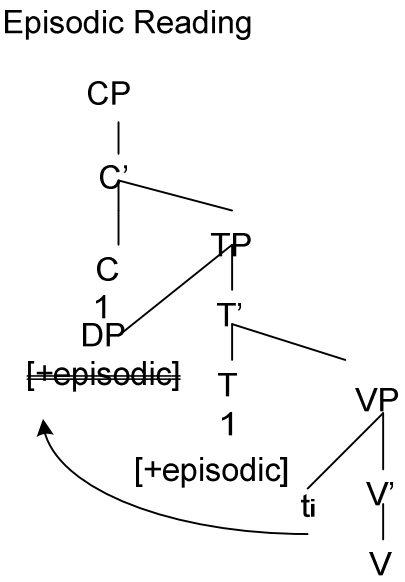
b´. Well-trained dogs run fast. (universal/generic)

c. Kay-ka cikum cic-nun-ta. (‘Dogs bark now’: *universal/generic)

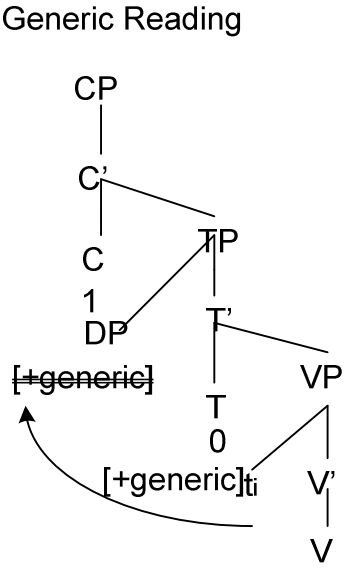
c´. Well-trained dogs run fast now. (*universal/generic)

The bare noun *dog* in (18a, a´) with the individual-level predicate can be grammatical with an episodic reading when the time adverbial *now* appears. On the other hand, the others in (18) exhibit either a universal/generic reading (18b, b´) or ill-formed generic sentences (18c, c´), which entails that an individual-level predicate cannot be compatible with present tense when they bear a generic/universal meaning. Likewise, the grammatical sentences in (18c, c´) cannot be interpreted as a universal/generic reading due to [+pres] specified with the adverb *cikum* and *now*. Their tree structures are given in (19):

(19) a. Kay-ka cikum cic-nun-ta



b. Kay-ka cic-nun-ta



Both subjects are base-generated in Spec VP, regardless of the predicate type, and move to Spec TP to get Nom checked. C is a realm for Speech time that is indexed 1 in both structures, while Event time is indexed differently: with 1 in (19a) and 0 in (19b). Therefore, the former T-chain has a matching index, while the latter does not. The subject DPs, bearing matching T-features (i.e., [+episodic] and [+generic] respectively), move to Spec TP, and the uninterpretable features are checked off in Spec-Head relations. As a result, each derivation in (19a) and (19b) converges at LF, and the bare noun subject *dogs* is interpreted episodically or generically. At the same time, the feature-checking mechanism explains why the sentence **Dogs bark now* in (18) fails to obtain a generic reading; let us assume that the VP-internal subject *dogs* bears a generic feature in (18c). T cannot be indexed with 0 because Event time is specified in VP with the adverbial *now*. *Dogs*, bearing [+generic], moves to Spec TP in order to check off its NOM, and this derivation obtains up to that point. However, the grammatical feature [+generic] of *dogs* in Spec TP cannot be erased because T does not contain the matching feature; therefore, the remaining formal feature leads the sentence to crash at LF.

In the same way, the revised T-chain approach in this study also explains the ongoing controversial issues regarding case particles and predicate types in Korean/Japanese. The following Korean examples repeat (12) and (18):

(20) a. kay-nun talli-***n***-ta = Dogs run (a universal reading)
dog-TOP run-PRES-DEC

a′. kay-ka apwu-ta = (Some) Dogs are sick (an existential reading)
dog-NOM sick-DEC

b. sungca-nun sang-ul pat-***nun***-ta = Winners ***take*** a prize (a universal reading)
winner-TOP prize-ACC receive-PRES-DEC

b′. sungca-nun sang-ul pat-***ass***-ta = Winners ***took*** a prize (an existential reading)
winner-TOP prize-ACC receive-PST-DEC

c. sungca-nun yongkamha-ta = Winners ***are*** brave. (a universal reading)
winner-TOP brave-DEC

c′. sungca-nun yongkamha-***ess***-ta = Winners ***were*** brave. (an existential reading)
winner-TOP brave-PST-DEC

The revised T-chain approach in this study also supports Jun's (1996) argument; conventionally, generic interpretations have been analyzed so that they cannot be encoded with Nom-marked bare nominals such as *kay-ka* (dog-Nom) and *inu-ga* (dog-Nom) in Korean and Japanese respectively. According to Jun (1996), however, case particles in Korean do not guarantee the particular interpretations of bare nominals because the NOM-marked bare noun subject *kay-ka* can be also interpreted as a focused generic, which emphasizes the kind/category of *dogs* (i.e., *kay-ka tallin-ta* 'dogs, no other species, run'), as opposed to the TOP-marked generic (i.e., *kay-nun tallin-ta* 'dogs run') in (20a). Therefore, based on Jun (1996) and Baptista (2007), I argue that the different interpretations of the same bare noun *kay* in (20a – generic) and (20b – episodic) are not a matter of case particles; T in (20a) is indexed with 0, which gives a generic meaning, because the Event time is not specified (i.e., *tallin-ta* 'to run'), while T in (20b) is indexed with 1 because of its specified Event time (i.e., *apwu-ta* 'is sick'). Additionally, in (20b′), T is indexed with 2 as a result of the specified Event time, [+past] (i.e., *pat-ass-ta* 'took'); however, T in (20b) is indexed with 0 due to the off-setting of Event time. Similarly, in (20c) with the property-denoting individual-level predicate *yongkamha-ta* 'brave,' T is indexed with 0 because of the off-setting of Event time, while T in (20c′) is indexed with 2 due to the specified Event time, [+past] (i.e., *yongkamha-ess-ta* 'was brave'). In (20b) and (20c), *sungca* which is

base-generated in Spec VP, bearing [+generic], moves to Spec TP in order to check off its NOM, and then, the grammatical feature [+generic] of *sungca* in Spec TP is erased by the identical matching feature of T; therefore, this derivation, being licensed by a generic interpretation, converges at LF. As considered in (20a) with respect to ambiguity between generic tense and present tense, the example *kay-ka talin-ta* (dogs run) may be interpreted in two ways because tense in *talin-ta* (run) is phonetically ambiguous between *absolute present tense* (i.e., [+present]: lit. *Dogs run now*) and *generic tense* (i.e., [+generic]: lit. *Generally speaking, dogs run*) which is tense-neutral. However, there are no specific morphemes in *talin-ta* (run), which contribute to distinguish those two tenses. In other words, the morpheme {-n}, denoting present tense in Korean, does not necessarily indicate [+present] on T for Event time.

Guéron (2006) and Baptista (2007) previously pointed out the nominal interpreting mechanism between a bare DP subject and an individual- vs. stage-level predicate (e.g., *to run* vs. *to be sick* as illustrated in (5), in the Korean examples above). Baptista lends further support to Kim (1993) who explains why an individual-level predicate is not compatible with [+present]: "T carries a zero index and ends within VP (the domain of spatial interpretation), then D will also carry a zero index whether D is filled or not, yielding a generic, non-anaphoric interpretation for the sentence" (Baptista, 2007, p. 81). Likewise, the incompatibility of [+present] with an individual-level predicate, which holds generic tense in Korean is explicitly realized with an uncontrollably obligatory use of the morpheme {-n} that indicates present tense originally. I propose that neither an individual-level nor a stage-level predicate is compatible with present tense when the (bare) subject bears a generic/universal interpretation, even though Kim (1993) argues that only an individual-level predicate is not compatible with [+present].

Speech time on C in Korean is categorized as *past*, *present*, and *future*, and they are realized with exclusively distinctive morphemes; for example, the morphemes such as *-ess/-ass*, *-n/-nun*, and *-kess/-ul* refer to [+present], [+past], and [+future] respectively:

Past	Present	Future
mek-**ess**-ta eat-**PST**-DEC 'ate'	mek-**nun**-ta eat-**PRES**-DEC 'eat'	mek-**kess**-ta / mek-**ul-kess**-i-ta eat-**FTR**-DEC 'will eat'

The table illustrates that the verb stem *mek-* 'to eat' is conjugated with three different tense-indicating morphemes, and *-nun* explicitly shows it marks present tense. In contrast, Event time on T is not absolutely identified by tense morphemes, particularly, in the case that a verb holds the morpheme {-n}, which exhibits [+present] illustrated in the following examples in (21).

Note that in the following examples of predicates, the morpheme {-n} denotes present tense, but it does not always retain its original function:

(21) a. [CP C1 [TP kay-nun T0 [VP talli-***n***-ta]]] (generic interpretation)

dog-Top run-PRES-DEC

'Dogs run'

b. [CP C1 [TP holangi-nun T0 [VP san-ey sa-***n***-ta]]] (generic interpretation)

tiger-Top mountain-Loc live-PRES-DEC

'Tigers live on a mountain'

c. [CP C1 [TP sungca-nun T0 [VP sang-ul pat-***nun***-ta]]] (generic interpretation)

winner-Top prize-Acc receive-PRES-DEC

'Winners take a prize'

All predicates in (21) contain {-n}, and only (21c) has a stage-level predicate, while both (21a) and (21b) contain individual-level predicates. A generic interpretation, indexed with 0 in T-chain, is tense-neutral, and the morpheme {-n} does not necessarily exhibit [+present] with both types of the predicate in Korean. As shown in (21a) and (21b), the morpheme {-n}, which marks present tense in *tallin-ta* 'run' and *san-ta* 'live,' would be used as [+present] on C in Speech time due to {-n}, even though it does not guarantee the same role on T in Event time, indexed with 0. Similarly, the morpheme {-n} does not fulfill its fundamental role of designating [+present] within a stage-level predicate, *sang-ul pat-nun-ta* 'take a prize,' as well since T is also indexed with 0 in (21c) as (21a) and (21b) are, despite the different types of the predicate. Therefore, I argue that tense morphemes, especially, a morpheme for [+present], do not help distinguishing between generic and absolute present tense; additionally, neither the individual-level predicate nor the stage-level predicate is compatible with absolute [+present] when they bear a generic/universal interpretation. This is in contrast to Kim (1993) who argues that only an individual-level predicate is not compatible with [+present], while "only generic reading of the present form occurs with the individual-level predicate"(p. 201).

The following CVC and English examples that repeat (17) further support my argument:

(22) a. [CP C1 [TP mininu T0 [VP ten brinkedu]]] (Generic interpretation)

b. [CP C1 [TP mininu T1 [VP ten brinkedu]]] (Episodic interpretation)

(23) a. 'If the child has a toy, she is happy.' (universal reading) -> generic tense

b. 'Yesterday, whenever the child had a toy, she was happy.' (non-referential reading)

-> episodic tense)

The CVC predicate *ten brinkedu* 'stay quiet' in (22) can be interpreted either generically (22a) or episodically (22b). Also, the English predicate *happy* in (10) is interpreted universally (23a) or

existentially (23b) depending on the tense it takes; therefore, the interpretation is affected by Event time, which is realized on T, rather than the dichotomy of the predicate type. Moreover, I have demonstrated that it is difficult to strictly classify the type of *ten brinkedu* 'stay quiet' or *happy* by looking at the predicate itself, for instance, whether one is a stage-level or an individual-level predicate because, in fact, the boundary of the predicate types are blurry without specified tense.

Bare noun subjects, base-generated in Spec VP, are modified by tense. In particular, arguments (i.e., bare noun subjects) in Spec VP, as variables, are bounded by operators such as present or past tense, which are indexed with either 1 or 2 respectively on TP. In the case of off-setting of tense, the generic operator is not required because a generic/universal reading does not require tense; in other words, when Event time on T is indexed with 0, it entails that there is no quantifier to bind variables because "the link established between event space and discourse space is off" (Baptista, 2007, p. 84). If a stage-level predicate alone can be bound by [+present] at any rate, as Kim (1993) argues, the bare subject of a stage-level predicate should be interpreted existentially by all means. However, this is not true because absolute tense is not allowed even with the stage-level predicate when Event time on T is off; cross-linguistic data in this chapter have shown that neither a stage-level predicate nor an individual-level predicate is bound by [+present] when they bear a generic/universal reading. The unconventional behavior of the tense morpheme {-n} in Korean demonstrates that [+present] may not play its original role as tense operator either with an individual- or a stage-level predicate. Based on this evidence, therefore, I disagree with Diesing (1992) and Kim (1993) who believe that bare nominal interpretations are determined by the predicate type, and a subject of an individual-level predicate is base-generated in Spec TP (IP).

Moreover, I argue that all subjects are base-generated in Spec VP, and they are assigned theta-roles before they move to Spec TP because I assume there is no possibility that they undergo lowering or downgrading from Spec TP (IP) into Spec VP in order to receive an existential/episodic reading. T-features in the subject DP such as [+generic] and [+episodic] should be checked off against the categorical features in T in Spec-Head relations; if they remain unchecked in N, the derivation crashes at LF because those features are uninterpretable formal features (as they are not categorical N features, which are interpretable).

Carlson (1977) and Diesing (1992) have not been able to capture a solution for the complicated phenomenon of bare nominals' obtaining unconventional episodic interpretation with the so-called individual-level predicate and also have faced a problem in interpreting empirical data as I have shown in this chapter. Without being limited to insignificant distinctions of an individual- or stage-level predicate in relations to raising/control structures in syntax, the revised T-chain approach in this study, based on Guéron (2006) and Baptista (2007), further accounts for the mechanism of how the bare noun subject in Spec TP, indexed with 0, receives a generic interpretation across languages. This line of approach also leads to the theory of Universal Grammar pursued by the Minimalist Program through maintaining the base-generated position of subjects in Spec VP, their theta-role assignment, and the cross-linguistic feature-checking process.

CHAPTER 4

MULTI-LAYERED DP

4.1 Number

In previous chapters, I have argued that nominals are projected as DPs as long as referentiality emerges, irrespective of the preserve of an overt article. In this chapter, I will show that nominals can be realized as more than just one simple unit of DP or NP; for example, the bare NP can be analyzed as more complex units, i.e., a multi-layered unit of the maximal projection of DP, which is composed of other maximal projections such as Number Phrase (NumP) and Quantifier Phrase (QP) between DP and NP, instead of one single NP node (Li, 1998; Tang, 1990, 2004, 2005; Ishii, 2000, Cheng and Sybesma, 1999; Li and Shi, 2003, and many others).[1] Besides, NumP and QP, I propose that case particles in Korean, such as topic markers *un/nun*, nominative markers *i/ka*, accusative markers *ul/lul*, and the genitive marker *uy*, are realized as D elements within the multi-layered DP. In 4.1, following Nemoto's (2005) idea, in conjunction with Chierchia's (1998) nominal mapping hypothesis, that Korean/Japanese common nouns are different from conventional mass nouns, I investigate the typological characteristics of Korean bare nominals and the number marking system by revisiting Chierchia (1998). 4.1 discusses the semantic and syntactic number features in terms of morphosyntactic analysis, based on Heycock and Zamparellii (2005), Baptista (2007), and Stark (2008). The intermediate level of a functional category between NumP and NP will enlighten the inevitability of the split-number hypothesis in syntax cross-linguistically. In addition, I explore ClP in so-

[1] I borrow *a multi-layered DP* from Longobardi (1994) and Baptista (2007). Baptista, for example, uses this term in her analysis of bare nominals in CVC. CVC nominals are also composed of a series of layers, such as NP, NumP,

called classifier languages. I will show that QP-internal NP movement is not licensed by specificity or definiteness without merging with D head yet, as a result, the phenomenon has a different motivation from scrambling in Korean and Japanese. Similar to the overt N-to-D raising in Romance (e.g., Italian; Longobardi, 1994), Korean and Japanese undergo overt N's raising to Spec QP or Q-to-D raising at LF when the (bare) nominals bear specificity/definiteness, which is supported by empirical data from Japanese, Chinese, and Korean. 4.2 presents the possibility of case particles as D elements in the DP hypothesis dealing with structural similarities between English determiners and Korean particles under the category of D. I will further argue that, in Korean, the nominative case is checked by T as it is in English within the framework of the Minimalist Program. In addition, I show that Korean peculiar TopP and topicalization are associated with case alternations and inalienable possession constructions; moreover, in comparison with TopP, the internal structure of Korean bare nominals is analyzed by means of the projection of a multi-layered DP.

4.1.1 Singular vs. Plural

4.1.1 explores the number system in Korean as a preliminary step for the investigation of the multi-layered DP in later sections, and how the interpretation of number in common nouns is related to the syntax of DP in Korean. According to Link (1983), who treats the domain of entities as an algebraic (nominal) structure, the distinction between count and mass nouns are marked by different syntactic and semantic features; particularly, nouns have the following denotations for semantic domains:

Nouns	Count	Mass
Semantic domains	Atomic join-semilattices	Non-atomic join-semilattices

and DP, with which their maximal projection is realized.

Plural entities and mass nouns are classified as non-atoms, whereas only the singular entities are atoms.[2] The distinction of semantic domains (i.e., *atomic join-semilattice* and *non-atomic join-semilattice*) captures similarities and dissimilarities in terms of properties of count and mass nouns respectively. However, Stark (2008) assumes that nominals do not exhibit specific interpretations regarding *count* or *mass* denotations because those denotations are "merely a set of singleton elements irrespective of their morphological number," following Heycock and Zamparelli's (2005) proposal with respect to English indefinite nominals. When the interpretation of a noun is "semantically pluralized," it is assumed that the noun has *a join-semilattice structure* (Heycock & Zamparelli, 2005). I assume that, by adopting the notion of *a join-semilattice structure* in this study, nouns in so-called classifier languages such as Korean, Japanese, and Chinese have inherent semantic pluralization, which is also supported by semantic typologists who argue that the function of the classifiers in those languages show that classifiers play a role of individualizing nominal notions (Greenberg, 1972, 1975; Gil, 1989, 1994). The following examples exemplify Korean does not appear to have syntactic count and mass distinctions:

(1) a. manhun haksayng-i o-ass-ta.
many student-NOM Com-PST-DEC

a′. manhun haksayng-***tul***-i o-ass-ta.
many student-PL-NOM Com-PST-DEC
'Many students came.'

b. ever-land-eyse manhun tongmuwl-ul bo-ass-ta.
Ever Land-LOC many animal-ACC see-PST-DEC

[2] Collective nouns such as *furniture* and *clothing* can be divided into smaller units such as *chairs, closets, shirts, skirts,* and etc. Therefore, they may be semantically atomic as well, whereas *sand* and *snow* are particulate. However,

b′. ever-land-eyse manhun tongmuwl-***tul***-ul bo-ass-ta.

Ever Land-LOC many animal-PL-ACC see-PST-DEC

'(I) saw many animals in Ever Land.'

Korean displays singularity and plurality with the presence and absence of the plural morpheme *tul* such as the counterpart of English *–s* does. However, the data in (1) illustrate that the plural connotation is successfully conveyed without the plural marker in Korean as (1a) and (1b) show, which is different from English—the singular form of both *haksayng* 'student' and *tongmwul* 'animal' are compatible with the adjective *manhun* 'many,' which triggers the semantic property of 'being plural.' Therefore, it seems that the Korean plural marker is optional. However, we cannot jump to this mistaken conclusion only based on this data in (1) because there is restriction in Korean in terms of using the plural marker. The data in (1) introduce two important matters to be highlighted in this section: first, how is plurality, including the plural marker, distributed in Korean syntax; and second, which type of restrictions (e.g., semantic features) triggers the different behaviors of nominals (including the multi-layered DP) in Korean.

Some languages, such as Korean, Japanese, and Chinese, do not distinguish the count/mass denotations in treating common nouns as other Western languages do, and they adopt classifiers (CL) in syntax:

(2) a. sakwa twu kay = twu kay-uy[3] sakwa

apple two CL two CL-ATT apple

'two apples'

b. mwul twu can = twu can-uy mwul

I do not discuss those classifications of mass nouns any further in this study.

[3] *Uy* is used as *a genitive particle* in Korean; however, the same morpheme is also used synonymously as *an attributive possessive particle*. Likewise, the Japanese genitive particle, *no*, is used for both functions as well. There are semantic differences between the construction with the prenominal CL and the NP-initial construction; I will

water two CL = two CL-ATT water

'two glasses of water'

(adapted from example (1) in Kang, 1993, p. 2)

As shown in (2), the count noun *sakwa* 'apple' in (2a) and the mass noun *mwul* 'water' in (2b) do not differ in their syntactic behavior as long as the appropriate classifiers are used. Therefore, Korean has the unmarked quantificational structure, unlike English (Lee, 1989; Im, 1991; Kang, 1993, and many others). However, as Kang (1993) points out, Korean also exhibits the distinction between the count nouns and the mass nouns in syntax, which is similar to English:

(3)	a. saram-***tul***	'people'	a′. twu saram-***tul***	'two people'
	b. kay-***tul***	'dogs'	b′. (?) twu kay-***tul***	'two dogs'
	c. sakwa-***tul***	'apples'	c′. (?) twu sakwa-***tul***	'two apples'
	d. *mwul-***tul***	'waters'	d′. *twu mwul-***tul***	'two waters'

In (3a), (3b), and (3c), the count noun *saram* 'person,' *kay* 'dog,' and *sakwa* 'apple' are compatible with the plural marker *tul*[4] in Korean (cf., although *kay*-PL and *sakwa*-PL are also acceptable, *saram* is more well-matched with *tul* than the former); however, the mass noun *muwl*

---

discuss the difference in 4.2.1 in detail.

[4] The Korean plural marker *tul* has been studied as diverse functional morphemes; it is interesting to note that *tul* is optional in syntax and even can flexibly occur with adverbs, locatives, and sentence enders attached to them. Accordingly, it has various names in literature, such as *ubiquitous plural marker* (Song, 1975), *agreement plural marker* (Park & Sohn, 1993), *copy plural marker* (Kuh, 1987; Lee, 1991), *spurious plural marker* (1994), *extrinsic plural marker* (Song, 1997), and so forth. Those various behaviors of *tul* are provided in the examples below:

a. ese-***tul*** o-se-yo
quickly-PL come-Hon-Pol
b. ese o-se-yo-***tul***
quickly come-Hon-Pol-PL
c. ese-***tul*** o-se-yo-***tul***
quickly-PL come-Hon-Pol-PL
'Come, quickly!'

As shown the examples above, the optional plural marker *tul* follows any word, phrase, clause, or sentence (therefore it is *ubiquitous* according to Song) "to indicate distributive plurality of the subject nominal."(Sohn, 1994, p. 349) Also, *tul* can occur any position that is marked [] as illustrated below:

d. ai-***tul***-i Tom-eyke-[] ppang-ul-[] manhi-[] cwuesseyo-[]
child-PL-NOM Tom-to bread-ACC a lot gave

'water' with the plural marker *tul* is rarely used in Korean. It is interesting to note that when numerals precede, the mass/count distinctions get more clear: only [Num+saram+PL][5] in (3a′) is acceptable as a well-formed structure, whereas [Num+kay or sakwa+PL] in (3b′) and (3c′) are awkward, and the parallel structure with the mass noun *mwul* in (3d′) is not acceptable.

Based on these Korean data, Korean does reveal syntactic distinctions between count and mass nouns, although the differences are not as strict as in English. Then, what makes the distinctions, even "to a lesser degree than in English" (Kang, 1993), between those two types of nouns in Korean? In order to find the answer, an observation of cross-linguistic data from Japanese and Chinese, which show similarities with Korean, would be helpful.

In turn, I recall Chierchia (1998). Bare nominals (bare NPs) are widely used as external arguments (subjects) and internal arguments (objects) in Korean. This phenomenon provokes controversy with the conventional generalization that only DPs are arguments, and non-argument NPs denote kinds. For this reason, Chierchia (1998) claims that arguments in Chinese-type languages such as Korean and Japanese come out of the lexicon as a level of bare NPs, e.g. [+arg, -pred] type languages, which do not possess determiners in syntax. Only determiner-like elements such as quantifiers and demonstratives select NPs and shift them into predicates. In his view, these NPs are arguments themselves because they are "kinds." Therefore, due to the property of "kinds," bare NPs in languages such as Korean do not necessarily indicate countability, such as singularity and plurality in other languages, and the mass interpretation of Korean nouns lack pluralization. However, the generalization of Chinese-type languages is incorrect. Chierchia (1998) further argues that languages such as Korean and Chinese have a

'The children gave Tom a lot of bread.' (Lee, 1991, p. 81)

[5] Kang (1993) proposes that the sequence of [NP+Num+CL] as the canonical quantificational construction in Korean; however, I follow the natural sequence of Number Phrase in Western Languages and Cheng and Sybesma (1999), and propose [Num+CL+NP] as the default construction, whose sequence is different from Kang's (1993)

unique number system for counting atom-like mass nouns because “pluralizing them makes no sense” (p. 347). However, as we have observed, this idea is not true. Korean bare nouns can appear in argument positions, being pluralized as shown in (1), and, particularly, they can function as subjects or objects; therefore, they are argument expressions (i.e., DP).

My argument is straightforwardly supported by Nemoto (2005). She states that “bare nouns of Korean/Japanese can refer to a specific individual, but mass nouns cannot,” and generalizes Korean and Japanese bare singulars as kind-referring arguments, whereas bare plurals are not. As Nemoto (2005) shows, Korean/Japanese bare nouns can be pluralized, and anaphoric NP arguments behave like count nouns, while English mass nouns cannot be pluralized. Without determiners, English mass nouns cannot refer to specific individuals, while Korean/Japanese bare nouns can refer to the equivalents without determiners. The singular form of bare nouns in Korean/Japanese can be kind-denoting; however, plural nouns cannot. In contrast, English plural nouns can be kind-referring, and the kind-referring expressions are true mass nouns. In the following table, I summarize the difference between Korean/Japanese bare nouns and conventional mass nouns that Chierchia (1998) categorizes, based on Nemoto (2005):

English	Korean
not pluralized ex) **furnitures*	pluralized ex) *kakwu-tul* ‘furniture-PL’
do not refer to specific individuals -> *furnitur e* *[+def, +spec]	refer to specific individuals -> *kakwu* [+def, +spec]
PL nouns can be generic ex) d*ogs*	PL nouns cannot be generic (not number-neut ral) ex) **kay-tul* ‘dog-PL’
true mass => kind-referring expressions	mass => non-kind-referring arguments

canonical quantificational construction in Korean. I will discuss the sequence of the Number Phrase in depth in 4.1.2.

As pointed out in Nemoto (2005), we face a puzzle: “why can’t nonhuman plural nouns appear in generic/kind-predication sentences?” (p. 407), as specified in the following examples:

(4) a. *kay-tul: Mass + PL a′. kay: Mass (‘dog’)

b. *kakwu-tul: Mass + PL b′. kakwu: Mass (‘furniture’)

c. hankwuksaram-tul*:* Count + PL c′. hankwuksaram: Mass (‘Korean’)

As shown in the examples above, all bare singular nouns are kind-referring and behave like conventional mass nouns such as *furniture* in English; therefore, both *kay* ‘dog’ in (4a) and *kakwu* ‘furniture’ in (4b) cannot have the plural suffix *–tul* due to their property of mass denotation, such as *furniture* in English. In contrast, both *hankwuksaram* ‘Korean’ in (4c) and *hankwuksaram-tul* ‘Korean-PL’ in (4c′) with a plural suffix are all well-formed. I suggest *hankwuksaram* ‘Korean’ in (4c) should “come out of the lexicon with mass denotations” initially like other bare nouns, but the original type of this lexicon shifts from mass to count denotation by the type-shifting functor, [+human]. Consequently, this nominal turns into a count noun and can be pluralized as illustrated in *hankwuksaram-tul* ‘Korean-PL’ (4c′) with a suffix. My proposal finds corroboration in Baptista (2003) who explains that “the plural marker shows a preference for nouns with [+human] which we consider a consequence of its sensitivity to a semantic principle that takes a [+human] feature as being more individuated than items that are [-human]” (p. 20). Therefore, human nouns are superior in terms of being individuated with the feature [+human] and undergoing type-shifting to count nouns in a so-called classifier language, Korean. I propose [+human] triggers the default mass connotation to undergo shifting into the count connotation in Korean syntax; D is universal, but the type-shifting of count/mass denotations, depending on [+human] in syntax, is a language-specific phenomenon as a type of

parametric variations. For example, English nominals do not undergo this kind of type-shifting with [+human], but Korean bare nominals do.

Conventional English mass nouns and Korean/Japanese bare nouns show a crucial difference; if mass nouns cannot be pluralized as Cherchia (1998) argues, Korean/Japanese, as NP [+arg, -pred] languages, should not able to be pluralized. On the contrary, Korean/Japanese bare nouns can be pluralized, and "anaphoric nominal arguments behave like count nouns," while English mass nouns cannot be pluralized (e.g., *furnitures). Without determiners, English mass nouns cannot refer to specific individuals (e.g., furniture), while Korean/Japanese bare nouns can refer to the equivalents without determiners. The singular form of bare nouns in Korean/Japanese can be kind-denoting; however, plural nouns (e.g., *dog-PL) cannot. In contrast, English plural nouns can be kind-referring, and the kind-referring expressions are true mass nouns. In addition, Korean/Japanese bare nouns are not fundamentally kind-referring arguments, as opposed to Chierchia's (1998) proposal:

(5) a. bakkath-e haksayng-i issta
outside-LOC student-NOM exist (Korean)
b. soto-ni gakusei-ga imasu
outside-LOC student-NOM exist (Japanese)
'There is/are a student/students outside' (adapted from Nemoto, 2005, p. 398)

Both *haksayng* and *gakusei* 'student' demonstrate that Korean and Japanese bare nouns are interpreted existentially in (5), rather than generically, which implies that these bare nominals are not mass nouns. Therefore, Nemoto (2005) argues that "bare nouns in an NP [+arg, -pred] language denote kinds and come out of the lexicon with mass denotations," as Chierchia (1998) proposes, only when "they retain mass denotation." However, "when DP and ClP are projected,

they trigger the mass to count denotation shift. . . although *gakusei/haksayng* ‘student’ with a mass denotation and *gakusei/haksayng* that denotes a specific singular individual are phonologically the same, they are not syntactically the same: the former is an NP, whereas the latter is a DP” (pp. 402-4). For better understanding, I provide the following Korean examples in line with Nemoto (2005):

(6) a. Tom-un [*haksayng*]-ita

Tom-Top student-Dec

‘Tom is a student’

b. sunsayngnim-un [*haksayng*]-ul cal cito-hayyahan-ta

teacher-Top student-ACC well teach-must-Dec

‘Teachers have to teach students well’

c. ku sey-myeng-uy [*haksayng*]

that three-CL-ATT student

‘three students’ (Korean)

Haksayng ‘student’ in (6) are classified differently: a NP predicate (a), DP argument (b), NP within CLP whose maximal projection is DP (c); as a result, *haksayng* ‘student’ has different semantic features such as [-def] with (a) and [+def] with (b) and (c). Therefore, the interpretation of Korean/Japanese bare nouns and their count/mass distinctions are far more complicated than Chierchia (1998) proposes.

Embracing Nemoto (2005), which provides a way to discern between the general mass connotation in Chierchia (1998) and Korean/Japanese bare nouns, I separate Korean/Japanese

bare nouns from conventional mass nouns[6] such as *furniture* and define the former as *derived mass nouns* and the latter as *true mass nouns*.

I agree with Chierchia (1998) and Nemoto (2005) who argue that Korean/Japanese bare nouns, including all argument expressions, do come out of the lexicon with a mass denotation, and I further propose there are two ways of recategorizing of Korean/Japanese bare nouns to count nouns; one is recategorization with classifiers, and the other is recategorization with D possessing [+human]. When ClP is projected, the Korean bare NP is explicably recategorized into count denotation because of ClP, which is analogous to English mass nouns with classifiers such as *a cup of coffee* and *two pieces of furniture*. As a result, [DP [ClP [NP]]] structure (possessing type-shifting functors such as DP with overt determiners and ClP with classifiers) is projected as a recategorized full DP cross-linguistically. Likewise, in Korean, a bare form itself turns into a count noun with type-shifting functors such as CLP or with the overt determiners such as demonstratives. Additionally, I propose that [+human] in D also plays as a type-shifting functor as demonstrated in (4).

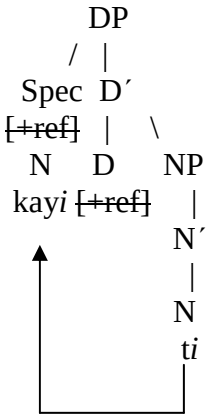
Turning to the nature of common nouns with [+human] in Korean, we have seen that a null D is also realized with [+human] in some bare nominals (e.g., the kind-referring bare noun *hankwuksaram* 'Korean'), which is even pluralized with the suffix *–tul*. Accordingly, Korean has a characteristic of so called [+arg, +pred] (e.g., English) or [-arg, +pred] (e.g., French) language. Based on this manifestation, I claim two forms—i.e., mass vs. count denotation, are compatible with each other in Korean syntax, even though I assume that the default type is mass nouns as

[6] According to Corbett (2000), the bare form of a mass noun turns into a singular form when it is "recategorized" to a count noun (p. 81). For example, English mass nouns can be "recategorized" (Corbett, 2000, p. 81) to count nouns after undergoing type-shifting; likewise, *a coffee* is a recategorized count noun as shown below:

a cup of **coffee** (*mass denotation*)
coffee (mass denotation) ----[
a **coffee** (*count denotation*)

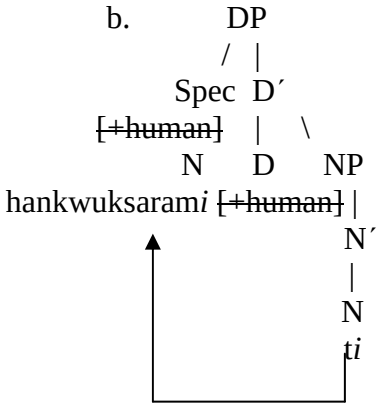
Chierchia (1998) proposes. Referentiality is realized as bare nominal forms in Korean, and a null D is a locus for those kind-referring bare nominals' referential features (i.e., [+def, -spec]) or [+human] to reside. The following figures in (7) explain the feature-checking process at LF occurring in a bare nominal phrase with a null D:

(7) a.



(argument *kay* 'dog')

b.



(argument *hankwuksaram* 'Korean')

[+Human] has no phonetic value. N moves to Spec DP at LF. In regard of D's [+human] as well as [+ref], D offers a position for [+human] to be checked off via Spec-Head relations within DP that is a maximal projection of bare NP. Although [+human] is a categorical feature of N, which is interpretable, it should be eliminated in D because it is uninterpretable in D. I propose [+human] triggers the default mass connotation to undergo shifting into the count connotation in Korean syntax; D is universal, but the type-shifting of count/mass denotations depending on [+human] in syntax is a Korean-peculiar phenomenon as a type of parametric variations.

I have modified Chierchia's (1998) theory of *nominal mapping hypothesis* and have investigated the property of Korean bare nominal arguments. As I previously defined, Korean/Japanese bare nominals are *derived mass nouns* because they show both typological characteristics from NP [+arg, +pred] languages and NP [+arg, -pred] languages as categorized in Chierchia (1998). In addition, I have shown that there are two kinds of type-shifting functors

in Korean: classifiers (CL) and [+human]. Korean bare nouns originally "come out of the lexicon with mass denotations," which is NP [+arg, -pred] (e.g. Chinese); however, in order to shift to the property of NP [+arg, +pred] (e.g. English), they undergo type-shifting with CL and [+human]; as a result, they can turn into count denotations as well. However, Korean does not seem to obtain the utmost level of count denotation as much as NP [-arg, +pred] languages (e.g. French) attain. For this reason, Korean's presumed typological unfeasibility as NP [-arg, +pred] level might have resulted from Chierchia's assertion that Korean nominals hold fundamental mass denotation in lexicon as a mass-denoting classifier language. In contrast, this study shows that Korean bare nominal arguments entail the characteristic of both NP [+arg, +pred] and NP [+arg, -pred]. [+Human] as a category of *animacy* implements a crucial role in the distribution of the plural suffix, and consequently, the distribution of the plural suffix gives rise to different interpretations of bare nominals in Korean. Therefore, Chierchia's (1998) theory of *nominal mapping hypothesis* should be revised in accordance with the fact that distinctions between DP and NP languages are inexplicable in terms of the nature of non-mass-like Korean bare nominal arguments due to their pluralization and [+human] feature.

4.1.2 Split Number Hypothesis

This section offers a morphosyntactic analysis of number. I propose the application of the feature-checking process and *agreement* in the Minimalist Program to the multi-layered DP when the number feature, such as singular [SG] or plural [PL], is concerned. Morphological discrepancy in terms of the (plural) number marking system arises among languages; for example, as we have shown previously, the Korean plural marker *tul* can be optional even with a count noun, but the counterpart in Western languages, e.g. English *–s*, is generally obligatory.[7]

[7] It is well-known that English plural suffix is not restricted to *–s*; for instance, English has *Old English* remnants in its plural suffixes, which include those in *strong nouns*, such as *oxen (-en), children (-ren),* and *men (-en),* inherited

Emonds (2000) points out the morphological differences, which are salient, between Japanese and English:

(8) *Number Filter*: The functional heads (I and D) must be specified for number (±PLURAL) at PF in certain languages (e.g., English but not Japanese). (p. 20)

This study treats Korean NumP in the same way as the identical category in Japanese, as those of other linguistic behaviors do so, and the theory of *Number Filter* above would be applied to Korean. Emonds (2000), supporting Kuroda (1992) who states that number features are closely related to the D head, proposes that D is the "canonical locus of PLURAL." Even though I agree that the level of the number agreement and the morphological plural marking in Korean and Japanese are not as strict as those in English, my proposal is not fully in agreement with his: I suggest the number filter is NumP, not DP, because I hypothesize D itself is rather the locus of specificity, definiteness, or referentiality, than a locus for number features.

Baptista (2007) supports my argument that number in nominals is associated with NumP, rather than DP. She also postulates that N-to-D raising in CVC nominals is involved via Num for checking [+Plur] (i.e., plural features) at LF when bare nominals denote definiteness/ referentiality, as shown in the scheme below:

(9) a. Definite specific plural

Kaza di es aldeia e baratu

House of this neighborhood is cheap

'The houses in this neighborhood are cheap.'

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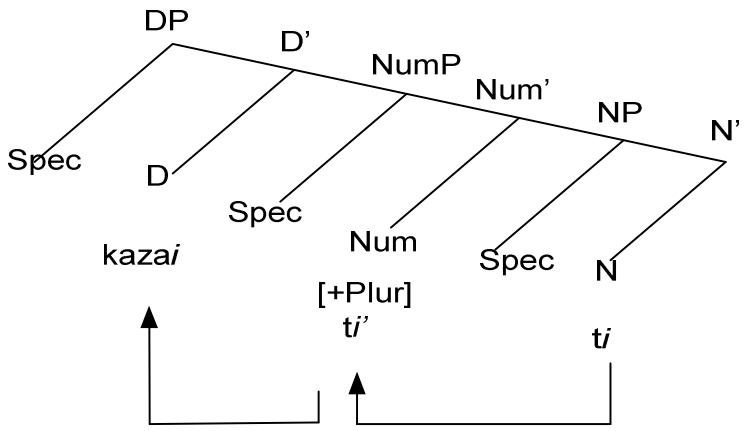
from a common Proto-Germanic ancestor.

a′.

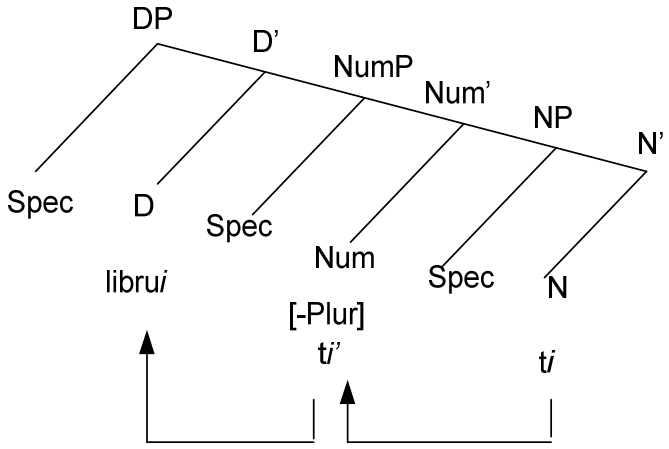


b. Libru sta riba di menza

book is top of table

'The book is on top of the table.'

b′



The trees in (9a′) and (9b′) illustrate the process of a plural feature checking of the examples in (9a) and (9b) respectively. The bare plural noun *kaza* 'house' contains [+Plur] even though it is not PL-marked morphologically; however, the definite singular specific/referential bare nouns such as *libru* 'book' has [-Plur], and those nominals enter into [±Plur] checking process via N-to-Num before N-to-D.[8] She also suggests that generic bare Ns and mass Ns lack number (NumP):

[8] In my analysis of Korean NumP, Baptista's (2007) [±Plur] in NumP is divided into two domains: i) NumP for numerals and ii) PlP for semantic number features (i.e., [±LATT]), which is based on Heycock and Zamparelli

(10) a. **Katxor** ka gosta di gatu [DP [D [NP [N **katxor**]]]]

dog NEG like of cat

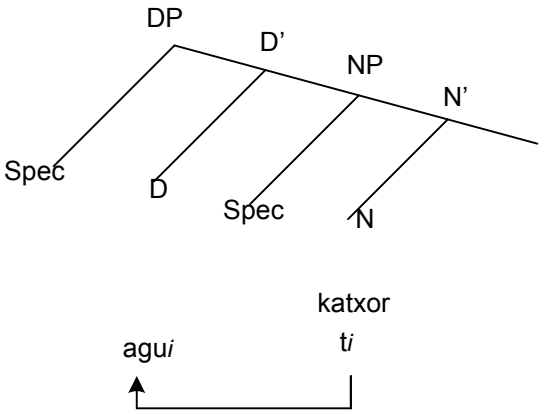
'Dogs do not like cats'

b. **Agu** di es fonti e freska ma salgada [DP [D **agu*i*** [NP [N ***t*i**]]]]

water of this spring is fresh but salty

'The water in this spring is fresh but salty'

c.



Baptista's (2007) analysis of determinerless noun structures shows that CVC bare nominal arguments are projected as full DPs consisting of multi-layered nominals including CL, Num, N, and D, which are identical with my current analysis of Korean. She analyzes bare NP as DP with "empty determiners" due to argumenthood status. Therefore, the generic bare noun *katxor* 'dog' in (10a) is projected as DP without NumP, whereas a mass noun N such as *agu* 'water' in (10b) is raised to D, i.e., N-to-D raising, and is also projected as DP, being devoid of NumP, when definite. It is interesting to note that CVC nominals can denote definiteness with movement either from N to Num (count Ns) or from N to D (mass Ns), whether determiners in CVC bare nouns are present or not. Therefore, Baptista's (2007) analysis of N-to-Num raising with the agreement operation with [±Plur] in CVC number marking provide crucial evidence that

(2005).

morphological number and semantic number are distinct, and that number features are closely associated with NumP, rather than DP.

Similar to Baptista (2007), Heycock and Zamparelli (2005) argue for a split of semantic and syntactic number—[PLUR] or [SG] feature is associated with syntactic number, consistent across all DP constituents, such as determiners and nouns, even including adjectives (e.g., *les arbres verts*): French has agreement in number among an adjective, a determiner, and a noun. The number feature-checking process, associated with NumP as the number filter, in the following examples show how NumP is involved with numerals cross-linguistically:

(11) a. Öt hajót láttam

5 $ship_{sing}$ I saw

b. Hajókat láttam

$ships_{plur}$ I saw

'I saw five ships' (Hungarian, Heycock & Zamparelli, 2005. p. 228)

c. Taset saram-ul po-ass-ta

5 man_{sing}-ACC see-PST-DEC

d. Saram-tul-ul po-ass-ta

men_{plur}-PL-ACC see-PST-DEC

'I saw five ships' (Korean)

In the examples (11) above, I provide the Korean counterpart that corresponds to the Hungarian data from Heycock and Zamparelli (2005). Both languages illustrate the same behavior in the given data: when numerals occur, the noun is morphologically singular in (11a) and (11c); however, plural morphemes are used without numerals in (11b) and (11c).

Based on the Hungarian and Korean data, following Hencok and Zamparellii (2005), who propose the feature-split approach, I verify that syntactic and semantic number features should be split. If those two features (i.e., semantic and syntactic number) were concomitant with each other, the mismatch between [5 + SINGULAR] in (11a) and (11c) would be ill-formed. However, they are grammatical in both languages; therefore, the cross-linguistic data in (11) is strong evidence for the feature-split approach, regarding the semantic/syntactic number. A more detailed explanation of the feature-split is given below:

> The semantic feature we will call LATT (for "lattice"). It has two possible values: -LATT (semantically singular) or +LATT (semantically plural, i.e., "having a join semilattice structure"). The semantic feature LATT is distinguished from the ϕ-feature for syntactic number, indicated as +PLUR (syntactically plural) and –PLUR (syntactically singular). $\underline{+}$PLUR belongs to the more general group of *agreement* features…semantic pluralization (meaning by this the creation of a lattice structure, via * or ÷) is not performed at N (say, with the application of plural morphology to the noun root), but is left to the abstract functional head Pl, which takes the NP as its complement. Pl can perform two distinct semantic operations, depending on the value of its feature PLUR at LF: $Pl_{[+PLUR]}$ denotes star (*), the pluralizer for count nouns, $Pl_{[-PLUR]}$ denotes div ($\dot{-}$), the pluralizer for mass nouns. (Heycock & Zamparelli, 2005, pp. 219-30)[9]

They assume that a phonologically empty Num head has a [$\underline{+}$LATT] by merging PlP. Therefore, "$Num_{[-LATT]}$ is equivalent to a cardinal with the meaning *one*, and $Num_{[+LATT]}$ to a cardinal (set)

[9] Heycock and Zamparelli (2005, p. 219) adopt Chomsky's (1995, 2000) checking theory of features, which states that "features without a value crash at Spell-Out." However, different from Chomsky, they do not assume that "features that receive a value in the course of the derivation are deleted before the level of interpretation is reached"; on the contrary, they believe that those features with values play an important role in "determining the specific

meaning *more than one*." Adopting Heycock and Zamparelli (2005), I propose that Korean numerals can be phonologically (overtly) realized in Num head, and Pl has [+LATT] as its inherent, categorial features, while N, the locus of the morphological number, has [SG] or [PL] as its intrinsic features. In addition, I revise their system in a simple way and do not use div ($\dot{-}$) for pluralizer for mass nouns; instead, irrespective of count/mass denotations, I use a different binary scheme, which is either PL* or Pl, instead of one with Pl$^{\dot{-}}$. I assume, in terms of the semantic number, we generally recognize number as [PL] or [SG], rather than [Mass PL], [Mass SG], [Count PL], and [Count SG]. Therefore, the following regulation is enough: 1) if *n>1*, the semantic value is marked as Pl*; 2) if *n=0* or *1*, the semantic value is marked as Pl, (i.e., neither with star (*) nor with div ($\dot{-}$)).[10]

Based on Heycock and Zamparelli (2005), Stark (2008) and the checking theory (Chomsky, 1995), I apply the agreement process of the semantic number (Pl*) and the syntactic number (SG or PL) to a syntactic computation within the NumP. In this computation, PlP is only concerned with the semantic number, and it is not responsible for the morphological number. As a result, the morphological number in Pl should be erased; otherwise, the remaining morphosyntactic number features in Pl cause the derivation to crash at LF because they are uninterpretable features in PlP. However, the number features in NP can remain after Spell-Out at PF because they are interpretable (categorical) features on nouns (Stark, 2008). Vice versa, the semantic number features on N should be checked off before Spell-Out as they are uninterpretable on N.[11]

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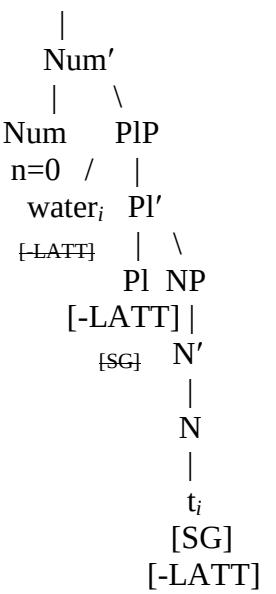
semantic function." See Heycock and Zamparelli (2005) for more discussion.

[10] Following Heycock and Zamparelli (2005), Stark (2008) also explains that merge of N with Pl* creates a [+LATT] denotations, regardless of "the morphological number of N"; then, PlP is merged with Num that hosts cardinals. See Stark (2008) for more discussion of the agreement operation.

[11] Stark (2008) has a similar approach with this study; different from mine, her analysis is based on the checking theory with *probe and match* and *value and delete* in the latest versions of the Minimalist Program (Chomsky, 2000, 2001, 2005; Pesetsky & Torrego, 2004). She also extensively discusses partitive elements and gender agreement

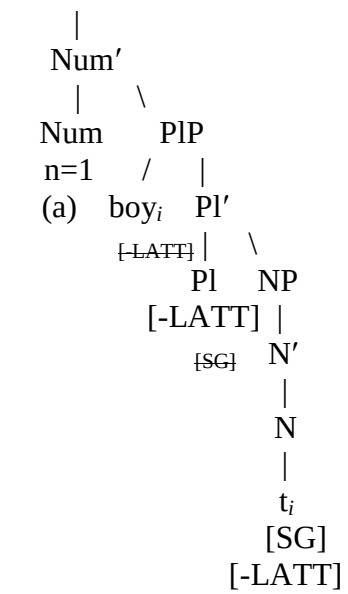
Now, the following agreement process can explain, how *öt hajót* ‘five ship,’ *taset saram* (five man), *taset ai* (five child), and *twu sonyen* (two boy) are grammatical, in contrast to English, as we have observed so far. Before these data, English examples are presented:

(12) a.



water (MASS)

b.



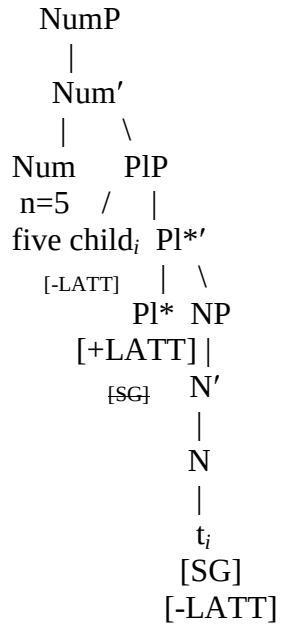
a boy (COUNT)

The mass noun *water* in (12a) has the features [SG], morphological number, and [-LATT], pure semantic number. [±LATT] feature in Pl needs not be checked because it is interpretable in Pl as a categorial feature. In the same way, [SG] in N is an interpretable, categorial feature of itself; therefore, [SG] in Pl and [-LATT] in N should be erased against to each other. N moves to Spec PlP to check off the uninterpretable [-LATT] via Spec-Head relations with Pl. Finally, *n=0* in Num informs the lack of overt numerals in the whole nominal phrase (i.e., NumP). Similarly, the count noun *a boy* (12b) has the features [SG] and [-LATT]. N moves to Spec PlP for checking its uninterpretable [-LATT] against Pl via Spec-Head relations. The only difference from the computation with *water* in (12a) is specified in Num position: *a boy*, as a count noun, Num has the value *n=1*, and this value results in taking the indefinite article *a*, which corresponds to an

inside the Romance nominal, which is controlled by Num. See Stark (2008) for more detailed discussion.

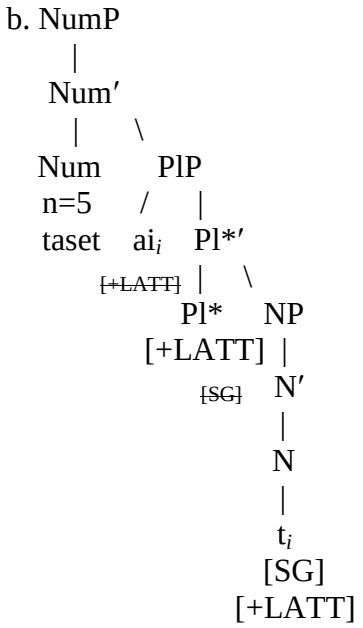
indefinite singular nominal in the overt syntax. These computations of agreement operation show how the English mass noun *water* and the count noun *a boy* are interpreted differently in relation to semantic and syntactic number features and, as a result, converge at LF. Therefore, I argue that NumP is the filter of number in nominals, not DP. Also, the same process is applied to the cross-linguistic data given in (13):

(13) a.



English (*five child$_{SG}$)

b.



Korean (taset ai$_{SG}$)

As we have already observed, cross-linguistic data show that, with the absence of overt (or morphological) number agreement, not only in Hungarian *öt hajót* (five ship) but also in Korean such as *taset saram* (five man), *taset ai* (five child), and *twu sonyen* (two boy) are grammatical, which is different from English. In both trees, following Heycock and Zamparelli (2005), Pl is marked as Pl* because * identifies the fact that the semantic number value is *n > 1*. The count noun *child* in (13a) has the features [SG], morphological number, and [-LATT], pure semantic number, in N, which is different from the Korean counterpart because the Korean N has [+LATT]. *Child* in (13a) moves to Spec PlP in order to check off its uninterpretable feature [-

LATT]; however, the checking process fails due to the mismatch between [-LATT] in Spec and [+LATT] in Head. Therefore, the derivation crashes at LF because of the remaining uninterpretable feature in N at LF; as a result, the English *five child* is ungrammatical. On the other hand, the Korean example *taset ai* 'five child' is grammatical in the following ways: *ai* with [SG] and [+LATT] enters into the same checking process as English, but the uninterpretable feature [+LATT] in N is successfully erased in Spec-Head relations after movement at LF. Therefore, this derivation converges at LF.

The projection of PlP in nominals also plays important role in distinguishing a NP predicate and an indefinite NP (i.e., DP) as shown below:

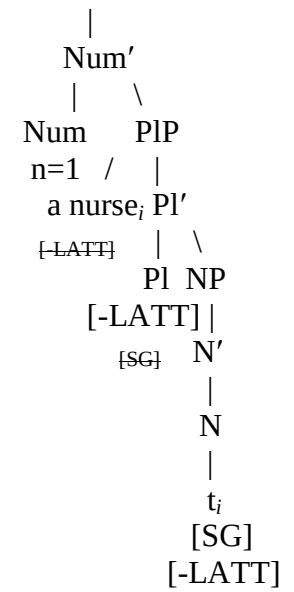
(14) a. Mary became **[**NP ***a nurse*****]**.

a′. I am **[**NP ***a nurse*****]**.

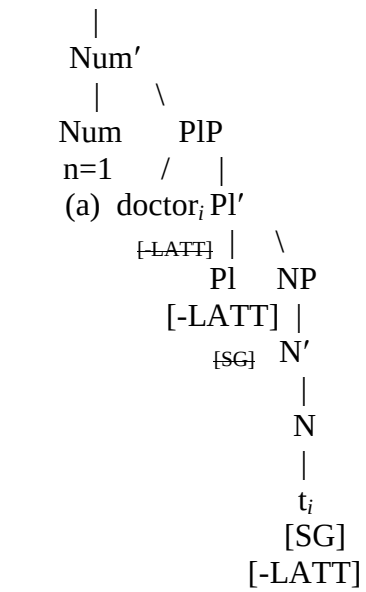
b. Yesterday, Mary met **[**DP ***a doctor*****]**.

b′ I talked with **[**DP ***a doctor*****]**.

(15) a.



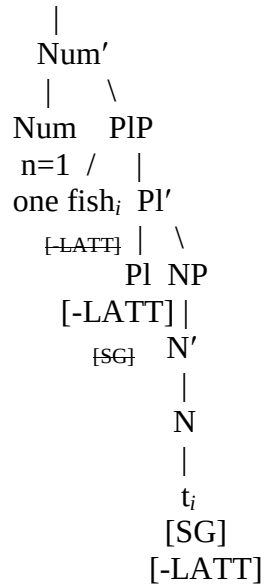
b.



A doctor in (14b, b′) is a DP argument, whereas *a nurse* in (14a, a′) is a predicative NP (i.e., non-argument). These two parallel schemes highlight a crucial difference between the indefinite article *a* in NP and DP frames with respect to *the split-number hypothesis*. *A* in [NP a nurse] in (14a) is base-generated as a numeral in the Num head because it purely corresponds to the numeral *1*, without engaging in any referential interpretation but number; in this case, *a* does not play any role but a number marker. The counterpart of Romance language data, for example, is realized without an indefinite article, such as *Je suis infirmière* (* *Je suis une infirmière*) in French, which also supports the classification of *a* in (14a) as a number marker, rather than a semantic marker. Therefore, *a* in (14a) denotes purely a number (i.e., SG), which is ambiguously homophonous to the indefinite article. On the other hand, *a* in [DP a doctor] in (14b) is an indefinite article, which is base-generated in the D head as a determiner. Therefore, the role of *a* in (14b) is originally an indefinite article; however, due to its homophonous counterpart (i.e., the number marker *a* in (14a)), it is not only involved as an indefinite marker but also as the numeral *1* at the same time. In order to distinguish those two words, I mark an indefinite article in Num as *(a)* in the tree in order to highlight that it is not fundamentally an element of Num but an element of D, as shown in the tree (14b).

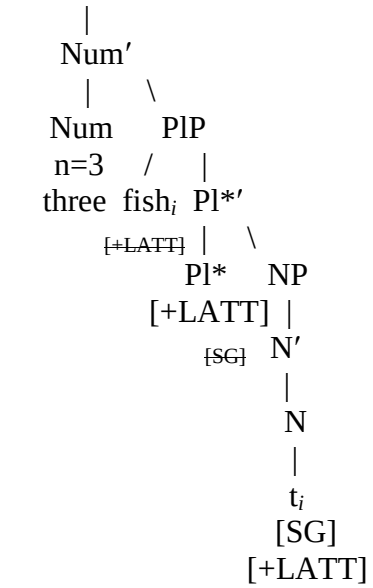
I assume that the distribution of the uninterpretable feature [±LATT] in N is arbitrary; therefore, the English *child* in (13a) contains [-LATT], whereas the Korean counterpart *ai* has [+LATT]. Based on only these two examples, however, we cannot jump to the conclusion that this phenomenon would be an instance of a parametric variation. The following example demonstrates that the arbitrary distribution of [±LATT] in N is not just restricted to a parametric variation:

(15) a.



one fish

b.



three fish

An English collective noun such as *fish* in (15) is ambiguous between a plural and singular form due to its lack of explicit morphological marking; additionally, the semantic value of either [-LATT] or [+LATT] is randomly distributed in N, such as *one fish* and *three fish*, which are analogous to (13a) (i.e., [-LATT]) and (13b) (i.e. [+LATT]) respectively. Therefore, the arbitrary distribution of those features can occur language-internally either in Korean or in English, or can occur across languages as well. As I have demonstrated, by looking at the morpheme itself, e.g. *fish*, *committee*, and so forth, does not contribute in determining the distribution of the semantic number feature in language; as a result, [±LATT] are not directly associated with the number morphemes. This argument strongly supports Heycock and Zamparellii's (2005) feature-split approach that suggests the semantic number features, regardless of the morphological marking, are controlled by PlP with the agreement operation. In addition, I assume that [+LATT] are relatively more distributed in (bare) nominals in languages regarded as a mass-denoting NP group characterized by Chierchia (1998) (e.g., Korean, Japanese, and Chinese are characterized

as NP [+arg, -pred]) than nominals in other languages (e.g., Western languages), because bare NPs in NP [+arg, -pred] languages "come out of the lexicon with mass denotations" (Nemote, 2005), which are already "semantically pluralized" (Hencok & Zamparellii, 2005), and the nouns exist as "a set composed in all the ways in which these (elements) can be grouped together into pluralities"(recited from Stark, 2008, p. 65). Even though I do not have a full agreement with Chierchia's (1998) proposal that defines Korean as a strict mass-denoting (i.e., NP [+argument, -predicate]) language, I believe his proposal is conceivable based on this indisputable evidence of more distribution of [±LATT] in Korean (bare) nouns than English counterparts. In addition to this idea, I confirm my previous argument again which asserts that Korean bare nominals are *derived mass nouns* because they originally "come out of the lexicon with mass denotations," but, when they take CL or [+human], they flexibly undergo type-shifting in order to turn into count denotations. This line of approach is in agreement with Cheirchia's (1998) proposal to a certain extent.

4.1.3 QP, NumP, and ClP

In this section, I argue that quantifiers should be distinguished from determiners as a lower functional projection, in favor of diverse functional heads, which are internally realized within DP (Giusti, 1997; Baptista, 2007). I propose Quantifier Phrases (QP) can widely refer to any phrases denoting quantities, numerals, the syntactic number, and even universal quantifiers such as *all* and *every*; therefore, QP may contain NumP (Number Phrase) and ClP (Classifier Phrase). Language-specifically, Korean ClP, preceded by numerals, is always dependant on NumP. These preliminary outlines of QP in relation to NumP and ClP roughly result in my presupposition that the latter two phrases are simply replaced with QP in this study. I will revisit this point again.

Heycock and Zamparelli (2005, p. 218) also suggest the inevitability of NumP in the multi-layered DP:

(16) a. [DP those [NumP … [NP children]]]

b. [DP D^e [NumP two … [NP children]]]

c. [NumP two … [NP children]]

In (16a), D is occupied by the overt determiner, *those*, and (16b), with a null D, functions as an argument; however, (16c), without a null D, is a predicate, not an argument. Therefore, the example (16c) shows that even bare NumP exists in the similar way as bare NP does (i.e., non-argument bare NP). A determinerless nominal is introduced by numerals in the example given in (16c), and it validates the availability of "a post-determiner position for numerals." Also, I follow Stark's (2008, p. 59) proposal that the projection of NumP inside nominals[12] are widely accepted; number in some languages is extensively realized with ClP, but some languages use ClP rarely, because language-specific phenomena do exist, and "language-specific features triggering different overt realizations of nominal determination" (p. 59) are found cross-linguistically. Likewise, the examples shown below also highlight the different syntactic realization of number between English and Korean:

(17) a. * this boys b. * these boy

c. i sonyen-tul d. i-tul sonyen

this boy-PL this-PL boy

'these boys' 'these boys' (Korean)

The equivalent Korean data in (17) exemplify that the lack of number agreement between the determiner and the head noun does not result in ungrammaticality in Korean. In contrast to

[12] See Munn and Schmitt (2005), Zamparelli (2004, 2005) and Baptista (2007) for more detailed discussions of NumP.

English and other Western languages, Korean and Japanese do not exhibit number agreement between determiners and head nouns; instead, classifiers are widely used with numerals. In this study, as previously stated, I treat [QP] as [NumP] or [ClP] or [NumP with ClP]. Therefore, in this section, I do not distinguish QP from NumP and ClP unless specification is necessary. The following English data imply that not only QP but also NumP and ClP are the possible candidates for sub-layers within a multi-layered DP:

(18) a. all cows = [DP [QP all [NP cows]]]

b. two cows = [DP [NumP two [NP cows]]]

c. a herd of[13] cattle = [DP [NumP a [ClP herd.of [NP cattle]]]] (English)

Compared to English, however, the Korean lexicon provides more abundant categories of classifiers. Before exploring syntactic aspects of classifiers in Korean, I present meanings and usages of classifiers as an essential part of the noun category.

To illustrate the specific nature of classifiers, more classifiers from Korean and Japanese are explored in depth in this section. First, I provide Korean and Japanese classifiers in the table below[14]:

(19) Classifiers in Korean and Japanese

[13] The English preposition *of* functions as *attributive genitive* (ATT) in (1c), whose function is identical to the Korean and Japanese genitive markers, *uy* and *no* respectively. They initially play a role of case particles; however, the function of *attributive genitive* is derived after losing their original nomenclature. Based on these data, I assume this cross-linguistic phenomenon may be treated as *grammaticalization* in a broad sense because *grammaticalization* can refer to "shifts in function of syntactic constructions" (Delancey, 1993).

[14] The table is from Downing (1996, p. 64), originally from Sanches (1977). Sanches (1977) and Matsumoto (1987) report children's acquisition pattern of the classifier system in Japanese. It is interesting to note that the general inanimate classifier, *tsu*, is acquired during children's earlier time, whereas classifiers for abstract referents are not acquired in the earlier stage of acquisition, and they are frequently replaced with the general inanimate classifier *tsu*. Downing (1996) attributes the earlier acquisition of *tsu* and *nin* to the predominance of those two classifiers in adult usage. I assume the same analogy may be reflected in Korean classifier system in relation to the first language acquisition (pp. 46-7).

Meanings of CL	Korean	Japanese
inanimate general CL	kay	tsu
long, slender objects	carwu	hon
flat, thin objects	cang	mai
people	myeng/pwun	nin
animals	mari	hiki
vehicles, machines	tay	dai

Animate referents are divided into human classifiers such as *myeng* or *pwun* (honorific form of *myeng*) and animal (non-human) classifier such as *mari*. Classifiers for inanimate concrete referents are composed of "quality-based" classifiers such as *carwu* for long and thin objects (e.g., pens and pencils) and *cang* for thin and flexible objects (e.g., paper and dried seaweed) and "kind-based" classifiers such as *tay* for machines, *songi* for flowers and *chay* for buildings; therefore, the choice of classifiers is also associated with the property (i.e., fixity and density) of nouns, like the animate classifiers such as human and non-human types. The occurrence of abstract referents, however, is restricted, compared to animate and inanimate referents, and the inanimate general classifier *kay* is used often with those nouns as a neutral classifier in Korean, similar to Japanese *tsu* as "a last resort," because ". . . the numeral classifier is a semantic unit which is inherently most useful with respect to concrete, perceivably individuated entities" (Downing, 1996, p. 75).[15]

[15] Downig (1996) also points out "the destruction of the semantic rationale" or "semantic adulteration" in relation to classifier systems among different languages; since classifier systems possess "a limited number of members," in the case of abstract referents, for instance, the general (default) forms such as *tsu* in Japanese and *kay* in Korean are frequently used, and these limited members, being adapted to "representability," are encoded with classifiers which are originally used for concrete referents, instead of inventing the new categories; for example, *caru* originally refers to a long, thin referents such as weapons and tools; however, it is even broadly extended to the category of bags.

Similar to Korean and Japanese, Chinese nominals, also well-known as a so-called classifier language, demonstrate that classifiers are widely used in Chinese syntax in the examples below:

(20) a. nei-tiao lu

that-Cl road ‘that road’

b. san-zhang zhuozi

three-Cl table ‘three tables’

c. ji-ge ren

several-Cl person ‘several people’ (Chinese; Truscott, 2004)

d. y-l mi

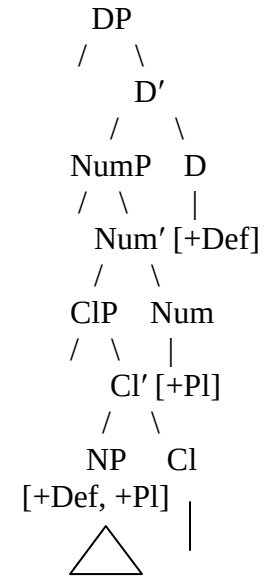
one-CL rice ‘one grain of rice’ (Chinese; Borer, 2005)

The examples in (20) demonstrate that Chinese common nouns whose counterparts are treated as count nouns in English behave as mass nouns, which confirms the proposal that contrasts between a dearth of plural inflections and abundance of classifiers correlated with each other and that is associated with mass denotations in NP [+arg, -pred] languages.

Turning to syntactic functions of classifiers in Korean, I modify Ishii’s (2000) Japanese nominal structure that is adopted from Li (1999). In support of Li’s (1999) analysis of NumP and ClP in Chinese, who applies [+def] to Chinese DP by stipulating that NumP, headed by quantity expressions, dominates NP, Ishii (2000) suggests the following tree for the Japanese multi-layered DP construction:

This dilution is a universal strategy of including all similar referents into one category without generating larger ones.

(21)



gakusei-tati san-nin
student-PL 3-CL (Japanese: 'three students')

According to Ishii (2000), a numeral and a classifier (e.g., *san-nin* 'three-PL') co-occur in the CL head where classifiers are base-generated, and the Num head hosts the plural marker *tul* (Korean) and *tati* (Japanese). Due to the empty Spec NumP in Japanese, the entire Japanese nominal phrase can raise to Spec DP cyclically, free from violating Head-to-Head movement constraint.[16]

Adopting Ishii's (2000) demonstration of cyclic raising of NP to Spec ClP, Spec ClP to Spec NumP, Spec NumP to Spec-DP, I claim the possibility that Korean nominals behave as determiner phrases (DP) hosting ClP and NumP. However, I do not follow Ishii's (2000) sequence of [NP-NumP-ClP] as a default structure. Also, I am not in agreement with Ishii (2000) that the CL head hosts both numerals and classifiers because of the following empirical evidence: in Korean, numerals can appear alone without classifiers, but classifiers are always dependent on numerals in Korean. (e.g., 1) *ai-ses* 'child-three' 2) *ai-se-myung* 'child-three-CL' c) **ai-myeng* 'child-CL'). Therefore, I split Ishii's CL into numerals and classifiers in a strict

[16] Ishii (2000) applies the head-directionality of left-ward branching to DP tree which is parallel to the TP domain with head-final languages such as Korean and Japanese. However, I will specify the head-directionality with case particles in the next section. Therefore, in the mean time, regarding the DP projection in nominals, I do not pay

sense. However, Ishii (2000) and my assumption concur on the point that when the NumP is associated with the plural marker *tul* or *tati*, the Num head is not phonologically visible; NumP is only headed by the feature [+PL], whereas *tul* or *tati*, the most relevant counterpart of English *–s*, is suffixed with common nouns, and [+PL] percolates up to the higher projection.

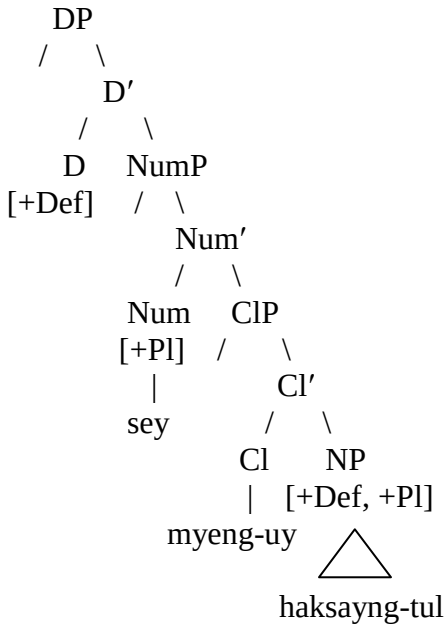
Following Baptista (2002, 2007), Li and Shi (2003), and Stark (2008), who establish prenominal Num head in DP, I define the sequence with prenominal heads such as [NumP-ClP-NP] (or QP-NP) as a default sequence. As a result, Korean nominals, as mass nouns, are projected as multi-layered DP with prenominal quantifiers. In other words a quantifier phrase (QP) in this study can be replaced with Ishii's (2000) NumP and ClP, because I regard both numbers and classifiers as comparable elements of quantifiers in a broad point of view. More crucially, I suggest that NumP and ClP might be treated as one constituent for the fact that, in Korean and Japanese syntax, ClP always co-occurs with numerals. Therefore, the following tree is what I propose for Korean nominals:

(22) sey-myeng-uy haksayng-tul

3-CL-ATT student-PL (Korean: 'three students')

attention to the parametric difference in terms of the head-directionality, which is different from Ishii (2000).

(22)



In terms of the prenominal construction, such as [NP-PL-Num-CL], NP *haksayng-tul* 'student-PL' can freely move to Spec NumP (or Spec DP) via Spec ClP which is empty, by percolating up features such as [+PL] and [+Def]. I assume each empty Spec position yields the movement to higher layers for feature-checking, without violating Head-to-Head movement constraint as Ishii (2000) asserts. This overt NP movement up to Spec NumP, before merging with the D head, implies a crucial discrepancy in relation to scrambling. I will revisit this movement operation later with respect to scrambling.

Previously proposed in Chapter 2, I follow Giusti (1997) that nominal phrases contain agreement phrases (AgrP) within the maximal projection of DP, which is analogous to the sentential domain; therefore, AgrP is realized between DP and NP as an intermediate level, when demonstratives are projected as DP in Chapter 2. However, I propose that no AgrP is needed as an intermediate level when ClP is projected; as Kang (1993) points out, the mismatch between CL and NP in Korean is not solely judged in the same way as the uniform system of English agreement features such as gender, number, and case because agreement of those features lack in

Korean syntax.[17] For this reason, I assume agreement in relation to ClP is different from grammaticality, and suggest a different type of agreement exits in this language, which is associated with semantic harmony between classifiers and nouns. For example, Korean is an "honorific" language in which the honorific morpheme and different vocabulary are used, depending on the relations between the speaker and the hearer. Therefore, I distinguish this Korean-peculiar agreement system[18] from the general formal features such as gender, case, and number.

The different types of agreement harmony in Korean CL are discussed with (23) with the asterisked examples:

(23) a. (John –uy) sey-**pwun**–uy **sensayngnim** –kkeyse

John POSS 3 -CL -ATT teacher - NOM (honorific)

a′. (John –uy) **sensayngnim** sey-**pwun** –kkeyse

John POSS teacher 3 - CL -NOM (honorific)

a″ * (John-uy) **sensayngnim** sey-**kwen**-i

John POSS teacher 3 - CL -NOM

'three teachers (of John)'

b. (John –uy) sey –**kwen** –uy **chayk** –i

John POSS 3 -CL -ATT book -NOM

b′. (John –uy) **chayk** sey –**kwen** –i

John POSS book 3 -CL -NOM

[17] In Korean, pronouns are rarely used especially in colloquial Korean; instead, social titles, names and zero anaphors are widely used replacing with the subsequent elements.

[18] Korean carries some distinctions from English and other Western languages in conveying information such as topic and referent mentioning; Korean is a discourse-based, topic-prominent language, and (subsequently) repeated referents are avoided in either discourse or even written texts. However, I assume that this phonologically null subject is different from "pro-drop" in some Romance languages because the Korean predicates do not indicate morphemes based on person, number and gender due to the lack of agreement features (AGR) in Korean pronouns

b″. * (John –uy) **chayk** sey –**myeng**–i

John POSS book 3 -CL -NOM

'three books (of John)'

c. (John –uy) sey -**myeng** –uy **chinkwu** –ka

John POSS 3 -CL -ATT friend -NOM

c′ (John –uy) **chinkwu** sey-**myeng** –i

John POSS friend 3 -CL -NOM

c″. * (John –uy) **chinkwu** sey-**cang**–i

John POSS friend 3 - CL -NOM

'three friends (of John)'

d. [DP [QP [NP]]]

d′ [DP NP*i* [QP t*i*]]

The example (23) illustrates that each NP has a matching classifier, such as *pwun* (honorific form of *myeng*) with *sensayngnim* (teacher), *kwen* with *chayk* (book), and *chinkwu* with *myeng*. The overt movement of NPs in (23a′), (23b′), and (23c′) is allowed under the circumstances that they maintain the same classifiers and case particles (i.e., NOM). I assume that the classifier and the NP share matching (agreement) features, and the distribution of classifiers in relation to each NP, therefore, supports the percolation of agreement features and case features inside the whole DP. Turning to AgrP projection with ClP, AgrP would not be an appropriate choice. It would be plausible to apply AgrP to ClP on the base of the explanation of the percolation of agreement features; however, due to the lack of agreement among formal features in Korean syntax, I assume ClP may replace the role of AgrP in this peculiar setting. Therefore, the ill-formedness caused by the feature-mismatch between the classifier and the noun is a matter of morphological

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like Japanese as Chomsky (1981) asserts.

errors or a problem of pragmatics, not a matter of grammaticality.[19] Moreover, since matching features between QP and NP are not able to be chain-linked to each other in (23a´´), (23b´´), and (23c″), the mismatch between CL and NP in those three examples results in ill-formed sentences. The examples (23a), (23b), and (23c) undergo Head-to-Head movement from N to D, with each N chain-linked to QP before movement and after movement as well like (23a´), (23b´), and (23c´) show. The scheme is illustrated in (23d) and (23d´). Based on this observation, I propose that the overt head movement (cf., N-to-D raising, Longobardi, 1994) does occur in the multi-layered DP construction in Korean.

Now, let us turn to the semantic aspects of the same examples, exemplifying DP-internal NP movements. The examples with the extracted-NP in (23a´), (23b´), and (23c´), derived from the default construction (i.e., [DP [QP [NP]]]), denote rather specific interpretation than the default structure. Downing (1996) also points out the bearing of the specific interpretation in Japanese extracted-NP structures in the following way: “By contrast, the nominal in Pre-nominal constructions co-occurs with the numeral classifier pair in a single constituent of the sentence, and that constituent serves to define the grouping in question with a single stroke” (p. 223). The following Japanese and Korean examples account for the different property of the default constructions and the derived Pre-nominal constructions:

(24) a. ? San-nin-no hisho-o sagashite-imasu.
3-person-ATT secretary-ACC looking.for-be
‘I am looking for three secretaries.’
a′. Hisho-o san-nin sagashite-imasu.
secretary-ACC 3-person looking.for-be
‘I am looking for three secretaries.’ (Japanese; adapted from Downing, 1996, p. 222)

[19] I leave the legitimacy of projecting the AGRP between ClP and NP open, and I do not discuss this matter here.

b. ? Se-myeng-uy pise-lul chacko-iss-ta

3-CL (person)-ATT secretary-ACC looking.for-be-DEC

'I am looking for three secretaries.'

b′. Pise-lul se-myeng chacko-iss-ta

secretary-ACC 3-CL (person) looking.for-be-DEC

'I am looking for three secretaries.' (Korean)

The default construction in (24a) and (24b) (i.e., [NumP [ClP [NP]]]), bears specificity because the Japanese and Korean nominals (NP) pick out particular individual members of the category, whose number is introduced by QP (i.e., [$_{NumP}$ three [$_{CLP}$ person]]). The interpretation of (24a) and (24b) would be, therefore, brought up in the situation that the secretaries are known to both the speaker and the hearer; it would make sense if the CEO says, for example, "the meeting starts soon. Where are those three secretaries? I am looking for them"; in this particular situation, (24a) and (24b) would fit into the situation because those secretaries are already identified by the CEO. On the other hand, in the situation of hiring, in which nobody knows about the identity of those three secretaries, the indefinite/non-specific reading is natural, and (24a′) and (24b′) are only legitimate in both languages because the sentences may be interpreted naturally in the following way: the company has to pick out the three qualified secretaries, whoever they are, but the secretaries are not identified yet. Therefore, (24a′) and (24b′) are well-formed due to their non-specific/indefinite readings, whereas (24a) and (24b) are unacceptable. Therefore, I propose that definiteness/specificity is more focused on (or related to) QP[20] than the extracted NP *hisho* or *pise* 'secretary' in Korean and Japanese multi-layered constructions, as shown in (24). Specificity triggers obligatory covert movement of Q (i.e., Num + CL) at LF within the multi-layered DP structure. And the legitimate landing site is the (null) D head, which confirms Q's

raising to D (cf., the N-to-D raising) in Korean and Japanese. However, the extracted NP is optional movement, not triggered by specificity, and NP overtly moves to Spec QP (i.e., [QP NP_i [ClP [t_i]]). As this movement is not an obligatory feature-driven movement, the feature-checking of [+spec] is irrelevant between the NP in Spec QP and Q. As a result, this movement does not affect specific or definite interpretations. The following Korean examples also support my proposal:

(25) a. Minsu-nun **han-tay-uy tampay-lul** cwumeni-sok-ey,
Minsu-TOP 1-CL-ATT cigarette-ACC pocket-inside-LOC
tto **han-tay-uy tampay-lul** son-ey tul-ess-ta
another 1-CL-ATT cigarette-ACC hand-LOC have-PST-DEC
"Minsu had one cigarette in his pocket and the other in his hand."

b. Minsu-nun **tampay-lul han-tay** piwu-ess-ta
Minsu-TOP cigarette-ACC 1-CL smoke-PST-DEC
"Minsu smoked a (non-specific) cigarette."

c. ? Minsu-nun **han-tay-uy tampay-lul** piwu-ess-ta
Minsu-TOP 1-CL-ATT cigarette-ACC smoke-PST-DEC
"Minsu smoked a (specific) cigarette."

In the same line with (24), the pre-nominal QP in the Korean example in (25a) shows that *han-tay-uy tampay* 'one cigarette [NumP [ClP [NP]]]' attains a specific reading, whereas the extracted NP structure *tampay-lul han-tay* 'one cigarette [NP*i* NumP [ClP [t*i*]]]' in (25b) receives a non-specific reading. On the contrary, (25c) with a pre-nominal classifier construction is unacceptable, in contrast to (25b), because *tambay* (a cigarette) need not be a specific one in this situation because *Minsu* must have picked up a cigarette randomly. These data of overt NP

[20] I have regarded both the number (NumP) and the classifier (CLP) as QP.

movement and covert (LF) QP movement within the multi-layered DP show crucial dedication to the relationship between NP and DP—the bare noun in the multi-layered DP is a true NP which does not contain specificity/definiteness; as a result, its overt movement to Spec QP (or NumP), restricted to its own maximal DP boundary, does not dedicate to a specific reading as Q is not a locus for specificity. However, the whole DP can move due to its semantic value in the given scheme (26c) below:

(26) a. [TP $_{T}$ [VP $_{V}$ **[**DP $_{D}$ [QP $_{Q}$ [NP $_{N}$]]**]**]]

b. [TP $_{T}$ [VP $_{V}$ **[**DP $_{D}$ [NP$_{i}$ [QP $_{Q}$ t$_{i}$]]**]**]]

c. [**[**DP$_{i}$ $_{D}$ [QP $_{Q}$ [NP $_{N}$]]**]** TP $_{T}$ [VP $_{V}$ t$_{i}$]]

Therefore, the structure in (26c) further explains that a bare NP with a null D head, which exhibits that definiteness/specificity should be distinguished from the pure NP in (26a) that lacks the semantic value within the multi-layered DP. In addition, (26c) brings the construction of scrambling in languages whose word order is rather considered as flexible such as Korean and Japanese. I will discuss scrambling in relation to the bare NP and specificity in (26). To sum up, we can induce that once the multi-layered DP moves out of VP, triggered by the semantic force, the whole structure may exhibit specificity or definiteness, but the true NP itself cannot move out of DP due to its lack of semantic force.

4.1.4 Scrambling vs. DP-internal NP Movement

Regarding the whole DP movement in relation to specificity, I provide scrambling data in this section. Demonstrated earlier in the same way as (26), both Japanese and Korean examples in (24) and (25) confirm that there are distinctions between the extracted NP and the pre-nominal classifier constructions within multi-layered DPs, and the interpretation based on definiteness/specificity plays a crucial role in explaining overt/covert movement of each element.

With regard to syntactic movement and specificity, scrambling is one of the phenomena affected by specificity. Both Korean and Japanese syntax frequently exhibit scrambling. The widely accepted view has proposed that scrambling is an optional movement without driving force (Saito, 1989, 1992, 2004, 2005; Kuroda, 1988; Fukui, 1993; Bailyn, 2001 and many others); however, Lee (1993) and Bošković and Takahashi (1998) propose that scrambling is in consistency with the Last Resort Principle (Chomsky, 1991, 1992).[21] Although both Lee's (1993) and Bošković and Takahashi's (1998) analysis are based on the Last Resort Principle, Bošković and Takahashi (1998) argue against the view of scrambling as movement; instead, they hypothesize LF lowering and a base-generating structure which corresponds to the surface structure. Lee (1993) also claims that scrambling, as A-movement, is a consequence of case-driven obligatory movement, and Lee (2006) argues that scrambling forces the semantic aspect to contribute to a syntactic movement. Embracing the proposal of Lee (1993) and Lee (2006), I follow their "Scrambling-as-Movement" account, whose examples are exemplified below:

(27) a. (na-nun) kil-eyse **tongcen-ul** cwu -ess-ta

I-TOP street-LOC coin-ACC pick up -PST-DECL

'I found ***a coin*** in the street.'

a′. (na-nun) **tongcen-ul** kil-eyse cwu-ess-ta

I-TOP coin-ACC street-LOC pick up -PST-DECL

'I found ***a (particular)/the coin*** in the street.'

(adapted from Kim, 2004, p. 249, example (8))

b. Minho-ka [(pro) lotte hotel-eyse **yumyeng violinist-lul** poassta-ko] calanghayssta.

[21] According to the Last Resort Principle, superfluous movement, such as *Mary* in the scrambled position, is prohibited in the following example: * ***Mary***$_i$ *seems to* t_i *that she is smart.* The movement to another A-position is unnecessary in this example because *Mary* has already received Case before movement (Bošković & Takahashi, 1998, p. 350).

Minho-NOM lotte hotel-LOC famous violinist-ACC saw-COMP said proudly

'Minho said proudly that he saw ***a famous violinist*** at Hotel Lotte.'

b′ Minho-ka **yumyeng violinist-lul*i*** [(pro) lotte hotel-eyse ***t**i* poassta-ko] calanghayssta.

Minho-NOM famous violinist-ACC lotte hotel-LOC saw-COMP said proudly

b″ **yumyeng violinist-lul*i*** Minho-ka [(pro) lotte hotel-eyse ***t**i* poassta-ko] calanghayssta.

famous violinist-ACC Minho-NOM lotte hotel-LOC saw-COMP said proudly

'Minho said proudly that he saw ***a (specific) famous violinist*** at Hotel Lotte.'

(adapted from Lee, 1993:127, examples (355) & (356))

The examples in (27a) and (27b) show that there is ambiguity between specificity and non-specificity in objects *in-situ*; however, ambiguity disappears in the scrambled examples in (27a′), (27b′), and (27b″) due to the manifestly remaining specific reading after scrambling. As Kim (2004) points out, scrambling has a similarity with passive constructions, English *wh*-phrases, and topicalization in terms of the construction that the derived, left-peripheral nominal is not adjacent to the theta-role assigner (i.e., a verb). Based on this characteristic of scrambling, I assert that the pure trigger of this type of movement is semantic value (i.e., specificity), because there is no strong cause for the overt movement of those nominals to the sentence-initial position after the nomianls' Case are received/checked off, and their theta-role assignment is satisfied. In order to support to my view, I provide the parallel example of ungrammatical nominal fronting in (28). The following example of NP that lacks of specificity (and definiteness) supports my argument that specificity affects overt movement[22]:

(28) a. meyli-ka kanhosa-ka toy-ess-ta

[22] I define NP as nominals without specificity/definiteness, and non-argumenthood, regardless of their projection of D elements. Therefore, in the sentence, *Mary became a nurse*, *a nurse* is not DP although it has the "word class" determiner *a*, due to its lack of the function of argumenthood in relation to specificity. Therefore, *a nurse* is regarded as being synonymous of non-referential in the previous chapters.

Mary-NOM nurse-NOM become-PST-DC

*b. kanhosa-ka meyli-ka toy-ess-ta

nurse-NOM Mary-NOM become-PST-DC

'Mary became a nurse'

The nominal *kanhosa* (nurse) in (28) functions as a predicate. This is neither a referential noun (as it is indefinite and non-specific) nor an argument (as it cannot be assigned a theta-role).[23] In contrast to DP argument, undergoing scrambling,[24] this NP cannot be moved out of the predicate because this movement is neither driven by Case nor by theta-roles; this superfluous movement violates the Last Resort (Chomsky, 1993) as well. As a result, this sentence is ruled out.

In the similar line with scrambling of Korean and Japanese DP, Li (1998) also proposes that Chinese DP is closely related to semantic value, (i.e., (in)definiteness), whereas NumP is

[23] With respect to theta-role assignment in scrambling, I agree with Lasnik (1995), Kim (1997), and Bošković and Takahashi (1998) who maintain the position that "theta-roles are formal features and are therefore capable of driving movement"(Bošković & Takahashi, 1998, p. 35), which is closely related to the strength of theta-features depending on languages; however, I leave open the controversy whether, compared to English, Korean and Japanese have weak theta-features (as they assume) or not.

[24] The traditional view of "Scrambling-as-Optional Movement" explains that "Scrambling does not provide any semantic import, undergoing "radical reconstruction" back into the original position at LF. Radical reconstruction is such a phenomenon where the head of chain is pronounced while the tail of the chain is interpreted. Thus this movement is claimed to be completely optional and semantically vacuous. This amounts to saying that scrambling actually takes place at PF" (Lee, 2006, p. 32). The following Japanese data support the view of "Scrambling-as-Optional Movement":

a. John-ga [Taroo-ga sono hon-o katta to] omotteiru.
John-NOM Taroo-NOM that book-ACC bought that thinks
'John thinks that Taroo bought that book.'

b. Sono hon-o*i* John-ga [Taroo-ga *ti* katta to] omotteiru. (adapted from Saito, 1984, 1985, 2004)

Saito states that although the object of the embedded clause is in the scrambled position, the scrambled NP in (b), by adjoining to the matrix IP, should be interpreted inside the embedded clause. According to Saito, scrambling is neither a Case-driven movement, as *sono hon* is already received ACC within the embedded clause, nor does it establish "an operator-variable relation," unlike *wh*-movement. Therefore, scrambling is an optional movement. However, Bošković and Takahashi (1998) argue that the scrambled NP is base-generated in its surface position and undergoes obligatory LF movement (e.g., LF lowering) to the position where it obtains a theta-role. Lee (2006), following the view of "Scrambling-as-Obligatory Movement," argues that scrambling is uniformly driven by the edge feature (EF) under the spirit of the Minimalist Program (Chomsky, 2005, 2006). Embracing Jung (2002) who claims that the A/A′-distinction is determined by the properties of "agreement-inducing features of a head," Lee (2006) argues that the scrambled position "driven by EF is not necessarily an A′-position but can be an A-position." Therefore, as long as the same features, such as T EF/FOCUS and C EF/FOCUS, are involved, Spec TP and Spec CP can have A-position properties in her analysis.

quantity-denoting expression (Li, 1998; Wei, 2007).[25] Li's (1998) analysis of Chinese NumP structure and its non-specific interpretation support my argument and analysis of Korean (and Japanese) multi-layered DP—cross-linguistically. QP itself is related to non-specificity, whereas the extraction of QP at LF is triggered by specificity, and the null D is the locus for definiteness/specificity in languages without articles. The identical pairs of Chinese nominal structures in six sets of dialogue, provided by Wei (2007, pp. 115-16), demonstrate the different syntactic structures (i.e., sequence of either [DP+NumP+NP] or [NumP+NP]), according to their interpretation:

(29) a. A: Wo bu zhidao Zhangsan ji-ge erzi?
I not know Zhangsan how-many-Cl son
'I don't know how many sons Zhangsan has.'
B: Zhangsan [NumP liangge erzi]
Zhangsan two-Cl son
'Zhangsan has two sons.' (Quantity)

b. A: Mali shen le liangge erzi ma?
Mary give-birth-to Par two-Cl son Q
'Did Mary give birth to two sons?'
B: shide, Mali [e] [DP liangge erzi]
yes Mary two-Cl son
'Yes, Mary gave birth to (the) two sons.' (Definite reading)

c. A: Wo bu zhidao nazhi mao jizhi jiao? contrast

[25] Unlike Li (1998), Cheng and Sybesma (1999) use NumP to correspond to Chinese indefinite NP and CLP to definite NP, because Cheng and Sybesma (1999) are uncertain about the existence of D elements in Chinese; therefore, this study agrees with their NumP and CLP projection of Chinese but contrast with their proposal that D elements are absent in a language without articles like Chinese.

I not know that-Cl cat how-many-Cl foot

'I don't know how many feet that cat has.'

B: Nazhi mao [NumP sanzhi jiao]

that-Cl cat three-Cl foot

'That cat has three feet.' (Quantity)

d. A: nazhi mao zhi sheng sanzhi jiao ma?

that-Cl cat only left three-Cl foot Q

'Does that cat have only three feet left?'

B: shide, nazhi mao [e] [DP sanzhi jiao]

yes that-Cl cat three-Cl feet

'Yes, that cat has only (the) three feet.' (Definite reading)

e. A: ni you jifu hua.

you have how-many-Cl picture

'How many pictures do you have?'

B: Wo yifu hua.

I one-Cl picture

'I have a picture.' (Quantity)

f. A: ni shouchang tade hua ma.

you collect his picture Q

'Do you collect his pictures?'

B: you, wo [e] [DP yifu hua].

have I one-Cl picture

'Yes, I have one of his pictures.' (Definiteness)

Following Li (1998), who proposes that the sequence of [Num-CL-N] is analyzed either as DP, which bears (in)definiteness or NumP that bears only quantity, I further suggest that, not only in Korean/Japanese but also in Chinese, the extraction of QP (to a null D head) occurs covertly (at LF), whereas the extraction of NP occurs overtly in Korean and Japanese. Here, I also treat the sequence of [Num-CL] as [QP] as I defined previously. Specifically, (29a, c, e) have quantity-denoting NumPs with indefinite or non-specific interpretation, whereas (29b, d, f) exhibit definite or specific readings because the information of NPs, such as the number of *erzi* 'sons,' *jiao* 'feet,' and *hua* 'picture,' is already focused in questions as a discourse topic. The former NumPs stays *in-situ*; however, the latter NumPs move to D head at LF, triggered by [+spec] or [+def], and the NPs attain definite/specific interpretation, with it chain-linked to Num in the D head. Now, based on the data, I generalize the following structures of the multi-layered of DP:

Chinese [DP [QP [NP]]] => IN SITU => Non-Specific/Indefinite or Quantity Denoting

[DP Qi [QP ti [NP]]] = > COVERT => Definite Denotation

Korean/Japanese [DP [QP [NP]]] => IN SITU => Non-Specific/Indefinite or Quantity Denoting

[DP Qi [QP ti [NP]]] = > COVERT => Definite Denotation

[DP [Ni QP [NP ti]]] => OVERT => Non-Specific/Indefinite or Quantity Denoting

Both Chinese and Korean/Japanese undergo covert Q-to-D raising by means of the null D when they bear definiteness; however, this movement is performed only at LF level because, after Spell-Out, this movement does not apply to PF interface, and it is invisible. Therefore, this cross-linguistic phenomenon is also supported by the Minimalist Program because movement after Spell-Out is preferred according to the Economy Principle under the framework of UG (Chomsky, 1995, 2001, and many others). This approach is consistent with Longobardi (1994) and Baptista (2007) who argue for the presence of null D; without the null D, this covert

movement would not be legitimate. On the other hand, the overt N movement to Spec QP, in Korean and Japanese, is not driven by specificity/definiteness as I argued previously because QP itself is not directly associated with specificity/definiteness. Therefore, the overt N movement in the multi-layered DP, in those languages, is thoroughly driven by the case particles, not by the motivation of semantic features.

At LF, Chinese QP moves to the null D head, which results in a definite reading after merging with the D head; however, QP-*in-situ* causes quantity denotation only. Cheng and Sybesma (1999) propose a bare ClP that lacks numerals and demonstratives as an inherently definite phrase. However, based on the observation of Korean, Japanese, and Chinese data, I argue against Cheng and Sybesma (1999) because, regarding N-to-CL movement, I further argue that N moves completely up to the D head at LF via the empty Cl head.[26] Therefore, I assert that QP or NumP/ClP itself is not inherently definite. In contrast to Cheng and Sybesma (1999), Li and Shi (2003) assert the existence of the D head as a locus for definiteness. Li and Shi (2003) propose that NPs in Chinese occur in argument positions so that type-shifting functions do not necessarily apply in Chinese. The definiteness constraint in Chinese can be realized with [N-*men*], the plural expression, which is always interpreted as [+def] in (30a) and (30b). Therefore, this expression cannot occur existentially with the plural marker (Rygaloff, 1973; Yorifuji, 1976; Iljic, 1994, recited from Li & Shi, 2003):

(30) a. **you ren-men* cf. *you ren*

have person+PL have person 'there is/are person(s)'

b. **mei you ren-men* cf. *mei you ren*

[26] In contrast to Li (1998), Cheng and Sybesma (1999) use NumP to correspond to Chinese indefinite NP and CLP to definite NP respectively because Cheng and Sybesma (1999) are uncertain about the existence of D elements in Chinese; therefore, this study may be in agreement with their NumP and CLP projection of Chinese, but it contrasts with their proposal that D elements are not present in a language without articles like Chinese.

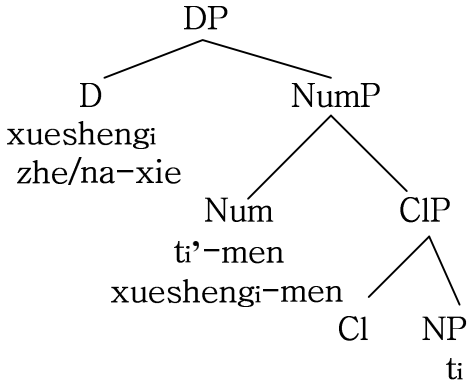
not have person+PL not have person ‘there is nobody’

c. [DP [D xueshengi [NumP [Num ti’-men [CLP [CL [NP ti]]]]]]]

d. [DP [D zhe/na-xie [NumP [Num xueshengi-men [CLP [CL [NP ti]]]]]]]

In (30c) and (30d), N is merged with –*men* (PL) in Number via Classifier where this is empty, and raise to D to check off [+def]. This is how the definite N in N-*men* (N-PL) is derived in Chinese. In any case, either *xusheng-men* ‘students’ or *ze/na-xie xusheng-men* ‘these/those students,’ being raised to D to be checked off [+def], these nominal phrases denote definiteness. Significantly, the possible final landing site of N *xusheng* is the D head in (30c) where the demonstratives such as *zhe/na-xie* ‘these/those’ also reside as shown in (30d), and the movement of *xuesheng* ‘student’ to the D head shows obvious evidence that D is the locus of [+def], and DPs are realized syntactically in Chinese as well. The feature-checking process is illustrated in the tree below:

(31)



Li and Shi (2003)

According to Li (1999), *men* is a pure plural marker without relating to any specification for definiteness. A relevant question needs to be answered. Why can [a common noun + *men*] only occur with definite interpretation? First, based on the N to D movement via NumP (e.g., *xuesheng*) in (30c) and (31), I do not assume that *men* in the Num head has an intrinsic definite

feature, and my assumption supports Li's (1999) proposal that Num is a pure plural marker in the following way. The ill-formed definite interpretation of *ren* + *men* 'person + PL' within the existential sentence in the example (30a) and (30b), originally from Li and Shi (2003), is not caused by *men* but caused by N's raising to the definite domain. Therefore, the Chinese plural marker *men* itself is not associated with definiteness in their examples in (30a) and (30b). Consequently, I can verify that *ren* in the existential sentences in (30a) and (30b) is not projected as DP, but NP with [-def, -spec], on the basis of the relationship between DP argumenthood and the distribution of semantic (i.e. non-referential) features (Li, 1999). The Korean and Japanese data show that the plural marker *tul* and *tati* can be compatible with the existential sentence:

(32) a. haksayng-***tul***-i issta
student-PL-NOM exist (Korean)

b. gakusei-***tati***-ga arimasu
student-PL-NOM exist (Japanese)

'There are students'

The parallel structures in (32) demonstrate the plural markers themselves in Korean and Japanese do not have a definite construal, which suggests that the Chinese plural marker *men* is nothing but a plural marker, possessing inherent indefiniteness/non-specificity. Therefore, if the traditional hypothesis is on the right track (i.e., the plural marker such as *tul* (Korean)), *men* (Chinese) and *tati* (Japanese) should be treated as the Num head (Li, 1999; Ishii, 2000; Li & Shi 2003, and many others), those elements of the Num head do not bear inherent [+def] or [+spec] unless they undergo raising to the D head. Then, why does only Chinese *men* have definite interpretation, whereas Korean and Japanese *tul* and *tati* can be interpreted existentially? I assume the Visibility Condition may answer this question:

The D Head Visibility Condition

(i) A Functional Projection must be visible at all levels of representation by (a) making the Spec visible and and/or (b) the Head visible.

(adapted from Dimitrova-Vulchanova & Giusti, 1998. p. 346)

(ii) If the D head is specified as definite, the layer has to be made phonologically overt by filling the Spec, the Head or both.

(iii) If the D head is not specified for definiteness, no phonologically overt element can appear in either Spec DP or the D head.

(iv) There is a two-layer split in the encoding of referential properties (Szabolcsi, 1994; Campbell, 1996; Hoekstra & Hyams, 1996; Brugè, 2002; Giusti, 2002, among others). The higher layer is the DP layer and the lower layer is the QP (NumP/ClP).

(adapted from Sio, 2006)[27]

Based on Sio (2006) and Dimitrova-Vulchanova and Giusti (1998), I assume that the D head, which was adopted from the original S head, functions as a higher layer; in addition, not only ClP but QP (or NumP) can perform the identical function of CLP as a lower layer in the original version if the D head Visibility Condition is applied to the Chinese examples. *You ren* 'there is/are person (s)' in (30) can be explained based on (iii), that *ren*, without definiteness, the D head in Chinese tree needs not be filled phonologically, either. On the contrary, based on (ii), the D head should be phonologically filled with *xuesheng-men*, and *xuesheng* raises to the D head in order to be phonologically overt at the same time due to its definiteness. Overall, *ren-men* in (30a) and (30b) undergoes LF raising, and consequently, it receives [+def] interpretation in the same way as *xuesheng* in (30c) does; in other words, *ren* and *xuesheng* move to the empty CL

[27] In Sio's (2006) version, the D head is specified as the S head originally. In this study, however, I contrive synthesis by embracing both Dimitrova-Vulchanova and Giusti (1998) and Sio (2006). For a more detailed

first and adjoin to NumP node. When *ren* moves to the D head, they obtain a definite/specific reading, with *you* and *ren* chain-linked. On the other hand, in (30d), as the D position is occupied by the demonstratives, the common nouns do not undergo further movement; in other words, the interpretation of [+def] is satisfied with the overtly visible D head, i.e. the demonstrative. Therefore, Chinese common nouns that are not associated with the plural marker *men* need not to be DPs; rather, they need to be NumPs because those NumPs do not merge with the D head, based on the Visibility Condition implying that the D head needs not be visible with indefiniteness. Therefore, the plural markers, *tul*, *tati*, and *men*, do not inherently contain definiteness/specificity; however, language-specifically, Chinese *men* is inclined to be associated with a definite reading, which can be explained with the Visibility Condition.

According to the Visibility Condition (especially, by Dimitrova-Vulchanova & Giusti 1998), the D head (or Spec) should be "visible" either at PF or at LF; in turn, the Visibility Condition implements a crucial function of DP projection in relation to case particles in Korean and Japanese, which will be discussed in depth in 4.2. Briefly, due to the lack of case particles, when the D head is overtly filled by a common noun in Chinese, the Visibility Condition is satisfied with the phonologically filled D by attaining obligatory definiteness. On the contrary, Korean and Japanese have case particles that generally close off the maximal unit of nominals, which is parallel to articles in many Western languages as D elements, which also close off a component of nominals (Suh, 2005). It is plausible that the insertion of a case particle in the D head can be explained in terms of "a last resort" in association with the Visibility Condition, analogous to Western languages; for instance, in Spanish, when a demonstrative follows a noun, an article in D is obligatory (Cinque, 2002). Similarly, I conclude that a case particle in the D head is obligatory in Korean and Japanese when NP appears, as subject or objects, in order to

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discussion of the S head Visibility Condition, refer to Sio (2006).

satisfy “a last resort” and the Visibility Condition (i.e., D position should be phonologically filled anyway (either articles in Spanish or particles in Korean) when a definite reading emerges) following Cinque (2002). This hypothesis significantly paves the way for projecting case particles as D elements in the later section that I will explore with Korean case particles.

This section has discussed the sub-layers within DP. Based on Nemoto (2005) and Chierchia (1998), I have explored Korean common nouns and the plural marker *tul*. I define Korean common nouns as *derived mass nouns* because they hold both characteristics of so-called classifier languages and NP [+arg, +pred] languages like English. Korean common nouns are compatible with the plural marker, unlike Chierchia’s (1998) proposal; however, the widely used classifiers and wider distribution of [+LATT] in Korean common nouns than those of English counterparts confirm Korean’s typological characteristic as close-to-mass denotation. Following Baptista (2007) and Heycock and Zamparelli (2005), the semantic number and the syntactic umber should be separately realized within DP, by highlighting the crucial role of PlP (e.g., Pl* and Pl heads). In the frame of the feature-checking process and the agreement operation, the semantic number in count and mass nouns are distinguished, irrespective of the morphological number.

Also, we have seen that DP hosts not only number features which are split into semantic and syntactic features but also classifiers in so called NP [+arg, -pred] languages, typologically distinguished from English (NP [+arg, +pred]) and Romance (NP [-arg,+pred]) languages. However, without the D head, the interpretation [±def] or [±spec] cannot be explained across languages. Therefore, this section strongly supports the DP Hypothesis (Abney, 1987), which has long been investigated in literature, especially, among the typologists who argue for or against the existence of the D elements in languages without articles, such as Korean and Japanese.

The overt movement of N in the multi-layers within the DP domain is purely motivated by the case particles because the N does not merge with the D head, the locus of definiteness/specificity; as a result, this overt movement of N to Spec QP in Korean and Japanese is not triggered by specificity, as opposed to scrambling, which is dependent on semantic features. Therefore, N's raising to Spec QP in this section sheds light on scrambling among languages that possess case particles—I have shown that scrambling, occurring within TP domain, is associated with semantic features as a DP movement, in contrast to the overt N movement restricted to DP domain. In turn, the analysis of Korean and Japanese empirical data in this study superiorly provide the answers for the puzzling issues, summarized as follows: 1) scrambling is not optional movement assisted by case particles; 2) the overt N movement to Spec QP in multi-layered DP is not driven by semantic force. Finally, Cheng and Sybesma (1999) immensely contribute to the building of bridges between classifiers and bare nouns in languages without articles.

My investigation of the multi-layered DP in Korean (and Japanese) is in agreement with Cheng and Sybesma (1999) who argue that NumP are inherently [-def]. However, there is one crucial distinction between their proposal and mine in regard to ClP; I argue against their proposal with respect to the aspect that, due to ClP taking up the function of D, bare nouns are not so bare; as a result, they are argument (Cheng & Sybesma, 1999). However, I argue that ClP itself, as well as NumP, is inherently [-def], and the only domain for [+def] is DP. My empirical data from Korean and Japanese reveals a shortcoming of Cheng and Sybesma (1999), by showing that, Korean and Japanese even prevent ClP from being projected without numerals in syntax because they are one constituent, which is also pointed out by Ishii (2000, p. 12). Bare

nouns are not so bare, and they are certainly arguments if and only if they are merged with definiteness/specificity in DP, instead of ClP.

4.2 Case Particles as D Elements

4.2 focuses on the distinction between NPs and DPs based on (in)definiteness and referentiality in an argument/non-argument position in terms of case particles in Korean. Lyons (1999) purports that DP cannot be projected in Korean syntax due to the lack of the grammatical D category, such as articles; instead, in Korean, non-grammatical definiteness is correlated to the pragmatic notion, identifiability. However, in the investigation of English, Italian, Japanese, Chinese, and Cape Verdean Creole, bare nominal structures show (in)definiteness is reflected even in Korean syntax, without articles. Therefore, I argue that Korean is not a counterexample to DP languages; a functional head D occupies a higher position than nouns in Korean, analogous to nominals with overt determiners in many Western languages. Moreover, in 4.2, I propose that definite/referential nouns in a non-argument position (TopP), as a "TP(IP)-external" or a "subject-peripheral" position, and I attribute this mismatch between distribution and interpretation to the property that DP is neither merely the norm of scrambling nor argumenthood. Therefore, I suggest that DP is universal and is not parameterized cross-linguistically.

4.2.1 Case Particles and the DP Hypothesis

Adopting Longobardi (1994), Chierchia (1998), Radford (1997), and Baptista (2003, 2007), 4.2.1 starts with a review of the syntactic distinction between NP and DP that I have discussed previously. In relation to the property of DP, NP is categorized as a non-argument nominal without referential features, which can be specified with a binary feature set, [-def, -

spec].[28] Before I discuss the DP-Hypothesis in relation to the case particles, I will briefly introduce Korean case particles. There are several case particles in Korean, and some of which have phonologically conditioned allomorphs. Among those, I provide four categories of case particle in the table below:

particles	*un/nun*	*i/ka*	*ul/lul*	*uy*
functions	Topic	Nominative	Accusative	Genitive/Possessive

The Korean topic markers, *un* and *nun*, nominative markers *i* and *ka*, and accusative marker *ul* and *lul* are phonologically conditioned allomorphs; therefore, a noun takes different topic markers depending on the final sound, as shown the examples below:

(33) a. Meyli-nun haksayng-ita

Mary-TOP student-Dec

'Mary is a student.'

b. Tom-un haksayng-ita

Tom-TOP student-Dec

'Tom is a student.'

For example, the topic marker, *nun*, matches with *Mary*, due to the lack of the final consonant in *Mary*; however, *un* is compatible with the preceding final consonant such as *Tom-un* in (33a), in contrast to *Mary-nun* in (33a). Likewise, nominative markers and the accusative markers show the same behaviors in Korean. Besides these case particles, the Korean lexicon includes abundant delimiters and particles as well, such as *to* (also) and *man* (only), as an agglutinative language. However, I do not discuss these further in relation to the typological distinction here.

[28] In previous chapters, I regarded indefinite specific as referential as long as a speaker picks out one specific entity in his/her mind; for example, *a car* in *I bought a car* is referential. See Chapter 2 for more detailed discussion.

In this study, I argue that Korean case particles are D elements by which nominals are ultimately headed; for example, the possessive marker –*'s* (English) or –*uy* (Korean) are D heads. Additionally, the nominative marker is projected as DnomP; the accusative marker as DaccP; and the possessive marker as DpossP. I will revisit the DP projection headed by case particles in depth with more empirical data in later sections. First, syntactic behaviors and interpretations in Korean nominals are investigated.

The following example, a non-referenetial nominal with [-def, -spec] (i.e., without referential features) shows a predicate as conventional NP. It is obvious that NP does not function as an (internal) argument in (34):

(34) a. meyli-ka kanhosa-ka toy-ess-ta
Mary-NOM nurse-NOM become-PST-DEC
*b. kanhosa-ka meyli-ka toy-ess-ta
nurse-NOM Mary-NOM become-PST-DEC
'Mary became a nurse'

The nominal *kanhosa* (nurse) in (34) functions as a predicate. This is not a referential noun because it is indefinite and non-specific; also, due to its lack of a theta role, it is not an argument. The NP example shows a behavior of predicates in which *kanhosa* 'nurse' cannot be moved out of the whole predicate.

I propose, however, that, first, arguments without [+ref] can be DPs when they function as either a subject or an object; and second, non-arguments can be DPs when they bear [+ref] to be checked off at LF. The following example suggests a non-referential nominal should be categorized in DP:

(35) [-def, -spec] **kay**-lul sa-l-kka-yo?

dog-ACC buy-FUT-QS-POL

'Shall we buy a dog?'

The bare noun *kay* (dog) in (35) is non-referential as the NP *kanhosa* (nurse) in (34) is; however, *kay* is an object of the verb *sa-ta* (to buy); thus, this bare noun functions as an internal argument and is projected as a non-referential DP. A non-argument with [+ref] in relation to topic will be discussed in later section in the category of DP. I will now postpone in depth discussion regarding non-referential argument (i.e. non-referential DP) for later consideration in this study.

As I argued in Chapter 3, N-to-D raising is closely related to referentiality (i.e., [+ref]), by triggering N to move to D, within DP domain, whereas genericity (i.e., [+gen]), as a categorial T-feature, is involved in a sentential domain, by triggering N to move to Spec TP in order to check off its T-feature via Spec-Head relations:

(36) a. **The dog** is very cute => [+def, +spec], [+ref], [-gen]

b. **The dog** is a faithful animal => [+def, -spec], [+ref], [+gen]

Both subjects, *the dog*, as arguments with [+ref] have the same definite article in (36); however, the definite, specific dog in (36a), which is indexed with *1* in the event time T1, has a non-generic interpretation. *The dog* in (36b), on the other hand, is indexed with *0* in the event time T0 and interpreted generically. This process is explained in the following way: [+gen] in DP subject, which is base-generated in Spec VP, is checked off in Spec TP via movement, and (36b) converges at LF. However, *the dog* in (36a), which is indexed with *1* in the event time T1, does not contain the uninterpretable [+gen] feature in DP to be eliminated and cannot be interpreted generically. As a result, the example (36) shows that the same phonetic forms (e.g., *the*) do not guarantee either the same grammatical functions or the interpretation of the whole sentence.

Parallel to the English article *the*, the following examples illustrate the identical phenomenon that Korean case particles are phonetic misleaders as English articles can be:

(37) a. John -**un** ka -ss -ta

John-TOP (NOM) go -PST-DEC

'(No other person) John went'

b. Jane-i John -**un** cohaha-n-ta

Jane-NOM John -TOP (ACC) like -PRES-DEC

'Jane likes (no other person) John'

John-un in (37a) and (37b) does not denote the same grammatical function in each sentence even though each nominal has the same particle; *John-un* in (37a) is a subject whose case (NOM) is assigned by T in Spec TP, while *John-un* in (37b) is an object whose case (ACC) is assigned by the main verb *cohahata* 'like' as an internal argument. Instead, the topic marker *un* only gives the meaning 'contrast' such as *no other* to *John* regardless of the grammatical functions (NOM or ACC) in each sentence in (37). Two different formal features, such as [+Nom] and [+Acc], are distributed in the same phonetic form of DP in (37a) and (37b) respectively, which should be checked off, because they are uninterpretable case features in order to converge at LF. Thus, following the investigation of Korean particles, I propose that they are D elements, with referentiality, close off the nominal; specifically (37a) [[DP John] *un* $D_{Nom}P$] and (37b) [[DP John] *un* $D_{Acc}P$]. In terms of head-directionality, the case particles in Korean occur head-finally, whereas articles are head-initial. I consider this type of different headedness as parametric variations.

Previously, I have shown that the multi-layered DP is composed of QP (i.e., NumP or ClP) and NumP. I assume that case particles can directly merge with those sub-layers only with

the category of DP. Moreover, the D head conventionally hosts the sub-layers, such as QP and NumP. Based on these, I argue that case particles are D elements.

Interestingly, case particles, which are also treated as a D element throughout this section, can be attached to even QP or NumP, as well as NPs, which, in turn, fruitfully explains that case particles close off those sub-layers of DP. The examples below support my proposal that case particles are D elements:

(38) a. tokki-***ka*** [QP cenbwu] [ClP sumwu-mari] issta
rabbit-NOM all twenty-CL exist

a′. tokki-***ka*** [QP cenbwu-***ka***] [ClP sumwu-mari-***ka***] issta
rabbit-NOM all-NOM twenty-CL-NOM exist
'There are twenty rabbits totally'

b. tokki-***ka*** [QP cenbwu-***ka***] [AdvP yeppukey [*-***ka***]] sayngki-ess-ta
rabbit-NOM all-NOM beautifully [*NOM]] look like-PST-Dec
'All rabbits looked pretty'

c. tokki-***ka*** [QP cenbwu-***ka***] [AdvP pparukey [*-***ka***]] tali-ess-ta
rabbit-NOM all-NOM fast [*NOM]] run-PST-Dec
'All rabbits ran fast'

Unlike general adverbials such as *yeppukey* 'beautifully' and *pparukey* 'fast' in the above examples in (38b) and (38c), the subject particle *–ka* can be attached to the quantifiers such as *cenbwu* 'all' and *sumwu-mari* 'twenty-CL.' This phenomenon clearly suggests the possibility that QP is base-generated inside DP as an element of a multi-layered DP, and case particles close off the domain of nominals.[29]

[29] [CL+ case particles] are commonly found in Japanese syntax as well:
ex) a. gakusei-tati [san-nin]-***ga*** kita

Adopting Ishii's (2000)[30] raising of Japanese NP to Spec DP, I have proposed the possibility that Korean nominals may behave as DP. In my proposal, Korean nominals, characterizing as mass nouns, have a classifier phrase (ClP), which is replaced with Ishii's (2000) NumP and ClP (c.f., both numbers and classifiers are under ClP in my proposal) with the maximal projection of DP. I repeat the examples below:

(39) a. con-uy sey-pwun-uy **senseyngnim-**kkeyse

John-GEN 3-CL-degree teacher-NOM (HON)

a′. con-uy **senseyngnim** sey-pwun-kkeyse

John-GEN teacher 3-CL-NOM (HON)

'three teachers of John'

b. con-uy sey-kwen-uy **chayk**-i

John-GEN 3-CL-degree book-NOM

b′. con-uy **chayk** sey-kwen-i

John-GEN book 3-CL-NOM

'three books of John'

c. con-uy sey-myeng-uy **chinkwu**-ka

John-GEN 3-CL-degree friend-NOM

c′ con-uy **chinkwu** sey-myeng-i

John-GEN friend 3-CL-NOM

---

student-PL three-CL-NOM came

b. san-nin-no [gakusei-tati]-***ga*** kita

three-CL-ATT student-PL-NOM came

'The three students came' (from the example (6) in Ishii 2000, p. 3)

As shown in the Japanese examples above, the nominative marker *ga* is attached to not only CL but also PL. Parallel structures are extensively seen in Korean, e.g. *haksayng-tul-i* (student-PL-NOM) or *haksayng-tul se-myeng-i* (student-PL three-CL-NOM). In Chapter 4, I have claimed DP as a higher level of NumP whose head, realized with the plural marker *tul* (Korean) or *tati* (Japanese), is merged with case particles in both languages; based on these data, I can account for the base-generation of case particles in the D head.

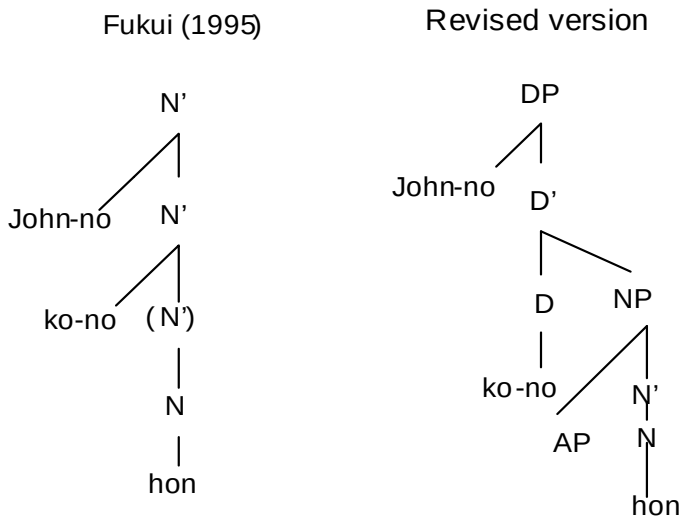
'three friends of John'

I assert that overt movement of NPs in (39a′), (39b′), and (39c′) shows that the distribution of honorific suffixes and classifiers in relation to each NP supports the percolation of agreement features and case features inside the whole DP. Therefore, I argue against Fukui's (1995) proposal that there is not even an NP node in Japanese because noun phrases are not "closed," so called, recursive with the genitive particle *no* (cf., Korean genitive marker is *uy)*; however, based on my proposal, I recapitulate Fukui's recursive N' structure and propose a new operation in (40c), a multi-layered DP, highlighting the locus of [+ref]. These nominal phrases are projected as DP, headed by the demonstrative *ko-no* (this) denoting [+def, +spec] in (40):

(40) a. john-no ko-no hon Lit. "John's this book."

b. Fukui (1995) [N´ john-no [N´ ko-no [N´ [N hon]]]]

c. Revised operation [DP john no [D ko-no [NP [N hon]]]]



Korean has traditionally been regarded as an NP language (Fukui, 995; Lyons, 1999) because of its lack of articles. However, throughout this section, the internal structure of bare nominals has been examined cross-linguistically within the projection of DP and has shown that semantic

[30] Refer to 4.1 for detailed discussion regarding Ishii's (2000) discussion.

features are reflected in D. In addition, Korean and Japanese DP arguments with case particles, denoting [+def] or [+ref], host both NumP (ClP) and NP within the multi-layered phrase, which suggests that the lack of articles does not guarantee the property as an NP language. I, therefore, argue against Lyons's (1999) notion of the lack of definiteness and Fukui's (1995) denial of a DP projection in Korean (and Japanese).

4.2.2 TopP in Korean

This section shows that Korean peculiar TopP in relation to topicalization (which carries non-argumenthood) can be projected as DP, based on the presence of [+ref]. In addition, in comparison with TopP, case alternations and possession constructions will be continuously examined in relation to the projection of DP in Korean in 4.2.3.

According to Taylor (1996), "topics" are different from non-topics in that "topics" have a tendency to assign "a cluster of properties" such as "definiteness, givenness, and animacy (human beings)"; he also points out that "'topicalization' denotes the phenomenon whereby some element, other than the grammatical subject, appears in initial position in a sentence. . . . This element functions as a "psychological subject" (Halliday, 1970, p.159), concerning which some statement is made: *John, I can't stand the bastard.* Even an initial clausal subject may be topicalized: *Me, I can't stand him*" (p. 208). In Korean, however, topicalization is inherently realized not only in the position left-peripheral to a subject (i.e., sentence-initially) as the English examples above, but also morphologically (i.e., particularly with topic markers *un*/*nun*), which differentiates Korean from many Western languages. I, therefore, suggest that topic is neither just a pragmatic notion nor just a matter of interpretation; rather, topic is projected as its own phrase, (e.g., TopP in Korean), governing TP, and is inserted in the unusual nominal position in Korean (and Japanese) which is a non-argument position.

Topic-marked nominals function as subjects quite often in Korean although the interpretation of them is slightly different from the one with nominative-marked nominals. This idea leads to the assumption that topic-marked nominals can function as external arguments; therefore, they are DPs. Then, could all topic-marked nominals, regardless of their syntactic properties, be argument DPs? In Korean, there are mismatches in terms of the syntactic properties among topic-marked nominals; for instance, observe each topic-marked noun phrase in the following examples:

(41) a. **na-nun** meyli-lul cohaha-n-ta **(subject)**

I-TOP Mary-ACC like-IN-DC

'I like Mary'

b. **meyli-nun** kho-ka yeppu-ta **(possessive)**

Mary-TOP nose-NOM pretty-DC

'Mary's nose is pretty'

c. **kwail-un** sakwa-ka masiss-ta **(topic)**

fruit-TOP apple-NOM delicious-DC

'As for a fruit, an apple is delicious'

Topic-marked nominals are distributed sentence-initially as shown in (41); however, each of them shows their different syntactic status, so they are positioned in different places—I argue that (41a) *na-nun* is a subject (i.e., DP or DnomP in Spec TP), (41b) *meyli-nun* is derived from a possession construction and is converted to a topic (i.e., DP or DpossP in Spec TP), and (41c) *kwail-un* is a topic (i.e., DP in Spec TopP). However, it is interesting to note that the movement of those case-marked nominals is restricted to some nominals, and I provide examples that illustrate movement constraint in (42). I assume that the constraint demonstrates that topic-

marked nominals do not guarantee the same syntactic status or behaviors among themselves; this notion led me to closely observe the following sentences:

(42) a. **kwail-un** sakwa-ka masiss-ta

fruit-TOP apple-NOM delicious-DC

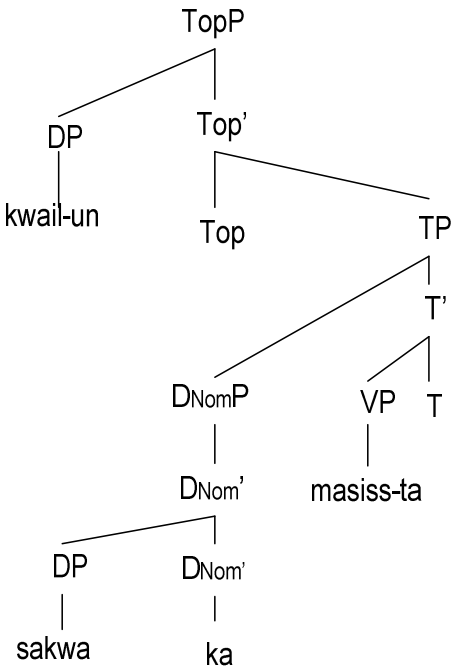
*a′. sakwa-ka **kwail-un** masiss-ta

apple-NOM fruit-TOP delicious-DC

*a″. **kwail-uy** sakwa-ka masiss-ta

fruit-GEN apple-NOM delicious-DC

'As for a fruit, an apple is delicious'



b. **meyli-nun** kho-ka yeppu-ta

Mary-TOP nose-NOM pretty-DC

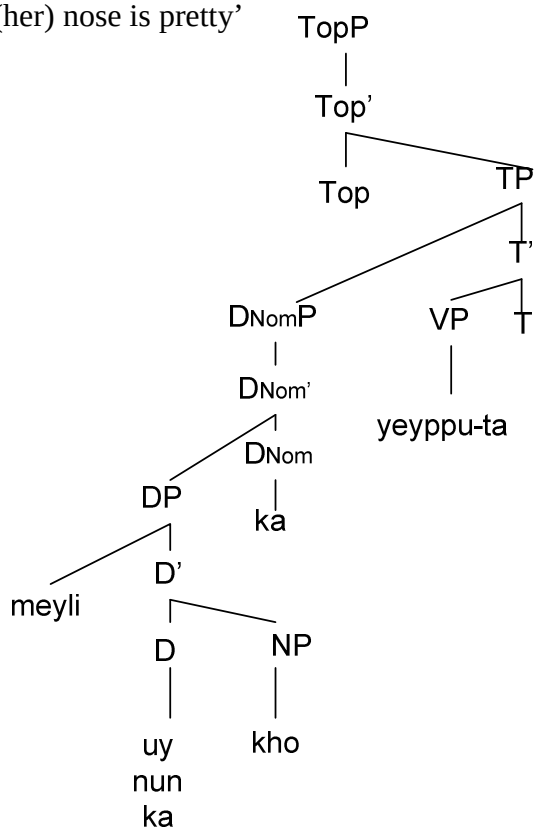
b′. kho-ka **meyli-nun** yeppu-ta

nose-NOM Mary-TOP pretty-DC

b″. **meyli-uy** kho-ka yeppu-ta

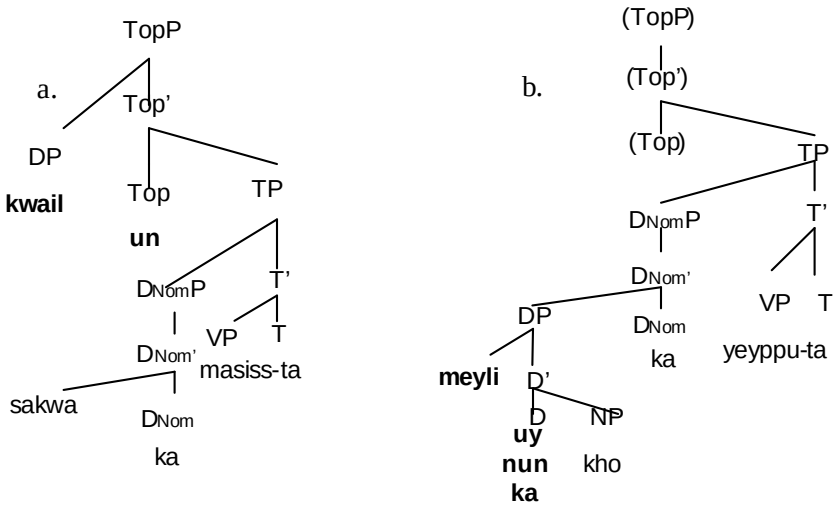
Mary-GEN nose-NOM pretty-DC

‘As for Mary, (her) nose is pretty’



In (42a′), the generic subject *sakwa* ‘apple’ does not undergo scrambling whereas in (42b′), *kho* ‘nose’ does. In (42b″), the topic-marked nominal can be converted to the possessive-marked nominal such as *meyli-uy*; whereas *kwail* ‘fruit’ in (42a″) cannot. Within the domain of $D_{Nom}P$, the movement of *kho* ‘nose’ in (42b′) is free; however, as Top is a barrier, *sakwa* ‘apple’ in (42a′) is not able to cross over the barrier and over *kwail* ‘fruit.’ Therefore, this derivation is ill-formed in (42a′). Likewise, these two sentences (42a) and (42b) seem to have the same structure, but the investigation of the two pairs provides their different syntactic behaviors. Based on the distinction between them, I propose two different structures below:

(43)



Kwail-un 'fruit' is realized in the independent Spec TopP in (43a), whose fixed particle with *un* (i.e. irreplaceable with other particles) strongly supports my argument that *kwail-un* in (43a) is an element of TopP; however, *meyli-nun* in (43b) is positioned in Spec TP via $D_{Nom}P$, specifically, as a complement of the subject marker *ka, nun,* or *uy*, (i.e. *meyli-nun kho-ka).* I assume that *meyli-nun* is originally generated as a possessor noun, *meyli-uy*, as a default form, and the possessor marker *uy* is simply converted into the topic marker *nun* as shown in (43b). Moreover, interestingly, the optional conversion into the subject marker *ka* is even possible in Korean as illustrated above. The frequent occurrence of case alternations in Korean within the multi-layered DP implies the different roles of TopP and $D_{Top}P$, which are headed by the same morpheme *un/nun* in Korean.

4.2.3 Case Alternations

As noted throughout the previous section, case alternations are one way of the proposals which have been made in dealing with case assignment/checking related to (double) case marking in Korean. Among the diverse approaches to case marking, I adopt Lapointe's (1998) proposal that argues against a movement approach regarding double case marking in Korean, and

explain case alternations in terms of the DP-Hypothesis. Lapointe (1998:) proposes that the DAT/LOC marking is not “a deletion” of a NOM marker but “an alternative” to the NOM-marking (p. 472). Note the following examples:

(44) a. Chulswu-**ekey** ton-i manh-ta

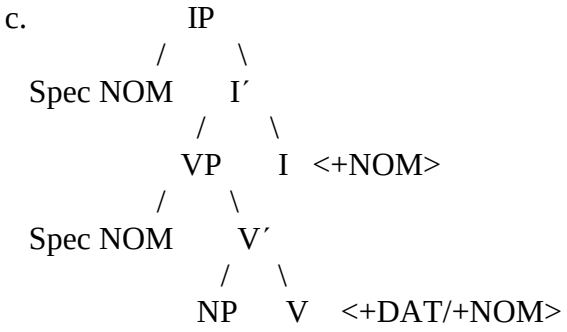
Chulswu-DAT money-NOM much-DC

= b. Chulswu-**ka** ton-i manh-ta

Chulswu-NOM money-NOM much-DC

‘Chulswu has a lot of money’

c.



We might hypothesize that the NP, which is the DAT-marked subject, *Chulswu-ekey* in (44a), moves to Spec VP with NOM checked, and, next, the NP moves from Spec VP to Spec IP; this assumption is not plausible because there is no reason for the latter movement to be fulfilled (i.e., from Spec VP to Spec IP), since NOM is already checked in the previous derivation. Therefore, this movement violates the Economy Principle (cf., *a last resort*, Chomsky 1995). On the other hand, Spec VP is the position for an intervening NOM governor which can block Case assignment. If the NP, passing over this position, moves directly to Spec IP position for NOM checking, “a minimality violation” occurs. Therefore, Lapointe (1998) points out the typological characteristics of Korean which also includes *Morphological Case*, in contrast to other languages

with *Abstract Case* (pp. 473-74). He further accounts for reasons why Korean undergoes case alternations, in the following way:

> Now many case marking languages have only a single morphological "slot" in which case markers can occur. In such languages, it is not possible for double surface case marking to arise, since all of the case markers are competing for a single position, and only one can occur there at a time. However, Korean Ns demonstrably have two separate slots for case markers - an inner slot for inherent or semantic case markers and an outer slot for structural or grammatical case endings—and so the morphological structure of Korean allows for the possibility that double assignment of Abstract Case to a particular NP will lead to double surface case marking.

Based on his explanation, I stipulate that two slots are intertwined in Korean syntax: one slot arises for morphological case, controlled by PF-interface, and the other for abstract case, required by interpretations at LF-interface. This analysis concurs with the Minimalist Program; in terms of the Minimalist Program, the Case Filter has two interfaces: LF-visibility and PF-visibility (Lasnik, 1992). All argument chains should have case at the LF interface for theta-roles to be visible. Morphological case is extended to PF-visibility; however, LF-visibility only pertains to argument chains, irrespective of morphological case. Therefore, abstract case is obligatory for well-formedness at LF. Due to case particles, both levels of case (i.e., PF and LF interfaces) are satisfied in Korean syntax, in contrast to English that lacks morphological case. Consequently, Lapointe's (1998) argument for a case alternation approach is strongly supported by both theoretical and empirical grounds; moreover, a case alternation approach, maintaining

the spirit of the Minimalist Program, supports my analysis of the ambiguous topic-marked nominal structures in Korean, previously explored in (42) and (43).[31]

In 4.2.1 and 4.2.2, I hypothesize the topic marked nominal, *meyli-nun-kho* in (42b), is base-generated as a possession construction. This section shows that this phrase originates from an inalienable possession construction. The following examples from Yoon (1998) illustrate that two DPs, headed by the same genitive marker, *uy* (i.e., $D_{Poss}P$ in this study) have different structures:

(45) a. Chelswu-uy son
Chelswu-GEN hand
'Chelswu's hand' (inalienable possession)

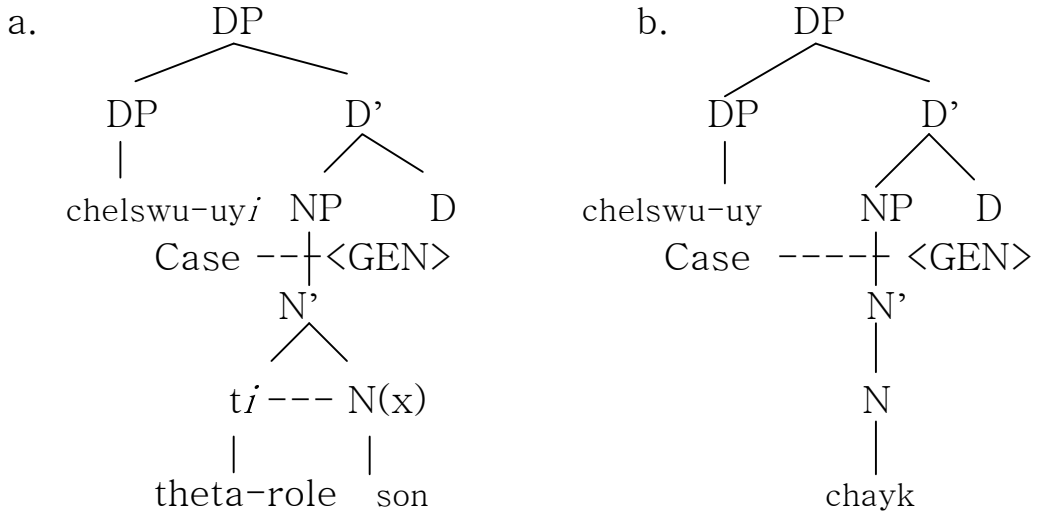
b. Chelswu-uy chayk
Chelswu-GEN book
'Chelswu's book' (alienable possession)

According to Yoon (1998), an inalienable possessor NP, *Chelswu* in (45a), generated within an NP, receives a theta-role directly from a possessee NP, *son* 'hand' and is raised to Spec DP to check its GEN feature as an argument of the possessee NP, *son*. More of Yoon's explanation continues in the following way: ". . . the possessors of relational nouns like *son* 'hand' have usually been called "inalienable" possessors in the literature, in contrast to the "alienable" possessors of non-relational nouns like *chayk* 'book'" (Yoon, 1998, p. 516). On the contrary, the possessor of an alienable noun NP, *Chelswu* in (45b), base-generated in Spec DP, receives GEN case from the D head, but a theta-role is not assigned to it. Therefore, she points out that the relation between the alienable possessor and the possessee NP are semantically different from

[31] All nominals are inflected with case. For example, between the pronoun *it* in 1) and 2) in the following examples, e.g, 1) ***it*** is interesting!; 2) I'll throw ***it*** away, the pronoun *it* is not morphologically distinguished; this invisible case

the pair of an inalienable counterpart. Her proposal is presented with two distinctive trees below, which indicate the different base-generating positions of the possessor NP as well:

(46)



Yoon (1998)

Therefore, the different base-generating position and presence/absence of theta-role assignment in a nominal (i.e., [*Chelswu*-GEN]) is not constantly determined by the morphological case marking, in the same way as (44) and (45). Following Yoon (1998), I recapitulate Giorgi and Longobardi's (1991) analysis of co-occurring of determiners in Italian such as *il mio libro* 'the my book' and suggest the following new structure in (47b):

(47) a. [DP [D il [NP mio [N libro]]]] (from Giorgi & Longobardi, 1991, p. 203)

b. [DP il [D mio [NP libro]]] (Revised structure)

In *il mio libro*, one crucial constraint exists – *mio* does not bear a theta-role; it is not an inalienable possession structure, such as (45), and, consequently, its external theta-role is not generated inside NP. Thus, I suggest that, in the case of co-occurring D elements in Italian, where there is a constraint of linear order, a preceding element (i.e., an article) takes Spec DP position, and the following element (i.e., a possessive) is either 1) base-generated in NP, with a

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is *Abstract Case*.

theta-role assigned, and raised to D to check GEN (e.g., an inalienable possession) or 2) base-generated in D (e.g., an alienable possession) without a theta-role assignment as shown in (47b). Therefore, based on Yoon (1998) and Lapointe (1998), I argue against Giorgi and Longobardi's (1991) proposal of a uniform structure—in their study, both the external theta-role and possessor (or *R-relation* in their terminology) are generated in NP, irrespective of the discernments between the two constructions.

Similar to (in)alienable possession structures in Korean (45) and Italian (47), I apply the control phenomena (PRO) and possessives to the possession structures in (45) and (47). I propose two different possession constructions depending on the property of possessor nouns. DP is headed by determiners, and $D_{Poss}P$ is headed by the possessor *–'s* (e.g., English) or *–uy* (e.g., Korean), in contrast to a theta-marked argument in Spec $D_{Poss}P$. Giorgi and Longobardi (1991) point out, in terms of control phenomena, that an argument receiving a theta-role cannot co-occur with PRO that is an intrinsically theta-marked argument:

(48) a. yesterday's PRO attempt to leave

b. the PRO attempt to leave

c. *John's/my PRO attempt to leave

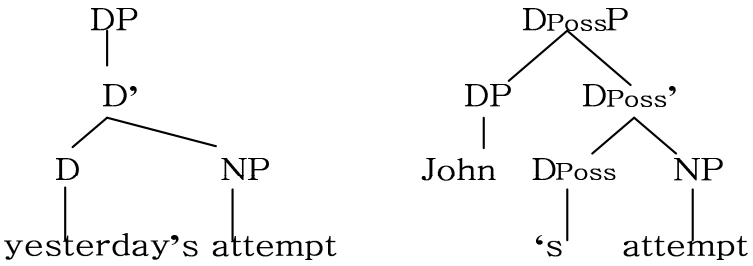
(adapted from Giorgi & Longobardi, 991, p. 198)

Yesterday's and *the* in (48a) and (48b), which are non-theta marked, simply function as determiners. They are Ds but not arguments. In (48c), however, a theta-marked DP, *John's* (or *my*) cannot occur with PRO. Based on the English examples regarding control phenomena, I propose two different DP structures below suggesting that, in (49), *John* (and *my*) are obviously DP arguments while *yesterday* and *the* cannot be due to the lack of a theta-role:

(49) a. [DP [D Yesterday's [NP [N attempt]]]]

b. [D_{Poss}P [DP John] [D_{Poss} -'s [NP [N attempt]]]]

c.



As a result, my proposal in (49c) shows manifestly different constructions: *yesterday's* only functions as a determiner without a theta-role; on the contrary, *John's* is theta-marked by the possessor head, i.e. D_{Poss}, which is different from *yesterday's* (i.e., D), irrespective of the same morpheme. Therefore, we have seen that not only Korean but also other Western language data demonstrate the legitimacy of the reflection of case and theta-roles in DP.

In relation to argument/non-argument structures, I have examined an (in)alienable possession construction, a possessor theta-role assignment, and control phenomena. Based on the relations between DP and argumenthood, a distinction between D_{Top}P and TopP is considered with Korean topic-marked nominals presented again in this section. I have claimed that case particles in Korean are D elements. Additionally, I suggest topicality can be realized even inside DP: specifically, an argument D_{Top}P, as in *meyli-nun* (Mary-Top) in (50), which is headed by a topic marker. More clarification is provided with (50) that repeats (42) and (43) and the constituency test in (51):

(50) **meyli-nun** kho-ka yeppu-ta
Mary-TOP nose-NOM pretty-DC
'As for Mary, (her) nose is pretty'

(51) **<Constituency Test>**

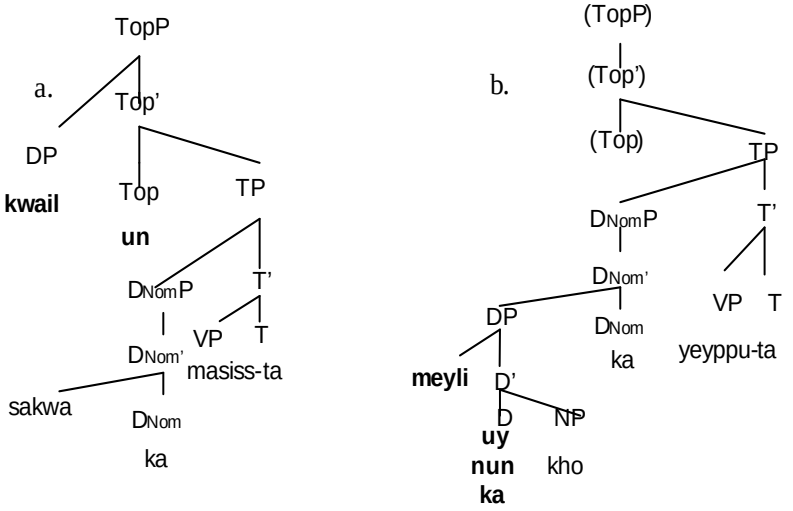
Statement: As for Mary, her nose is pretty.

Question: What is pretty?

Answer 1: Mary's nose (Answer 2: *Mary / Answer 3: * Nose)

This constituency test clearly shows that the possible correct answer is only [Mary's nose] because it is one constituent functioning as a subject of the predicate 'pretty'; in other words, the subject of the predicate *yepputa* (to be pretty) is 'Mary's nose,' not 'Mary' or 'nose' alone. Moreover, this constituency test shows that the topic-marked noun *meyli-nun* 'Mary-TOP' gives referentiality and topicality to the postnominal 'nose' within $D_{Top}P$ by virtue of the topic marker *nun* that is also realized within the domain of DP (i.e., $D_{Top}P$). For this reason, the interpretation (e.g., topicality/referentiality) in *meyli-nun* 'Mary-TOP' in $D_{Top}P$ is parallel to the corresponding interpretation in the Korean-peculiar topic nominal in Spec TopP that dominates TP.[32] (52) below repeats (43):

(52)



[32] Particularly, Korean is a topic-prominent language. Therefore, I confirm that TopP, which dominates TP (IP), is projected in Korean syntax as an additional maximal projection in the sentential domain in this language.

The following presents an overall summary; *Meyli-nun* 'Mary-TOP' (i.e., $D_{Top}P$) differs from the general topic nominal *kwail-un* 'fruit-TOP' syntactically: 1) *Mary* is base-generated in Spec DP with a conversion of D elements (i.e., the particles, from *uy* to *nun*) rather than reflecting syntactic movement as Lapointe (1998) argues in terms of case alternations; 2) their sentence-initial occurrence (e.g., *kwail-un* and *meyli-nun*) and the taking of the same particle make *meyli-nun* homophonous to typical TopP; however, they occur in two different independent positions such as Spec DP and Spec TopP; 3) without overt movement to Spec TP or TopP, (i.e., topicalization), by virtue of case particles representing topicality in Korean, a possessor noun can denote topicality with the topic marker even within DP, while the domain of topicality in English is limited to Spec TP (IP) (or, possibly, Spec TopP if English topicalization is subsumed as movement outside TP (IP) to TopP). Tylor (1996) affirms that the English possessor nominal is positioned initially in the construction to demarcate "the referential possibility" as a "local topic," just as in Korean/Japanese topic constructions. Korean topic constructions can be realized morphologically, and the topic marker is possibly replaced with the possessive marker within the projection of DP (i.e., $D_{Poss}P$ and $D_{Top}P$ respectively), when the nominal is derived from a possession construction as shown in (46) and (49). Based on observation of these phenomena, I assert that both referentiality and a possessive construction must be closely related to topic, which is the syntactic category of topicality.

With regard to the two types of nominal phrases, NPs and DPs, I demonstrate that [+ref] and the syntactic status (e.g., argumenthood) of nominals should be examined instead of the overt realization of the D head. 4.2 has shown that topicality in Korean can be encoded with DP and TopP within a nominal domain, as DP, specifically an argument $D_{Top}P$, in contrast to a non-argument TopP, within a sentential domain; moreover, Korean topic constructions (inherent

topicality), are realized both syntactically (sentence-initially), and morphologically (with case particles). Regardless of the status of nominals as an argument/non-argument, however, [+ref] in Korean can be exhibited even in the non-argument position TopP, just like proper names and kind-referring generic nominals that lack the overt D head. I summarize the relationship between DP/NP and argument/non-argumenthood in the table below:

DP	DP	DP	NP
External & Internal Argument (e. g., subj/obj)	External & Internal Argument (e.g ., subj/obj)	Non-Argument (e.g., TOP)	Non-Arg (e.g. predicates/vocatives/ exclamatives/ QP-internal NP)
+ref	-ref	+ref	-ref

The difference between NPs and DPs is that NPs are non-referential, non-argument expressions such as vocatives and predicates. In addition, as examined in 4.1.3 and 4.1.4, I assert the QP-internal NP belongs to this NP category, in contrast to the scrambled DP argument, when the QP-internal NP is not function as argument expression. On the contrary, even though nominals in TopP are in non-argument position, outside TP, they are DPs because it bears [+ref]. Therefore, DPs contain the three properties listed below; obliterate

DPs are 1) internal arguments

2) external arguments

3) non-arguments with [+ref]

Korean, without being headed by articles, exhibits argumenthood and referentiality, including definiteness and specificity with bare (singular) forms. Based on the observation of cross-linguistic empirical data, by means of the comparative syntactic analysis, I have argued that DPs are universal and are not parameterized cross-linguistically because DP is neither merely the

norm of scrambling nor of argumenthood; therefore, the functional head D should be projected in Korean in the spirit of UG.

CHAPTER 5

CONCLUSION

In this final chapter, I will summarize the main conclusions of this dissertation based on empirical findings and theoretical justification.

My dissertation focuses on the occurrence of nominal phrases that are projected by a determiner head, such as articles and demonstratives, and definite/indefinite markings in Korean. I believe that functional heads are found not only in languages with articles but also in languages without articles because the only difference between them is whether the semantic interpretation is realized phonetically (overtly) or not (covertly).

In Chapter 2, I argued that parametric variation exists in three ways: 1) the base-generated position of demonstratives, the definite article, and the possessive vary across languages; 2) the final landing site of those elements also denote cross-linguistic distinctions; 3) movement for feature-checking such as [+ref] and [+deictic] occurs either before Spell-Out or after Spell-Out depending on the language. In this chapter, I have suggested that, in English, once demonstratives move from Spec AgrP to the D head, they need not move to Spec DP any further, because their deictic features can be checked *in-situ*, and superfluous movement violates *the Economy Principle*. Therefore, the final landing site of demonstratives need not be universally Spec DP; in addition, demonstratives' compatibility with other determiners (such as possessives and the definite article) or choice of their landing sites should be reconsidered in terms of parametric variation. On the contrary, in Spanish, N-to-D raising occurs overtly due to strong features of N (before Spell-Out), by satisfying the Visibility Condition proposed by

Dimitrova-Vulchanova and Giusti (1998) because the D head is overtly filled by the definite article, *el*. Due to weak features of the demonstrative *este*, however, *este* moves to Spec DP only at LF (after Spell-Out). Therefore, this derivation in Spanish converges at both LF and PF: 1) [+ref] and [+deictic] in *este* are checked off at LF; 2) the D head is visible with *el* even at PF, as well as at LF (i.e., the DP projection should be visible after Spell-Out in Spanish. In this study, I have also confirmed that the demonstratives in Spanish raise to Spec DP optionally before Spell-Out, but they should raise to Spec DP obligatorily at LF, which was previously attested by Longobardi (1994) and Brugè (2002). However, Brugè's (2002) proposal that the possessive is generated in the D head in Spanish cannot be justified. For this reason, I have argued against Brugè (2002) by proposing that both the demonstrative and the possessive in Spanish, base-generated in Spec FP (or AgrP), compete for the same position, and the complementary distribution of them leads to ungrammaticality in the derivation. Based on empirical findings, this study demonstrates that in Korean, demonstratives do not compete for the same position with the possessives; in English, on the contrary, analogous competition leads the co-occurrence of those two elements to ungrammaticality. Therefore, I have claimed that internal structures, relative to demonstratives, are determined by the nature of competition among D elements rather than the strength of [+ref] features (although I do not exclude the function of definite features in demonstratives, such as [+ref] and [+deictic], and their applicability to parametric variations in language).

Spec DP is not a universal landing site of demonstratives. Adopting Giusti (1993), I claim that demonstratives in Korean are also base-generated in AgrP, the intermediate projection between DP and NP; however, the generating position of demonstratives is Head AgrP, not Spec AgrP because demonstratives in Korean can co-occur with possessives. In other words,

demonstratives in Korean are base-generated in the AgrP head and then obligatorily move to the D head in overt syntax via head-to-head movement. Since this derivation does not violate HMC (Head Movement Constraint), it does not violate *a locality condition*, either. Due to the lack of the definite article in Korean, both 1) the [+deictic] feature-checking before Spell-Out and 2) the movement of demonstratives to D head at PF level (triggered by strong features) make definiteness visible prenominally in Korean syntax. On the other hand, a possessive in Korean is base-generated in Spec AgrP, so it does not compete for the same position with the demonstrative. Therefore, I have argued that demonstratives that possess [+deictic] and inherent [+def] are closely related to referentiality. Consequently, movement of demonstratives, triggered by feature-checking in DP domain, and their definite interpretations in Korean are legitimate both syntactically and semantically in the framework of the Minimalist Program.

This chapter emphasized parametric variation with respect to complementary distribution of D elements and their obligatory/optional movement within the nominal domain across languages. Overall, in languages that allow the co-occurrence of the definite article with demonstratives, such as Romanian and Modern Greek, demonstratives are base-generated in Spec AgrP (or any intermediate-level phrase such as FP in Brugè (2002)); however, the definite article in those languages is base-generated in the D head. However, in English, a language that does not allow the co-occurrence of the definite article with a demonstrative, both are base-generated in Spec AgrP, and move to D obligatorily at PF level for [+ref] and [+deictic] checking. Therefore, their co-occurrence, which leads to ungrammaticality, prevents them from competing for the same position. Moreover, the overt N-to-D movement does not occur in English, which shows an example of parametric variations between English and Spanish—Spanish exhibits the overt N-to-D raising in syntax. Based on Spanish examples, exemplifying

demonstratives' complementary distribution with the definite article or possessive pronouns, I conclude that determiners in Spanish are base-generated in Spec AgrP like determiners in English. The co-occurrence of the definite article with a post-nominal demonstrative is a parametric variation caused by the language-specific requirement—this requirement is satisfied by the insertion of the definite article as *a last resort*. Parametric variation can be found in Korean and Japanese demonstratives as well; they co-occur with possessives. The Korean demonstrative is base-generated in AgrP head and then moves to D obligatorily at PF level. On the contrary, the possessive is base-generated in Spec AgrP so that it does not compete for the same position with the demonstrative. Since Korean does not possess overt (in)definite articles, demonstratives function as the definite article as are also found in Cape Verdean Creole counterparts proposed by Baptista (2003, 2007). I asserted that languages compensate for the lack of another category; dual functions of demonstratives are caused by absence of another element, and the demonstratives (especially, *ku*, *sono*, and *kel*) are the alternating functors of the definite article in Korean, Japanese and CVC. This study strongly supports the existence of UG; in terms of a generating position for demonstratives, the intermediate level, which is assumed to be AgrP (between DP and NP), is universal cross-linguistically. However, there are two different generating positions for demonstratives within DP-internal AgrP across languages, (either Head, AgrP or Spec, AgrP), and the diverse generating positions account for the existence of parametric variations. Language parameters also allow various landing sites for demonstratives in overt syntax; on the contrary, feature-checking triggered by [+ref] and [+deictic] in DP domain at LF is universal. Demonstratives are D elements that possess one more features than the definite article possesses, which are both [+deictic] and [+ref]. For this reason, languages without (definite) articles, for example, Korean, Japanese, CVC, and Bosnian, can denote

definiteness in syntax. Demonstratives have multiple functions and behave in a variety of ways across languages but are functional elements.

Traditionally, Korean (and Japanese) nominals are categorized as NPs (Noun Phrases) and demonstratives as adjectives for two reasons; first, there are no articles in Korean, and second, Korean demonstratives are adjectival and thus recursive, so they coexist with possessive nouns and pronouns. This idea has been prevalent in the analysis of Korean nominals even after the DP (Determiner Phrase) Hypothesis (Abney, 1987). Giusti (1997) and Fukui (1986, 2003) argue that demonstratives are prenominal modifiers, base-generated in the extended NP, and they are, therefore, lexical elements like adjectives, not D elements. However, this study manifestly showed that demonstratives function as determiners, instead of adjectives, and Korean demonstratives like *i* (this), *ku* (that), *ceo* (that over there) cannot be subsumed under the category of adjectives; consequently, I argued against Giusti (1997) and Fukui (1986, 2003) who claim that demonstratives are lexical elements like adjectives, not D elements.

Chapter 3 explored Korean bare nominals and their interpretations in comparison with English, Japanese and Cape Verdean Creole. This chapter reviewed Longobardi's (1994) N-to-D raising and Baptista's (2003, 2007) null D hypothesis by suggesting that the functors and the condition of outside N (e.g., time) can affect the interpretations of bare nominals in terms of syntax. This chapter cooperates with Chapter 1 and Chapter 2 because the syntactic aspect and the interpretation of bare nominals are both locally (i.e., within the domain of DP) and extensively (i.e., in the domain of TP) investigated in terms of the feature-checking involving referential features (i.e., [+ref]). This chapter also verified the whole array of the hypothesis that the Functional Category D attracts not only referential features (i.e., [+ref] or R in Longobardi

(1994)) in N but also T-feature in N (i.e., 1) [+Generic] or [±gen] 2) [±Existential] or [±exist]) in order to check off the uninterpretable [+ref] or [±gen]/[±exist]) in D.

According to Diesing's (1992) Mapping Hypothesis, stage-level predicates are associated with raising INFL, and individual-level predicates are associated with control INFL. The different construal of subjects in each structure is closely related to those types of predicates that take either control INFL or raising INFL. However, I demonstrated that, based on Guéron (2006) and Baptista (2007), the different interpretations of bare nominal subjects are not necessarily determined by those two types of the predicates; instead, I argued that tense (T), as a binder, plays an important role in the interpretations of subjects. More specifically, Diesing (1992) classifies predicates into two classes (i.e., *stage-level* and *individual-level* predicates); this approach was a semantically based distinction established early by Carlson (1977) in relation to the emergence of different interpretations of bare plurals. According to Carlson (1977), particular temporal/spatial instantiations are termed a *stage* while the union of the whole sets of the kinds is *individual*; however, this type of purely semantic contrast could not capture the syntactic distinction, and Diesing (1992) sheds light on the examination of the two types of the predicates in terms of syntax. According to Diesing (1992), the subject of the stage-level predicate is VP-internal (i.e., Spec VP) and successively moves to Spec IP, while the subject of the individual-level predicate is base-generated in Spec IP, and Spec VP is occupied by PRO. A bare plural subject obtains an existential reading if it is dominated by VP at LF because bare plurals contain indefinites. However, Carlson (1977) and Diesing (1992) have not been able to capture a solution for the complicated phenomenon of bare nominals' obtaining unconventional episodic interpretation with the so-called individual-level predicate and also have faced problems in interpreting empirical data as I showed in this chapter.

In turn, my dissertation provided a solution to this shortcoming in their approach to predicate types, such as raising/control structures in syntax; as a result, this study showed that the revised T-chain approach, based on Baptista (2007), can account for the mechanism of the interpretation of the bare noun subject in Spec TP (e.g., when T is indexed with 0, the (bare) subject receives a generic interpretation across languages). This approach also makes the theory of Universal Grammar legitimate under the Minimalist Program by maintaining the base-generated position of subjects in Spec VP, their theta-role assignment, and their cross-linguistic feature-checking process.

Based on this evidence, therefore, I disagreed with Diesing (1992) and Kim (1993) who believe that bare nominal interpretations are determined by the predicate type, and a subject of an individual-level predicate is base-generated in Spec TP (IP). Moreover, I argued that all subjects are base-generated in Spec VP, and they are assigned theta-roles before they move to Spec TP because there is no possibility that they undergo lowering or downgrading from Spec TP into Spec VP in order to receive an existential/episodic reading. T-features in the subject DP such as [+generic] and [+episodic] should be checked off against the categorical features in T in Spec-Head relations; if they remain unchecked in N, the derivation crashes at LF because those features are uninterpretable formal features (as they are not categorical N features, which are interpretable). As a result, I confirmed that the VP-Internal Subject Hypothesis should be maintained in the spirit of the Minimalist Program. In addition, by recapitulating Baptista's (2007) T-chain approach, I developed my proposal in relation to the feature-checking process which affects the interpretations of bare nominals cross-linguistically.

Chapter 4 discussed the sub-layers within DP. Based on Nemoto (2005) and Chierchia (1998), I explored Korean common nouns and the plural marker *tul*. I have defined Korean

common nouns as *derived mass nouns* because they hold both characteristics of so-called classifier languages and NP [+arg, +pred] languages like English. Korean common nouns are compatible with the plural marker, unlike Chierchia's (1998) proposal; however, the widely used classifiers and more frequent distribution of the semantic plural features, [+LATT], in Korean common nouns than those of English counterparts confirm Korean's typological attribute of close-to-mass denotation. Baptista (2007) and Heycock and Zamparelli (2005) motivated me to distinguish semantic number from syntactic number within DP, and these number features, separately realized within DP, are attested by empirical data across languages. Therefore, this study highlights the crucial role of PlP in triggering different interpretations of (bare) nominals, such as Pl* (with semantic plurals) and Pl (with semantic singulars). In the frame of the feature-checking process and the agreement operation, semantic number in count and mass nouns are distinguished, irrespective of the morphological number. Also, I showed that DP hosts not only number features, which are split into semantic and syntactic features, but also classifiers in so-called NP [+arg, -pred] languages, typologically distinguished from English (NP [+arg, +pred]) and Romance (NP [-arg,+pred]) languages. However, without the D head, the interpretation [±def] or [±spec] cannot be explained across languages. Therefore, Chapter 3 strongly supported the DP Hypothesis (Abney, 1987), which has long been investigated in literature, especially, among the typologists who argue for or against the existence of the D elements in languages without articles such as Korean and Japanese.

Besides quantifier constituents, such as ClP, NumP, and QP, I have claimed that the overt movement of N in the multi-layers within the DP domain is purely motivated by case particles because N does not yet merge with the D head, the locus of definiteness/specificity; as a result, this overt movement of N to Spec QP in Korean and Japanese is not triggered by specificity, as

opposed to scrambling, which is dependent on semantic features. Therefore, N's raising to Spec QP in this section sheds light on the long-debated issue regarding the investigation of scrambling among the languages that possess case particles—I have shown that scrambling, occurring within TP domain, is associated with semantic features as a DP movement, in contrast to the overt N movement restricted to DP domain. In turn, the analysis of Korean and Japanese empirical data in this study superiorly provides the answers for puzzling issues, summarized as follows: 1) scrambling is not optional movement assisted by case particles 2) the overt N movement to Spec QP in multi-layered DP is not driven by semantic force. Cheng and Sybesma (1999) contribute immensely in building bridges between classifiers and bare nouns in languages without articles. My investigation of the multi-layered DP in Korean (and Japanese) is in agreement with Cheng and Sybesma (1999) who argue that NumPs are inherently [-def]. However, there is one crucial distinction between their proposal and mine in regard to ClP; while I agreed that bare nouns are arguments, I disputed Cheng and Sybesma's (1999) claim that ClP performs the function of D and therefore bare nouns are arguments. I argued that ClP itself, as well as NumP, is inherently [-def], and the only domain for [+def] is DP. My empirical data from Korean and Japanese have revealed a shortcoming of Cheng and Sybesma (1999), by showing that, Korean and Japanese prevent ClP from being projected without numerals in syntax because they are one constituent, which is also pointed out by Ishii (2000). Bare nouns are actually not so bare, and they are certainly arguments if and only if they are merged with definiteness/specificity in DP, instead of ClP.

Chapter 4 focused on the distinction between NPs and DPs based on (in)definiteness and referentiality in an argument/non-argument position in terms of case particles in Korean. Lyons (1999) purports that DP cannot be projected in Korean syntax due to the lack of the grammatical

D category, such as articles; instead, in Korean, non-grammatical definiteness is correlated to the pragmatic notion, identifiability. However, the investigation of English, Italian, Japanese, Chinese, and Cape Verdean Creole bare nominal structures shows (in)definiteness is reflected even in Korean syntax, without articles. Therefore, I have argued that Korean is not a counterexample to DP languages; a functional head D occupies a higher position than nouns in Korean, analogous to nominals with overt determiners in many Western languages. Moreover, I have proposed that definite/referential nouns in a non-argument position (TopP), as a "TP(IP)-external" or a "subject-peripheral" position, by attributing this mismatch between distribution and interpretation to the property that DP is neither merely the norm of scrambling nor argumenthood. Therefore, I have suggested that DP is universal and is not parameterized cross-linguistically.

In regard to the two types of nominal phrases, NPs and DPs, I demonstrated that [+ref] and the syntactic status (e.g. argumenthood) of nominals should be examined instead of the overt realization of the D head. Topicality in Korean can be realized within DP, specifically an argument $D_{Top}P$, in contrast to a non-argument TopP; moreover, Korean topic constructions (inherent topicality), are realized both syntactically (sentence-initially), and morphologically (with case particles). Regardless of the status of nominals as an argument/non-argument, however, [+ref] in Korean can be exhibited even in the non-argument position, TopP, just like [+def] in proper names and kind-referring generic nominals can be encoded with the D head, regardless of the status of D's (phonetic) realization. I summarized the relationship between DP/NP and argument/non-argumenthood in Chapter 4; the difference between NPs and DPs is that NPs are non-referential, non-argument expressions such as vocatives and predicates. In addition, I asserted that the QP-internal NP belongs to this NP category, in contrast to the

scrambled DP argument, when the QP-internal NP does not function as argument expression. On the contrary, even though nominals in TopP are in non-argument position, outside TP, they are DPs because they bear [+ref]. Therefore, DPs contain the three properties listed below;

DPs are 1) internal arguments

2) external arguments

3) non-arguments with [+ref]

Korean, without being headed by articles, exhibits argumenthood and referentiality, including definiteness and specificity with bare (singular) forms. Based on the observation of cross-linguistic empirical data, by means of the comparative syntactic analysis, I argued that DPs are universal and are not parameterized cross-linguistically because DP is neither merely the norm of scrambling nor argumenthood; therefore, the functional head D should be projected in Korean in the spirit of UG. Finally, I expect this dissertation will pave the way toward a new paradigm of nominal categories and their interpretations across languages under the UG.

From GB theory to the current Minimalist Program, corroborating that all phrases follow parameter settings, head parameters have captured underlying variations from language to language. English is a head-first language; in contrast, Korean is an extreme head-final language because only postpositions exist as bound morphemes in this language. My study, however, shows that demonstratives (*i, ku,* and *ceo*) and the possessive particle (*uy*) are positioned head-initially ([DP [NP]]), whereas the other case particles (including delimiters) occur postnominally ([[NP] DP]) as a so-called head-final language. With respect to this inconsistency between the head-final parameter and the exceptional structures in Korean, further analysis would be indispensable; therefore, we need to embark on additional research that can modify the anomalously reversed setting of Head Directionality.

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