Syntactic Representation of Genericity in Korean

By

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Abstract

This thesis proposes a mapping algorithm for generic constructions in Korean. Adopting a modified Diesing's (1992) Mapping Hypothesis, the relationship between the syntactic and semantic representations of generic/episodic sentences is investigated. More specifically, it is suggested that the scope of a generic operator GEN is the TopP/FocP and the domain of existential closure is the *v*P. Based on data of topic/focus sentences, multiple nominative constructions (MNCs), and so-called ECM constructions, the argument is that the semantic interpretation of those constructions is derived in a purely syntactic way within the proposed mapping system. As such, it is shown that the distinction between individual level predicates and stage level predicates is not determined at the lexical level. The necessity of the movement of nominals to CP-layered positions in generic sentences indicates that the distinction of such predicate types must be conducted at the surface level through a syntactic process in the mapping structure.

Multiple nominative constructions are also discussed. To solve the syntactic positional problems that MNCs bear, Ha's (2014) applicative approach is adopted. Since the theory provides the syntactic positions for the multiple nominals in MNCs within the projection of applicative heads, the semantic interpretation of generic/episodic MNCs is successfully explained with the proposed mapping algorithm, when combined with the assumption that subjects in Korean are represented within the *v*P.

The interpretation of ECM constructions also supports the proposed mapping system in this thesis. ECM-ed nominals cannot be interpreted as existential. They have a generic or presuppositional reading. As observed in linguistic phenomena, such as binding, adverb placement, and NPI licensing, the ECM-ed nominals end up in the matrix clause, and the

movement of ECM-ed nominals triggers the generic reading of the construction. Given that the boundary of mapping algorithm is the *v*P, the nominals moved out of the lower scope cannot be interpreted as existential. Thus, the interpretation of such nominals must be presuppositional or generic if the invisible generic operator GEN occurs in the construction.

Abbreviations

Acc	accusative
Appl	applicative
C	complementizer
Cop	copular
Dat	dative
Dec	declarative
Del	delimiter
GEN	generic operator
Gen	genitive
Imp	imperative
Neg	negation
Nom	nominative
Pass	passive
Pres	present
Pst	past
Rel	relativizer
Top	topic

Chapter 1: Introduction

1. Brief overview

This thesis investigates the relationship between the syntactic and semantic representations of generic/episodic sentences. More specifically, I show how the scopes of a generic operator GEN and existential closure are mapped into syntax in Korean primarily based on data of topic/focus sentences, multiple nominative sentences and so-called ECM constructions.[1] Adopting Diesing's (1992) approach, I argue that the syntactic representation derives genericity in Korean. However, I also address some problems of her theory and suggest a slightly revised alternation. According to Diesing, the interpretation of indefinite nominals is affected by their syntactic position. When they are within the *v*P, they are interpreted as existential, while *v*P-external nominals are interpreted as generic. In other words, the scope of existential closure is *v*P and the scope of generic operator is the TP. However, in this thesis, I propose a little tweak of the scope of the restrictive area, where the generic interpretation is derived: it is the TopP/FocP rather than the TP. The empirical evidence is demonstrated throughout the whole thesis.

In addition, in contrast to Yoon (1997), I hold fast to Diesing's proposal that the scope of existential closure is the *v*P. Yoon argues that the domain of existential reading needs to be extended to the TP. To support the idea, he provides some linguistic data that are incompatible with the scope of existential closure in Diesing (1992). The essence of his claim is the presence of existential subjects in [Spec, TP]. However, this can be falsified in that the analysis of the position of the subjects is not correct. I will discuss this in detail in the next Chapter.

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[1] I adopt the assumption that a generic reading comes from a covert quantificational adverb GEN (cf. Carlson 1989, Chierchia 1995, Diesing 1992, and Kratzer 1995).

The syntactic position of GEN is a frequently debated topic in the field. Among many theories, the dominant idea is that GEN has a sentential scope. In line with this, some scholars claim that generic sentences are topic sentences (I. Lee 1992, C. Lee 1994, Cohen & Erteschik-Shir 2002, and Kwak 2007).[2] In many languages, such as English and Korean, explicit topic constructions show that the scope of GEN is fixed in a rather high position. Consider the example sentences in (1).

(1) a. As for dogs, they bark.

b. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'

The topicalized NPs have a generic reading as in (1). However, a topic construction is not the only one that is involved in genericity. Other types of sentences, such as focus or so-called ECM constructions, can be involved in genericity in Korean. The embedded clause in (2b) has a generic reading, not the matrix clause.

(2) a. **[kay-ka]$_F$** cic-nun-ta.[3]
dog-Nom bark-Pres-Dec
'It is dogs that bark(, not cats)'

[2] Other studies also tried to connect topic constructions with generics (Kuroda 1972, Carlson 1989, and Krifka et al. 1995, among others).

[3] Focus is indicated in bold. The words in bold are phonologically stressed and are followed by a pause.

b. John-i[4] kay-lul cic-nun-ta-ko sayngkakha-n-ta.
John-Nom dog-Acc bark-Pres-Dec-C think-Pres-Dec
'John thinks that dogs bark'

Interestingly, unlike in English, genericity in Korean cannot be realized with the nominative case, as shown in (4).

(3) a. Dogs bark.
b. Ravens are black.

(4) a. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'
b. **[kay-ka]$_F$** cic-nun-ta.
dog-Nom bark-Pres-Dec
'It is dogs that bark, (not cats)'
c. kay-ka cic-nun-ta. (episodic only)
dog-Nom bark-Pres-Dec
'A dog barks (now)'

The sentences in (4a) and (4b) express the property of dogs: barking, but the sentence in (4c) does not denote any property. It is a narrative in this case, and it is interpreted as episodic. The

[4] The alternation between *-i* and *-ka* is phonological. *-Ka* follows an open syllable and *-i* a closed syllable. The case of the topic marker *-un/nun* is the same. *-Nun* follows an open syllable and *-un* a closed syllable.

phonological stress in (4b) makes a difference from (4c).

(5) a. ilpancekulo, kay-nun (pam-ey) cic-nun-ta.
in.general dog-Top night-at bark-Pres-Dec
'In general, dogs bark (at night)'

b. ilpancekulo, kay-ka (pam-ey) cic-nun-ta.
in.general dog-Nom night-at bark-Pres-Dec
'In general, it is dogs that bark (at night)'

When an overt generic operator occurs in a nominative-marked construction as in (5b), the interpretation of the sentence becomes generic and the nominative-marked subject has a focused reading. This indicates that plain nominative NPs cannot be associated with a generic reading. Furthermore, the data in (4) and (5) show that only certain syntactic constructions can represent genericity. The subjects in generic sentences are moved up to a criterial position above the TP.[5] The relation between the syntactic and the semantic representations holds for the ECM constructions too, as in (6).[6]

(6) a. nay elin cokha-ka [koyangi-lul cicnunta-ko] cwucangha-ess-ta
my young nephew-Nom cat-Acc bark-C insist-Pst-Dec
'My little nephew insisted that cats bark'

[5] Following Chomsky (2001), Rizzi (2004, 2006) and Lee (2008), I assume that focused nominals also move to a criterial position just as topicalized nominals do.

[6] The accusative-marked nominal in (6a) is analyzed to be positioned in the matrix clause in this thesis. Just for the discussion, I put it in the bracket indicating the embedded clause for easy comparison with the other construction in (6b). The syntactic position of the ECM-ed nominals will be discussed in detail in Chapter 4.

b.	nay	elin	cokha-ka	[koyangi-ka	cicnunta-ko]	cwucangha-ess-ta
	my	young	nephew-Nom	cat-Nom	bark-C	insist-Pst-Dec

Koyangi-lul in (6a), which is the logical subject of the embedded predicate, ends up in the matrix clause, and thus, the embedded clause has a generic reading. On the contrary, *koyangi-ka* is still realized with the nominative case remaining inside the embedded clause. In this case, *koyangi* is existential, and the embedded clause is episodic unless it is focused. Recall that focused nominals lead the clause to a generic reading as in (4b). This will be discussed in detail in Chapter 4.

The aim of this thesis is to reveal what the scope of GEN is, and how it gets mapped into syntax in Korean. The data introduced above show that only certain syntactic constructions represent genericity. By adopting, yet modifying Diesing's (1992) work, I will show that purely syntactic concerns do in fact play a critical role in the process of the generic representation of sentences.

2. Mapping algorithm

In the previous section, I briefly introduced the mapping algorithm that is involved with genericity in Korean: only topic/focus can derive a generic reading. To understand the mapping algorithm proposed in this thesis, there are two previous studies to be considered. The basic assumption in this thesis is Diesing's Mapping Hypothesis, which states that the semantic partition of restrictive clause/nuclear scope plays a central role in the process of interpretation of indefinite nominals. In the hypothesis, the mapping of syntactic structures into the tripartite structure (Kamp 1981 and Heim 1982) gives the interpretational difference of indefinites.

2. 1 Tripartite structure

This thesis is about the relation between syntax and semantics in generic sentences. In order to explain what the nature of the mapping algorithm in generic sentences is, a brief introduction of the tripartite structure that is employed in Kamp (1981) and Heim (1982) is provided. In their framework, quantificational sentences have tripartite logical representations, and the interpretation of indefinite nominals are determined by their syntactic position in the logical representation and the quantificational force from the quantifier. Using the Heim's terminology, I refer to the division of the tripartite structure as quantifier, restrictive clause, and nuclear scope. The quantifier gives the quantificational force to indefinite nominals by binding them; the restrictive clause restricts the set of individuals that the quantifier quantifies over; and the nuclear scope is the domain of existential closure. Here, I show how the tripartite structure functions at the sentence level with a few simple sentences.[7]

(7) a. A dog barked.

b. $\exists x$ [x is a dog & x barked]

(8) a. Dogs always chase a cat.

b. $\forall x$ [x is a dog] $\exists y$ [y is a cat & x chases y]

Within the Kamp-Heim framework, the indefinite in (7a) introduces a variable rather than having quantificational force of its own. It needs to receive quantificational force by some

[7] Among the possible other ways, I follow Diesing (1992) with respect to the logical representation form.

operator. In the case of (7a), there is no overt quantifier to bind the variable. Thus, the variable that is introduced by the indefinite is bound by a covert existential quantifier, which existentially closes off the nuclear scope, yielding the indefinite's existential reading. The example (7) illustrates the simplest case in which only a nuclear scope is formed, and the quantificational force is given by the implicit operator, the existential closure. The restrictive clause is not required in (7b). Not every sentence ends up with a restrictive clause. On the contrary, (8b) includes a restrictive clause, and the restrictive clause restricts the set of individuals to be bound by the quantifier. In other words, the restriction on the quantifier is represented as the restrictive clause ([x is a dog]), as shown in (8b). Existential closure, in turn, binds the remaining variable *y* that is introduced by the indefinite '*a cat'* in the nuclear scope.

Although the Kamp-Heim theory gives an explanation to the generic interpretation of indefinites, there is one more issue to be considered with respect to genericity. Generics express generalizations over individuals and situations. See example (9).

(9) a. John-un ilha-n-ta.
John-Top work-Pres-Dec
'John works/John has a job'

b. **[John-i]$_F$** ilha-n-ta.
John-Nom work-Pres-Dec
'It is John who works'

c. John-i ilha-n-ta. (episodic only)
John-Nom work-Pres-Dec
'John works' (at a point in time in a narrative)

Even in (9a) and (9b), situations that contain *John* functions as a restrictor and that are somehow "normal" situations with respect to working (cf. Krifka et al. 1995). Obviously, *John works* does not mean *John works all the time*. GEN takes into account only those situations that are normal for John's working. For example, *John* cannot work while he is sleeping. Thus, if the situation variable in (9) is syntactically represented within the nominal, the necessity of the movement of the nominal can be explained. Consider the following data, which are quoted from Schwarz (2010).

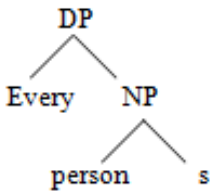
(10) a. If everyone in this room were outside, the room would be empty. (Percus 2000)

b. Every fugitive is now in jail. (Enç 1986)

The world of the quantificational nominal in (10a) *everyone in this room* differs from the one of the predicate in the *if*-clause (*be outside*). They are incompatible. Likewise, the nominal in (10b) *every fugitive* is also incompatible with the predicate *be now in jail* in that people in jail are no longer fugitives at the present time (the speech time). The nominal is evaluated at a different time than the predicate of the clause. Since situations have a temporal dimension as well, it can be claimed that the situation variable is represented in the nominal independently from the situation of the predicate. The syntactic representation can be diagramed as below (cf. von Fintel and Heim 2007):[8]

[8] I do not distinguish DPs from NPs in this thesis. Büring (2004) and Schwarz (2010) argue that a situation variable appears at the level of DP. However, this does not affect the logic in the present argument. What is crucial is that a situation variable is syntactically represented within a nominal.

(11)



Thus, either indefinite or definite nominals contain at least one variable to be bound, and it is bound by GEN when the operator exists in the construction. The simplified logical representations of (4a-b) and (9a-b) are given in (12). For the sake of simplicity, I focus only on the generic reading in the logical representation, ignoring the focus reading in (4b) and (9b).

(12) a. GEN*x*,*s* [*x* is a dog & *x* is in *s*] [*x* barks in *s*]

b. GEN*s* [John is in *s*] [John works in *s*]

And the interpretation of (4c) and (9c) can be displayed as in (13).

(13) a. ∃*x*,s [*x* is a dog & *x* is in *s* & *x* barks in *s*]

b. ∃*s* [John is in *s* & John works in *s*]

In (12) there is a restrictor that is derived pragmatically and provided implicitly.[9] It is why (12) has a restrictive clause. On the contrary, there is no restrictor in (13) and thus only the existential reading is derived.

[9] Spears (1974), Newton (1979), Conrad (1982), Kleiber (1985), Krifka (1987), and Schubert and Pelletier (1989) make suggestions along this line.

2. 2. Diesing's (1992) Mapping Hypothesis

Diesing considers the question of what role the syntactic structure of a sentence can play in interpreting nominals. This basically concerns the division of the restrictive clause and the nuclear scope in the mapping process from the surface structure of a sentence to the logical representation. Following the Kamp-Heim theory, Diesing also argues that indefinites introduce a variable rather than having quantificational force. In addition to this, she claims that the syntactic position of variables determines the interpretation of the indefinites that contain those variables. In summary, Diesing observes that *v*P-internal nominals and *v*P-external nominals are given different interpretations. Nominals within the *v*P are mapped into the nuclear scope and nominals outside *v*P are mapped into the restrictive clause.

(14) Mapping Hypothesis (Diesing 1992: 10)

Material from VP(*v*P) is mapped into a nuclear scope.

Material from IP(TP) is mapped into a restrictive clause.

Adopting Kratzer (1989), Diesing distinguishes the position of subjects of I-level predicates and S-level predicates. That is, the subjects of individual-level predicates are base-generated in [Spec, TP] and the subjects of stage-level predicates in [Spec, *v*P]. Based on this distinction, Diesing claims that the difference in the interpretation of indefinite subjects of those two types of predicates arises from the difference in their syntactic positions.

3. Problems of Diesing's theory

In this section, I will briefly address the problem of Diesing's (1992) theory. Basically, her proposal makes a substantial contribution in that it accounts for the mapping relation between

syntactic structures and semantic representations. Diesing claims that the semantic difference of nominals is rooted in the syntactic partition of TP and *v*P. However, the syntactic partition in her theory is not perfectly compatible with Korean linguistic data. To begin with, the Korean data introduced in the previous sections gives rise to questions. (4) is repeated in (15).

(15) a. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'

b. **[kay-ka]$_F$** cic-nun-ta.
dog-Nom bark-Pres-Dec
'It is dogs that bark, (not cats)'

c. kay-ka cic-nun-ta. (episodic only)
dog-Nom bark-Pres-Dec
'A dog barks (now)'

As shown in (15), only topic or focus constructions allow generic expressions in Korean. This can be a point of contention. If Diesing's syntactic partition is correct, the topicalized/focused subjects in (15a) and (15b) are realized in [Spec, TP]. Otherwise, the subjects mapped into the restrictive clause (TP) have to end up in a topic/focus position for some reason. According to her mapping algorithm, the place where the generic reading of the subjects is licensed is the TP. Thus, once the subjects are placed in [Spec, TP], the generic interpretation is successfully derived there. However, the Korean data in (15) show that there must be one more step to derive a generic reading. If Diesing's partition is correct, the necessity of this movement must be explained.

There is another issue to be considered. Korean allows multiple nominative constructions.

(16) onul emma-ka pay-ka aphu-ta.
today mother-Nom stomach-Nom sick-Dec
'Mom has a stomachache today'

(16) is an episodic sentence. Thus, the situation variable must be inside the nuclear scope. If the nuclear scope, which is the domain of existential closure, is the *v*P, then there must be two positions within the *v*P for the nominals. And the number can increase in accordance with the number of subjects in this type of construction as shown in (17).

(17) onul emma-ka nwun-i oynccok-i aphu-ta.
today mother-Nom eye-Nom left.side-Nom sick-Dec
'Mom's left eye hurts today'

The seemingly problematic issue with regard to the syntactic positions for the nominals in (17) can be handed with Ha's (2014) applicative approach. Simply put, those nominals in (17) are introduced into the syntax of the construction by applicative heads. This will be discussed in detail in Chapter 3.

The motivation of the idea in this thesis is the necessary movement of nominals in generic sentences. For a generic reading, the nominals must move to CP-layered positions as shown in (4). In contrast, nominative-marked constructions are only episodic. In this thesis, I argue that Korean is a language in which subjects do not raise obligatorily to [Spec, TP] (cf.

Fukui 1986, Kuroda 1988, Lasnik and Saito 1993 for Japanese).[10] This approach fits into Diesing's mapping hypothesis. If nominative-marked subjects remain within *v*P, the episodic interpretation of the construction matches with Diesing's theory in which the domain of existential closure is the *v*P. However, the necessity of movement of subjects in generic sentences cannot be explained with her theory. It is certain that [Spec, TP] has nothing to do with genericity in Korean unless Korean has a unique construction, which allows the representation of topic or focus in [Spec, TP]. If Korean is not special when it comes to the structure of topic or focus, the restrictive clause needs to be expanded. As for the nuclear scope, the *v*P is clearly the part of the domain given the episodic interpretation of nominative-marked constructions.

The basic concept adopted in this thesis is the tripartite structure of Kamp-Heim's theory. Based on the interpretational structure, I suggest a revised mapping algorithm: TopP/FocP is the restrictive clause and *v*P is the nuclear scope. The domain of the restrictive clause will be discussed more in Chapter 2, and Chapter 3 will discuss the domain of the nuclear scope in detail.

4. Organization

The remainder of the dissertation will be organized as follows. Chapter 2 discusses the main proposal of the dissertation. The syntactic nature of generic sentences in Korean will be observed, and the mapping algorithm will be suggested. Chapter 3 deals with multiple nominative constructions. To provide an account for the syntactic positions of multiple subjects, Ha's (2014) applicative theory will be introduced. In Chapter 4, I claim that ECM constructions can be accounted for in line with the main proposal of the dissertation. ECM is not a mere

[10] The evidence that subjects in Korean remains within the *v*P will be discussed in detail in Chapter 3.

alternation of a construction to another. The ECM-ed construction and its base construction show a semantic difference. I argue here that the semantic difference comes from syntactic differences. More specifically, the position of variables to be bound by GEN determines the interpretation of the construction. In Chapter 5, I summarize the main discussion and conclude my dissertation.

Chapter 2: Syntactic nature of genericity in Korean

This chapter investigates how the scopes of a generic operator GEN and existential closure are mapped into syntax in Korean primarily based on data of topic/focus sentences. Based on the Diesing's (1992) Mapping Hypothesis, the syntactic position of GEN and the domains of the restrictive clause and the nuclear scope is discussed. In the line with the dominant idea in previous studies that GEN has a sentential scope, more specific structure for the mapping algorithm is provided. Diesing's idea is slightly revised, adjusting the scope of the restrictive clause. It is suggested in this thesis that the scope is the TopP/FocP, rather than the TP.[11]

It is assumed that generic sentences have a phonologically null generic operator GEN, and it is a quantificational adverb that quantifies over variables introduced by indefinites (cf. Carlson 1989; Chierchia 1995; Diesing 1992; Kratzer 1995). In the last four decades, it has been common to account for genericity by positing a covert generic operator, which has the logical form of an adverb of quantification (cf. Lawler 1973, Farkas and Sugioka 1983, Schubert and Pelletier 1989, Krifka et al. 1995, Chierchia 1995, and Cohen 2002, among many others). Upon this theoretical foundation, the argument in this thesis is that the distinction between I-level and S-level predicates is determined by purely syntactic reasons.

This chapter is structured as follows. In section 1, the syntactic properties of generic expressions in Korean is shown. Prior to further discussion, the previous studies on the structure of topic and focus are introduced. In section 2, claim that there is no distinction

[11] Yoon (1997) suggests a similar proposal. He argues that the restrictive area is the CP (cf. TopP/FocP in this thesis). However, while he claims that the nuclear scope is the TP, I follow Diesing's partition for the nuclear scope, which is the *v*P. That is, the boundary line is different: the TP in Yoon's proposal and the *v*P in this thesis. This will be discussed in detail in section 4.

between I-level and S-level predicates in the lexical level is put forth. In section 3, I show how to interpret individual variables and situation variables within the framework of tripartite structure. In section 4, Diesing's Mapping Hypothesis is reviewed and the suggested revision in this thesis is discussed. Section 5 summarizes the chapter.

1. Syntactic characteristics of Korean generic sentences

There are only two ways to represent genericity in Korean: topic and focus constructions allow generic sentences. Only when an element in a sentence is topicalized or focused, that sentence can get a generic reading. Unlike English, genericity in Korean cannot be realized with nominative case.

(1) a. Dogs bark.

b. Ravens are black.

(2) a. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'

b. **[kay-ka]**$_F$ cic-nun-ta.
dog-Nom bark-Pres-Dec
'It is dogs that bark, (not cats)'

c. kay-ka cic-nun-ta. (episodic only)
dog-Nom bark-Pres-Dec
'A dog barks (now)'

Nominals in (2) can be interpreted either as definite or as indefinite. The Korean nominal system does not distinguish the definiteness of nominals, except for the case when they co-occur with a demonstrative. Whether they are definite or indefinite is determined from the context. Here, for the sake of explanation, only the indefinite reading cases are considered because definite nominals are free from the binding of GEN.[12] Returning to the current issue, the data clearly show that only certain constructions are allowed to get a generic reading in Korean while constructions with nominative-marked nominals can never be generic.

The main subject to be discussed in the following subsection is the syntactic characteristics of generic constructions in Korean. As briefly observed above, only certain constructions allow generic sentences: topic and focus. What follows is the discussion of the syntactic positions of these two elements.

1. 1. The structure of topic

In the framework of generative grammar, topic phrases are treated as fronted XPs (Chomsky 1971). More recently, topicalization is taken as a TP adjunction process (Lasnik and Saito 1992) or movement to Spec of Topic phrase (Kiss 1998, Rizzi 1997). One element to observe is that a topic occurs in a rather high position in a sentence.

(3) a. I will write a paper during the holidays.

b. During the holidays I will write a paper. (Haegeman and Guéron 1999: 336)

The sentence in (3b) shows that the topic phrase is in a higher position than TP. However, this

[12] However, the situation variable can be bound by GEN in definite nominals too. An explanation is provided shortly.

is only information that can be attained from the data. The exact syntactic position of the topic phrase is not readily observable yet. Moreover, it is not clear whether topicalization is adjunction to a maximal projection (TP or CP) or movement to a Spec of an additional functional projection. This subsection, introducing Haegeman and Guéron (1999), discusses the existence of a functional projection for topic and its syntactic position.

1. 1. 1. Negative inversion

Negative inversion is one of the many types of subject-auxiliary inversion in English. Consider the following sentences.

(4) a. I will write a paper during the holidays on no account.

b. On no account will I write a paper during the holidays.

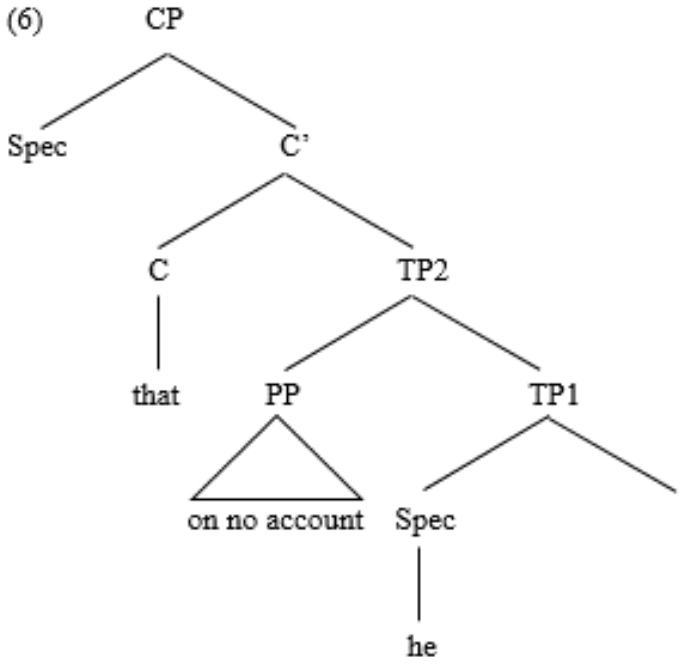
In (4b) the negative PP *on no account* is preposed. At first sight, one might analyze that the auxiliary *will* moves from T up to C and that the negative PP moves to the Spec of the CP. However, this account is easily disproven due to the evidence provided in (5).

(5) He said that on no account would he write a paper during the holidays.

Negative inversion is possible in embedded clauses too. In (5), the embedded complementizer *that* occupies the embedded C position and thus, there is no place for the auxiliary *would* to go. Additionally, if the negative PP is positioned in the Spec of the embedded CP, we have to posit another CP whose head is *that*.

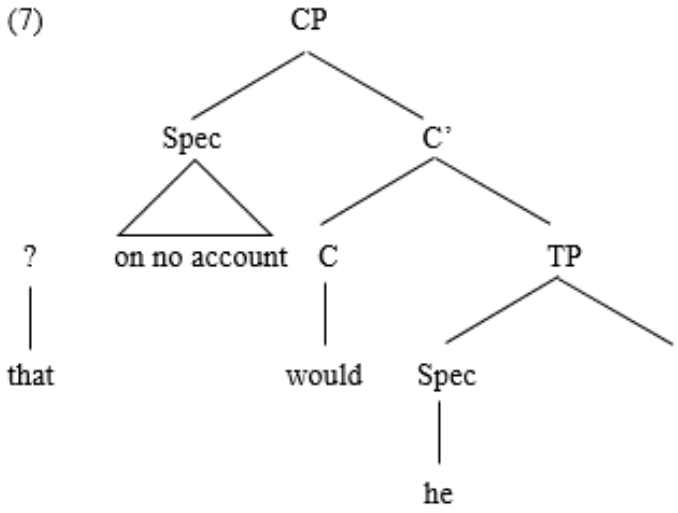
One may propose another possible solution, which is that the preposed negative PP is

TP-adjoined. However, this explanation fails too because there is no room for the preposed auxiliary *would* between C *that* and the subject *he*.



As shown in (6), when the preposed negative PP is adjoined to the TP, the auxiliary *would* cannot be realized in any position because C is occupied by *that* and there is no head position between C and the Spec of the TP. Even if *would* moves to C and *on no account* to [Spec, CP], *that* has no position in which to be realized.

(7)



Due to the structural problem shown above, a new structure is necessary for a more plausible representation of (5). Taking that *that* is under C and the subject *he* is in [Spec, TP], the new structure must have room for a maximal projection *on no account* and a head *would*, and it dominates the TP and is dominated by the CP.

1. 1. 2. Topicalization

Even though it is shown in the previous subsection that a maximal projection that dominates the TP and is dominated by the CP can exist, that does not prove that topic (or focus) has such a structure. There is still a possibility that topicalization is an adjunction. It could be either TP-adjunction or CP-adjunction.

(8) a. I will write a paper during the holidays.

b. **During the holidays** I will write a paper.

c. **During the holidays**, what will you do. (Haegeman and Guéron 1999: 336)

In (8a) the PP *during the holidays* is sentence-internal; in (8b) and (8c), it is fronted and functions as topic. (8b) can lead to the prediction that topicalization is TP-adjunction, and this observation seems to hold for the following complex sentence example.

(9) I promise that **during the holidays** I will write a paper.

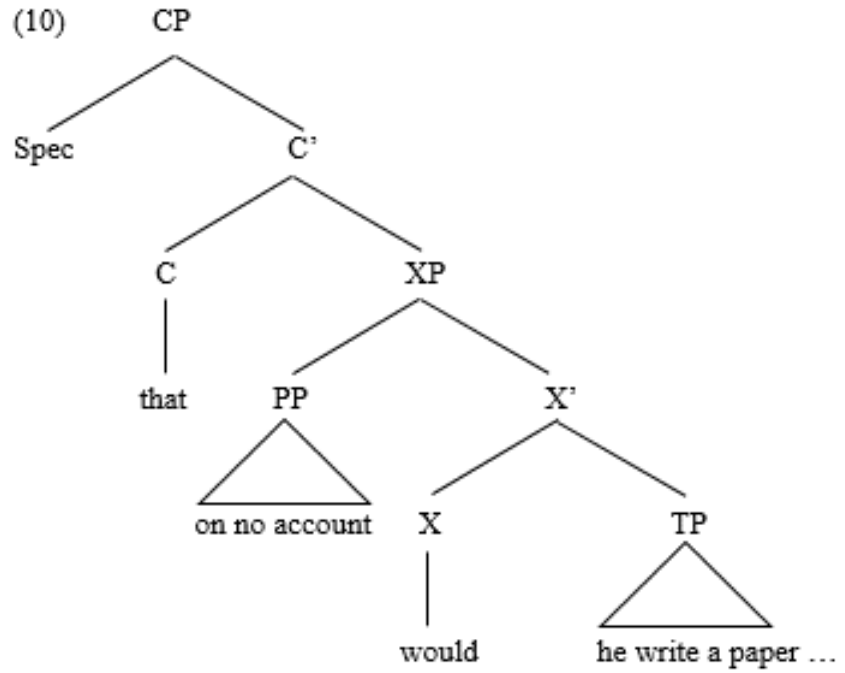
(Haegeman and Guéron 1999: 337)

However, (8c) shows that topicalization is a higher positional process since the topicalized phrase is realized in a higher position than [Spec, CP], where *what* appears. Thus, based on the discussion on (8b) and (8c), one might argue that topicalization is adjunction to TP or CP. Nevertheless, these two pieces of data conflict with each other. If TP-adjunction is true, then (8c) is problematic. If CP-adjunction is true, (9) needs to be explained. One possible way is that topicalization occurs with more flexibility when it comes to its adjunction position, but this approach is theoretically somewhat vague in that the topicalized phrase can be adjoined to any maximal projection. Furthermore, the adjunction approach for topicalization turns out to be unacceptable in structures where topicalization and negative inversion occur together.

1. 1. 3. Topicalization and negative inversion

As discussed in section 1. 1. 1, the analysis for negative inversion suggests an additional functional projection for the preposed phrase. Example (5) is repeated below and its structural diagram is given in (10).

(5) He said that **on no account** would he write a paper during the holidays.



Now consider the interaction of topicalization with negative inversion.

(11) a. *He said [$_{CP}$ that [$_{XP}$ on no account will [$_{TP}$ during the holidays [$_{TP}$ I write a paper]]]].

b. He said [$_{CP}$ that [$_{YP}$ during the holidays [$_{XP}$ on no account will [$_{TP}$ I write a paper]]]].

If topicalization is TP-adjunction, (11a) is the expected structure. In a negative inversion construction, the position of the preposed phrase is the specifier of an additional functional projection, which is realized as XP in (11a). Since this XP dominates the TP and is dominated by the CP, the TP-adjoined topic phrase has to be positioned in a lower place than the XP. However, against expectations, (11a) is ungrammatical. On the contrary, when the topicalized phrase precedes the inverted negative phrase as in (11b), it is grammatical. It might be assumed that the PP *during the holidays* is adjoined to the XP, but this is not true. It is hard to simply state that topicalization is not adjunction to TP, but to a certain maximal projection indicated

as an XP here. Consider (12).

(12) He said [$_{CP}$ that [$_{TP}$ during the holidays [$_{TP}$ I will write a paper]]].

As shown in (12), adjunction to the TP is grammatical unlike the prediction above. Moreover, CP-adjunction as shown in (13) does not support the hypothesis.

(13) He said during the holidays [that on no account will I write a paper].

The CP-adjoined phrase does not actually function as topic; it is associated only with the matrix predicate. CP-adjunction does not hold for topicalization either.

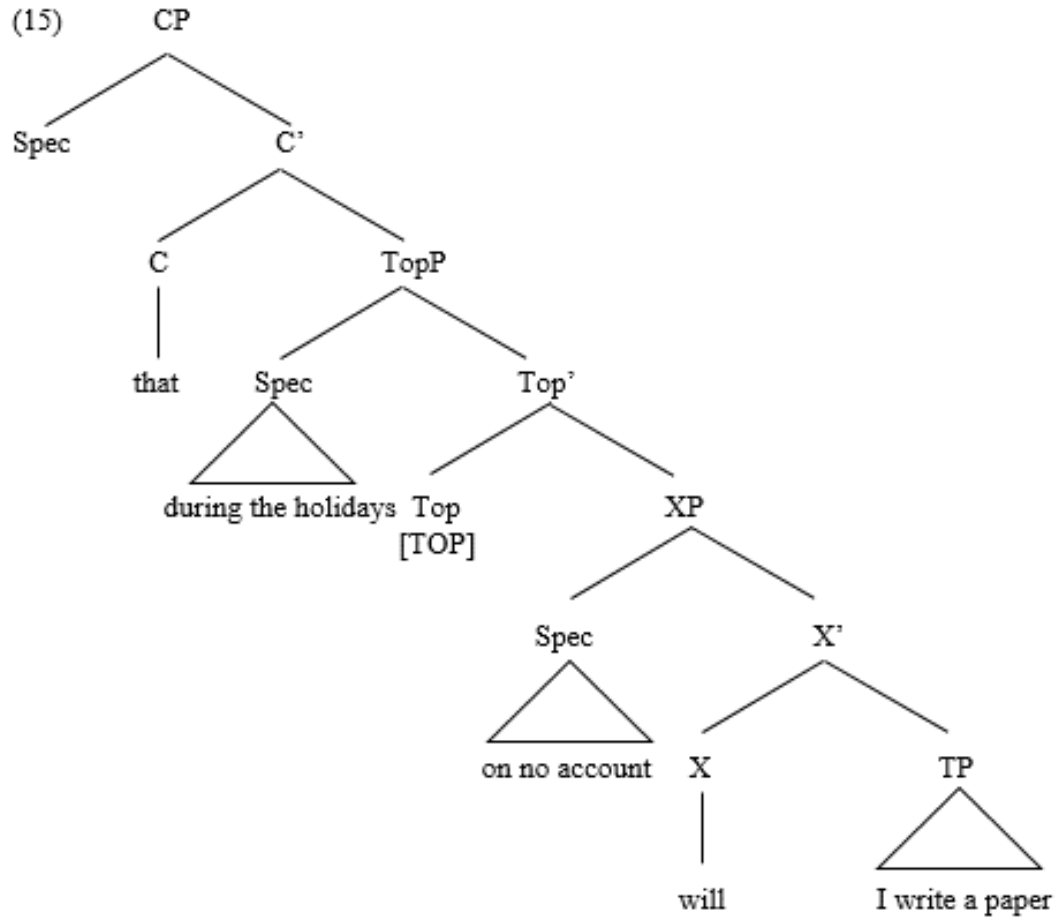
If topicalization is analyzed in terms of adjunction to a maximal projection, the ungrammaticality of (11a) has to be explained. Haegeman and Guéron (1999) accounts for it with the locality condition on movement. There are two types of movement to be considered: (i) movement of a maximal projection, and (ii) head movement. In (11a), the movement of the negative PP is the possible reason for the ungrammaticality. If this movement really comes into play, the topicalized PP *during the holidays* has to block the movement of the negative PP *on no account.* However, it is not necessarily true, as shown in (14).

(14) %??I promise that on no account during the holidays will I write a paper.

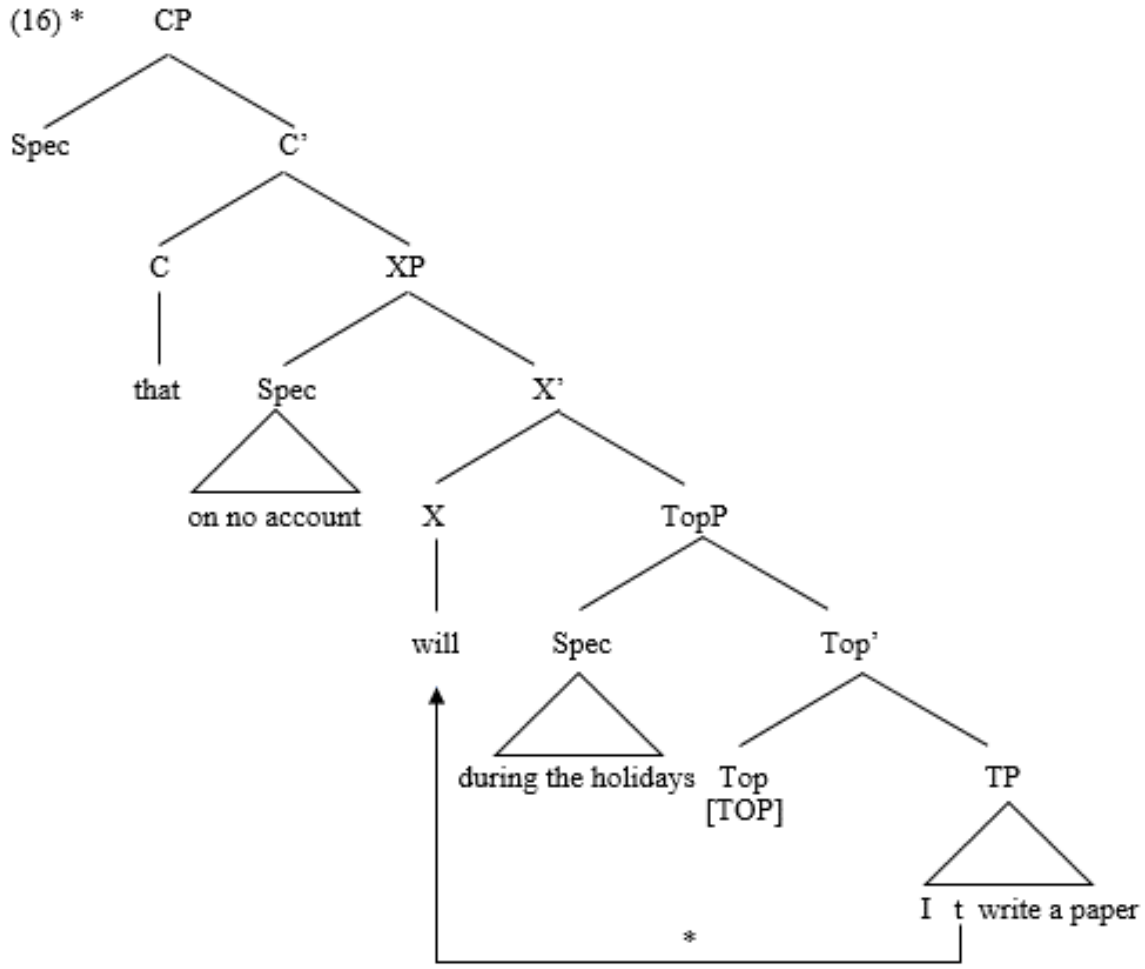
(Haegeman and Guéron 1999: 338)

Though it is marginal for some speakers, (14) is considered to be better than (11a). The negative PP *on no account* legitimately crosses the topicalized phrase *during the holidays*.

The alternative option to account for the ungrammaticality of (11a) is that the reason for the ungrammaticality is not the movement of a maximal projection but the movement of a head, the auxiliary *will* in this case. If topicalization is an adjunction process, the presence of the topicalized PP *during the holidays* does not block the movement of the auxiliary and thus the sentence should be grammatical. However, if the movement of the auxiliary is blocked by an intervening head, the ungrammaticality can be explained. Since the PP *during the holidays* is not problematic, it is expected that there is a constituent that interferes with the movement of *will*. The functional projection associated with the intervention is labeled as TopP (Topic Phrase). This projection is, as observed above, outside of the TP and part of the CP layer. Its head Top hosts a topic feature, and the specifier of the maximal projection hosts a grammatical element that is interpreted as a topic. In addition to the structural plausibility, the projection matches with the concept of Topic in the literature. In this representation, a clause with topicalization is split into two parts: (i) the topicalized phrase and (ii) the complement of Top. The topicalized phrase functions as a topic, which is known to communicate old information, and the rest part of the sentence, the so-called comment, provides new information. To clarity, the partial structure of (11b) is given in (15).



The ungrammaticality of (11a) can be diagrammed as in (16).



(16) shows the violation of the locality conditions on head movement. For *will* to move up to the functional head position X, it must cross the head Top. Since Top contains a topic feature [TOP], it cannot host the auxiliary *will*. For this reason, *will* is forced to skip the head position Top, and this movement leads to a violation of the locality conditions.

1. 2. The structure of focus

Rizzi (1997) assumes that the structural representation of a clause consists of three kinds of layers: (i) the lexical layer, headed by the verb, in which theta roles are assigned, (ii) the inflectional layer, headed by functional heads corresponding to morphological specifications

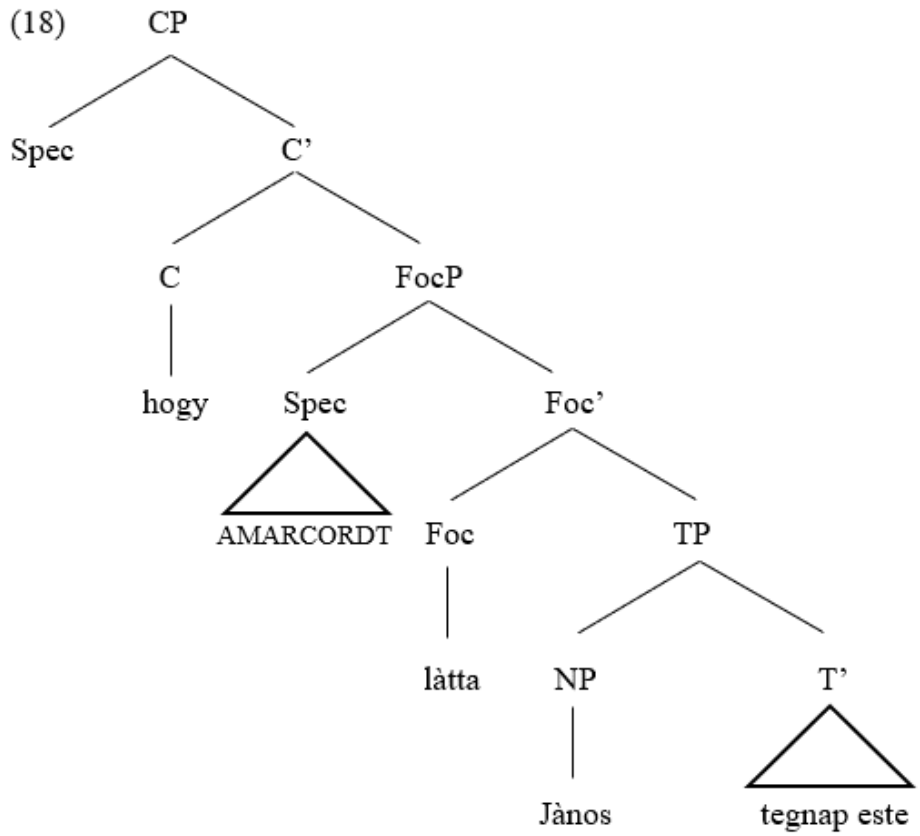
on the verb, in which argumental features such as case and agreement are licensed, and (iii) the complementizer layer, headed by a functional head that hosts topics, focus, and various operator-like elements. Just like topicalization, focalization also takes place in the left periphery. Since focalization is not the main subject in this thesis, I will briefly introduce the analysis in Haegeman and Guéron (1999) here.

Haegeman and Guéron took Hungarian focalization constructions as the example for the structural representation. Focalization in Hungarian gives rise to inversion, just as English negative inversion as in (17).

(17) Tudom hogy AMARCORDOT làtta Jànos tegnap este.
I-know that AMARCORD-Acc saw Janos yesterday evening
'I know that it was AMARCORD that Janos saw last night.'

(Haegeman and Guéron 1999: 343)

The subject of the embedded clause *Jànos* occupies the specifier of TP, and the inverted verb *làtta* is moved up to a functional head position above TP. Since C is already taken by *hogy*, the position for *làtta* must be an additional functional head between the TP and the CP. The same logic as in the English negative inversion constructions in 1. 1. 1 is applied here. There must be a head position for the inverted verb, and the focalized element *AMARCORDOT* goes to its specifier position. This maximal projection is labeled Focus Phrase, or FocP in the literature. The tree diagram of (17) is given in (18).



1. 3. Generic constructions in Korean

As analyzed in the previous subsections, topicalization or focalization is the movement from a TP-inside position to a position in the left peripheral area. According to Rizzi (1997), a head in left peripheral positions triggers movement of an element in an inner position to the Spec position it heads. In the same vein, Chomsky (2001) states that the semantic interpretations must be isomorphic to the syntactic surface structure, and Lee (2008) also argues that the topic/focus head attracts an NP, so that it moves to its Spec position. Thus, it can be said that topic constructions can be analyzed by movement since the topicalized element is subcategorized by the predicate, leaving a trace in the VP.

As mentioned earlier, there are only two ways to represent genericity in Korean: topic and focus constructions. For the discussion, sentences in (2) are repeated below.

(2) a. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'

b. **kay-ka** cic-nun-ta.
dog-Nom bark-Pres-Dec
'It is dogs that bark, (not cats)'

c. kay-ka cic-nun-ta. (episodic only)
dog-Nom bark-Pres-Dec
'A dog barks (now)'

As in (2a) and (2b), when the NP is realized with topic/focus, the sentence can get a generic reading while the NP with nominative case leads to an episodic interpretation, as in (2c). However, topic/focus constructions do not necessarily trigger generic readings; it is not a one-to-one match. These constructions can freely go with an episodic reading as in (19).

(19) a. i kay-nun ecey khukey cic-ess-ta.
this dog-Top yesterday loudly bark-Pst-Dec
'This dog barked loudly yesterday'

b. **i kay-ka** ecey khukey cic-ess-ta.
this dog-Foc yesterday loudly bark-Pst-Dec
'It was this dog that barked loudly yesterday'

It is necessary to observe that certain constructions are necessary for generic expressions to be realized in Korean, and those are topic and focus constructions. As discussed in the previous

subsections, these constructions are clearly represented in CP layer positions.[13] In other words, genericity in Korean can only be expressed under a syntactically limited environment. This constraint holds even for dispositional verbs, such as *love* and *like*, which are taken as lexical I-level predicates in some studies (cf. Krifka et al. 1995). At first glance, this does not make any sense. Lexical I-level predicates must, by definition, provide a generic reading. This conundrum is addressed in the next section.

2. Distinction of I-level and S-level predicates

Milsark (1974) classified predicates into two groups: individual-level predicates and stage-level predicates. Carlson (1977) established the relevance of this classification to genericity. Many studies have since shown that the distinction of these predicates is important for understanding genericity. In the core of those approaches, it plays a central role that S-level predicates have a spatiotemporal argument while I-level predicates lack such an argument (cf. Diesing 1992 and Kratzer 1995). On the contrary, some studies, such as Chierchia (1995), claim that all predicates, whether they are I-level or S-level, have a spatiotemporal argument and the distinction is made by the existence of GEN. This section shows that the S-/I-level distinction is determined on a purely syntactic basis.

Basically, in this thesis, I argue that there is no distinction between Individual level predicates and Stage level predicates in the lexical level. The difference only comes from the syntactic representation of the relevant elements.

[13] I assume that the structure of topic and focus in Korean can be analyzed in the same vein as discussed above. Since Korean allows scrambling, it is hard to apply the test introduced in this section.

2. 1. Distinction of generic and episodic readings

Carlson (1977) notes that I-level predicates express more or less permanent properties of individuals. Predicates such as 'intelligent' or 'have two eyes' belong to this class. On the contrary, S-level predicates such as 'available' or 'sing,' typically correspond to episodic and temporary state. However, it is well known that the distribution of readings for these predicates can be switched under certain circumstances. Consider (20).

(20) a. Firemen are available.

b. Spiders are intelligent.

The first reading of (20a) is an episodic reading. In this reading, there are some firemen who are available at some point in time. The second reading is a generic reading; it expresses a dispositional characteristic of firemen. It is a necessary property of firemen that they should be available in general. In addition to the fact that an S-level predicate can induce both episodic and generic interpretation at the same time, predicates such as *intelligent* as in (20b), which is typically taken as an I-level predicate, can involve an episodic reading. The first reading of (20b) is the generic reading; being intelligent is a permanent property of spiders. The second reading, which is expected to be an episodic reading, can be drawn under a certain circumstance. To better understand, the sentence (20b) is slightly modified in (21).

(21) The spiders in this box are intelligent now.

Imagine that there are special spiders that become intelligent when they are exposed to sunlight. Sentence (21) describes a situation in which some spiders contained in a box are being exposed

to sunlight. Because of our knowledge about the world we live in, it is not easy to derive a reading such as in (21) without context. However, what (21) shows is that the distinction on whether a predicate is an I- or S-level predicate does not come from the lexical level. If it is determined in the lexicon, there must be two different kinds of 'intelligent' in the lexicon: I-level and S-level 'intelligent' respectively. This distinction holds for 'available' too. As shown above, *available* can have two readings. It seems like every predicate is registered in two types in the lexicon. This is redundant. It is more reasonable that there is no such distinction in the lexical level in the first place.

2. 2. Dispositional verbs

As briefly introduced at the end of the previous section, dispositional verbs do not guarantee a generic reading of the sentence. If it is true that dispositional verbs always express dispositional characteristics and the classification is decisive in the lexicon, the syntactic representation must not affect the interpretation of the sentence. Consider (22).

(22) a. kay-nun nwun-ul cohaha-n-ta.
dog-Top snow-Acc like-Pres-Dec
'Dogs like snow'

b. **[kay-ka]$_F$** nwun-ul cohaha-n-ta.
dog-Nom snow-Acc like-Pres-Dec
'It is dogs that like snow'

c. kay-ka nwun-ul cohaha-n-ta. (episodic only)
dog-Nom snow-Acc like-Pres-Dec
'A/The dog is showing a liking for snow (at this moment)'

The sentences in (22a) and (22b) are typical generic expressions, but (22c) can never be generic. The interpretation of (22c) can be debatable for some speakers but it is obvious that sentence (22c) does not necessarily mean that the dog has the property of liking snow. It is more like the description of a dog showing a certain behavior that appears to be enjoying snow. If *cohaha* 'like' is a lexically determined I-level predicate, the episodic interpretation of (22c) cannot be explained. It turns more obvious in (23). In (23), the so-called dispositional verb co-occurs with spatiotemporal expressions.

(23)	ecey	kay-ka	kongwuen-eyse	nwun-ul	cohaha-ss-ta.
	yesterday	dog-Nom	park-at	snow-Acc	like-Pst-Dec

'A dog showed a liking for snow at the park yesterday'

The sentence in (23) is clearly episodic. The time and the location are specified, but the so-called dispositional verb *cohaha* 'like' is perfectly associated with the whole sentence.

The distinction of I-level and S-level predicates in the lexicon is doubtful, as shown above. For generic readings to be realized, topicalization or focalization is necessary even for the so-called dispositional verbs. Moreover, there is another supporting evidence other than dispositional verbs.

2. 3. Nominal predicates

Nominal predicates are known to be another type of typical I-level predicate in the literature. However, they are not exceptional. Nominal predicates can also be interpreted as episodic in certain circumstances.

(24) a. John-un wuncenswu-i-ta.
John-Top driver-Cop-Dec
'John is a driver'

b. John-i onulpam wuncenswu-i-ta.
John-Nom tonight driver-Cop-Dec
'John is the driver tonight'

(24a) is a generic sentence; it expresses the property 'being a driver' of *John*. If *John* drives for a living, this sentence fits the generic reading. Contrastively, with nominative case, the whole sentence gets an episodic reading as shown in (24b). It is a situation in which *John* is the designated driver for tonight. One may argue that 'driver' is not intrinsically an I-level predicate because its root verb 'drive' is easily considered an S-level predicate. However, predicative nominals, such as doctor or teacher, are not different. Only a little bit of imagination is needed for an episodic reading.

(25) a. John-un uysa-i-ta.
John-Top doctor-Cop-Dec
'John is a doctor'

b. John-i onul uysa-i-ta.
John-Nom today doctor-Cop-Dec
'John is a doctor today'

The sentence in (25b) may sound somewhat awkward at first, but if *John* is an actor, it sounds perfect. It is the case that *John* plays a doctor today.

The types of predicates do not determine the genericity of the sentence. Only the syntactic features come into play. As for the default interpretation of I-level predicates, which is a generic reading, it is derived from pragmatic factors. For example, in the case of (21), intelligence does not usually vary from moment to moment in our world. People do not usually change professions from day to day either as is the case in (25). The data in this section show that syntactic features are the ones that determine genericity. The syntactic process of topicalization/focalization is necessary for a generic reading. In the next section, it will be discussed how syntactic representations involve with the semantic interpretation of generic/episodic sentences.

3. Interpretation of generic expressions

The basic assumption in this thesis is Diesing (1992)'s Mapping Hypothesis, which states that the semantic partition of a restrictive clause/nuclear scope plays a crucial role in the process of interpretation of indefinite nominals. Employing the tripartite structure (Kamp 1981 and Heim 1982), she provides the interpretational process of indefinites. Following her, this section adopts the terminology of Heim (1982).

3. 1. Interpretation of indefinite nominals

3. 1. 1. Tripartite structure of Kamp-Heim theory

The basic motivation of the Kamp-Heim theory is based on observations that indefinites are not analyzed as quantifiers (as proposed by Russell (1919)). The following example sentences are quoted from Diesing (1992: 5).

(26) a. A contrabassoonist usually plays too loudly.

b. Most contrabassoonists play too loudly.

(27) a. Cellists seldom play out of tune.

b. Few cellists play out of tune.

(28) a. If a violist plays a solo, the audience often leaves the room.

b. In many of the situations in which a violist plays a solo, the audience leaves the room.

The sentences in (26)–(28) show that indefinites take their quantificational force from an element in the sentence, rather than being inherently quantified. *A contrabassoonist* in (26) takes its quantificational force from the adverb *usually*, *cellists* in (27) from *seldom*, and *a violist* in (28) from *often*. To explain how these sentences are interpreted, Heim claims that indefinites merely introduce variables into the logical representation. How it works is illustrated in (29).

(29) a. A dog barked.

b. $(\exists x)$ [x is a dog & x barked]

Within the Kamp-Heim framework, the indefinite in (29a) introduces a variable, rather than having quantificational force of its own. The indefinite *a dog* must receive quantificational force by being bound by some operator just as in (26)-(28). However, in this case, there is no quantificational element in the sentence that quantifies over the indefinite. At this point, the

suggestion of the Kamp-Heim theory is that the variable introduced by the indefinite is bound by an implicit quantifier that existentially closes off the nuclear scope, and in turn it gets an existential reading. The logical representation is given in (29b). The variable *x*, which is introduced by the indefinite *a dog*, is bound by the implicit existential quantifier in the nuclear scope, which is indicated with brackets.

The example in (29) is the simplest case, in which only a nuclear scope is formed, and the quantificational force is given by the implicit operator, the existential closure. The restrictive clause is not required in (29). However, not every sentence has a one-part representation as is the case in (29). Restrictive clause formation comes into play in some cases. A slightly more complicated case is shown in (30).

(30) a. Dogs always chase a cat.

b. ∀*x* [x is a dog] (∃*y*) [*y* is a cat & *x* chases *y*]

Unlike (29), (30) includes a restrictive clause. The restrictive clause is supposed to restrict the set of individuals to be bound by the quantifier within the framework of Kamp-Heim theory. The restriction on the quantifier is represented as the restrictive clause *[x is a dog]* as shown in (30b) and the variable *x* is bound by the universal quantifier *always*. In the nuclear scope, the implicit existential closure binds the remaining variable *y* that is introduced by the indefinite *a cat*.

3. 1. 2. Generic operator and tripartite structure

I assume that generic sentences have a phonologically null generic operator GEN and it is a quantificational adverb that quantifies over variables introduced by indefinites. In addition,

adopting the Kamp-Heim's tripartite structure theory, this subsection provides the logical representation of generic sentences.

The same logic applies to generic sentences as shown in the previous subsection. The logical representation is split into an invisible generic operator GEN, the restrictive clause, and the nuclear scope. The restrictive clause restricts the set of individuals that is bound by GEN, and the nuclear scope is the domain of existential closure.

Now return to the sentences in (2). (2a) and (2b) are generic sentences and (2c) is an episodic sentence.

(2) a. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'

b. **[kay-ka]$_F$** cic-nun-ta.
dog-Nom bark-Pres-Dec
'It is dogs that bark,(not cats)'

c. kay-ka cic-nun-ta. (episodic only)
dog-Nom bark-Pres-Dec
'A dog barks (now)'

The simplified logical representations of (2a) and (2c) are given in (31).[14] [15]

[14] For the sake of simplicity, I focus only on the generic reading in the logical representation, ignoring the focus reading.

[15] I assume that Korean indefinite bare NPs introduce variables just like English (cf. Kamp 1981 and Heim 1982).

(31) a. GEN*x* [*x* is a dog] [*x* barks]

b. ∃ *x* [*x* is a dog & *x* barks]

Just as the universal quantifier as in (30), GEN in (31a) is represented in the tripartite structure. The restrictive clause *[x is a dog]* restricts the set of dogs and the variable *x* is bound by GEN. As for the episodic sentence (2c), there is no generic operator to quantify over the variable, and thus, the implicit existential quantifier closes off the scope, yielding an existential reading for the indefinite.

3. 2. Situation variable

The nominal system of Korean does not distinguish the definiteness of nominals, except for when they co-occur with a demonstrative. Whether nominals are definite or indefinite is determined from context. Thus, the nominals in (2) can be interpreted either as definite or as indefinite. According to Kamp-Heim's theory, definite nominals are free from the binding of a quantificational element. However, the relation between genericity and syntax holds for definite nominals in Korean. To get a generic reading, it seems that movement to the topic/focus position is necessary in the case of definite nominals as well. Consider (32).

(32) a. John-un ilha-n-ta.
John-Top work-Pres-Dec
'John works/John has a job'

b. **[John-i]**$_{F}$ ilha-n-ta.
John-Nom work-Pres-Dec
'It is John who works'

c. John-i ilha-n-ta. (episodic only)
John-Nom work-Pres-Dec
'John works (narrative)'

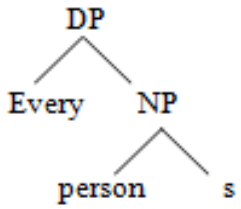
The shared common characteristic of sentences in (2) and in (32) is that these constructions contain a nominal that moved to a left-peripheral position: topic or focus. Under the assumption that genericity is quantificational, the topicalized/focalized elements are represented in the restrictive clause and the variables introduced by them are bound by the operator GEN. At least, the fact that such movement is necessary for a generic expression indicates that certain syntactic processes involve deriving a generic reading. And under the assumption that a generic reading is licensed as illustrated in the logical representation discussed above, one may raise a question on the binding of GEN and the variables that are bound by the operator.

Generics express generalizations over individuals and situations. Even in (32a) and (32b), there is a restrictor, which is the situations that contain *John* and are somehow "normal" situations with respect to working (cf. Krifka et al. 1995). Obviously, *John works* does not mean *John works all the time*. GEN takes into account only those situations that are normal for John's working. For example, John cannot work while he is sleeping. Thus, if the situation variable in (32) is syntactically represented within the nominal, the necessity of the movement of the nominal can be explained. Consider the following data, which are quoted from Schwarz (2010).

(33) a. If everyone in this room were outside, the room would be empty. (Percus 2000)
b. Every fugitive is now in jail. (Enç 1986)

The world of the quantificational element in (33a) *everyone in this room* differs from the one of the predicate in the *if*-clause (*be outside*). They are incompatible in that no one can exist in two different places at the same time. Likewise, the nominal phrase in (33b) *every fugitive* is also incompatible with the predicate *be now in jail* in that people in jail are no longer fugitives at the present time (the speech time). The nominal is evaluated at a different time than the predicate of the clause. Since situations have a temporal dimension as well, it can be claimed that the situation variable is represented in the nominal phrase, independently from the situation of the predicate. The syntactic representation can be diagramed as below (cf. von Fintel and Heim 2007):[16]

(34)



Thus, either indefinite or definite nominals contain at least one situation variable to be bound, and it is bound by GEN when the operator exists in the construction. The simplified logical representations of (32a) and (32c) are given in (35).

(35) a. GEN*s* [John is in *s*] [John works in *s*]

b. $\exists$ *s* [John is in *s* & John works in *s*]

[16] I do not distinguish DPs from NPs in this thesis. Büring (2004) and Schwarz (2010) argue that a situation variable appears at the level of DP. However, this does not affect the logic in the present argument. What is crucial here is that a situation variable is syntactically represented within a nominal.

In (35), there is a restrictor that is derived pragmatically.[17] As described above, (35a) does not mean that John works all the time. It means that John works in general situations with respect to working. And (35b) shows that the situation variable is bound by existential closure and in turn the clause receives an episodic reading.

The data in (2) and (32) show that genericity is represented in syntax in that only certain syntactic positions are involved in establishing genericity. In other words, without topicalization/focalization, a generic reading cannot be derived. The generic interpretation is derived by quantifier binding in a specific syntactic area.

4. Mapping Algorithm

4. 1. Diesing's Mapping Hypothesis

4. 1. 1. The theory of Mapping Hypothesis

Diesing (1992) investigates the relationship between the syntactic and semantic representations of sentences by observing that *v*P-internal and *v*P-external nominals lead to different interpretations. According to her theory, the difference is due to a mapping principle that associates nominals in certain syntactic positions with the semantic interpretation of them.

(36) Mapping Hypothesis

Material from *v*P is mapped into the nuclear scope.

Material from TP is mapped into a restrictive clause.

[17] Spears (1974), Newton (1979), Conrad (1982), Kleiber (1985), Krifka (1987), and Schubert and Pelletier (1989) make suggestions along this line.

Based on this, she claims that different predicate types show different properties with respect to the interpretations of subjects and their distribution. Following Carlson (1977), Diesing classifies predicates into two groups: S-level and I-level predicates. The distinction in the lexical level determines the syntactic position of the predicate's subject and its interpretation. Consider (37).

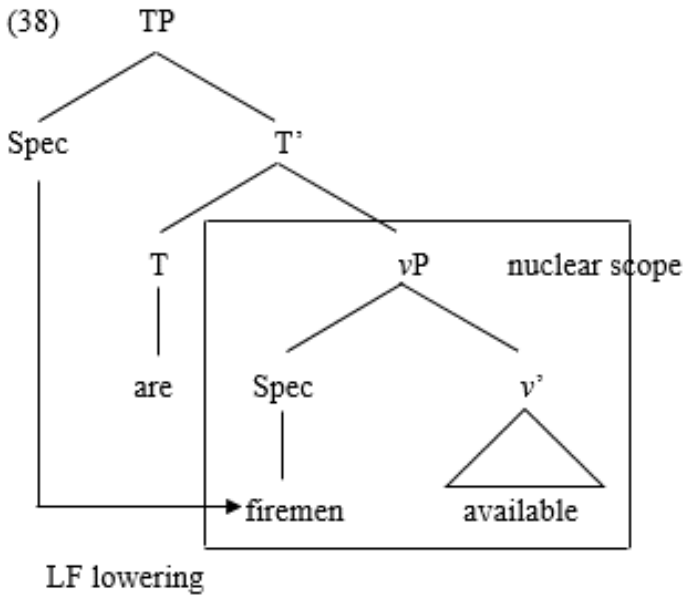
(37) Firemen are available.

a. $\exists x, s$ [x is a fireman in s & x is available in s]

b. GENx,s [x is a fireman in s] [x is available in s]

The predicate *available* in (37) is a typical S-level predicate and the sentence gets an existential/episodic reading as in (37a). On this reading, there are some firemen who are available in some situation. The structural representation is given in (38).

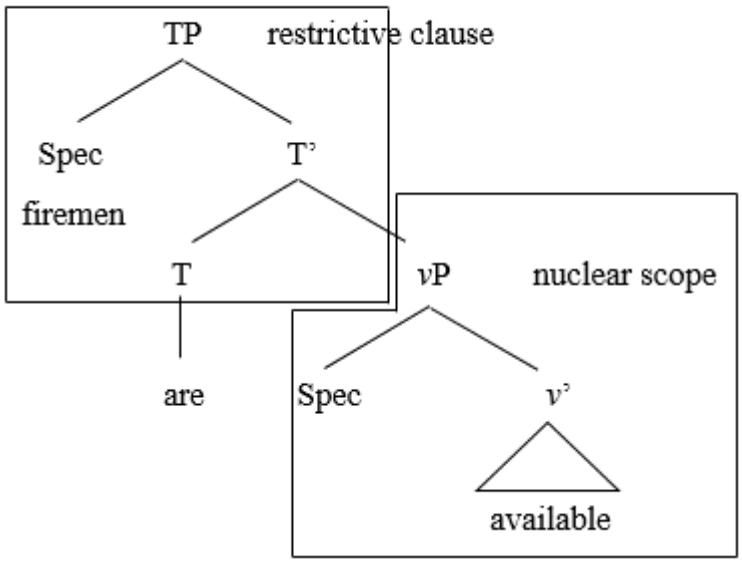
(38)



The tree diagram in (38) shows how the existential reading is derived. The subject is base-generated inside the *v*P and it moves up to [Spec, TP] for Case. However, at the level of logical representation, the subject is lowered, so that it is interpreted within the domain of the existential closure.

Stage-level predicates are interpreted as generic too as in (37b). In this case, no LF lowering of the subject takes place. The subject in (37b) stays in [Spec, TP], which is a restrictive clause. Since the indefinite *firemen* introduces a variable in the restrictive clause, it is bound by the operator GEN. In addition, existential closure does not apply because there is no new variable introduced in the nuclear scope *v*P. This is illustrated in (39).

(39)



Diesing assumes that predicates are lexically classified into I-level and S-level predicates. Although this is against the claim of my thesis, I follow her theory here for the discussion. Based on the classification, she argues that subjects of I-level predicates can appear only in [Spec, TP] because only generic readings are possible with I-level predicates. In other words, the subject of an I-level predicate is base-generated in [Spec, TP], which is a restrictive

clause, and the variable introduced by the subject is bound by GEN.

4. 1. 2. Supporting evidence: two subject positions in German

Diesing supports her theory with German examples. In German, it is not necessary for a subject to appear in [Spec, TP]; it may either appear to the left or to the right of the sentential particles *ja* and *doch* as in (40).

(40)	a.	. . .	[$_{CP}$ weil	[$_{TP}$ Ameisen	ja doch	[$_{vP}$ einen	Postbeamten	gebissen
			since	ants	‘indeed’	a	postman	bitten
		haben]]].						
		have						
	b.	. . .	[$_{CP}$ weil	[$_{TP}$ ja doch	[$_{vP}$ Ameisen	einen	Postbeamten	gebissen
			since	‘indeed’	ants	a	postman	bitten
		haben]]].						
		have						

(Diesing 1992: 31)

She assumes that sentence adverbials mark the *v*P boundary.[18] Thus, the subject that appears to the left of the sentence adverbial *ja doch* as in (40a) is positioned in [Spec, TP], and the subject that appears to the right of *ja doch* as in (40b) is within the *v*P.

By showing that German has two different subject positions, Diesing accounts for the

[18] This is argued by others too: Jackendoff (1972) for English, Holmberg (1986) for Scandinavian, and Webelhuth (1989) for German.

syntactic properties of the tree-splitting algorithm. Syntactic positions of subjects play a central role when it comes to the interpretation of indefinites, and the TP/*v*P division is the essential core. However, her division may not be compatible with other language data. Although she has made a significant contribution, her strict division of TP/*v*P is empirically incompatible with Korean. As observed through this chapter so far, the TP is not enough for the restrictive area. According to the given data, the restrictive clause needs to be expanded to TopP/FocP. Along this line, Yoon (1997) argues that the division boundary needs to be revised: CP/TP. The next section discusses Yoon's argument and addresses the problem of his theory. In addition, the problems of Diesing's theory are discussed and an alternative is suggested.

4. 2. Alternative mapping algorithm

4. 2. 1. Problems of Diesing's theory

4. 2. 1. 1. Classification of predicates

Diesing assumes that predicates are classified in the lexicon. In other words, I-level predicates are intrinsically generic and S-level predicates episodic. How to classify predicates is the fundamental difference between her theory and the claim in this thesis when it comes to genericity. I argue that genericity is expressed for purely syntactic reasons. As observed so far, Korean data show that only certain syntactic transformations (topicalization/focalization) involve expressing genericity. If I-level predicates are already determined in the lexicon, these syntactic processes are redundant. Also, the observed fact that nominative case-marked subjects are never associated with a generic reading needs to be explained.

(41) a. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'

b. kay-ka cic-nun-ta. (episodic only)
dog-Nom bark-Pres-Dec
'A dog barks (now)'

The only way for (41b) to get a generic reading is focalization, which is another type of movement to a CP-layered position. Unlike English, Korean has an overt marker for topicalization, and it is a good indicator that shows the relation between genericity and syntactic representation.

4. 2. 1. 2. Restrictive clause

Within the framework of Diesing's mapping hypothesis, the restrictive clause is the TP. When the subject stays in [Spec, TP], it is interpreted as generic. Furthermore, she shows how the restrictive clause relates to the notion presupposition. The restrictive clause defines a set that the quantifier quantifies over in a tripartite representation. Thus, if the set is empty, the truth-conditions for the sentence are undefined. In other words, the set defined by the restrictive clause represents the existence presupposition induced by the quantifier.

If the division is correct, (41a) is problematic. The subject in (41a) is raised up to the topic position and is assigned a generic reading there. For (41b), if the subject remains below, the episodic reading can be explained. Consider (42).

(42) a. etten salam-i wus-ess-ta.
some person-Nom laugh-Pst-Dec
'Some person laughed/A certain person laughed'

b. etten salam-un wus-ess-ta.
some person-Top laugh-Pst-Dec
'A certain person laughed.'

The indefinite nominal in (42a) can be interpreted either as existential or as presuppositional. The first reading is existential, and this is because the indefinite is realized with nominative case. In other words, the subject still remains within the boundary of existential closure. The second reading comes from quantifier raising. The QR-ed nominal ends up in the restrictive clause, and in turn, it is interpreted as presuppositional. Likewise, (42b) shows the overt movement of the indefinite to the restrictive clause, and the movement leads to the presuppositional reading. However, (42b) is never interpreted as existential.

4. 2. 2. Yoon's (1997) mapping structure

Yoon also notices the disambiguation phenomenon in topic constructions as in (42). Indefinite nominals can bear both a presuppositional reading and an existential reading in situ while they bear only a presuppositional reading in topic constructions. Based on this observation, he claims that the restrictive area is the CP because the interpretational area for a generic reading is the CP-layered position. In addition, he also argues that the domain of the nuclear scope is the TP. His supporting evidence is given in (43).

(43) nwukwunka-ka cengmal pwucilenha-ta.
someone-Nom really diligent-Dec
'Some person or other is really diligent' (Yoon 1997:16)

According to him, the intrinsically existential nominal *nwukwunka* 'someone or other' is the subject of the I-level predicate *pwucilenha* 'diligent'. Since the subject of an I-level predicate is base-generated in [Spec, TP] and it does not undergo LF-lowering within the framework of Diesing (1992), the interpretational position of *nwukwunka* must be [Spec, TP]. However, for an existential reading to be derived, the nominal must be positioned within the nuclear scope. For this reason, he argues that the interpretational domain of existential closure needs to be extended to the TP.

However, his argument is self-contradictory. The difference between his approach and the current theory in this thesis is how to treat the classification of predicates. He basically distinguishes predicates in the lexical level. And because of this, his theory ends up in self-contradiction. If *pwucilenha* is an I-level predicate, the subject is base-generated in [Spec, TP] according to Diesing' theory, and the sentence gets a generic reading. Since the *pwucilenha* is an I-level predicate, there must be a generic operator, and it binds the situation variable. For the variable to be bound, it needs to move to the restrictive clause, and the indefinite that introduces the variable ends up in the restrictive clause. Thus, the position of the indefinite must be in the restrictive clause. However, the position conflicts with the interpretation of the indefinite because it is existential.

The proposal in this thesis is that the distinction of I-level/S-level predicates is not determined in the lexical level. Simply put, the predicate *pwucilenha* in (43) is not an I-level predicate. In effect, the sentence in (43) perfectly co-occurs with a temporal expression as

shown in (44).

(44)	nwukwunka-ka	eceybam	cengmal	pwucilenha-ess-ta.
	someone-Nom	last night	really	diligent-Pst-Dec

4. 2. 3. Alternative suggestion

The data in (2) and (32) show that Diesing's dichotomy of TP and *v*P may need to be revised. For the discussion, those data are repeated below.

(2) a. kay-nun cic-nun-ta.
dog-Top bark-Pres-Dec
'Dogs bark'

b. **[kay-ka]**$_F$ cic-nun-ta.
dog-Nom bark-Pres-Dec
'It is dogs that bark, (not cats)'

c. kay-ka cic-nun-ta. (episodic only)
dog-Nom bark-Pres-Dec
'A dog barks (now)'

(32) a. John-un ilha-n-ta.
John-Top work-Pres-Dec
'John works/John has a job'

b. **[John-i]**$_F$ ilha-n-ta.
John-Nom work-Pres-Dec
'It is John who works'

c. John-i ilha-n-ta. (episodic only)
John-Nom work-Pres-Dec
'John works (narrative)'

As shown above, nominals with nominative case cannot be associated with a generic reading. Moreover, the restrictive clause area does not correspond to Diesing's division. According to the Korean data, the restrictive clause includes CP-layered positions. As mentioned in the previous chapter, I assume that subjects in Korean stay within the *v*P at the surface.[19] If this is true, the domain of existential closure in Diesing (1992) is correct. The basic partition of logical interpretation is not so much different from Diesing's division. The difference is the extension in the restrictive clause. Yoon (1997) also suggests a similar type of extension but the boundary line between the restrictive clause and the nuclear scope is different from the proposal in this thesis.

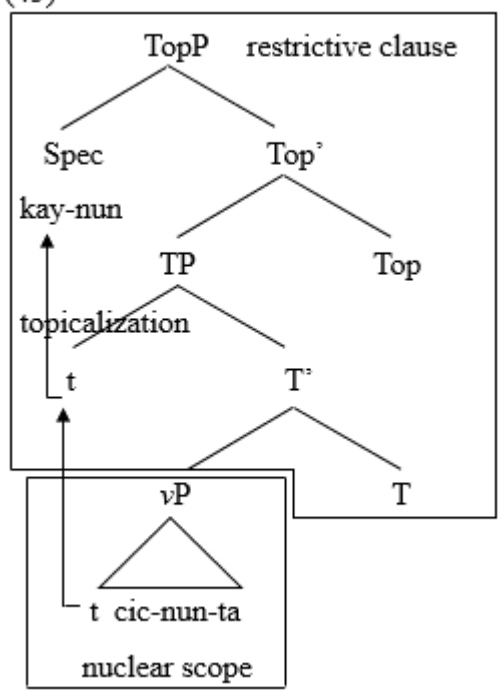
In addition to the tweak in the restrictive area, the current proposal has another advantage over Diesing's theory. Since her mapping system posits different base positions depending on the predicate types, it needs additional stipulation such as LF-lowering.[20] This rule is somewhat inefficient in that it must be applied only for S-level predicates only when those predicates are interpreted as episodic. On the contrary, the proposal in this thesis does not distinguish I-level and S-level predicates in the lexical level. Thus, there is no distinction in the base positions for the predicates. In other words, it does not need the reconstruction rule.

[19] Chapter 3 deals with this issue in detail.

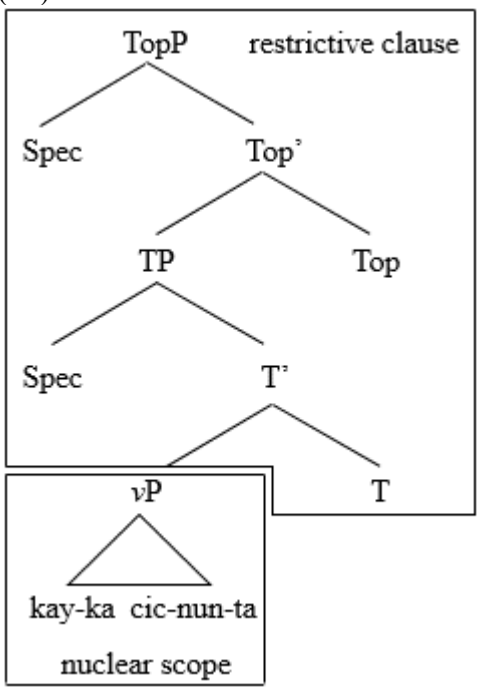
[20] Chomsky's (2001) Copy theory can solve the problem in that it does not need the backward movement. However, there still remains a problem in Diesing's theory. The predicate-specific rule requires complex theoretical conditions. As mentioned above, the rule is applied only to S-level predicates and only when they are interpreted as episodic.

This section suggests that the dichotomy of Diesing's theory needs to be modified. My suggestion is that the restrictive clause is the CP-layered positions and the *v*P is the nuclear scope. Since there is no intrinsic predicate-type distinction, the alternative is simpler and clearer when it comes to the interpretational structure, and it is empirically compatible. The structural diagrams of (2a) and (2c) are given in (45) and (46) respectively.

(45)



(46)



As shown in (45), the indefinite *kay* ends up in the restrictive clause by topicalization and it is realized with the topic marker *-nun*. This is how the generic reading is licensed. The generic operator binds the variables introduced by the indefinite *kay*. The logical representation is given in (47a).

(47) a. GEN*x,s* [*x* is a dog in *s*] [*x* barks in *s*]

b. $\exists$ *x,s* [*x* is a dog in *s* & *x* barks in *s*]

The episodic sentence (2c) can be diagramed as in (46) and its logical representation is given in (47b). Since the indefinite *kay* remains within the nuclear scope being realized with nominative case, the variables that are introduced by it are bound by existential closure. In turn, the indefinite gets an existential reading and the sentence receives an episodic reading.

5. Summary

In this chapter, I investigated how the scopes of a generic operator GEN and existential closure get mapped into syntax in Korean. Korean shows that only a certain syntactic construction can derive a generic reading: topic and focus. This linguistic phenomenon suggests that genericity is derived with a purely syntactic reason. In other words, predicates are not distinguished at the lexical level. Whether a predicate is I-level or S-level is determined by the syntactic structure. When GEN occurs and the situational variable is bound by it, the predicate receives a generic (I-level) reading. Thus, the movement to the restrictive area is necessary.

The necessity of movement to the CP-layered area indicates that the restrictive clause in the tripartite structure needs to be extended: TopP/FocP. Only the material mapped into this area can be interpreted as generic. In addition, the *v*P is suggested as the domain of the nuclear scope. The suggested partition does not break the concept of Kamp-Heim's tripartite structure and satisfactorily accounts for the Korean data.

Chapter 3: Genericity in multiple nominative constructions

In this chapter I discuss genericity in 'Multiple Nominative Constructions' (hereafter, MNC). An MNC is a mono clause that contains more than one constituent which is marked with the nominative case. In the vast literature on MNCs, it is argued that there is only one subject in the construction, which is the argument of the predicate, and the other nominative-marked NPs are topics or foci (Li and Thompson 1976, Yoon 1986, Y. Yoon 1989, Schütze 2001). The scholars who follow this approach suggest that what looks like the nominative case is something other than Case. However, this approach may face some trouble due to the existence of the explicit topic marker *-nun* as in (1a) below and the phonologically prominent focus position as in (1b). With regard to the problems, Gundel and Fretheim (2004), who note that there has been confusion resulting from conflating syntactic topics and pragmatic topics, and those who follow them may claim that the nominative-marked NP1 in (1c) is a pragmatic topic.[21] In other words, the relation between NP1 in (1c) and the remaining part reflects how information content is represented. NP1 is given in relation to the remaining part, and the remaining part is new information. However, this idea is falsified by the fact that NP1 can be existential. Topic cannot be existential by definition; it must be old information. This will be discussed in section 3.

As observed in the previous chapter, topic/focus constructions are involved with genericity, while nominative case-marked elements are associated with an episodic reading. Consider (1).

[21] As mentioned in the previous chapter, I do not distinguish NPs from DPs in this thesis. The syntactic status of nominals does not affect the logic of the current proposal. In this chapter, I will use the term 'NP1' and 'NP2' for the sake of convenience and the clarity of distinction between nominals in MNCs.

(1) a. emma-nun nwun-i khu-ta.
mother-Top eye-Nom big-Dec
'Mom has big eyes/mothers have big eyes.'

b. **[emma-ka]$_F$** nwun-i khu-ta.
mother-Nom eye-Nom big-Dec
'It is Mom who has big eyes/it is mothers who have big eyes.'

c. emma-ka cikum nwun-i khu-ta.
mother-Nom now eye-Nom big-Dec
'Mom's eyes look big right now (because she was surprised).'

Constructions in (1) are regarded as multiple nominative constructions.[22] NP1s in (1a) and (1b) are in the restrictive clause, yielding a generic reading, which patterns expectedly. However, NP1 in (1c) is problematic if it is a topic. (1c) is an episodic sentence. Then, NP1 has to be inside the domain of existential closure because the situation variable in NP1 has to be bound by existential closure.[23] That is, both NP1 and NP2 have to be positioned within the nuclear scope. In order for those NPs to be realized inside the domain of existential closure, what licenses the case as well as the thematic roles of those nominals has to be explained. Just as in ordinary constructions in Chapter 2, the interpretation of MNCs is derived in the same way. In

[22] Although there is only one nominative case-marked NP in (1a) (and also (1b) if *-ka* of focused NPs is not the nominative case marker), these constructions are considered multiple nominative constructions. It is commonly accepted that topicalized/focused NPs in this type of constructions are base-generated as a subject and moved up later.

[23] As shown in (i), NP1 can be existential.

(i) nwukwunka-ka tali-ka pwuleci-ess-ta.
someone-Nom leg-Nom break-Pst-Dec
'Someone's leg broke'

this chapter, Ha's (2014) applicative approach to MNCs is adopted and an account for the mapping algorithm of genericity in MNCs is provided.

Despite the advantage of the revised mapping domain in this dissertation, there is still a problem to be answered: the syntactic positions for the NPs in MNCs. I will discuss this concern in the following sections. In section 1, I show that the subject in Korean is located within the *v*P. The absence of expletive insertion and the subject-object asymmetry in extraction support this idea. In section 2, MNCs are analyzed as applicative constructions. With this view, how the NP1 is licensed in MNCs is shown. Section 3 reintroduces the revised mapping algorithm and demonstrates how the extended domain is applied to MNCs. Finally, section 4 summarizes this chapter.

1. *v*P-internal subjects in Korean

The previous chapter shows that Diesing's (1992) division should be revised when it comes to the restrictive area. This chapter argues that the boundary of existential closure is the *v*P rather than the TP as claimed in Yoon (1997). With regard to the scope of existential closure, Diesing (1992) claims that an indefinite nominal gets an existential reading when it is located within the *v*P. Thus, the subjects of episodic sentences move down to a *v*P-inside position or remain within the *v*P. As it is well known, some languages, such as German (cf. Diesing 1992) and Japanese (cf. Lasnik and Saito 1993 and Kuroda 1988, among others), allow subjects to remain within the *v*P at the surface. In this section, I show that subjects are realized within a *v*P-type projection at the surface in Korean too.

1. 1. The EPP in Korean

The EPP has been claimed to be a universal principle in many previous studies. It is a principle

that all clauses must have subjects and they must be realized in [Spec, TP]. However, some languages do not obligatorily fit into the rule (cf. Diesing 1992, Lasnik and Saito 1993 and Kuroda 1988).

1. 1. 1. The EPP in English

There are two special classes of predicates in English with regard to theta role assignment and its representation. The first class is "weather" verbs. These predicates do not seem to assign any theta roles. Consider (2).

(2) a. It rained.

b. It snowed.

The subjects in (2a) and (2b) do not receive any theta role.[24] It appears as if they do not refer to anything. Even though these pronouns are not necessary in semantic interpretation, they are necessary in syntax. Without these semantically empty pronouns, the sentences are ungrammatical. The necessity of the expletive pronouns as shown in (2) is also observed in constructions with predicates that optionally take a CP subject. This type of constructions are the second class.

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[24] Chomsky (1981) argues that weather *it* is not an expletive. He calls it quasi-argument in that it can bind PRO in an adjunct as in (i).

(i) It sometimes rains after α snowing. (Chomsky 1981: 324)

In (i) α must be PRO since it is not governed, but it is controlled by weather *it* in the matrix clause. Even though weather *it* has no referent, it behaves as it is referential because a controlled PRO normally assumes the referential properties of its antecedent.

(3) a. [$_{CP}$ That John likes money] is likely.

b. It is likely that John likes money.

The expletives in (2) and (3) are realized by a special insertion rule, which applies when there is no other subject. If there is no theta marked subject and no expletive subject, the sentence is ungrammatical by the EPP.

1. 1. 2. Absence of expletive insertion rule in Korean

In English, an expletive is inserted when there is no subject in [Spec, TP] as in (4).

(4) a. *(It) rained.

b. *(There) is a dog.

However, there is no expletive insertion rule in Korean. Contrasting with languages like English, expletive subjects are not used with weather phrases as in (5a) or in existential sentences as in (5b).

(5) a. pi-ka o-ass-ta.
rain-Nom come-Pst-Dec
'It rained.'

b. kay-ka iss-ta.
dog-Nom exist-Dec
'There is a dog.'

The expletive insertion rule is a crucial motivation for the EPP. The EPP rule forces [Spec, TP] to be filled with a syntactic unit. Otherwise, the sentence turns ungrammatical as shown in (4). However, in the case of Korean, there is no overt empirical evidence for the strong principle that [Spec, TP] must be filled. Firstly, Korean is a head-final language. Therefore, no functional head appears between [Spec, *v*P] and [Spec, TP]. Thus, the movement from [Spec, *v*P] to [Spec, TP] is not visible. Since Korean allows scrambling, tests using adverbials' syntactic positions are not applicable either. Secondly, as shown above, Korean does not have expletives. At least, there is no visible expletive in Korean. Since Korean is a pro-drop language, it may be possible that it has an invisible expletive. However, it is not highly likely that Korean has such an element. Expletives are semantically empty, and pro-like expletives are syntactically invisible. If such a linguistic item exists, it would be so redundant. Thus, it seems that the motivation for the EPP is not shown in Korean.

1. 2. Subject-object asymmetry in extraction

Lasnik and Saito (1993) note that subject traces and object traces seem to behave alike with respect to the ECP, unlike languages like English, which show subject-object asymmetry in extraction. Consider (6) and (7); (7) is the Korean version of Lasnik and Saito's Japanese example, and those sentences are more acceptable than their Japanese counterpart (Lasnik and Saito gave a '??' for the grammatical judgement to their example sentences).

(6) a. Who$_i$ did you hear a story about t_i.

b. ?*Who$_i$ did a story about t_i amuse you.

(Lasnik & Saito 1993:42)

(7) a. ?enu chayk-ul$_i$ Mary-ka [$_{NP}$ John-i t_i san sasil]-ul
which book-Acc Mary-Nom John-Nom bought fact-Acc
mwuncay-lo sam-ni
problem-to making
'Which book is it that Mary is calling the fact that John bought it into question'

b. ?enu chayk-ul$_i$ Mary-ka [$_{NP}$ John-i t_i san sasil]-i
which book-Acc Mary-Nom John-Nom bought fact-Nom
mwuncay-lako ko sayngkakha-ni
problem-Cop C think
'Which book is it that Mary thinks that the fact that John bought it is a problem'

In both (7a) and (7b), there is a nominal preposed out of a complex NP by scrambling. Unlike English as in (6), (7b) is not worse than (7a). The reason that both sentences are marginal is independent from preposing. Scrambling in Korean obeys the complex NP constraint (cf. Lasnik and Saito 1993). For their Japanese examples, Lasnik and Saito attribute this non-asymmetry to the case-marking system in Japanese, and I assume that Korean is the same. In the theory of the ECP, an empty category, the trace in this case, has to be properly governed: either lexical government or antecedent government. The difference in grammaticality between English and Korean comes from the difference of the structural position of subjects. In (6a), the *wh*-phrase is extracted out of the object, which is lexically governed by the verb while in (6b) the extraction of the *wh*-phrase out of the subject, which is not a properly-governed domain, and results in ungrammaticality. On the other hand, in Korean, subjects remain within the *v*P at the surface being lexically governed by the verb, such that subject-object asymmetry in extraction is not observed.

1. 3. Subjecthood and nominative case

As shown above, a subject remains in a *v*P-internal position. Unlike languages such as English, subjects do not move up to [Spec, TP] for case in Korean. In addition to the observation in the previous subsections, there is another noteworthy phenomenon to be discussed. As noticed in Kuroda (1988), subjecthood is not sufficient for nominative case marking in Japanese. Just as in Japanese, certain constructions allow an embedded object to be assigned the nominative case in Korean.

(8) John-un [[Bill-eykey achim-ey yenge-ka malhaki
John-Top Bill-to morning-in English-Nom speaking
elyewu-n] kes-ul] a-n-ta.
difficult-C thing-Acc know-Pres-Dec
'John knows that English is difficult for Bill to speak in the morning.'

According to Kuroda's analysis, *yenge* 'English' is the object of the embedded predicate *malhaki* 'speak'. The object of the predicate *malhaki* 'speak' is English. There is no other possible object in the clause, but it is realized with nominative case. It is commonly accepted that nominative case is associated with subjects, but it does not hold in this scenario. For *yenge* 'English' to be the subject, the predicate needs to be passivized: malhay-ci-ki 'speak-Passive-ing'. However, the syntactic analysis of '*yenge-ka*' and '*malhaki*' can be debated. Although Kuroda takes *yenge* as the object of the embedded predicate *malhaki*, it may not be true. If *malhaki* is a gerund, the embedded clause can be analyzed as a multiple nominative construction as in (9) below. The fact that *malhaki* can cooccur with a nominative marker supports this idea.

(9) ?John-un [[Bill-eykey achim-ey yenge-ka malhaki-(ka)
John-Top Bill-to morning-in English-Nom speaking-(Nom)
elyewu-n] kes-ul] a-n-ta.
difficult-C thing-Acc know-Pres-Dec
'John knows that English is difficult for Bill to speak in the morning.'

Although the attachment of a nominative marker to *malhaki* somewhat degrades the grammaticality of the sentence, it is acceptable. In effect, whether the embedded clause is an MNC or not may not be crucial. If Kuroda's analysis is correct, the nominative case is problematic in that it is realized with an object of a predicate. If the embedded clause is an MNC, the nominative marker is still problematic. What licenses nominative case to those nominals needs to be accounted for. Even in this case, *yenge* is not the subject of *elyewu* 'difficult'. The second nominal *malhaki* is the subject of the predicate.[25]

Moreover, even PPs can be realized with *-ka* in the focus position.

(10) **[yeki-pwute-ka]$_F$** wuli ttang-i-ta.
here-from-Nom our land-Cop-Dec
'It is from here that our land starts'

It is not clear that *-ka* in (10) is the same morpheme as in other nominative case-marked constructions. However, it is shown that *-ka* may not be a structural case marker assigned by T, given the subject/object asymmetry as observed in 1.2 and the absence of the EPP as shown in 1.1. The next section discusses the syntactic positions of subjects in MNCs. It is shown that

[25] The syntactic analysis of MNCs will be discussed in the next section.

those subjects are also realized within a *v*P-type projection.

2. Multiple nominative constructions

As shown in the previous section, nominative case in Korean is not a structural case licensed by T. Nominative-marked elements do not have to be positioned in [Spec, TP]. Additionally, Korean allows multiple nominative constructions. More than one nominal can occur with nominative case in one clause. For these nominals to be realized, there must be their licensors and the syntactic positions for the nominals must be provided.

2. 1. Previous studies

The central question has been about how the NP1 in MNCs is licensed. This section introduces two previous approaches and addresses their problems.

2. 1. 1. Raising analysis

In the approaches of raising analysis, it is assumed that NP1s in MNCs are licensed as thematic arguments of NP2s. Basically, those two NPs are in the possessor-possessee relation in a DP-internal position, and the NP1 is licensed as a possessor in the construction.

(11) emma-ka pay-ka aphu-ta.
mother-Nom stomach-Nom sick-Dec
'Mom has stomachache'

As in (11), the NP1 *emma* 'mother' is the possessor of the NP2 *bay* 'stomach'. If the NP2 *bay* is not *emma*'s stomach, the sentence turns ungrammatical. For this reason, many researchers

propose that the NP1 and the NP2 form a constituent, and the NP1 moves to the structural subject position for case (cf. Kang 1986, Yoon 1989, Ura 1996 and others). According to this approach, the DP-internal position is a caseless position or a position where the case-checking is not available. Thus, the NP1 must move out of the DP for Case.

(12) a. emma-ka cinccalo pay-ka aphu-ta.
mother-Nom really stomach-Nom sick-Dec
'In fact, Mom has stomachache'

b. *emma-uy cinccalo pay-ka aphu-ta.
mother-Gen really stomach-Nom sick-Dec

As shown in (12), the NP1 cannot be in the DP-internal position. Under the assumption that the genitive is positioned in the [Spec, DP], the adverbial *cinccalo* 'really' cannot be placed between the possessor and the possessee as in (12b). Given that the adverbial is placed in the same position in (12a), the grammaticality of (12a) shows that the NP1 *emma* is located outside the DP.

The fundamental idea of this approach is that the NP1 is base-generated and theta-marked inside the DP and it moves up to a case position. The raising analysis, however, has a critical problem. Since the motivation of movement is structural, the analysis fails to explain the semantic difference between MNCs and their non-MNC counterpart. Consider (13).

(13) a. thakca-ka tali-ka pwuseci-ess-ta.
table-Nom leg-Nom break-Pst-Dec
'As for the table, its leg broke'

b. thakca-uy tali-ka pwuseci-ess-ta.
table-of leg-Nom break-Pst-Dec
'A table leg broke'

The NP2 *tali* 'leg' in (13a) must be a part of the NP1 *thakca* 'table', but *tali* in (13b) does not have to be; it can refer to a component that has not been assembled yet. Imagine that the speaker visited a table factory. He was looking at a pile of table legs on a shelf, and he found a broken leg. In this scenario, the speaker can utter (13b), but he can never say (13a). For (13a) to be felicitous, there must be a table that has a broken leg. The fundamental difference between (13a) and (13b) is the relation between those two NPs in each construction.

2. 1. 2. Sentential predicate analysis

There is another type of MNCs in Korean. Unlike the constructions in (11), the relation between the NP1 and the NP2 is not directly connected in their interpretation. Consider the sentence in (14).

(14) enehak-i chwicik-i elyep-ta.
linguistics-Nom finding.jobs-Nom difficult-Dec
'Linguistics is such that finding a job is difficult'

The NP1 does not behave as the possessor of the NPs. It seems that there is no thematic relation between those two NPs. And the NP1 does not denote any spatial or locative relation with the NP2 as in another typical MNC type demonstrated in (15).

(15) maydisun-i kyewul-i chwup-ta.
Madison-Nom winter-Nom cold-Dec
'The winter in Madison is cold'

Unlike (11) or (15), the MNC in (14) shows that the NP1 and the NP2 do not form a unit as in the genitive counterpart in (13b). Inspired by this type of MNCs, Kuroda (1986) and many other researchers suggest that the NP1 in an MNC is a derived subject of the sentential predicate, which is composed of the NP2 and the main predicate. Thus, *enehak* 'linguistics' in (14) is the derived subject, and the following part of the sentence forms a sentential predicate. To derive the sentential predicate from a full propositional sentence *chwicik-i eleypta* 'finding a job is difficult,' Kuroda proposes that a cognitively defined speech act 'Categorical judgement' comes into play for the derivation. In other words, the categorical judgement essentially defines the predication relation between NP1 and the sentential predicate. The categorical judgement can be reinterpreted with respect to the distinction of stage/individual level predicates (cf. Ladusaw 1994). To put it simply, subjects of categorical statements correspond to the subjects of individual-level predicates.

The sentential predicate analysis also has a critical problem. According to the theory, the predicates in MNCs must be individual-level predicates, and thus MNCs have to be generic. However, as shown in (11), the prediction of the theory is empirically wrong. Episodic MNCs are perfectly grammatical.

2. 2. Ha's (2014) applicative approach to MNCs

2. 2. 1. Applicative theory

In the literature, there are two main approaches to how arguments are introduced and represented in syntax. Projectionists (Jackendoff 1997, Levin and Rappaport-Hovav 1995, 1998 among others) claim that the lexical information of a predicate is projected to syntax through certain mapping algorithms. Thus, the argument arrangement is determined by the lexical information of the predicate. On the other hand, Constructionalists (Hale and Keyser 1993, Kratzer 1996, Marantz 1997 among others) suggest that functional heads introduce arguments into syntax.

These two camps both try to account for a phenomenon with respect to the argument alternation as in (16).

(16) a. John melted the ice for me.

b. John melted me some ice.

In traditional GB grammar, the arguments subcategorized by a predicate, such as *the ice* in (16a), are mapped onto an A-position, and their specific syntactic positions are regulated by mapping algorithms such as UTAH (Baker 1988). On the other hand, non-arguments, such as *for me* in (16a), are realized as adjuncts. In (16a), the participant *me* of an event *melting* is not the core element of the predicate; thus, it must be realized with *for* to be theta-marked as the beneficiary. In contrast, in (16b), the beneficiary *me* is in an A-position and is realized as the core argument of the predicate. As such, many projectionists take a strategy of polysemy to

account for the phenomenon.[26] That is, there are two different types of *melt* in the lexicon, and they have different argument structures.

On the other hand, to solve the argument alternation, constructionalists take a different approach. Marantz (1993) suggests that a functional head stacked on the verbal root introduces the beneficiary. With this view, the beneficiary *me* in (16b) can be in an argument position, even though it is not the core argument of the predicate. The main function of an applicative head is to introduce an additional argument that does not belong to the basic argument structure of a predicate (cf. Marantz 1993, Pylkkänen 2002, Li 2005, among others). Consider the following Chichewa data in (17).

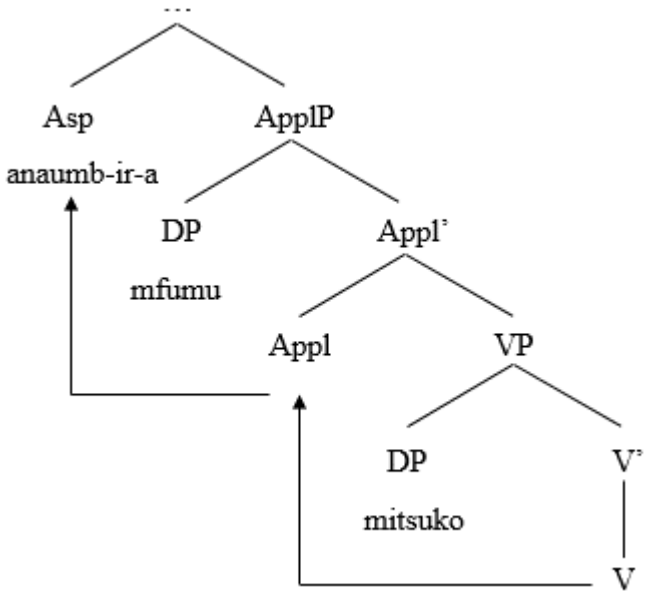
(17) a. Mavuto anaumba mitsuko kwa mfumu
Mavuto molded water pots for chief
b. Mavuto anaumb-ir-a mfumu mitsuko
Mavuto molded-Appl-Asp chief water pots
'Mavuto molded the water pots for the chief'

(Ha 2014: 43)

The data in (17) show the beneficiary alternation in Chichewa. The difference from the English data in (16) is the overt applicative morpheme, which is attached to the verb *anaumb* in (17b). According to Marantz, the applicative affix -*ir*- is the one that introduces the beneficiary argument into syntax. The simplified tree diagram is given in (18).

[26] However, Larson (1988) suggests a structural approach.

(18)



As shown in (18), the beneficiary DP *mfumu* 'chief' is introduced by the functional head *-ir-*. It also shows how the given word order is derived. The verb moves up to the applicative head first and then up to Asp, yielding the final form *anaumb-ir-a*, and the beneficiary DP *mfumu* as well as the theme DP *mitsuko* follow it, as shown in the tree structure.

Following Marantz (1993), Pylkkänen (2002) further develops the idea. She suggests that there are two types of applicative heads: high applicative and low applicative heads. High applicative heads attach above the VP and function as the Voice head in Kratzer (1996). They simply add another participant to the event described by the predicate. The difference between high applicative heads and Kratzer's Voice head is the type of arguments they introduce into syntax. While the Voice head introduces an agentive, a high applicative head adds a non-agentive (and non-core) argument. In contrast, a low applied argument bears no semantic relation to the predicate. It combines with a nominal phrase and only bears a transfer of possession relation to the direct object. Thus, it relates a recipient or a source to the internal

argument of the predicate.

2. 2. 2. Applicative approach and MNCs

An MNC is a mono clausal construction that contains more than one element, which is marked with nominative case. However, the nominative case in Korean is not a structural case as shown in the previous sections. Adopting the applicative theory, especially building on the work of Pylkkänen (2002, 2008), Ha (2014) employs the applicative approach to account for multiple nominative constructions. In his theory, an applicative head in Korean introduces a Holder argument, which is a non-agent/non-core argument. He argues that the applicative head in Korean has a selectional semantic feature. That is, the applicative head s-selects state-denoting expressions as its complement.

Ha (2014) classifies MNCs into three types. In the following subsections, I will discuss these MNC types.

2. 2. 2. 1. Possessive MNCs

The following sentences are typical MNCs in Korean.

(19) a. emma-ka nwun-i khu-ta.
mother-Nom eye-Nom big-Dec
'Mom's eyes look big (right now, because she was surprised)'

b. emma-uy nwun-i khu-ta.
mother-gen eye-Nom big-Dec
'Mom's eyes are big'

(20) a. thakca-ka tali-ka pwuseci-ess-ta.
table-Nom leg-Nom break-Pst-Dec
'As for the table, its leg broke'

b. thakca-uy tali-ka pwuseci-ess-ta.
table-gen leg-Nom break-Pst-Dec
'A table leg broke'

The NP2s are the thematic subjects of the predicates in (19a) and (20a). The NP2 *nwun* 'eye' is the thematic/logical subject of *khu* 'big' in (19a) and the NP2 *tali* 'leg' in (20a) is the thematic subject of the predicate *pwuseci* 'break'. As shown in (19a), the NP1 *emma* 'Mom' is not the thematic subject of the predicate. What is big is not Mom, but her eyes.[27]

Comparing with the non-MNC counterpart in (19b) and (20b), it is easy to notice that the NP1s thematically function as a possessor of the NP2s. Due to the thematic similarity between the pairs, these types are called possessive MNCs in the literature.

As discussed in section 2.1.1., the external possessor NP1 is not located in a DP-internal position. The data (12) is repeated below.

(12) a. emma-ka cinccalo pay-ka aphu-ta.
mother-Nom really stomach-Nom sick-Dec
'In fact, Mom has stomachache'

[27] As previously mentioned, this is not a generic sentence. The sentence simply represents the recognition of the event. As shown in (i), temporal expression can perfectly co-occur in (19a).

(i) emma-ka cikum nwun-i khu-ta.
mother-Nom now eye-Nom big-Dec
'Mom's eyes look big right now (because she was surprised).'

b. *emma-uy cinccalo pay-ka aphu-ta.
mother-Gen really stomach-Nom sick-Dec

(12b) shows that the adverbial *cinccalo* 'really' cannot occur inside the DP construction *emma-uy bay-ka* 'mother's stomach'. In contrast, the grammaticality of (12a) shows that the NP1 is placed in an external position to the DP construction.

In addition to the observation that the NP1 is outside of the DP construction, some syntactic phenomena indicate that the NP1 can be analyzed as a structural subject. Observe the following data in (21).

(21) a. [$_{DP}$ [$_{CP}$ t_i pay-ka aphu-n] emma$_i$]
stomach-Nom sick-Rel mother
'mother whose stomach is sick'
b. *[$_{DP}$ [$_{CP}$ emma-ka t_i aphu-n] pay]
mother-Nom sick-Rel stomach

As shown in (21), the NP1 can be the target of relativization, but the NP2 cannot. The syntactic difference between the NP1 and the NP2 can be observed in scrambling too. The example is given in (22).

(22) a. emma-ka$_i$ na-nun [$_{CP}$ t_i pay-ka aphu-ta-ko] tul-ess-ta.
mother-Nom I-Top stomach-Nom sick-Dec-C hear-Pst-Dec
'I heard that Mom has stomachache'

b.	*pay-ka$_i$	na-nun	[$_{CP}$ emma-ka	t_i	aphu-ta-ko]	tul-ess-ta.
	stomach-Nom	I-Top	mother-Nom		sick-Dec-C	hear-Pst-Dec

As in (22a), the NP1 can undergo long-scrambling to the sentence initial position, while the NP2 cannot as in (22b). The syntactic tests in (21-22) show that the NP1 behaves as a sole syntactic argument.

Based on Pylkkänen (2002, 2008), Ha (2014) proposes that the NP1 in the possessive MNCs in Korean is licensed by a high applicative head.[28] A high applicative head is associated

[28] The possessive MNC is dubbed as such because of the semantic relation between the NP1 and the NP2. Consider (i).

(i)	a.	Mary-ka	nwun-i	khu-ta.
		Mary-Nom	eye-Nom	big-Dec
		'Mary has big eyes'		
	b.	Mary-uy	nwun-i	khu-ta.
		Mary-Gen	eye-Nom	big-Dec
(ii)	a.	Mary-ka	kamki-ka	tul-ess-ta.
		Mary-Nom	cold-Nom	enter-Pst-Dec
		'Mary got a cold'		
	b.	*Mary-uy	kamki-ka	tul-ess-ta.
		Mary-Gen	cold-Nom	enter-Pst-Dec

(ib) is widely assumed as the counterpart of (ia) in the literature. Due to the semantic relation of those nominals in (ia), the type of MNCs in (ia) are called 'possessive MNCs' (Heycock and Doron 2003, Vermeulen 2005 among others), while the oblique MNCs do not have such counterparts as shown in (ii). Since the naming of possessive MNCs is not ascribed to the applicative approach, one may get confused. In applicative theories, a low applicative head assigns a possessional source or recipient role to the applied argument as in (iii). Recall that it is the oblique MNCs that are associated with a low applicative head according to Ha (2014).

(iii) a. Mary gave John a book.
b. Mary gave a book to John.

In (iiia), *John* is the recipient of *book* and he possesses it due to the event of giving, while *John* in (iiib) may not be the possessor of the book. The sentence in (iia) can be analyzed as (iii). '*Cold*' came into *Mary* and as the result of the event 'entering', she got a cold. However, in (ia) there is no such transfer of possession. Due to the holder role assigned by the applicative head, it is easy for the NP1 to be considered as the possessor. In effect, the possessive MNCs are not always possessive as in (iv).

(iv)	Mary-ka	cha-ka	cenboktoy-ess-ta.

with the VP and introduces a non-core argument into syntax. In the case of Korean possessive MNCs, the functional head takes a state-denoting VP and assigns a holder theta role to the newly introduced argument by it. Consider (23).

(23) emma-ka pay-ka aphu-ta.
mother-Nom stomach-Nom sick-Dec
'Mom has stomachache'

Let us apply Ha's (2014) applicative theory to the MNC in (23). Given that the NP1 is a sole syntactic argument, as observed above, it can be analyzed that a high applicative head s-selects the state-denoting VP *bay-ka aphu* and licenses the NP1 *emma* 'mother,' assigning a holder role. Thus, the external argument *emma* functions as a holder of the state where her stomach is sick. The semantic selection of the applicative head is evidenced with the following data in (24).

(24) a. Mary-ka emma-ka yeppu-ta.
Mary-Nom mother-Nom pretty-Dec
'Mary's mother is pretty'

b. *Mary-ka emma-ka tali-ess-ta.
Mary-Nom mother-Nom run-Pst-Dec
'Mary's mother ran'

Mary-Nom car-Nom roll.over-Pst-Dec
'Mary's car (and Mary too) rolled over'

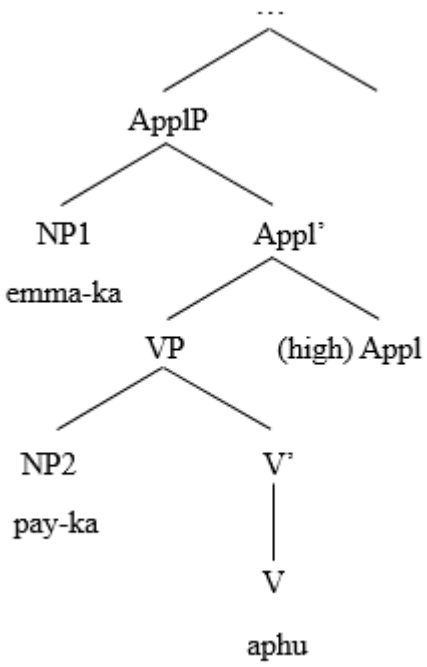
In (iv), *Mary* does not have to possess the car. She can be the driver or the passenger.

c. *Mary-ka emma-ka John-ul ttayli-ess-ta
Mary-Nom mother-Nom John-Acc hit-Pst-Dec
'Mary's mother hit John'

As observed in (24), unergative intransitive verbs and transitive verbs can never occur in MNCs.

The simplified tree diagram for the possessive MNCs is given in (25).

(25)



2. 2. 2. 2. Oblique MNCs

There is another type of MNCs in Korean. An oblique MNC is an MNC where the NP1 thematically behaves as oblique arguments. This type of MNCs are often referred to as adjunct MNCs in the literature (cf. Vermeulen 2005), but Ha (2014) distinguishes them.[29] In this type

[29] His third type of MNCs are dubbed as generic MNCs because he judges that this type of MNCs do

of MNCs, the NP1 has a semantic reading that is typically considered as Goal or Source. The examples are provided in (26-27).

(26) a. emma-ka pwung-i o-ass-ta.
mother-Nom paralysis-Nom come-Pst-Dec
'Mom is paralyzed'

b. emma-eykey pwung-i o-ass-ta.
mother-Dat paralysis-Nom come-Pst-Dec

(27) a. I san-i tanpwung-i tul-ess-ta
this mountain-Nom fall.foliage-Nom enter-Pst-Dec
'This mountain is fall-colored'

b. I san-ey tanpwung-i tul-ess-ta
this mountain-Dat fall.foliage-Nom enter-Pst-Dec

As shown in (26) and (27), the NP1 in this type of MNCs receives an oblique theta role. The verbs associated with this type of MNCs are so-called directed motion verbs. From the meanings of these verbs, the interpretation of the NP1 can be either a goal or a source.

Existential verbs can be associated with oblique MNCs too. The example sentence is given in (28).

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not allow an episodic reading. However, I do not agree with Ha's classification. The reason is simple. They can be episodic. This will be shown in section 2.2.2.3. In effect, the classification does not affect the logic of this thesis. The main concern of this chapter is the syntactic positions of nominals in MNCs and their semantic interpretation. This will be discussed in detail in the next section.

(28) a. emma-ka cha-ka iss-ta.
mother-Nom car-Nom exist-Dec
'Mom has a car'

b. emma-eykey cha-ka iss-ta.
mother-Dat car-Nom exist-Dec

Just as in the possessive MNCs, the NP1 in oblique MNCs has syntactic characteristics. As in the case of possessive MNCs, only NP1s can undergo relativization in oblique MNCs.

(29) a. [$_{DP}$ [$_{CP}$ t_i tanpwung-i tu-n] i san$_i$]
fall.foliage-Nom enter-Rel this mountain
'this mountain which is fall-colored'

b. *[$_{DP}$ [$_{CP}$ i san-i t_i tu-n] tanpwung$_i$]
this mountain-Nom enter-Rel fall.foliage

(29) shows that the NP1 in oblique MNCs is also a sole syntactic argument. The syntactic behavior of the NP1 is clearly different from the equivalent dative element in the non-MNC counterpart as in (30).

(30) a. [$_{DP}$ [$_{CP}$ t_i tanpwung-i tu-n] i san$_i$]
fall.foliage-Nom enter-Rel this mountain

b. [$_{DP}$ [$_{CP}$ i san-ey t_i tu-n] tanpwung$_i$]
this mountain-Dat enter-Rel fall.foliage

Unlike (29), the non-MNC counterpart in (30) does not show contrast. (30a) and (30b) are both grammatical.

The NP1 and the NP2 in oblique MNCs behave differently in scrambling too. As observed in the case of possessive MNCs, the NP1 can be scrambled, but the NP2 cannot.

(31) a. emma-ka$_i$ na-nun [$_{CP}$ t_i cha-ka iss-ta-ko] tul-ess-ta.
mother-Nom I-Top car-Nom exist-Dec-C hear-Pst-Dec
'I heard that Mom has a car'

b. *cha-ka$_i$ na-nun [$_{CP}$ emma-ka t_i iss-ta-ko] tul-ess-ta.
car-Nom I-Top mother-Nom exist-Dec-C hear-Pst-Dec

However, the non-MNC counterpart construction does not demonstrate this contrast.

(32) a. emma-eykey$_i$ na-nun [$_{CP}$ t_i cha-ka iss-ta-ko] tul-ess-ta.
mother-Dat I-Top car-Nom exist-Dec-C hear-Pst-Dec
'I heard that Mom has a car'

b. cha-ka$_i$ na-nun [$_{CP}$ emma-eykey t_i iss-ta-ko] tul-ess-ta.
car-Nom I-Top mother-Dat exist-Dec-C hear-Pst-Dec

As shown in (29-32), the NP1 in oblique MNCs behaves as a sole syntactic argument just as the one in possessive MNCs. However, Ha (2014) analyzes that the type of applicative head that introduces the NP1 in oblique MNCs is different from the one in possessive MNCs. What licenses the NP1 in oblique MNCs is a low applicative head, which combines with a nominal

phrase.

Ha (2014) provides a few motivations for the low applicative analysis for oblique MNCs. First, oblique MNCs are only associated with existential verbs and directed motion verbs as observed in (26-28). Adopting Cuervo's (2010, 2014) classification of unaccusative verbs, he claims that the argument of existential verbs and directed motion verbs is base-generated as the complement of the verb. The base-generated position of arguments is crucial for Ha's (2014) applicative theory. As for possessive MNCs, the stative verbs in the constructions are semantically and functionally equivalent to adjectives. Thus, the relation between the NP2, which is the thematic subject of the predicate, and the stative verb in the construction can be analyzed as a predication relation. The predication relation is highly likely to be syntactically realized in a specifier-head configuration or a small clause configuration. If then, the argument of the NP2 is not the complement of the predicate. In other words, the NP2 in possessive MNCs and the one in oblique MNCs are base-generated in different positions. The former is not the complement of the predicate and the latter is the complement of the predicate. This difference indicates that different applicative heads come into play in each case. Pylkkänen (2002) argues that a low applicative head only applies to the direct object because it typically assigns a possessional SOURCE or RECIPIENT role to the applied argument. Thus, within the framework of Ha's theory, a low applicative head introduces a non-core argument into the syntax of oblique MNCs.

Secondly, oblique MNCs in Korean and double object constructions in Indo-European languages are syntactically and semantically similar. As in (33) and (34), both constructions are subject to dative-alternation.

(33) a. John gave me a book.

b. John gave a book to me.

(34) a. Mary-ka sonnim-i o-ass-ta.
Mary-Nom customer-Nom come-Pst-Dec
'Mary got a customer'

b. Mary-eykey sonnim-i o-ass-ta.
Mary-Dat customer-Nom come-Pst-Dec

(Ha 2014: 120)

Ha also notes that both constructions show the similarity of possessional meanings, despite the lack of the possessional meaning of the verbs. The verbs in both constructions typically do not have explicit semantics of possession, but the reading of both constructions encode possession.

Moreover, both constructions show so-called 'holistic affectedness'.

(35) a. John sent me the book (*but I didn't receive it).

b. John sent the book to me (but I didn't receive it).

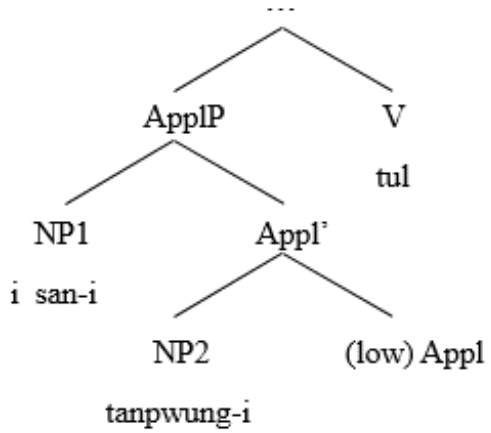
(36) a. I san-i tanpwung-i tul-ess-ta
this mountain-Nom fall.foliage-Nom enter-Pst-Dec
'This mountain is fall-colored'

b. I san-ey tanpwung-i tul-ess-ta
this mountain-Dat fall.foliage-Nom enter-Pst-Dec

The utterance in (36a) may sound bad if the mountain is not fully colored, while (36b) can be semantically felicitous even when only part of the mountain is colored.

Based on the observation above, Ha (2014) proposes that oblique MNCs are realized with a low applicative head. The simplified tree diagram is given in (37).

(37)



2. 2. 2. 3. Another type of MNCs

Ha (2014) distinguishes oblique MNCs from other adjunct MNCs. He dubbed this type of MNCs as generic MNCs. It is because he judges that this type of MNCs do not allow an episodic reading. What triggers the classification is his interpretation of the constructions. Consider the following data.

(38)	a.	i hoswu-ga	nonge-ka	cal	cap-hi-n-ta.
		this lake-Nom	bass-Nom	well	catch-Pass-Pres-Dec
		'Bass are caught well in this lake'			

b. i kos-i oikwukin-i manhi o-n-ta.
this place-Nom foreigner-Nom many come-Pres-Dec
'Many foreigners come to this place'

c. i kolphuchay-ga kong-i melli naka-n-ta.
this golf club-Nom ball-Nom far come.out-Pres-Dec
'This golf club hits balls far'

d. i sinpal-i palkkumchi-ka aphu-ta.
this shoe-Nom heel-Nom hurt-Dec
'These shoes hurt my heel'

Ha analyzes those constructions in (38) as generic sentences only, and this leads him to the additional classification. However, I do not agree with his interpretation of those constructions. Episodic readings can be perfectly acceptable in the following constructions. Just as other types of MNCs, temporal expressions can occur in these constructions.

(39) a. i hoswu-ga ecey nonge-ka cal cap-hi-ess-ta.
this lake-Nom yesterday bass-Nom well catch-Pass-Pst-Dec
'Bass were caught well in this lake yesterday'

b. i kos-i ecey oikwukin-i manhi o-ass-ta.
this place-Nom yesterday foreigner-Nom many come-Pst-Dec
'Many foreigners came to this place yesterday'

c. i kolphuchay-ga ecey kong-i melli naka-ass-ta.
this golf club-Nom yesterday ball-Nom far come.out-Pst-Dec
'This golf club hit the balls far yesterday'

d. i sinpal-i ecey palkkumchi-ka aphu-ess-ta.
this shoe-Nom yesterday heel-Nom hurt-Pst-Dec
'These shoes hurt my heel yesterday'

Against Ha's analysis, I do not distinguish these constructions from oblique MNCs. Since episodic readings for the constructions are possible, there is no reason to make another classification for this type of MNC constructions. In fact, the majority of research treats these constructions as adjunct MNCs in the literature (cf. Vermeulen 2005). What is overlooked is the possibility that this type of MNCs can be interpreted as episodic. In the next section, I discuss the relation between the syntactic properties of MNCs and their interpretations.

3. MNCs and mapping algorithm with applicative approach

The main concern of the current thesis is to establish how the partition of restriction and scope is mapped into syntax when it comes to genericity. As discussed in the previous chapter, Korean data suggest that Diesing's mapping hypothesis needs to be revised: the restrictive area should include CP-layered positions such as TopP and FocP. However, in contrast to Yoon (1997), the domain of existential closure must be the *v*P. In this section, I will introduce another piece of evidence that supports this idea. Since ApplP is a *v*P-type projection, the episodic interpretation of MNCs accords with the mapping structure of the domain of existential reading in Diesing (1992).

(40) Mapping Hypothesis (Diesing 1992)
Material from *v*P is mapped into the nuclear scope.
Material from TP is mapped into a restrictive clause.

(41) a. emma-nun nwun-i khu-ta.
mother-Top eye-Nom big-Dec
'Mom has big eyes/mothers have big eyes.'

b. **[emma-ka]$_F$** nwun-i khu-ta.
mother-Nom eye-Nom big-Dec
'It is Mom who has big eyes/it is mothers who have big eyes.'

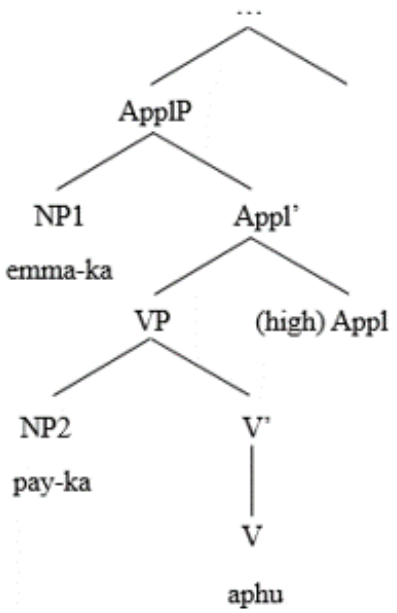
c. emma-ka cikum nwun-i khu-ta.
mother-Nom now eye-Nom big-Dec
'Mom's eyes look big right now (because she was surprised).'

Just as the ordinary sentences discussed in the previous chapter, multiple nominative constructions also show the same pattern with regard to genericity. Only topic and focus constructions lead to a generic reading while the nominative-marked construction as in (41c) is associated with an episodic reading.

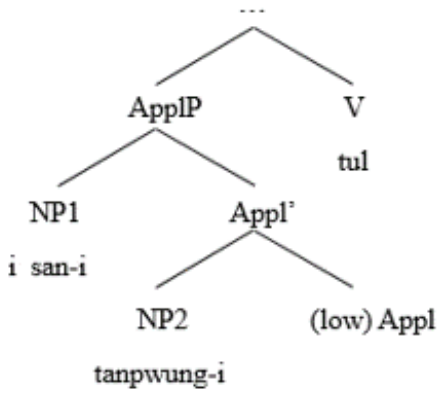
3. 1. Genericity in MNCs

The interpretation of MNCs in Korean can be successfully accounted for with the proposed mapping structure in this thesis. It has been shown that nominative-marked subjects in MNCs are arguments introduced by an applicative head. Whether the applicative head is high or low, the applied arguments are located within the domain of the nuclear scope. Since they occur within the *v*P (or the ApplP that takes the VP), the episodic reading of the nominative-marked constructions is satisfactorily explainable. Consider the diagram of applicative constructions in (42).

(42) a.



b.



The diagrams in (42) are the simplified structures of high and low applicative constructions of (25) and (37). As discussed in the previous section, a high applicative head takes a VP as shown in (42a) and a low applicative head an NP as in (42b). Whether it is a high applicative head or a low applicative head, the applied argument is located within a *v*P-type projection, which is the domain of existential closure suggested in this thesis and in Diesing (1992). The revised restrictive domain also successfully accounts for the necessity of raising of subjects to CP-layered positions as in (41a) and (41b). The interpretational process in (41a) and (41b) is the same as in the ordinary sentences in Chapter 2. The NP1 *emma* is moved to the restrictive clause, which is the CP-layered position, and the variables that are introduced by it are bound by GEN, yielding a generic sentence. The main concern in this chapter is the domain of the nuclear scope. The domain of the *v*P fully explains how an episodic/existential reading is derived, even in MNCs as well as in ordinary constructions.

3. 2. Interpretation of nominals in MNCs

3. 2. 1. Interpretation of NP1

According to the proposed mapping algorithm in this thesis, the interpretation of the NP1 in MNCs is predictable. When it is moved to the restrictive clause, it gets a generic reading, while it is interpreted as existential when it remains within existential closure, which is the *v*P (or ApplP).

(43) a. kay-nun nwun-i yeppu-ta.
dog-Top eye-Nom pretty-Dec
'Dogs have pretty eyes'

b. nwukwunka-ka tali-ka pwuleci-ess-ta.
someone-Nom leg-Nom Break-Pst-Dec
'Someone's leg broke'

The NP1 in (43a) is generic as predicted; it denotes the whole kind. In contrast, the NP1 in (43b) is existential. Note that *nwukwunka* 'someone (or other)' is an intrinsically existential word. The following construction in (44) also supports that the NP1 can be interpreted as existential within the domain of existential closure.

(44) [$_{DP}$ [$_{CP}$ t_i tali-ka pwuse-ci-n] thakca hankay-lul$_i$] chaca-la
leg-Nom break-Pass-Rel table one-Acc find-Imp
'Find a table that has a broken leg'

The NP1 in the relativized construction is inside the domain of existential closure and the interpretation is clearly existential.

3. 2. 2. Interpretation of NP2

According to Ha's (2014) applicative approach, the NP2 in MNCs is positioned within the VP. The NP2 in low applicative constructions, the oblique MNCs, is associated with the low applicative head, and the whole ApplP is taken as the complement by the verb. On the other hand, the NP2 in high applicative constructions forms a predication relation with the verb and is positioned in the specifier of the verb. Thus, neither is outside of the VP. If this is correct, the NP2 must be able to get an existential reading.

(45) a. thakca-ka tali-ka pwuseci-ess-ta.
table-Nom leg-Nom break-Pst-Dec
'As for the table, its leg broke'

b. emma-ka cha-ka iss-ta.
mother-Nom car-Nom exist-Dec
'Mom has a car'

The NP2 *tali* 'leg' in (45a) does not have to denote all the legs of the table. Furthermore, the interpretation of the NP2 in (45b) is even clearer since the construction itself is an existential construction.

As predicted, the NPs in MNCs are interpreted as existential when they remain within the domain of existential closure, and they get a generic reading when they move to the restrictive clause.

4. Summary

Korean allows multiple nominative constructions. These constructions can be considered as problematic to the mapping algorithm of genericity due to the syntactic characteristics. In the vast literature on MNCs, it is claimed that the NP1s are topics or foci (Li and Thompson 1976, Yoon 1986, Y. Yoon 1989, Schütze 2001). If it is true, the mapping structure proposed in this thesis will lose its explanatory power in that the restrictive area needs to be readjusted. However, the nominative-marked NP1s are not topics or foci because they can be existential. In addition, another group of approaches try to analyze MNCs as intrinsically generic (cf. Kuroda 1986). This approach also can be falsified by the empirical evidence that MNCs can be episodic.

This chapter suggested that the genericity in MNCs is derived just in the same way as ordinary constructions. The raised NPs to the CP-layered area derives a generic reading. The variables introduced by the raised NPs are bound by GEN in the restrictive clause, which is the TopP/FocP, and the NPs are represented with the overt topic marker (or realized in a phonetically stressed form). On the other hand, the episodic reading in nominative-marked MNCs can be accounted for with the applicative approach. The applicative theory provides the syntactic positions for the NPs in MNCs. Since those positions are within the domain of existential closure, the episodic reading of the construction and the existential reading of the indefinites are satisfactorily explained.

Chapter 4: Genericity in ECM constructions

This chapter discusses the interpretation of genericity in so-called ECM (Exceptional Case Marking) constructions in Korean. As observed in the previous chapters, the derivation pattern of genericity is ascribed to the syntactic positions of the target nominals. What is shown in this chapter is that the ECM construction demonstrates a very similar pattern to the constructions (ordinary constructions and MNCs) discussed in the previous chapters. Consider (1).[30]

(1) a. John-i [kay-lul cic-nun-ta-ko] sayngkakha-n-ta.
John-Nom dog-Acc bark-Pres-Dec-C think-Pres-Dec
'John thinks that dogs bark' (generic)

b. John-i [[**kay-ka**]$_{F}$ cic-nun-ta-ko] sayngkakha-n-ta.
John-Nom dog-Nom bark-Pres-Dec-C think-Pres-Dec
'John thinks that it is dogs that bark' (generic)

c. John-i [kay-ka cic-nun-ta-ko] sayngkakha-n-ta.
John-Nom dog-Nom bark-Pres-Dec-C think-Pres-Dec
'John thinks that a dog barks (now)' (episodic)

As shown in (1), Korean ECM constructions follow a particular pattern. The embedded clause of the ECM-ed construction in (1a) and the focused construction in (1b) can get a generic

[30] The accusative-marked nominal in (1a) is analyzed to be positioned in the matrix clause in this thesis. Just for the discussion, I put it in the bracket indicating the embedded clause for easy comparison with other constructions in (1b) and (1c). The syntactic position of the ECM-ed nominals is discussed in the following section.

reading, while the embedded clause of nominative-marked construction in (1c) is episodic. With the exception that (1a) is an ECM construction, the other two constructions show the exact same pattern as the constructions discussed in the previous chapters. The only difference is that we have ECM constructions instead of topic constructions in this circumstance.[31]

This chapter claims that the generic interpretation in ECM constructions is derived from the raising of the embedded subject to the restrictive area, which is in CP-layered positions. The same mapping system as in other constructions in the previous chapters is applied. The episodic reading of nominative-marked constructions is analyzed in the same way too. The subject remains in the domain of the nuclear scope, so that the construction receives an episodic reading.

This chapter is organized as follows: section 1 discusses the structure of ECM constructions. In this section, it is shown that an ECM construction is a raising-to-object construction. Section 2 introduces some theoretical approaches to how ECM-ed nominals end up with accusative case. However, a particular position with regard to accusative case licensing is not taken in this thesis. What matters in the current proposal is the final syntactic position of ECM-ed nominals. Section 3 discusses how ECM constructions are semantically interpreted within the framework of the proposed mapping system, and section 4 summarizes the chapter.

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[31] One may argue that the topic marker *-nun* can occur in embedded clauses. However, the morpheme *-nun* in that case is not a topic marker but a contrastive delimiter.

(i) a. John-i [Mary-nun yeyppu-ta-ko] sayngkakha-n-ta.
John-Nom Mary-NUN pretty-Dec-C think-Pres-Dec
'John thinks that Mary (in contrast with other persons) is pretty'

As shown in (i), due to the delimiter *-nun*, the embedded subject *Mary* is interpreted as 'Mary (in contrast with other people)..' or '(I don't know about other people, but) Mary…'.

1. The structure of ECM constructions

1. 1. Raising to object analysis

ECM is a phenomenon in which the subject of an embedded clause is exceptionally marked with an object case.

(2) [John believes [him to be honest]].

As shown in (2), *him* is the thematic subject of the embedded predicate *honest,* but it is realized with accusative case. In the framework of GB, the ECM-ed NP receives the case from the matrix predicate *believe* in situ by either deletion or transparency of the S' of the embedded clause in order to avoid a violation of the Case Filter (cf. Chomsky 1981). However, more recently, it is claimed that the ECM-ed NP gets the case after raising to the matrix clause (cf. Postal 1974, Aissen 1974, Lasnik and Saito 1991, Chomsky 1993, Zidani-Eroglu 1997, Y. Kim 2002, Kim & Kim 2003, H. Yoon 2004, and J. Yoon 2007).[32] More specifically, the phenomenon in (2) is considered as 'Subject to Object Raising' in early generative grammar (Postal 1974). However, the GB theory points out the problem of the approach in that it violates the Projection Principle (cf. Chomsky 1981). In order for the embedded subject to end up in the matrix clause, a new position for the raised NP has to be created or the matrix predicate must have an empty slot for the raised subject. For this reason, the concept of ECM is suggested. After the introduction of more elaborated functional categories, however, the subject-to-object

[32] There are another group of approaches to this topic. They argue for the base-generation of the ECM-ed NP in the matrix clause (Saito 1983, Kang 2010, etc.). According to this theory, the embedded subject is a PRO that is coindexed with the ECM-ed NP, which is actually base-generated in the matrix clause. Nevertheless, this approach has a problem in that it has to account for the additional theta role assignment to the ECM-ed NP. The matrix predicate already has the CP argument.

raising approach appears again. The following subsections introduce some pieces of supporting evidence for the latter approach.

1. 1. 1. Binding

Against Chomsky's (1981) analysis of Exceptional Case Marking in situ, Lasnik and Saito (1991) present a Raising to Object analysis. The construction in (3) is their representative example for the raising analysis.

(3) ? The DA proved *the defendants* [*t* to be guilty] during *each other's* trials.

In (3), the thematic subject of the embedded predicate *the defendants* licenses *each other* in the matrix clause. This linguistic phenomenon indicates that the ECM-ed NP is raised to the matrix clause because *the defendants* has to be in a position that c-commands *each other*, so that the reciprocal can be properly bound.

1. 1. 2. Modification by an adverb

The placement of an adverb and its modification in an ECM construction supports the raising analysis (cf. Zidani-Eroglu 1997, Kim & Kim 2003, Yoon 2004). The syntactic position of an adverb indicates the position of the ECM-ed nominal. Compare the ECM construction with its non-ECM counterpart in (4).

(4) a. John-i Mary-ka onul yeyppu-ta-ko malhay-ess-ta.
John-Nom Mary-Nom today pretty-Dec-C say-Pst-Dec
'John said that Mary is/looks pretty today'

b. John-i Mary-lul onul yeyppu-ta-ko malhay-ess-ta.
John-Nom Mary-Acc today pretty-Dec-C say-Pst-Dec
'Today, John said that Mary is pretty'

When an adverb occurs in constructions such as (4), there is a clear distinction in the modification of the temporal adverbial. In (4a), the temporal adverbial *onul* 'today' is associated with the embedded predicate *yeyppu* 'pretty', but in (4b), it modifies the matrix predicate *malhay 'say'* (and the embedded clause has a generic reading). That is, *onul 'today'* is actually outside of the embedded clause in this circumstance. This observation indicates that the ECM-ed NP, which is preceding the adverb in the construction, is also outside of the embedded clause.

1. 1. 3. Negative polarity item and adverbs

The licensing of Negative Polarity Items (NPI) also demonstrates that the position of the ECM-ed NPs is in the matrix clause (Zidani-Eroglu 1997, Kim & Kim 2003, Yoon 2004). The relevant examples are given in (5).

(5) a. *John-i amwuto$_i$ papochelem [t_i chencay-ka an-ila-ko]
John-Nom anyone stupidly genius-Nom Neg-Cop-C
sayngkakha-n-ta.
think-Pres-Dec
'John thinks of anybody stupidly as not a genius'

b. John-i amwuto$_i$ papochelem [t_i chencay-ila-ko]
John-Nom anyone stupidly genius-Cop-C

sayngkakhaci-an-ess-ta

think-Neg-Pst-Dec

'John doesn't think of anybody stupidly as a genius'

(Kim and Kim 2003: 62)

In (5), *papochelem* 'stupidly' is a matrix element; it modifies the matrix predicate *sayngkakha* 'think'. Since it is located outside of the embedded clause, the negative item *amwuto* 'anyone' is also considered to be in a position out of the embedded CP. The difference in grammaticality comes from the presence of a negative element in the clause in which the NPI occurs. In (5a), the negative element occurs in the embedded clause, but the NPI is outside of the clause. Thus, the NPI *amwuto* 'anyone' cannot be licensed, yielding the ungrammaticality of the sentence. In contrast, both the NPI and the negative element are in the same clause in (5b), such that the sentence is grammatical.

2. ECM across a CP boundary

In standard analyses of ECM constructions, the case alternation phenomenon is possible across a TP, but it is impossible across a CP as illustrated in (6).

(6) a. John believes [him to be honest].

b. *John believes [that him to be honest].

Contrary to the standard view, a number of languages have been described as having an ECM construction across a CP boundary (Kuno 1976; Tanaka 2001 for Japanese, Zidani-Eroglu 1997 for Turkish, Bruening 2001 for Passamaquoddy, Schütze 2001; Kim 2002; Kim & Kim 2003;

J. Yoon 2007 for Korean). As shown in the following examples, the embedded clause in Korean ECM constructions is finite.

(7) a. John-i Mary-ka yeyppu-ta-ko sayngkakha-ess-ta.
John-Nom Mary-Nom pretty-Dec-C think-Pst-Dec
'John thought that Mary was pretty'

b. John-i Mary-lul yeyppu-ta-ko sayngkakha-ess-ta.
John-Nom Mary-Acc pretty-Dec-C think-Pst-Dec
'John thought Mary to be pretty'

c. John-i Mary-ka yeyppu-ess-ta-ko sayngkakha-ess-ta.
John-Nom Mary-Nom pretty-Pst-Dec-C think-Pst-Dec
'John thought that Mary had been pretty'

d. John-i Mary-lul yeyppu-ess-ta-ko sayngkakha-ess-ta.
John-Nom Mary-Acc pretty-Pst-Dec-C think-Pst-Dec
'John thought Mary to have been pretty'

If the raised nominal ends up in a case position, the raising involves A-movement. This analysis may cause two possible problems. If the raised nominal is moved from an A-position inside the embedded clause to a higher A-position in the matrix clause, it violates the locality condition on A-movement. On the contrary, if the raised nominal is moved through the intermediate place [Spec, CP], it violates the ban on improper movement (cf. Chomsky 1973). For this reason, many researchers try to account for this type of construction by positing a FocP in the CP-layered area (Kim 1999, Lee 2014, and others). In those approaches, the seemingly accusative marker is a focus marker, and the raised nominal ends up (or is base-generated) in [Spec, FocP],

without further movement to the matrix clause. However, these approaches face a problem in that the ECM-ed nominals are actually located in the matrix clause as observed in the previous section. Additionally, the difference between constructions such as (1b) and ECM constructions must be accounted for.

(1) b. John-i [[**kay-ka**]$_F$ cic-nun-ta-ko] sayngkakha-n-ta.
John-Nom dog-Nom bark-Pres-Dec-C think-Pres-Dec
'John thinks that it is dogs that bark'

In (1b), the embedded subject is realized with a focalized form, and it is analyzed to be located in [Spec, FocP]. If ECMs are a focus construction, the theoretical account for the difference between these constructions must be provided.

The following subsections introduce a few possible accounts for object case licensing. As mentioned in the beginning of this chapter, a particular stance with regard to this phenomenon is not taken. What matters in this thesis is the final syntactic position of ECM-ed nominals. It is observed that ECM-ed nominals are in the matrix clause in the previous section, and the syntactic position is the main concern in the current proposal with regard to the semantic interpretation of ECM constructions.

2. 1. Bruening's (2001) approach

Bruening (2001) tries to account for raising across a CP boundary by proposing that two different derivations are involved in ECM constructions. In other words, ECM is not a single process; two different individual derivations are called ECM in his account. He quotes the following example from Tanaka (2001).

(8) a. *Otagai-no sensei-ga karera-o [bakada-to] omotteiru.
each.other-Gen teacher-Nom them-Acc fool-C think.Prog
'Each other$_i$'s teachers think of them$_i$ as fools'

b. karera-o otagai-no sensei-ga [bakada-to] omotteiru.
them-Acc each.other-Gen teacher-Nom fool-C think.Prog
'Them$_i$, each other$_i$'s teachers think of as fools'

(Bruening 2001: 15)

Korean shows the same phenomenon.

(9) a. *selo-uy sensayng-i kutul-ul [babola-ko] sayngkakhagoissta.
each.other-Gen teacher-Nom them-Acc fool-C think.Prog
'Each other$_i$'s teachers think of them$_i$ as fools'

b. kutul-ul selo-uy sensayng-i [bakada-to] omotteiru.
them-Acc each.other-Gen teacher-Nom fool-C think.Prog
'Them$_i$, each other$_i$'s teachers think of as fools'

As shown in (8) and (9), scrambling permits the binding of an anaphor. It is an A-scrambling of the object over the subject. Based on this observation, Tanaka (2001) simply analyzes that raising-to-object must be A-movement across a CP boundary because it can feed A-movement in the matrix clause.[33] However, Bruening analyzes that the accusative-marked nominal is a topic that is base-generated in [Spec, CP] with a pro in the thematic position in the embedded clause. In this circumstance, the accusative case is licensed via Agree with the matrix *v*. Once

[33] However, further detail is not provided.

the nominal gets the case, it undergoes A-movement. This process is the derivation for the A-movement in the matrix clause. On the other hand, as for the case of A'-movement from the embedded subject to [Spec, CP], he assumes that it is a kind of topicalization. The accusative case is licensed via Agree with the matrix *v* in this derivation too, but the nominal ends up in [Spec, CP] and does not move further into the matrix clause.

(10) John-i Mary-lul yeyppu-ta-ko sayngkakha-ess-ta.
John-Nom Mary-Acc pretty-Dec-C think-Pst-Dec
'John thought Mary to be pretty'

The construction in (10) describes the second derivation in Bruening's approach. The embedded subject *Mary* moves up to the Spec of the lower CP and gets the case in that position via Agree with the matrix *v*.

Other elements in A'-positions can be realized with the seemingly accusative case marker in Korean. Consider (11).

(11) a. John-i tongccok-ulo-man-ul ga-ess-ta.
John-Nom east.side-to-only-Acc go-Pst-Dec
'John went only to the east side'

b. melli-lul poa-la
far-Acc see-Imp
'Look far'

(11a) shows that a PP or a dative nominal can be realized with an accusative marker by stacking

and, as is the circumstance in (11b), even adverbs can be paired with the marker.

However, as mentioned by Bruening himself, his approach bears a serious problem. He ignores the fact that raised nominals to [Spec, CP] can appear before adverbs in the matrix clause as in (12).

(12) John-i Mary-lul onul yeyppu-ta-ko malhay-ess-ta.
John-Nom Mary-Acc today pretty-Dec-C say-Pst-Dec
'Today, John said that Mary is pretty'

Regarding this problem, he just assumes that the adverbs and ECM-ed nominals can be reordered within the same phase at PF (Chomsky 2001).

2. 2. H. Yoon's (2004) approach

Yoon argues that the head of the embedded CP in ECM constructions is a postpositional complementizer that requires the embedded subject to move to [Spec, CP] to meet Spec-Head agreement. Borrowing Martin's (1999) idea that the *want*-type infinitive has a null *for* complementizer, Yoon further assumes that the postpositional complementizer in Korean ECM constructions is a null *for*-like postpositional complementizer, and it can assign Case when an external case assigner transmits its Case assigning ability to it.

(13) a. John wants [$\emptyset_{for}$ [$_{TP}$ her to win].

b. John-i [Mary-lul yeyppu-ta-ko] sayngkakha-ess-ta.
John-Nom Mary-Acc pretty-Dec-C think-Pst-Dec
'John thought Mary to be pretty'

Yoon argues that the embedded complementizer in (13b), *-ko*, is a postpositional complementizer, and the accusative case is licensed by *-ko*. To support this idea, he shows that *-ko*'s syntactic behavior parallels postpositions in Korean.

First, *-ko* is not compatible with case markers unlike other complementizers. There are three types of clausal complements in Korean.[34]

(14) a. *John-i [Mary-ka yeyppu-ta-ko]-lul malhay-ess-ta.
John-Nom Mary-Nom pretty-Dec-C-Acc say-Pst-Dec
'John said that Mary is pretty'

b. John-i [Mary-ka iki-ki]-lul kitayha-ess-ta.
John-Nom Mary-Nom win-KI-Acc expect-Pst-Dec
'John expected Mary to win'

c. John-i [Mary-ka iki-ess-um]-lul al-ass-ta.
John-Nom Mary-Nom win-Pst-UM-Acc know-Pst-Dec
'John understood that Mary won'

[34] Yoon includes another type of complement clause as shown below.

(i) John-i [Mary-ka iki-n-kes]-lul al-ass-ta.
John-Nom Mary-Nom win-Pst-KES-Acc know-Pst-Dec
'John understood that Mary won'

As shown above, Yoon considers *-kes* as a complementizer. However, it is more reasonable that *-kes* should be taken as a dependent noun. It has its own meaning 'thing,' and it occurs with a demonstrative, forming a DP.

(ii) a. ku-kes-i cohun kes-i-ta.
that-thing-Nom good thing-Cop-Dec
'That is a good thing'

b. i-kes-i nappun kes-i-ta.
this-thing-Nom bad thing-Cop-Dec
'This is a bad thing'

As illustrated in (14), *-ki* in (14b) is associated with optative verbs, and *-um* in (14c) with factive verbs. While these two types of complementizers are realized with a case marker, *-ko* cannot be paired with a case marker as in (14a). This observation indicates that the *-ko* complement clause has a different syntactic status than others, in that other complement clauses are realized in a nominalized form.

The *-ko* complement clause is also different from other types of complement clauses with regard to ECM constructions. As shown in (15) below, ECM is available only in the *-ko* construction.

(15) a. John-i Mary-lul yeyppu-ta-ko sangkakhay-ess-ta.
John-Nom Mary-Acc pretty-Dec-C think-Pst-Dec
'John thought Mary to be pretty'

b. *John-i Mary-lul iki-ki-lul kitayha-ess-ta.
John-Nom Mary-Acc win-KI-Acc expect-Pst-Dec
'John expected Mary to win'

c. *John-i Mary-lul iki-ess-um-lul al-ass-ta.
John-Nom Mary-Acc win-Pst-UM-Acc know-Pst-Dec
'John understood that Mary won'

The complementizer *-ko* behaves like a postposition in that it cannot be dropped when a delimiter is attached.

(16) a. Joe-(*ka)-kkaci don-ul sangca-ey swumki-ess-ta.
Joe-Nom-Del money-Acc box-in hide-Pst-Dec
'Even Joe hid the money in the box'

b. Joe-ka don-ul sangca-*(ey)-kkaci swumki-ess-ta.
Joe-Nom money-Acc box-in-Del hide-Pst-Dec
'Joe hid the money even in the box'

(Yoon 2004: 48)

(17) Joe-ka [Sue-ka iki-ess-ta-*(ko)]-kkaci malhay-ess-ta.
Joe-Nom Sue-Nom win-Pst-Dec-C-Del say-Pst-Dec
'Joe even said that Sue won'

(Yoon 2004: 48)

(16a) demonstrates that the attachment of delimiters is only possible when the case marker is omitted. On the contrary, delimiters cannot be attached to a postposition when it is omitted as in (16b). The complementizer *-ko* shows the same pattern as shown in (17). When *-ko* is dropped, delimiters cannot be attached to the complement clause.

Yoon further proposes that the embedded subject raises to the Spec of the *v**P for focus reading (cf. Chomsky 2001). As observed in the previous section, the ECM-ed nominal can precede a matrix adverb. Example (12) is repeated below.

(12) John-i Mary-lul onul yeyppu-ta-ko malhay-ess-ta.
John-Nom Mary-Acc today pretty-Dec-C say-Pst-Dec
'Today, John said that Mary is pretty'

Since he argues that the accusative case is licensed in [Spec, CP], the syntactic position of the ECM-ed nominal *Mary-lul* in (12) requires further explanation. To solve the positional issue,

he proposes the additional movement of ECM-ed nominals to the Spec of the *v**P and focus reading is the trigger for raising.

Yoon proposes that *-ko* is a postpositional complementizer similar to the English null *for*. Thus, he analyzes the *-ko* construction as a non-finite CP. For this reason, he also proposes that only individual level predicates must be involved in ECM constructions in that they can occur in constructions where no tense is involved; it is because they are naturally not affected by temporal elements (cf. Diesing 1992). This seems to lie in the same vein as the proposal in this thesis. In the current proposal, genericity originates from the so-called ECM raising. However, it is fundamentally different when it comes to the methods through which to approach the phenomenon. Firstly, I argue that there is no intrinsic distinction with regard to I-level/S-level predicates at the lexical level. In the approach of Yoon, the genericity of predicates is the catalyst for ECM. In other words, ECM is possible because the embedded predicate is intrinsically generic. In contrast, in my theory, the genericity of the construction is derived from the ECM process, raising to the restrictive area. Thus, the embedded clause in ECM constructions is not necessarily non-finite. Tense elements can occur grammatically as in (18).

(18)	John-i	Mary-lul	elinsicel-eynun	yeyppu-ess-ta-ko	cwucanghay-ess-ta.
	John-Nom	Mary-Acc	childhood.in	pretty-Pst-Dec-C	insist-Pst-Dec

'John insisted that Mary was pretty in her childhood'

This section introduced a few of the previous attempts in the literature to account for accusative case licensing in ECM constructions. Regarding their theoretical pros and cons, it is important to investigate them in order to attempt to reveal how accusative marking is licensed. However, the main concern in this thesis is the final syntactic position of the ECM-ed nominals.

It is what matters when it comes to the semantic interpretation of the nominals and predicates involved in ECM constructions. As observed in section 1, it is clear that the ECM-ed nominals end up in the matrix clause. And I argue that the raising process is associated with the movement of the target nominals to the restrictive area, where the generic interpretation is derived. The same mapping system is applied as in ordinary clauses (as discussed in Chapter 2) and multiple nominative constructions (as in Chapter 3). The next section discusses the interpretational process in more detail.

3. Generic interpretation in ECM constructions

As observed in the beginning of this chapter, case alternation is not just optional. The ECM constructions and their counterpart constructions have different interpretational readings. Consider (19).

(19) a. nay elin cokha-ka koyangi$_i$-lul [t_i cicnunta-ko] cwucangha-ess-ta
my young nephew-Nom cat-Acc bark-C insist-Pst-Dec
'My little nephew insisted that cats bark'

b. nay elin cokha-ka [koyangi-ka cicnunta-ko] cwucangha-ess-ta
my young nephew-Nom cat-Nom bark-C insist-Pst-Dec
'My little nephew insisted that a cat barks (now)'

As indicated in the gloss, the embedded clauses in these two sentences have different readings: (19a) is generic, and (19b) is episodic. More specifically, the embedded clause in (19b) is a narrative description of an event. The semantic difference comes from the structure of the constructions.

3. 1. Application of revised mapping structure

The proposed mapping structure of this thesis is a modification of Diesing's (1992) mapping hypothesis. The proposed mapping algorithm is described in (20).

(20) a. TopP/FocP is the restrictive area

b. *v*P is the domain of existential closure

Applying the revised mapping algorithm, the interpretational difference between those two constructions in (19) is accounted for. The episodic reading of the embedded clause in (19b) is predicted because the embedded subject stays within the domain of existential closure, so that the situation variable introduced by the nominal *koyangi* 'cat' is bound by existential closure. In this case, if the nominal *koyangi* 'cat' is not definite, it also receives an existential reading.[35] The individual variable introduced by the nominal is bound by existential closure. On the other hand, the generic reading of the embedded clause in (19a) comes from the binding of the raised nominal by the generic operator GEN. Once the embedded subject raises up to the restrictive clause, the CP-layered area, where the variables are bound by GEN, the sentence receives a generic reading, and the nominal moves to the case position in the matrix clause. As expected, the bare nominal in (19a) can never be existential because it is outside of the domain of existential closure. The nominal *koyangi* 'cat' in (19a) is interpreted as definite or generic.

3. 2. ECM of MNCs

MNCs can be involved in ECM constructions. As discussed in Chapter 3, the generic/episodic

[35] The definiteness of bare nominals in Korean is not distinguishable. The distinction can be drawn from context.

interpretation of MNCs can be analyzed in the same way as in ordinary constructions. Based on this analysis, it is also predictable that the ECM construction of MNCs can be interpreted with the suggested mapping algorithm.

(21) a. John-un nwun-i khu-ta.
John-Top eye-Nom big-Dec
'John has big eyes'

b. John-i (cikum) nwun-i khu-ta.
John-Nom (now) eye-Nom big-Dec

(22) a. Mary-ka John$_i$-ul [t_i nwun-i khu-ta-ko] sayngkakha-n-ta.
Mary-Nom John-Acc eye-Nom big-Dec-C think-Pres-Dec
'Mary thinks that John has big eyes'

b. Mary-ka [John-i (cikum) nwun-i khu-ta-ko] sayngkakha-n-ta.
Mary-Nom John-Nom (now) eye-Nom big-Dec-C think-Pres-Dec
'Mary thinks that John's eyes are big (now)'

The raised NP1 in (21a) yields the generic reading of the sentence; the variables are bound in the restrictive clause. In contrast, (21b) is interpreted as episodic because there is no movement of any element to the restrictive area, so that the variables in the constructions stay within the domain of the nuclear scope being bound by existential closure. The cases in which an MNC occurs in an embedded clause as in (22) expectedly show the same pattern. When the NP1 of the MNC stays within the domain of the nuclear scope, the embedded MNC is interpreted as episodic as in (22b) while the raised NP1 as in (22a) yields a generic reading for the embedded

MNC.

3. 3. Transitivity and ECM

It has been widely accepted in the literature that the complement predicates in ECM constructions in Korean are restricted (J. Lee 1992, Ko 2000, Kim 2002 among many others). That is, unergative verbs and transitive verbs are not allowed as the embedded predicate in ECM constructions. The shared characteristic is that the subjects of these type of predicates are licensed by *v*. This observation seems to conflict with the proposed idea in this thesis, in that there is no restriction on the predicate type when it comes to the interpretation of constructions with regard to genericity in the current proposal. According to my proposal, the distinction of interpretation is solely determined by syntactic structures. Consider the examples in (23) and (24).

(23) a. John-i [Mary-ka Bill-ul man-ass-ta-ko] mit-nun-ta.
Tom-Nom Mary-Nom Bill-Acc meet-Pst-Dec-C believe-Pres-Dec
'John believes that Mary met Bill '

b. *John-i [Mary-lul Bill-ul man-ass-ta-ko] mit-nun-ta.
Tom-Nom Mary-Acc Bill-Acc meet-Pst-Dec-C believe-Pres-Dec

(Kim 2002: 208)

(24) a. John-i [Mary-ka tali-n-ta-ko] mit-nun-ta.
Tom-Nom Mary-Nom run-Pres-Dec-C believe-Pres-Dec
'John believes that Mary runs'

b. *John-i [Mary-lul tali-n-ta-ko] mit-nun-ta.
Tom-Nom Mary-Acc run-Pres-Dec-C believe-Pres-Dec
(Kim 2002: 210)

The data in (23) and (24) seem to show that there is a restriction on the types of embedded predicates in ECM constructions. However, the examples below falsify this analysis.

(25) a. John-i Mary-lul [hangsang cha-lul mangkattulinta-ko]
Tom-Nom Mary-Nom always car-Acc break-C
cwucangha-ess-ta.
insist-Pst-Dec
'John insisted that Mary always break cars '

b. nay elin cokha-ka koyangi-lul [cicnunta-ko] cwucangha-ess-ta
my young nephew-Nom cat-Acc bark-C insist-Pst-Dec
'My little nephew insisted that cats bark'

Both the transitive verb *mangkattuli* 'break' in (25a) and the unergative verb *cic* 'bark' in (25b) are grammatically associated with the ECM construction above. The difference between the previous analysis and my proposal lies on the perspective of the genericity of predicates. The proposal in this thesis analyzes that a particular construction derives semantic interpretation corresponding with the syntactic structure. In other words, in cases such as (25), the movement of the embedded subject to the restrictive area derives a generic reading, so that the embedded predicate is considered an I-level predicate. Furthermore, due to the genericity of the construction, grammaticality can be saved. The ungrammaticality of (23b) and (24b) is ascribed

to the knowledge of the world rather than linguistic matters; the hearers easily get an episodic reading from those sentences. In order to get the episodic reading, the situation variable that is introduced by the raised nominal has to be bound by existential closure, but it is not possible because the raised nominal is outside of the domain of the nuclear scope. This analysis may provide an account for the ungrammatical judgement in (23b) and (24b). However, a proper context can change the hearers' judgement. As for (23b), if Mary regularly meets Bill every morning, the sentence can become grammatical. Likewise, Mary's running in (24b) is not easily considered as her property due to our knowledge of the world. However, if Mary is a track athlete or if she regularly runs every morning, the grammaticality of (24b) notably improves. In short, there is no restriction on the type of the embedded predicates in ECM constructions.

This section showed how the semantic interpretation of ECM constructions are derived. Based on the observation that the ECM-ed nominals end up in the matrix clause, the movement of ECM-ed nominals triggers the generic reading of the construction. Once a nominal is moved to the restrictive area, the construction receives a generic reading through binding by GEN in that area because the situation variable introduced by the nominal is bound there. On the contrary, if there is no movement out of the embedded clause, as in the non-ECM counterpart constructions, the embedded clause gets an episodic reading. This result is because the target nominal remains within the domain of existential closure, and thus, the semantic interpretation of the nominal is conducted in that area. The situation variable introduced by the nominal is bound in the nuclear scope, yielding an episodic reading. The mapping system also predicts the interpretation of indefinite nominals. When a nominal is raised to the restrictive area, the individual variable introduced by the indefinite is bound by GEN, and the indefinite gets a generic reading. On the other hand, if an indefinite nominal remains within the lower scope, as in the non-ECM constructions, the indefinite is interpreted in the domain of existential closure

as existential.

4. Summary

This chapter demonstrated that the interpretation of so-called ECM constructions is also derived in the mapping algorithm proposed in this thesis. ECM-ed nominals cannot be interpreted as existential., as they have a generic or presuppositional reading. In addition, the interpretation of the embedded predicate is derived in the same manner. When there is a raised nominal into the restrictive clause, (and when GEN occurs in the construction), the situation variable in the nominal is bound in the area, and in turn, a generic reading is derived. On the other hand, when there is no ECM-ed nominal, it means that the nominal stays within the nuclear scope, and the variables introduced by the nominal are bound by existential closure, yielding an episodic reading. In this case, if the nominal is indefinite, it gets an existential reading.

The interpretation of ECM constructions is ascribed to the syntactic status of the ECM-ed nominals. As observed in linguistic phenomena, such as binding, adverb placement, and NPI licensing, ECM-ed nominals are raised to the matrix clause. Given that the boundary of mapping algorithm is the *v*P, the nominals moved out of the lower scope cannot be interpreted as existential. Thus, the interpretation of such nominals must be presuppositional or generic if the invisible generic operator GEN occurs in the construction.

Chapter 5: Concluding remarks

This thesis investigated the relationship between the syntactic and semantic representations of generic/episodic sentences. More specifically, it showed how the scopes of a generic operator GEN and existential closure get mapped into syntax in Korean. Based on a modified Diesing's (1992) Mapping Hypothesis, it is argued that the semantic interpretation with regard to genericity is purely derived with the syntactic representation. The distinction between individual level predicates and stage level predicates is not determined at the lexical level. The necessity of the movement of nominals to CP-layered positions in generic sentences indicates that the distinction of such predicate types must be conducted at the surface level through a syntactic process in the mapping system.

The proposed mapping structure in this thesis is described below:

(1) a. The TopP/FocP is the restrictive area

b. The *v*P is the domain of existential closure

Since the Korean data introduced in this thesis show the necessary movement to the TopP/FocP, those areas must be included in the restrictive clause. Through the whole thesis, the constructions involved with genericity all demonstrate the same pattern. To get a generic reading in Korean, the movement to the TopP/FocP is necessary. Whether it is an ordinary construction, an MNC, or an ECM construction, the movement out of the nuclear scope is the most crucial process with respect to genericity. The episodic interpretation is also derived in the same vein. As noticed in Diesing (1992), materials in the *v*P are mapped into the domain of existential closure. Thus, based on the assumption that subjects in Korean are represented

within the *v*P, the episodic reading of the predicates and the existential reading of the indefinites in the relevant constructions are successfully derived with the given mapping system.

Regarding the domain of existential closure, multiple nominative constructions in Korean can be considered an interesting issue. An MNC is a mono clause that contains more than one constituent that is marked with the nominative case. Since it has more than one nominative-marked NP preceding the predicate, the syntactic positions for the nominals have been controversial. Among the many attempts to provide an account for those syntactic positions, some approaches suggest that the NP1 in MNCs is a topic or a focus, assuming that there is only one subject in the construction (Li and Thompson 1976, Yoon 1986, Y. Yoon 1989, Schütze 2001). However, these approaches can be falsified by the fact that the NP1 can be existential.

Ha's (2014) applicative approach to MNCs sheds light on this puzzling issue. This approach also fits into the proposed mapping structure in this thesis regarding the interpretation of genericity in MNCs. An applicative head introduces a non-agent/non-core argument into syntax. Employing this theory, Ha establishes the syntactic structure for MNCs. MNCs are possible only with predicates that are not associated with *v*, which introduces an agent argument into syntax (Kratzer 1996). Thus, it satisfactorily explains the complementary distribution of those two types of functional heads. In addition, since the projection of applicative heads is a *v*P-type projection, the argument structure fits into the mapping algorithm proposed in this thesis. As observed, MNCs can be episodic in any constructions of this type. Regardless of the number of applied arguments, they can be represented within the *v*P-type projection. The syntactic status of the arguments matches with the suggested mapping system in this thesis when it comes to an episodic reading that an MNC can bear.

The interpretation of ECM constructions also supports the proposed idea in this thesis.

ECM-ed nominals cannot be interpreted as existential; they have a generic or presuppositional reading. As observed in linguistic phenomena, such as binding, adverb placement, and NPI licensing, the ECM-ed nominals end up in the matrix clause, and the movement of ECM-ed nominals triggers the generic reading of the construction. Given that the boundary of mapping algorithm is the *v*P, the nominals moved out of the lower scope cannot be interpreted as existential. Thus, the interpretation of such nominals must be presuppositional or generic if the invisible generic operator GEN occurs in the construction.

The proposed mapping algorithm in this thesis is a revised version of Diesing's (1992) mapping theory. The restrictive clause is extended to CP-layered positions and the nuclear scope is the *v*P. This proposal has some advantages over Diesing's theory. Firstly, her mapping system must stipulate a condition for the base-generated positions of subjects. The base-generated position for the subjects of I-level predicates needs to be more theoretically supported in terms of the argument structure of the construction. The theory only states that the subjects of I-level predicates are base-generated in [Spec, TP] because of their semantic interpretation. It does not account for how the argument is licensed or how it is introduced into syntax. In contrast, this proposal does not need to posit an additional base-generation site for the subjects of I-level predicates. According to the argument structure of the construction, the subjects are introduced by a relevant functional head, such as *v* or Appl.

Secondly, Diesing's algorithm needs the process of reconstruction in order to explain how the subjects of S-level predicates are interpreted within the nuclear scope. Since languages like English have the EPP rule, the subjects must be located in [Spec, TP] at the surface level of syntax. [Spec, TP] is outside of the domain of existential closure in her mapping system, so the subjects must lower into the existential domain for the predicate to be interpreted as an S-level predicate. Putting aside the lowering movement, the interpretation process of an S-level

predicate requires much more complex theoretical conditions in that the reconstruction rule occurs only with S-level predicates, and only when they are interpreted as episodic. I-level predicates are not relevant to this process, and when S-level predicates are interpreted as generic, the rule is not applied. This proposal does not require this additional process. The nominals in a construction are interpreted where they are presented at the surface. Even in some cases in which I-level predicates are interpreted as S-level, Diesing has to posit an additional condition on the semantic switch of the predicates. However, since this proposal does not distinguish such predicate types, any explanation for the switch is not needed.

Thirdly, the syntactic structure of the restrictive clause in this proposal has strength over Diesing's. In her theory, the suggested restrictive area is the TP. On the contrary, in this thesis, the proposed area for the interpretation of the generic operator includes CP-layered positions, which is the place where other quantifiers are interpreted at LF with regard to the process of quantifier raising. It is assumed that GEN is a quantificational operator. Thus, the interpretational area for GEN in this proposal corresponds to the place for other quantifiers' semantic interpretation.

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