COGNITIVE LINGUISTICS APPROACH TO
SEMANTICS OF SPATIAL RELATIONS IN KOREAN

A Dissertation
submitted to the Faculty of the
Graduate School of Arts and Sciences
of Georgetown University
in partial fulfillment of the requirements for the
degree of
Doctor of Philosophy
in Linguistics

By

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Washington, DC
August 1, 2012
Cognitive Linguistics Approach to Semantics of Spatial Relations in Korean

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Abstract

All languages have some ways to talk about the spatial relationship between two entities: a trajector (TR) and a landmark (LM) (Langacker 1987). Every language uses some combination of linguistic mechanisms (prepositions, postpositions, particles, spatial nouns, spatial verbs, adverbs, etc.) to talk about these spatial relations. Previous research on spatial language in Korean has not been performed in a comprehensive manner that considers all of the relevant elements of spatial language. My research attempts to address this gap in the literature by undertaking a comprehensive study to overview all of these spatial terms (i.e., spatial markers, spatial nouns, spatial verbs) in relation to one another while also investigating the complex semantic system of each spatial marker.

This study follows a cognitive linguistics perspective, which claims that lexical or grammatical morphemes are meaningful as they are conceptualized as unique image-schema; that multiple meanings of lexical or grammatical morphemes are developed not accidentally or arbitrarily, but rather through regular cognitive processes, including cognitive associations formed by experiential correlations which reflect human physical-spatial experience with a particular spatial scene and humans’ abilities to develop natural categories that take part in motivated organized semantic networks.
Specifically, the present study, employing the *Principled Polysemy model* proposed by Tyler and Evans (2001a, 2003, 2004), argues that the semantic network of spatial markers –*ey*, –*eye*se, and –*ulo* can be explained with one central meaning, and that all of these spatial markers exhibit a polysemous semantic network with motivated extended meanings. The key principles used to analyze the meaning of each spatial marker and to disambiguate the meanings with other markers have been the functional element and other cognitive elements such as TR’s orientation, highlighted aspect of LM, and change of perspective, etc.

This dissertation also argues that, borrowing the notion of Distributed Semantics put forth by Sinha and Kuteva (1995), Korean distributes spatial meanings primarily over 3 elements: spatial markers, spatial nouns, and verbs. In short, the analysis shows that spatial markers and spatial nouns conflate geometric and/or topological elements, while spatial markers and spatial verbs conflate manner, directionality, or path relations.
ACKNOWLEDGEMENTS

I would not have been able to finish my dissertation without help and support from many generous and inspiring people around me. First, I would like to express my deepest gratitude to my advisor, Dr. Andrea Tyler, for her guidance throughout my studies at Georgetown. Her research in cognitive linguistics and second language learning led me to Georgetown and her teaching and discussions inspired me to grow tremendously academically. Her insights and expertise in this field were always reflected in her detailed comments. She has been the most caring person to work with while finishing this dissertation. When I had doubts whether I could finish this dissertation, she even made timetables to ‘force’ me to finish. She also is such a patient listener as I always felt easy speaking with her and felt she understood and respected my thoughts.

I also would like to thank my wonderful committee members. I owe a great deal of thanks to Dr. Young-Key Kim-Renaud for teaching me so much about the Korean language and research on Korean linguistics. I met her in 2005 when I started teaching at The George Washington University, but I heard of her perfectionism and outstanding research long before coming here. She has been an excellent mentor, supportive colleague, and a pure inspiration both professionally and personally. I wish I could live my life as fully and as she passionately has. I also would like to thank Dr. Cristina Sanz whose work on cognition and bilingualism I admire. I was fortunate enough to work for her while organizing the GURT 2009 conference. I learned so much from that experience. I am thankful for her cheerful encouragement throughout with her affectionate personality and great laugh that is so contagious. Also, I appreciate the suggestions and comments of Dr. Susan Strauss. She has been a valuable member of the committee as she has
expertise in both cognitive linguistics and Korean language. Her remarks were very insightful and helped me immensely in polishing and strengthening my dissertation.

A special thanks goes to many friends for their great friendship throughout my life at Georgetown. Among them I thank Sunhee Hwang especially for chatting with me during many coffee breaks and hearing me out whenever I was stressed out. I thank Natalia Jacobsen and Vitaly Nikolaev along with other members of the CogLing group for precious conversations during each meeting. I congratulate Natalia and Vitaly, and Soojeong Eom, for successfully defending their dissertations and I am very glad that all four of us defended at around the same time and shared this special time of our lives together. I also thank Dr. and Mrs. Shukla for numerous meals and conversations that nourished my empty stomach and deprived soul. I thank Dr. In-Ku Marshall for being such a visionary person as well as all of my students in the past.

Last but not least, I would like to thank my family’s unconditional love and support. I am forever indebted to my parents for their sacrifices. When I was growing up in Korea, my father often brought souvenirs from his trips around the world making me be curious about life on the other side of the world and that, in a funny way, has opened the door for my excitement of the English language. My mom is my true hero, who taught me to be strong and resilient, and how to not give up and thrive. Her love and understanding are beyond what words can describe. I deeply thank my husband, David, for being a patient proofreader even with last minute requests helping my sentences be more comprehensible. I cherish the life experiences we have gone through for 16 years during both our ups and downs. Finally, this dissertation is dedicated to my son Drew who has brought me true joy and happiness. I owe him lots and lots of play time!
For my Sunshine
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Chapter 1  Introduction

All languages have some ways to talk about the spatial relationship between two entities: a focus entity, which following Langacker (1987) I term a trajectory (henceforth TR), and a reference entity, which is a landmark (henceforth LM). Many cognitive scientists including Gestalt psychologists attested that a human being views a spatial scene involving two entities by foregrounding the focus entity (TR) which tends to be small and movable, and by backgrounding the reference entity (LM) which tends to be larger and stationary. When we talk about a particular scene, the relationship between a TR and LM could either be static as in ‘The apple is in the bowl’ or could involve path of a moving TR (e.g., from Source or to Goal) as in ‘The horse ran to the barn.’ Every language uses some combination of linguistic mechanism (prepositions, postpositions, particles, spatial nouns, spatial verbs, adverbs, etc.) to talk about these spatial relations. Languages also use space as a domain for organizing other aspects of human experience including time or abstract thoughts (i.e., we metaphorically map abstract thoughts based on our perceptions of a three dimensional space).

All animals including humans have complex levels of spatial cognition since it is obviously an essential part of survival to understand the space we are surrounded by. For human beings, the description of the spatial world that we express with our language is essential for communication. Studies of the semantics of spatial expressions are thus particularly interesting because basic spatial notions (i.e., the locations of objects and movement in a three dimensional space) are so fundamental to all human beings across the world in that it offers a better understanding of interactions between language and universal aspects of human experience. An
equally interesting aspect of studies in this field of research is to discover how each language specifically exhibits its unique ways of conceptualizing a scene utilizing different semantic categorizations and its language specific patterns of grammar while speaking about the same spatial relations.

When speaking about different grammar patterns of spatial language, for instance, some languages such as English and Vietnamese have prepositions (e.g., *in, on, over*), while languages such as Korean and Japanese have spatial markers, which are also called postpositions since they are positioned post-nominally. Turkish, Polish, and Korean also have spatial nouns such as *top, bottom,* and *side* and some languages such as Hungarian and Russian have case markers that interact with prepositions as well. In addition, the verbs that encode path and movement in many of these languages are also said to contribute to overall semantic meaning of space (Sinha & Kuteva, 1995). Even among the languages that utilize the same morpho-syntactic structure, e.g., prepositions, different semantic categorizations have developed. Therefore, even in the example of English preposition *on* compared with Vietnamese equivalent *tran* or French *sur,* each has a slightly different image-schema and thus has developed semantic networks that overlap from one other in some areas but are very different in other parts of their semantic networks.

The Korean language uses a combination of spatial markers, spatial nouns, spatial verbs, and case marking (i.e., ergative and dative) to denote spatial arrangements. More specifically, there are spatial markers (commonly referred as locative particles, i.e., *–eya, –eyse,* and *–ulo*) that express the relationship between the TR and LM, which indicate approximate equivalents to English *‘at/to,’ ‘at/from,’* and *‘to/toward,’* respectively. Additionally, there are spatial nouns which include an extensive list of geometrical relationships such as *wi* ‘on top (of),’ *alay* ‘bottom,’ *yeph* ‘side,’ and *kawuntey* ‘middle,’ etc. Spatial verbs, such as *nohta* ‘put on (loosely),’
kkita ‘put on (tightly),’ *nehta* ‘put in,’ *kelta* ‘hang on,’ *tul.e kata* ‘go into,’ etc., further specify
the quality (path or manner) of the TR relative to the LM. I term these three major linguistic
elements (spatial markers, spatial nouns, and spatial verbs) as Korean spatial language. The
typical Korean sentence spatial construction is composed of these three elements as in the
following:

(1.1) Subj + **Nominal**-Obj + **Nominal** + spatial noun + spatial marker + spatial verb

\[
\text{chayk-ul} \quad \text{chayksang} \quad \text{–wi} \quad \text{–ey} \quad \text{noh-ta}^1
\]

TR \quad \text{ Obj} \quad \text{desk} \quad \text{top} \quad \text{LOC} \quad \text{to put on-Dec}^2

‘I put the book on top of the desk.’

Accordingly, there have traditionally been three major lines of research in Korean
linguistics literature: studies that have looked at 1) Korean spatial markers (e.g., Sohn, 1986; J.
Lee, 2004; Ke. Lee, 1981, 1993, 1998; Turker, 2005); 2) spatial nouns (e.g., Min, 1999; Krainz,
2006); and 3) spatial verbs (e.g., Bowerman & Choi, 1991, 2001; Choi, 2006; Kang, 2002).
However, previous research on Korean spatial language has not been performed in a
comprehensive manner which considers all of these elements of spatial language. Instead,
researchers often have limited their analysis solely to one linguistic element, whether dealing
with spatial nouns, spatial markers, or spatial verbs, failing to observe the spatial language
construction as a whole.

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1 Transcriptions used in this dissertation adapt the Yale Romanization System.
2 The following lists the abbreviations used throughout this dissertation:
   - **Aux** = Auxiliary Verb; **Ben** = Benefactive; **Caus** = Causative; **CL** = Classifier; **Conj** = Conjecture; **DAT** =
     Dative; **Dec** = Declarative; **Def** = Deferential ending; **EX** = Exclamatory; **Fut** = Future tense; **Hon** = Honorific
     suffix; **Hum** = Humble expression; **IMP** = Imperative; **LOC** = Locative; **Mod** = Modifier; **Neg** = Negation; **Nom** =
     Nominalizer; **Obj** = Object; **Pass** = Passive; **PL** = Plural; **POL** = Polite; **Poss** = Possessive; **Pres** = Present tense; **Pro** =
     Pronoun; **Prog** = Progressive; **PT** = Past tense; **Q** = Question; **Quot** = Quotative; **Retro** = Retrospective; **Subj** =
     Subject; **TOP** = Topic.
To take a few examples, the studies on spatial markers –ey, –eyse, and –ulo have been limited in a way either ignoring the semantics of spatial markers relying on the explanation through the meanings of co-occurring verbs, or disregarding the complexity of interaction between spatial marker and other spatial expressions denoting spatial relations. The previous studies of spatial markers also tended not to pay enough attention to the contrastive markers by comparing meanings from minimally paired sentences with other markers. Similarly, the work of Bowerman and Choi, which investigated child language acquisition of a set of Korean spatial verbs that indicate spatial relations such as ‘containment-tight fit,’ and ‘containment-loose fit,’ has left out the discussion of interaction with the semantics of the spatial markers. Likewise, other studies that dealt with other aspects of the Korean system for expressing spatial relations (i.e., spatial nouns and other sets of spatial particles) have not sufficiently discussed the relation of the meanings that these spatial nouns or spatial particles bring to the meaning of the sentence in the context as a whole. To my knowledge no study on Korean has yet considered undertaking a comprehensive study to overview all of these spatial terms in relation to one another while also investigating the complex semantic system of each spatial marker as well. My investigation attempts to address this gap in the literature.

Thus, the goal of this dissertation is to fully analyze the semantics of three major Korean spatial markers and examine their semantic interaction with spatial nouns and spatial verbs. More specifically, the present study intends to answer two major research questions: 1) What are the semantic networks of the spatial markers –ey, –eyse, and –ulo in Korean; and 2) How is spatial meaning in Korean distributed across various elements (i.e., spatial noun and/or spatial verb) in the sentence?
With regard to the first question, especially significant is the analysis of –ey, whose various meanings can roughly be translated to English ‘at,’ ‘to,’ ‘on (to),’ ‘in (to),’ ‘by,’ or ‘of,’ etc. An analysis of –ey is an important starting point since not only is it a very commonly used spatial marker that is highly polysemous, but this polysemy has been largely ignored in the previous literature (e.g., Yang, 1973; Sohn, 1986; Song, 1986). Moreover, there has been inconsistency in the literature in terms of identifying its central meaning and also the previous analyses have inadequately explained the systematic relations of the multiple meanings that –ey presents.

No study is perfectly innovative in a way since each is built upon existing research. I attempt to do the same. The previous research was a great foundation to analyze the phenomena of spatial language descriptively. The present dissertation, however, makes an effort to provide a new perspective on the issues. This dissertation, following the *Principled Polysemy model* proposed by Andrea Tyler and Vyvyan Evans (2001a, 2003, 2004), argues that the semantic network of spatial markers –ey, –eyse, and –ulo can be explained with one central meaning, and that all of these spatial markers –ey, –eyse, and –ulo exhibit a polysemous semantic network with motivated extended meanings. A central issue in the previous literature has been whether it is possible to posit a single, central sense for each of the spatial markers in Korean. This dissertation claims that the functional element, in particular proximity, and other cognitive elements such as the TR’s orientation, highlighted aspect of the LM, and change of perspective play a great role in understanding the meanings of each spatial marker and disambiguating the meanings from other markers.

The important theory behind answering the second research question is the notion of distributed semantics put forth by Sinha and Kuteva (1995). This dissertation suggests that
Korean distributes spatial meanings mainly over three elements: spatial markers, spatial nouns, and verbs. The analyses in this dissertation suggest that spatial markers and spatial nouns conflate geometric and/or topological elements. Spatial markers and spatial verbs, on the other hand, are found to conflate manner, directionality, or path relations.

The analysis of the present study will follow a cognitive linguistics perspective. Cognitive linguistics is an inter-disciplinary line of research developed in the 1970’s focusing its research on mind, language use, and the brain. Some of the most influential cognitive linguists worth mentioning are George Lakoff, Ronald Langacker, Charles Fillmore, Leonard Talmy, and Gilles Fauconnier. A cognitive linguistics framework employs principles such as figure/ground, prototypes, metaphor, construal, and image schemas in the analysis of a meaning of a word.

Cognitive linguistics is an especially suitable framework for the analysis of spatial markers since cognitive linguistics advocates that many words are polysemous (i.e., one linguistic form represents many related extended meanings), that humans conceptualize a spatial scene through spatial expressions (i.e., focusing on a figure in relation to its background), and that language is closely embodied in our physical experience of the world (i.e., we understand gravity and force dynamics). In other words, since the current study’s analysis attempts to provide a unified account to the analysis of multiple meanings that are associated with spatial markers (i.e., –ey, –eyse, and –ulo), it can benefit from tenets that cognitive linguistics explains: that lexical or grammatical morphemes are meaningful as they are conceptualized as unique image-schema; and that multiple meanings of lexical or grammatical morphemes are developed not accidentally or arbitrarily, but rather through experiential correlation of a human being’s experience with a particular spatial scene by developing natural categories that take part in motivated organized semantic networks. In so doing this study also attempts to add to the growing body of research
investigating language specific semantics of spatial language and syntactic mechanisms of
spatial language.

Chapter 2 is an overview of the important tenets of cognitive linguistics and also gives
specifics of analyses relevant to the study of spatial language. Chapter 3 starts with a review of
the Korean literature followed by a presentation of a full semantic analysis of Korean spatial
marker –ey. This study then further investigates the semantics of –eyse and –ulo, especially
comparing –ey’s semantics with other spatial markers. Next in Chapter 4, this study examines the
interaction of the other linguistic elements and the linguistic constructions that contribute to
spatial meanings (i.e., spatial nouns and spatial verbs). At the end of Chapter 4, I analyze the
semantics of these elements by discussing the semantic overlap between spatial markers with
spatial nouns, and with spatial verbs. Finally, Chapter 5 provides a summary and conclusion
including mentioning limitations and future contributions.
Chapter 2  Theoretical Background

The analysis of this dissertation follows a cognitive linguistics framework. Cognitive linguists advocate that meaning is the most important aspect in the study of language. They view that linguistic structures or the linguistic form serves a function of communicating meaning. Thus they promote the study of the mappings between the linguistic form and the meaning the language intends to express. One of the highly studied subjects in the field of cognitive linguistics is spatial language. The grammar of space is marked differently in each language, but we can generalize that, when indicating spatial relation, each language expresses a TR (trajectory) and a LM (landmark) and the relationship between them. Among studies on the semantics of spatial language, English prepositions are some of the well documented (e.g., Lakoff, 1987; Brugman, 1981; Lindstromberg, 1998). These studies have shown that English is expressed through the use of locatives such as prepositional phrases and verb phrases with prepositions. Particularly, Tyler and Evans have provided an extensive number of studies on the semantics of English prepositions (Tyler & Evans, 2001a, 2003; Evans & Tyler, 2004a, 2004b). Their groundbreaking studies have laid a theoretical and methodological foundation in the investigation of how English marks spatial arrangements in its lexical entry as well as in morpho-syntactic structure. Roughly speaking, there are about 50 prepositions in English and each preposition entails the specific spatial relations of a TR and LM, e.g., in (containment), on (contact), above (vertically high and distal), to (goal oriented), from (source oriented), etc.

Korean, on the other hand, has a fewer number of locative markers compared to that of English prepositions but has developed more polysemous networks that express relation to a TR
and LM. In addition, Korean has an extensive list of spatial nouns (the top, bottom, side, boundary, etc.), which further specifies the TR’s locations in relation to the LM, as well as the verbs that denote certain spatial relations. Unlike studies of English prepositions, only a handful of studies (e.g., K. Lee, 1981; J. Lee, 2004; Turker, 2005) have attempted to analyze Korean spatial markers under the cognitive linguistics framework.

Korean and English represent quite distinct language types, in terms of the amount of morphology they employ and the range of linguistic elements they use to express spatial relations. Korean is a typologically different language from English and is not historically related. Thus whatever similarities are found in the development of polysemy networks associated with Korean spatial markers, when compared to the studies of English prepositions, would give a good basis for cross-linguistic comparison to reveal new insights into the universal properties of spatial language and the human mind.

The important tenets that were fundamental in the study of the semantics of English prepositions are going to be important for the current study as well. Therefore, in this chapter the important theoretical principles of cognitive linguistics relevant to the analysis of the spatial language of Korean will first be summarized. These principles might be able to provide explanations as to why the cognitive linguistics approach can offer insights to the study of Korean spatial language. Next, more details of Tyler and Evan’s Principled Polysemy model for identifying the semantic network of English prepositions will be reviewed. This part is a brief preview of how the meanings of Korean spatial markers and spatial nouns will be analyzed. Last, the notion of distributed semantics will be explained to give an overview of how to interpret the different combinations of spatial language together in a sentence. More thorough review of the important tenets of cognitive linguistics is beyond the scope of this dissertation. Very detailed
explanations of the cognitive linguistic position and a summary of its history can be found in Languacker (2008), Taylor (2002), Evans and Green (2006), and Tyler (2012). The strengths that the cognitive linguistics framework holds in the study of Korean spatial language will be more evident from the analysis in the later chapters to come.

2.1 Important tenets of cognitive linguistics when studying spatial language

- All words including grammar terms are meaningful

One of the most basic views of cognitive linguistics on language is that “grammar is meaningful” (Langacker, 2008, p. 1). According to Langacker, one of the founders of cognitive linguistics and the originator of Cognitive Grammar (2008), “all constructs validly posited for grammatical description (e.g., notions such as “noun,” “subject,” or “past participle”) must in some way be meaningful” (p. 5). This view is fundamentally different from the traditional linguistics point of view, which considers grammar as autonomous rules free of a semantic component. Langacker (2002) criticizes the studies that follow a traditional view by pointing out that

“[o]ther common assumptions are implicit in the way constructions are generally analyzed and in the standard practice of distinguishing between ‘lexical’ expressions on the one hand, and ‘grammatical morphemes’ or ‘formatives’ on the other. Often an element is regarded as meaningless if its occurrence is dictated by grammatical considerations or it fails to exhibit a single, independent, fairly specific meaning in all its uses. But such criteria are aprioristic and linguistically inappropriate” (p. 302).
Following the cognitive linguistics view, it is well purposeful to study the meanings of spatial language (i.e., prepositions in English and spatial markers in Korean, which is often regarded as a grammatical morpheme).

It is also important to note that cognitive linguists such as Adele Goldberg advocate *Constructional Grammar* (2006) arguing that grammatical construction that is stringed with lexical items and/or lexemes, creates its own meaning as a whole. This view is contrastive to the traditional approach that each word with its own meaning is plugged in together to make up the meaning of phrases or sentences.

- **A spatial scene can be construed in different ways**

In cognitive linguistics, construal is a term that explains how an individual perceives a scene. In the study of spatial languages, we are interested in a language that describes a spatial scene composing a TR and LM. As mentioned briefly in the introduction, Gestalt psychologists have shown that a human being is able to construe a spatial scene involving two entities, a TR and LM, in many different ways. The different ways of viewing a scene is subjective in a way, because it is done on a personal level. The linguistic element, in particular the semantics of a language, certainly influences the way we construe a scene, too. In general a human tends to view a scene by foregrounding the focus entity (TR), and by backgrounding the reference entity (LM). However, if you switch the items around of the foregrounding, you get a different construal. The well-known Rubin’s vase (or sometimes known as the Rubin face) example, which was developed by the Danish psychologist Edgar Rubin, proves that a human brain makes
figure or ground distinctions when viewing the same picture and depending on which is focused upon, two different images emerge.

Another way to get a different construal is by having different perspectives. Langacker (2002) talks about two different ways to have different perspectives: to have a different orientation; or to have a different “vantage point.” How an individual human being assigns the orientation of an entity is a subjective matter. For example, “left” and “right” can be determined by the orientation of the speaker, the hearer, or even some other viewer. Langacker also describes that humans, when talking about a scene, establish a particular viewing arrangement. He explains “optimal viewing arrangement” as follows:

In this maximally asymmetrical arrangement, the entity construed subjectively is implicit and hence nonsalient—to use the theater metaphor, it remains offstage in the audience—whereas the objectively construed entity is salient by virtue of being placed onstage as the explicit focus of attention. (p. 316)

As it will be apparent in the analysis of Korean spatial markers in the next chapter, the foregrounding/backgrounding (e.g., whether or not an entity is in focus, or highlighted), change of orientation, or change of vantage point will give rise to a different meaning and thus will be a great tool to explain the meaning extension. Forthcoming analysis of Korean spatial language will also demonstrate how Korean and English operate the lexicons of their language resulting in a different construal of a spatial scene. Langacker (2002) explains why and how speakers of different languages can construe the same scene differently from each other by stating that “the meaning of expression is not given solely (if at all) by the objective properties of the situation it describes—rather it is a function of how speakers construe the situation and structure it by means
of specific images. Semantic structure is therefore language-specific to a considerable degree, for the choices of images is a matter of linguistic convention” (p. 56).

- **Meaning is conceptual in nature**

Having said that meaning is a crucial part of cognitive linguistics, it is important to understand how meaning can be described. In cognitive linguistics, meaning is talked about in terms of conceptualization. That is, cognitive linguistics promotes the idea that the meaning of the individual lexeme is conceptual in nature. Thus, the meanings that are associated with a lexeme are instantiated in semantic memory as a conceptual representation, called an image-schema, rather than as discrete semantic features that formal linguists have argued for. The image schema is not just a mental representation of imagery but rather it is a recurring pattern of kinesthetic and perceptual experiences of a human being which has become subconscious entrenchments in our minds (Lakoff, 1987; Johnson, 1987).

The conceptualization aspect of human knowledge of a meaning of a word is well supported in experimental studies as well. For example, Mandler (2004), in *The foundations of mind*, presented a great deal of evidence that even a very young infant already understands the concept of containment and the functionality of containment. She reports that even a five and a half month old baby shows surprise when she sees a container without a bottom holding an object. She claims that infants store perceptual information concerning containment (i.e., an object in a space at least partially enclosed) and develop highly schematic perceptual images of containment which serves as a bridge to the development of more abstract meanings of containment.
Tyler and Evans (2003) explain that even though any spatial scene has the potential to be viewed in different ways, we can generalize the meaning of a lexeme, e.g., a preposition, in terms of a highly abstract and schematic representation of the spatial relation between the TR and LM, called a proto-scene. Tyler and Evans define a proto-scene as the unique spatial configuration that represents an idealized mental representation across the recurring spatial scenes associated with a particular spatial particle (p. 52). In other words, the proto-scene is an “abstracted mental representation” that “result[s] in an idealized spatio-functional configuration” (p. 66).

Oftentimes in the studies of spatial language in cognitive linguistics, these abstract, schematic generalizations of a proto-scene are diagrammed consisting of a TR and LM in whichever way is entrenched in memory by the language speaker as a result of observing or experiencing physical entities in similar spatial relationships numerous times. Tyler and Evans describe that “[a]s proto-scenes are idealized, they do not contain detailed information about the nature of either the TR or the LM, nor detailed metric information concerning notions such as the exact shape of the LM or the degree of contact between the TR and LM” (Evans & Tyler, 2005, p. 9).

For example, the proto-scene of the English preposition *in* is diagrammed as below in Figure 2.1 where the TR is designated by the sphere and the LM is designated as the bold lines of a box resembling a container.
One of the purposes of providing such a diagram is to illustrate the speaker’s schematic images for comparing or contrasting the proto-scene of other prepositions. Therefore, the diagram of proto-scenes as shown for example in Figure 2.1 should not be taken as a neurological or psychological basis of conceptual representation. What is important to note, however, is a conceptual relation between the idealized elements (represented as a schematic TR and schematic LM, rather than with a picture of birds or flowers, for instance) of real world experience.

It is important to note that a proto-scene then is equated with the central or prototypical meaning associated with a particular preposition and is oftentimes referred to as a prototypical meaning, central meaning, or primary sense. Lakoff (1987) in his proposed theory of *idealised cognitive models*, which is a model of mental representation of cognitive categorization that captures the findings of prototype theory, explains that prototypicality is a basis from which to find its primary sense. Prototype theory was originally investigated by Eleanor Rosch who discovered that lexical categories are structured in a graded way. Rosch (1978) tested how people categorize common objects such as chair and bird and argued that each category has a prototypical member which can be considered as a best exemplar of a category. For example, “robins” are a better fit than “penguins” to typify a bird category, so a robin could be understood
as a central member as opposed to a penguin which could be understood as a peripheral member. The number of characteristic properties such as attributes in common, motor movements in common, objective similarity in shape, and identifiability of averaged shapes were found to correlate with typicality ratings in the psychological experiments in which she tested degree of membership and reaction time for verification (Rosch, 1978, pp. 32-34).

However, Tyler and Evans (2003) raise an issue that while prototypicality has been resourceful when studying object categorization, it is less useful when studying categorization of spatial particles that denote relation and processes. They argue that instead of trying to identify the prototypical sense in an arbitrary manner “reflecting each analyst’s own preferences or imagination,” with a set of criteria they have developed, one can find “a more principled, intersubjective method of determining the appropriate primary sense for individual spatial particles” (p. 47). Thus they prefer the term the “central sense” or the “primary sense.” Specifics of how to identify the primary sense and how to represent a diagram of a proto-scene of a primary sense following the Tyler and Evans criteria will be discussed in the next section.

- Many words are polysemous: Primary sense gives rise to extended senses

Cognitive linguists especially have been interested in the polysemous nature of the semantics of a word or phrase. Cognitive linguists advocate that any lexical item, including grammatical markers (e.g., prepositions, past tense, determiners), has a range of similar and related multiple meanings associated. Note that this view of the lexical form and meaning relation is a contrasting observation from both homonymy and monosemy. Homonymy is a traditional view in the study of the lexicon that began as early as Bloomfield (1933, cited in
Tyler & Evans, 2003) and has been continued and acknowledged more conventionally until today. The homonymy approach does not assume the multiple meanings of a single form are related and would argue that multiple meanings associated with one form of a word are a random accident. Thus, the homonymy approach fails to realize that the distinctive meanings that one stable phonological form exhibits are systematically related. Also, the homonymy approach emphasizes a narrow synchronic view failing to recognize the evolving nature of language that historically has extended its meanings in a systemic and motivated way (Tyler & Evans, 2003, p. 5).

The monosemy approach, which was advocated by Ruhl (1989, cited in Tyler & Evans, 2003), on the other hand states that one lexical form has one very minimally represented meaning that is abstract in nature and that multiple meanings that are associated with that particular form are argued to be just contextually (i.e., pragmatically) derived variations. However, the monosemy approach has flaws in its argument as well. Lewandowska-Tomaszczyk (2010) lists the problems with the monosemy approach based on a diachronic study. That is, the semantic development direction is from a concrete to abstract and also from a salient to less salient sense (p. 153). Tyler and Evans (2003) also point out two problems of monosemy. First is that, although some of the meanings could be contextually interpreted, some are distinct senses that are represented in our long-term memory and cannot be derived just from the context alone. A second problem is that the primary meaning has to be so abstract in order to be able to derive all the extended meanings that it would be difficult to explain how the abstract primary meaning of distinct spatial particles such as above or on could be distinguished (see Tyler & Evans, 2003, pp. 4-7 for a detailed critique of both approaches).
A general consensus among cognitive linguists then is the polysemy approach, which assumes a word has more than one meaning and advocates systemic relatedness in extending meanings of the same form. In other words, cognitive linguistics argues that a word is a complex category with a central meaning (or primary sense), and multiple extended meanings which are related in systematic and principled ways. Additionally, the extended meanings are distinct meanings that are understood to be entrenched in our memory rather than pragmatically inferred on-line as the monosemy account claims. The studies of spatial language in cognitive linguistics often develop a semantic network (a meaning map) of a given lexical item (or a grammatical construction) in order to show the relatedness of each of the different senses involved in one linguistic form and to capture the way in which other distinct senses may have derived from the primary sense and help the reader see that connection. Since rather than listing multiple meanings arbitrarily as if they are random sets, the semantic network clearly presents the meaning differences in a systematic way showing the relatedness with the primary sense or the previous sense from which the new sense has derived from (oftentimes with schematic diagrams). Such meaning maps have shown to be a very effective teaching medium. Therefore, one purpose of this type of diagram is to promote the learning of prepositions by ESL learners (See Tyler, 2012 for the application to teaching materials). Similar to all cognitive linguistics principles on categorization, a semantic network suggests that there is a fuzzy boundary between extended meanings, rather than absolute divisions.

In ways of explaining the meaning extension from the primary sense there are two major lines of research: one that emphasizes the metaphorical extension (Lakoff), and the other that emphasizes the experiential correlation (Tyler & Evans).
Firstly, Lakoff (1987) proposes that the multiple meanings associated with a single phonological form should be viewed as neither arbitrary nor accidental, but rather as an extension of meanings motivated from a primary sense (prototype). In other words, the reason why a distinctive meaning of one lexical form also takes another distinctive meaning is not because people in earlier days could not have come up with a new word with a different form, but because there was a motivation to make that connection to the same form in the first place. He argued that these polysemous word meanings that diachronically have evolved will result in creating a radial semantic network structure in which a primary sense and the distinctive meanings are connected through chaining. According to Lakoff, the motivation for the meaning extension is realized through metaphor and metonymy. He also explains that some categories are connected from a central meaning to extended meanings by way of family resemblances as well. For example, all members in a category do not have to have a particular property in common but instead, the central meaning is predicted by a family of clustered meanings of resemblance.

Afterwards, Tyler and Evans (2003) argue that the most important motivation for a central meaning associated with the proto-scene to be extended to distinctive senses is through reoccurring patterns of embodied experience of which a human interacted with a particular spatial scene. They termed this principle of meaning extension as an *experiential correlation* based on the works of Grady (1997). Tyler and Evans explain that experiential correlation makes possible for a speaker to conceive an event vis-à-vis a co-occurring event and such correlation is reflected in language all the time. They elaborate on the examples of correlation between the vertical elevation of a physical entity and the increase in the quantity of the entity (note that such a correlation will be viewed as a conceptual metaphor to previous researchers such as Lakoff). That is, through our daily experiences we frequently observe the phenomenon that when there is
an increase in quantity that there is an increase in height (vertical elevation): putting more boxes on top raises the height of the stack; putting more water in a jar will increase the vertical level of the water, etc. Therefore, this type of human experience is linked to the conceptual level and we can say something like *Prices have gone up recently* or *The stock market is rising* (Tyler & Evans, 2003, p. 33). They argue that such example sentences are a reflection of how speakers of English conceptualize two co-occurring events. In other words, the preposition *up* that originally had a spatial meaning of elevation developed into the new extended meaning of the ‘more’ sense and became a part of the semantic network for preposition *up*. The ‘more’ sense of the preposition *up* is used in an abstract way to talk about non-spatial meaning (such as price). As a result the systematic meaning extensions take place from the proto-scene through experiential correlation and pragmatic strengthening.

Besides the experiential correlation that Tyler and Evans emphasize, they also provide other cognitive principles of inferencing and meaning extension: real-world force dynamics, ways of viewing a scene or construal, and metaphorical thinking (Tyler, 2012, p. 134).

- **Meaning of spatial language should be understood with the functions as well as the geometric information**

  Vandeloise (1991, 1994) and Herskovits (1986, 1988) point out that humans understand the meaning of spatial particles not just with information from geometric-spatial relations, but also through an understanding of the functions that each spatial scene carries. For example, we understand the sentence *She is at the desk* not just by the proximal geometric distance between her and the desk, but also involving the functions of the desk by understanding the sentence as

There also has been awareness in the field of cognitive psychology that understanding the meaning of spatial prepositions with respect to geometrical information alone is not enough (Coventry, 1999, 2001; Feist & Gentner, 2003, 2007; Vandeloise, 1994, 2003). For instance, Coventry and his colleagues (1999) carried out a series of experiments demonstrating the importance of a functional element by English speakers in their interpretation of prepositions. They observed that when pears in a bowl are stacked well above the rim, people understand the pears as being *in* (containment sense) the bowl because the bowl (the container) still functions to provide support for the pears (Coventry, 1999, 2003). When the bowl is moved, the pears above the rim move with it qualifying the function of the containment, so even though the pears were well above the rim, they were still perceived as *in* the bowl.

More specifically, Coventry and his colleagues (1999) asked the participants to fill in a preposition for the sentence, ‘The pear is ____ the bowl,’ after being shown pictures where a pear was positioned at different heights, such as in the following Figure 2.2.

![Figure 2.2. The pear is ____ the bowl (from Coventry et al. 1999, p. 148)](image)

They found an interesting relation in the interaction between geometrical information and functional knowledge in participants’ answers.
In another study, Coventry et al. (2001) finds analogous results. For example, when participants were presented with various pictures showing spatial relations between a man, an umbrella, and rain drops, the umbrella was described as being over the man not only when the umbrella was located geometrically higher than the man but also when it satisfied its function of blocking the rain drops from falling down on the man. Figure 2.3 shows a sample picture from this study.

![Sample picture from Coventry et al. (2001)](image)

*Figure 2.3. Functions of over (from Coventry et al., 2001)*

It turns out that functional elements, which are humanly meaningful consequences of two entities being in a particular spatio-physical configuration with respect to one another (e.g., containment, orienting toward a goal, etc.), are also critical not only in understanding semantic extension but also revealing overlapping semantic characteristics among spatial markers whose geometric configurations are quite disparate. Thus, this notion that the primary sense of a spatial marker also involves a functional element has led to many studies on extensive polysemy networks including the studies by Tyler and Evans (2001a, 2003). Tyler and Evans define a functional element as meaningful consequences of having specific spatial relations between
entities in the world and argued that those consequences to a human being are an integral part of understanding each preposition.

In summary, the analysis of Korean spatial language in this dissertation is also founded on the framework of the cognitive grammar reviewed so far. This study follows the assumption that spatial language including grammatical morphemes such as the spatial markers –ey, –eyse, and –ulo in Korean are conceptually meaningful. Also, it is assumed that each spatial marker has an image schema (proto-scene), which construes a scene in a particular way. The proto-scene will depict both geometric information of the TR and LM as well as a functional element that rises from that particular spatial scene. Then the proto-scene of each spatial marker will be presented along with extended senses that are derived in a principled way. Tyler and Evans (2003) discussed that when one lexical item possesses multiple meanings (e.g., English preposition over has at least 15 distinct meanings, including an On the Other Side Sense and a Finish/Completed Sense) cognitive linguistics rejects the position that over has developed random unrelated meanings by accident. Cognitive linguists rather would argue that there is a reason why the identical phonological form over has eventually derived many multiple meanings diachronically. They argue that therefore the linguists’ task is to uncover the relatedness of different meanings of the same form. Following this framework, the goal of my job in this dissertation is to uncover the relatedness of the multiple meanings that the Korean spatial markers exhibit. Section 2.2 talks about the Principled Polysemy model in more detail.

2.2 The Principled Polysemy model

While cognitive linguists agree that multiple-sense words should be represented by the construct of polysemy networks, many have proposed different organizational systems of the
networks, both of the central sense and of the extended senses within a given category. Two theories which explain how lexical category is structured need to be mentioned: the full-specification approach, which is a model of semantic extension proposed by George Lakoff (1987), and the *Principled Polysemy model* as proposed by Andrea Tyler and Vyvyan Evans (2001a, 2003, 2004), which is a procedural framework that provides methodologically constrained principles used to analyze semantic networks. Even though the work laid out by Lakoff was a great influence in shaping the field of cognitive linguistics as we know it today, some researchers have challenged various aspects of his approach, in particular some specifics in the analysis of the English preposition *over* that he carried out in his book *Women, fire, and dangerous things: What categories reveal about the mind* (1987). Among several critiques of Lakoff’s model, the *Principled Polysemy model* is of particular significance to the analysis I will develop here. In the following section, Lakoff’s analysis of *over* will be compared to the reanalysis of *over* done by Tyler and Evans following the *Principled Polysemy model*.

Tyler and Evans (2003) point out the problems of Lakoff’s model relying on the notion of prototypicality when deciding the primary sense, especially on the treatment of spatial particles which represent relations and processes. That is, they argue that Lakoff’s model inevitably allows each researcher to make somewhat arbitrary decisions by “own preferences or imagination” (p. 47) when choosing a primary sense. As Tyler and Evans point out, different analyses of the primary sense for *over* exist as Lakoff came up with the ‘above and across’ sense that includes an arc path as the primary sense while Dewell (1996) chose the primary spatial scene for *over* as a flat path higher than the LM. Tyler and Evans write that “[t]hese decisions were primarily asserted rather than being argued for […]” (2003, p. 45). Thus, they argue that
there had been a lack of constrained methodology for establishing the primary sense and consequently researchers had excessively relied on their own intuition.

To overcome this shortcoming, the *Principled Polysemy model* presents a set of criteria that investigators can apply in order to distinguish the novel senses of spatial particles for determining the primary sense (proto-scene). Citing Langacker’s sanctioning sense, Tyler and Evans provide five characteristics to consider before determining the primary sense: 1) earliest attested meaning; 2) predominance in the semantic network; 3) relations to other prepositions; 4) grammatical predictions; and 5) composite units. They explain that it is not that one piece of evidence is important but after considering all linguistic (or empirical) evidence identifying “converging evidence,” being provided with “a substantial body of evidence” is critical (Tyler & Evans, 2003, p. 47).

Beyond the problem with choosing the primary sense, Tyler and Evans also criticize the Lakoff model for lacking mechanisms that would allow for distinguishing of the distinctive senses. Lakoff’s analysis of the distinctive meanings of English preposition *over* is criticized on two major accounts: 1) Lakoff’s model presents *polysemy fallacy* (Sandra, 1998; Tyler & Evans, 2003) allowing overly detailed network-representations of distinct meanings with his too ‘fine-grained’ analysis and with its semantic network ‘so unconstrained’ (Kreitzer, 1997, p. 292); and 2) Lakoff’s model runs the risk of creating categories that have no structure outside of the context (Sinha & Kuteva, 1995; Tyler & Evans, 2003).

More specifically, Tyler and Evans criticize Lakoff’s model as the full-specification approach for positing overly detailed network-representations. For example, in order to show problems with Lakoff’s analysis of *over*, Tyler and Evans (2001a, 2003) compare the following sentences (2.1 a) and (2.1 b):
(2.1) a. The helicopter hovered *over* the ocean.

b. The hummingbird hovered *over* the flower.

According to Lakoff, *over* in sentences (2.1 a) and (2.1 b) has two distinct senses. This view is based on the analysis that *over* in (2.1 a) describes a relation between *the helicopter*, which is a TR, and *the ocean*, which is an extended LM, while *over* in (2.2 b) describes the relationship between the hummingbird (TR) and the flower (LM), which is not extended. However, Tyler and Evans point out that the lexical form (i.e., *over*) does not indicate whether the LM should be construed as either vertically extended or not; thus they argue that these two examples should not be regarded as two distinctive senses.

Further, Tyler and Evans argue that it is important to take account of meaning construction as a process that relies upon conceptual integration of linguistic and nonlinguistic prompts (e.g., background knowledge of the world and spatial relations in general) guided by various global cognitive principles (2001a, pp. 97-98). Related to this issue, Tyler and Evans criticize Lakoff’s analysis as not clearly distinguishing between what sense is coded by a lexical expression and what sense is locally derived from context as a result of on-line processing.³ For instance, they explain that in sentence (2.2),

(2.2) The cat jumped over the wall.

³ The absence of distinctions between conventionalized and contextualized usages in Lakoff (1987) was also criticized by Sandra and Rice (1995).
the sense of motion and path (that the cat is undergoing motion from one side of the wall to the other side and by doing so creating a trajectory) is derived from the verb *jump*. Thus, they argue that Lakoff’s analysis of *over* to include the path element is wrong since it is derived from a sentential context.

Tyler and Evans also emphasize that there are important inferencing strategies that a listener employs in order to derive on-line interpretations of a given sentence. They list the three most important strategies of such: best fit; knowledge of real-world force dynamics; and topological extension (2003, pp. 57-58). First, the inferencing strategy ‘best fit’ explains the fact that speakers try to convey the spatial relations that they want to communicate with other people by choosing the best fit of the conceptual relations out of the limited set of linguistic spatial lexical items that exist in a language. The second strategy presumes that the listener and the speaker both assume that all elements in a spatial relation are subject to real-world force dynamics (Talmy, 2000; Vandeloise, 1991) including information about gravity, and characteristics of the landmark, *the wall* in the previous example for instance. The third notion of topological extension represents our ability to see the relativistic relationship between the TR and LM, rather than through fixed metric notions such as distance, size, angle, etc. (Talmy, 2000: p. 170). Tyler and Evans thus argue that the aforementioned inferencing strategies will facilitate a range of on-line interpretations which are derived from a rather abstract representation of a distinct sense.

Accordingly, Tyler and Evans list two considerations for deciding whether a sense can be counted as a distinct sense (2003, pp. 42-43). First is to check whether it involves an additional meaning that is not apparent in any other senses. Second is to check whether instances of the sense are context independent. For it to be independent, the extended sense must not be inferred
from another meaning or from context. By setting forth these criteria and applying them in their reanalysis of *over*, 15 distinctive senses were derived, which is far fewer than the 24 distinctive senses that Lakoff initially presented. More detailed applications of these considerations will be discussed again in Chapter 3 when the analysis of Korean spatial markers is presented.

Another important point that Tyler and Evans make is that the polysemy network represents the distinct senses that are related to the proto-scene at one point and then diachronically with it as a sense that is instantiated as a separate semantic memory. They explain that the process of becoming a distinct sense is through pragmatic strengthening (Traugott 1989), which is a conventionalization process begun from instances being on-line extensions from the proto-scene to becoming a related but distinct sense as a result of continued usage. This continued usage gives rise to the ultimate entrenchment of usage patterns that become stored as a distinctive sense in long-term memory.

In their reanalysis of the preposition *over* from Lakoff (1987), Tyler and Evans identify the proto-scene, a highly abstract representation of a spatial configuration of *over*, as observed in Figure 2.4.

![Figure 2.4. Proto-scene for over (from Tyler & Evans, 2003, p. 111)](image)

The little dot is a schematic TR and the vertical solid line is a schematic LM. This diagram represents a TR that is higher than the LM but is within reach of the LM (located under the dotted line) to have potential contact with the LM. Note that this representation does not include
the path element, which is in contrast to Lakoff (1987), who argues that the central sense for *over* is “above and across,” and included a path along which the TR moves, as represented by sentences such as, *The plane flew over the city*. Tyler and Evans call attention to the fact that path is conflated in the verb ‘flew’ in this sentence, so it is erroneous to analyze the meaning of *over* to include the path.

Tyler and Evans explain the consequences of this particular configuration of the TR being located within the reach of the LM as represented in the proto-scene of *over* by using the notion of functional element. The functional element is an important aspect of the proto-scene that Tyler and Evans argue is a fundamental element of every proto-scene of the prepositions they analyzed. Their position coincides with other researchers such as Vandeloise (1991, 1994) and Herskovits (1986, 1988). In the case of the preposition *over*, Tyler and Evans explain that it has a functional element of proximity. By being physically proximal to the LM, the relation between TR and LM also exhibits the functional relation of control and influence. This functional notion, especially of proximity in the analysis of *over*, will become a key factor in the analysis of Korean spatial markers that will be presented in Chapter 3.

According to Tyler and Evans (2003), a particular spatial scene could be affected in a number of different ways. For instance, we construe a specific spatial scene as a different scene by changing the vantage point (the place and/or the direction where the scene is viewed from), by changing the profiled parts (highlighting certain elements in the scene), by allowing the same scene to be construed in different ways by changing the focus element, and also by having different properties of the TR and LM (pp. 53-54).

Overall, the *Principled Polysemy model* follows along the lines of the majority of cognitive linguistic frameworks including the work by Lakoff, but has offered tremendous
improvement over the previous methodology (especially compared to the cognitive network model by Lakoff) on how to conduct research and analyze the semantics of English prepositions. Specifically, the *Principled Polysemey model* is able to offer a systemic method for determining the central sense and a more comprehensive explanation of the constrained meaning extension mechanisms involved in the polysemey networks. The *Principled Polysemey model* is similarly significant from the theoretical standpoint as well. One of the most important contributions of their account is detailed explanations of how a particular spatial scene has consequences on the nature of human experiences involved though experiential correlation. The functional element of each preposition as well as the geometric information is taken into careful consideration. Also by discussing the notion of pragmatic strengthening and conventionalization of implicatures, they successfully demonstrate the extension of meaning and the subtle and complex character of semantic change in a much more satisfying way.

Even though their initial work on the *Principled Polysemey model* focused only on English prepositions (Tyler & Evans, 2001a; Evans & Tyler, 2004a, 2004b), Tyler and Evans (2003) hypothesize that the model is likely to be applicable to other languages as well. With that in mind, Shakhova and Tyler (2010) tested whether the model could be usefully applied to a language other than English by applying the model to the Russian spatial particle *za*, which is highly polysemous and interacts with a complex case marking system. The general finding by Shakhova and Tyler is that the *Principled Polysemey model* can systematically account for *za*’s complex polysemy network. Furthermore, Mahpeykar and Tyler (2011) analyzed the semantic network of the highly polysemous Farsi preposition *be* and successfully applied Tyler and Evans’ *Principled Polysemey model*. They identify fifteen distinct senses of *be* under five individual clusters. The analysis shows that many of the meanings associated with this preposition are similar to English
preposition *to* but there are also language specific differences. In addition, other languages have successfully been put to the test using this model, including German (Liamkina 2007), Polish (Knas 2006), Bulgarian (Tchizmarova 2006), and Vietnamese (Ho, working paper).

Following this line of research, this dissertation aims to apply the *Principled Polysemy model* to the analysis of a Korean spatial marker in order to test whether this model also holds for analyzing the Korean language, which is a typologically different language from English and the other languages tested previously, and thus whether it can be said that the model can be suitably applied across a wide array of languages. The goal of the first part of this dissertation, as a result, is to organize the many meanings that Korean spatial markers exhibit into a systematic, motivated semantic network of senses. More specifically, discussion of the role of the functional element and experiential correlation of Korean spatial markers in line with Tyler and Evans (2003) will be a significant contribution.

### 2.3 Distributed semantics

After developing all the semantic networks of the spatial markers, it will become important to understand how those spatial markers interact with other elements of spatial language such as spatial nouns and spatial verbs. In order to investigate that type of semantic interaction, this study borrows a notion of distributed semantics (i.e., how the meaning of the word can be conflated in other lexicon or context) put forth by Sinha and Kuteva (1995). Thus in this section the notion of distributed semantics will become an important theoretical basis to the later part of the present analysis.

Sinha and Kuteva (1995) are opposed to the local semantics approach (Talmy, 1983; Svorou, 1994, cited in Zlatev 2006) that spatial meaning is expressed primarily with one (or
more) closed case grammatical element (e.g., English prepositions) rather than by an open class such as nouns or verbs. Sinha and Kuteva argue that “an adequate analysis requires the abandonment of the localist approach, and the analysis of how spatial relational meaning is systematically distributed over simultaneous selections from closed and open form classes” (1995, p. 168).

Sinha (2009) defines the phenomenon of distribution as “one conceptual element mapping to more than one morpheme in a single syntagmatic chain, sometimes through morphemic reduplication” and proposes that spatial semantics can be conflated into various syntactic elements. Sinha and Kuteva (1995) propose that distributed semantics is universal in the language of space and that languages can be categorized into overt to covert distributed semantics in a continuum. More specifically, they describe that overtly distributed language (e.g., Japanese) tends to exhibit semantic elements (e.g., path, manner, etc.) in multiple morphological places within the same syntagmatic chain; whereas covertly distributed language (e.g., English) involves its morphological reduction.

After observing the tendency in Japanese in their study, Sinha and Kuteva (1995) hypothesize that:

Languages which overtly distribute spatial relational meaning across co-selections from two or more closed classes may exhibit high degrees of polysemy (in the limit case, extreme meaning indeterminacy) in one or more of such classes, but will compensate by high specificity of meaning in other closed classes: and such languages will favour both the contextually-determined optionality of some spatial relational meaning-bearing items, and the overt repetition within a single syntagmatic string of the same spatial relational information. (p. 195)

Recalling the fact that Korean spatial markers also interact closely with spatial nouns, this dissertation hypothesizes that Korean distributes spatial information among spatial nouns, spatial
markers, and also spatial verbs. Thus I suggest that both the optionality of spatial nouns in some sentences and the ellipses of spatial markers with certain verbs have to do with the nature of distributed semantics as mentioned in Sinha and Kuteva.

Moreover, by studying the spatial language constructions in the Korean language following this notion of distributed semantics more light will be shed on the vital information concerning spatial semantics, i.e., how conceptual information represented by a single lexeme in one language is distributed across several lexemes in a different language, and possible constraints on semantic extension that relate to the precise linguistic usages which express spatial relations. Keeping in mind the important issues that were brought up so far, the next section reports on the data for the current study.

2.4 Research method: usage based corpus study

One of the important beliefs of cognitive linguistics is that study of language should be actual language in use, whether it is spontaneous naturally occurring speech data, elicited sentences from experiments, or written sentences from corpus. The present study adheres to this usage-based approach increasingly supported by cognitive linguists, and is conducted via a corpus based study. This section briefly describes the corpus and the steps taken to analyze the semantics of spatial language in Korean.

The first data used in the preliminary analysis of meanings of spatial languages are from various dictionaries including an online dictionary published by the National Korean Education Research Center. After establishing an initial analysis of the semantics of spatial markers, the

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4 Although an increasing number of researchers in cognitive linguistics advocates the importance of a corpus based study, the most theoretical works in this field (especially that of Langacker, Talmy, and Lakoff) are not based on corpora.
corpus data was created from sentences of an online concordance program, *kkokkoma seycong malmungchi hwalyong sisutheym* (Lee et al., 2010), which was developed for researchers who have no background in building a programming language. This program uses the Sejong corpora (http://www.sejong.or.kr). Even though the Sejong corpora is a large scale corpus which expanded the existing corpus by its size and variations of time (includes data from the 15th century to present day) as well as modality (spoken and written language), the current study focuses on the data of contemporary written Korean, and for that reason, the ellipsis examples (such as spatial marker ellipsis, spatial noun deletion) were manually searched rather than relying on the online search tools.

Sejong corpora has a vast number of naturally occurring text sentences (for example, it returned 216,881 different occurrences of sentences containing –ey), so a small body of the text results (i.e., 2000 sentences for each spatial marker) was randomly chosen for each spatial marker. Random sampling was necessary in order “to be maximally representative of a language or language variety” (McEnery & Wilson, 2001, p. 103).

The selected sets of sentences then were qualitatively analyzed in order to further elaborate and modify the initial analysis. Since relying on the meanings and usages found in dictionaries from the initial analysis was not sufficient, analyzing the corpora in this study became an essential tool to identify all possible senses and to map out both the primary and extended senses. As McEnery and Wilson (2001) state, “a sufficiently large and representative corpus can supplement or refute the lexicographers’ intuitions and provide information which will in the future result in more accurate dictionary entries” (p. 107). Thus, the analysis of the semantics of spatial markers and linguistic construction were studied avoiding describing sentences generated with my own intuition (Mindt, 1991), although some of the example
sentences provided in this dissertation are slightly modified, and shortened when space and length was an issue.
Chapter 3  Korean Spatial Markers

Korean spatial scenes are expressed across three major morphosyntactic elements: spatial particles, spatial nouns, and spatial verbs. This chapter is devoted to providing a cognitive linguistics analysis of the semantic analysis of spatial particles –ey, –eyse, and –ulo. Before proceeding with a report of the actual analysis, this chapter will begin with a brief introduction of the Korean spatial markers followed by a literature review of the studies that dealt with Korean spatial markers.

3.1  Previous Literature on Korean Spatial Markers

Korean has postpositions which are suffixed at the end of the lexical item and cannot occur independently. These postpositions are therefore called suffixes or particles (see Martin, 1992; Sohn, 1999; and Kim-Renaud, 2009 for more description of the language in general). Korean has various particles and these particles are often divided into three sub-categories: 1) case particles (i.e., subject, ergative, possessive markers); 2) discourse particles (i.e., topic markers, delimiters); and 3) conjunctive particles (conjoining either phrases or sentences). Below is an example sentence of each, respectively.

(3.1) a.  

| (3.1) | a.  |  |  |  |
|-------|-----|-----|-----|
|       | nay-ka  | sakwa-lul | mek-ess-ta. |
| I-Sub | apple-Obj | to eat-PT-Dec |

‘I ate (a/the) apple.’
friend-Top orange-also to eat-PT-Dec
‘(My) friend ate (a/the) orange also.’

c. *ttek-ilang kwail-ilang manhi mek-ess-ta.*
rice cake-and fruit-and a lot to eat-PT-Dec
(My) friend ate a lot of rice cake, fruit, and so on.’

Within the class of case particles as in (3.1), there are particles specifying spatial configurations such as location, direction, goal, source, and the like, which is the topic of this study. This class of particles often is referred to as adverbial or locative particles. Since the traditional linguistics approach has regarded these particles as case particles functioning as grammatical morphemes, there has been little analysis of the meaning of these particles themselves. More recently the status of these locative particles has been disputed among Korean linguists as some scholars categorize them as belonging to a more semantic carrying particle class (Song, 2005; Kim-Renaud, 2009) over the syntactic functioning case particles (Martin, 1992; Sohn, 1999). For this reason I prefer the term ‘spatial markers’ instead of calling them ‘locative particles’ or ‘adverbial suffixes’ in order to avoid the confusion of the syntactic versus semantic functions these markers encode.

According to conventional Korean grammar, there are three major spatial markers that indicate spatial relations such as location, direction, goal, and source:

(3.2)  
–*ey*: at/in, to [location, goal]

–*eyshe*: at/in, from [location, source]

–*ulo*: to, toward [direction, path]
This set is further complicated by the fact that there are alternative forms if the TR is animate or inanimate. That is, there are variations of \(-ey\) and \(-eyse\) depending on whether a trajector is a person and/or whether that person needs to be respected. Further, there are more spatial markers that are concerned with time and limitation. The following lists more spatial markers detailing how these Korean spatial markers can be further exemplified according to spatial configuration and semantic meaning.

(3.3)  \(-eykey\) to [animate goal]  
\(-kkey\) to [animate goal] (honorific)  
\(-hanthey\) to [animate goal] (informal)  
\(-kkaci\) up to [ending point of a duration (time)/distance (space)]  
\(-eykeyse\) from [animate source]  
\(-kkeyse\) from [animate source] (honorific)  
\(-hantheyse\) from [animate source] (informal)  
\(-pwuthe\) from [beginning of time duration]  

Even though there are several spatial markers in the Korean language, the present study will focus on the three major spatial markers, namely \(-ey\), \(-eyse\), and \(-ulo\), for the following reasons; i) a consequence of the previous results that attest that a majority of the extensive list of spatial markers that is mentioned above are diachronically derived from \(-ey\), \(-eyse\), and \(-ulo\); and ii) \(-ey\), \(-eyse\), and \(-ulo\) are the most frequently used spatial markers in Korean. Table 3.1 below details how the conventional grammar presents the main meanings of \(-ey\), \(-eyse\), and \(-ulo\).
Table 3.1.

*Types of three major post-nominal spatial markers*

| –ey  | at/in[location-static] to [inanimate goal] | (3.4) a. *pumonim-un cip-ey kyeysi-n-ta.* parents-Top house-ΕΥ to exist (Hon)-Pre-Dec ‘(My) parents are in the house.’ b. *tongsayng-un pangkum cip-ey ka-ss-ta.* younger sibling-Top just house-ΕΥ to go-PT-Dec ‘My brother just went to the house.’ |
| –ulo | toward [direction] through [path] | (3.6) a. *pata-ulo hyanghay-ss-ta.* ocean-ULO to face toward-PT-Dec ‘(I) went toward the ocean.’ b. *thenel-ulo ka-ss-ta.* tunnel-ULO to go-PT-Dec ‘(I) went through the tunnel.’ |

In Table 3.1, it is important to note that all of these spatial markers are listed with two very distinctive meanings that are often identified as major meanings. The first marker –ey has ‘location’ and ‘goal’ senses, the second one –eyse has ‘location’ and ‘source’ senses, and the last marker –ulo has ‘path’ and ‘direction’ senses. As will be discussed in detail in the next section, conventionally these three distinctive senses have been treated as homonyms (that is, the major

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5 –ulo is used when the preceding noun ends in a consonant, but when the preceding syllable ends in a vowel or the consonant “ł”, –u is dropped and just –lo is used. The variant forms of –ulo or –lo are always phonologically predictable. For the sake of convenience, I will use just the –ulo form throughout this dissertation.
meanings are unrelated thus having multiple meanings of one linguistic form is accidental), and often learners are told to just memorize the list.

Also important to note is that there seems to be an interesting set of particles that have similar meanings among the list: both –ey and –eyse have location meaning; and goal –ey and direction –ulo seem to be similar in meaning. Thus these distinctions are confusing for learners of the Korean language and very difficult to master.

Another crucial point to address is that although the two distinct meanings of each spatial marker mentioned above are the main meanings that are discussed in a conventional grammar book, they are not the only meanings these spatial markers display. All of these spatial markers (i.e., –ey, –eyse, and –ulo) are highly polysemous. For example, the online dictionary provided by the National Institute of Korean Language lists 16 meanings of –ey. Because of this complex behavior, as the discussion in the following section will reveal, neither the monosemy nor homonymy account is sufficient to capture the richness of the different uses of these spatial expressions. There are more studies concerning –ey and –eyse than –ey versus –ulo. The following thus will focus on a literature review of the two comparable senses of –ey and –eyse followed by a discussion of the spatial marker–ulo at the end of the section.

Out of the many sets of Korean post-nominal spatial markers, the majority of studies in the literature have focused on explaining the complex semantic phenomenon associated with the spatial markers –ey and –eyse (e.g., Yang, 1973; Sohn, 1986; Song, 1986; K. Lee, 1981; Je. Lee, 2004; Strauss, 2003; Turker, 2005). The spatial markers –ey and –eyse are often presented as the pair ‘to and from.’ In parallel with this translation, the conventional explanation provided in grammar books for Korean learners (e.g., Ihm et al., 2007; You & Cho, 2002; Lee et al., 2000)
states that –ey is used to denote direction ‘to’ while –eyse denotes direction ‘from’ as shown in (3.7a) and (3.7b).

(3.7) a. *ku-ka* *konghang-ey* *ka-ss-ta.*

  he-Sub airport-EY go-PT-Dec

  ‘He went to the airport.’

  b. *ku-ka* *konghang-eyse* *wa-ss-ta.*

  he-Sub airport-EYSE come-PT-Dec

  ‘He came from the airport.’

The conventional grammar explains that –ey is acceptable in a goal-based context, as it is used with the goal-oriented verb *ka-ta* ‘go’ as in sentence (3.7 a), or also with verbs such as *tochakha-ta* ‘arrive’; in contrast when the context has focus on the source as with verbs such as *o-ta* ‘come,’ as shown in sentence (3.7 b), or *chwulpalha-ta* ‘depart,’ only –eyse is acceptable.

Due to this observable correlation between the meaning of the spatial markers and the types (deictic) of the verbs, the conventional view has assumed that the meaning of the spatial markers (whether it is a goal sense or the source sense) results from the meaning of the verbs.

Note that beside the distinction between the goal or source, both –ey and –eyse denote location as well and are also often translated as either ‘in’ or ‘at,’ as shown below.

(3.8) a. *meyli-ka* *cip-ey* *iss-ta.*

  Mary-Sub house-EY exist-Dec

  ‘Mary is in (at) the house.’

  b. *meyli-ka* *cip-eyse* *non-ta.*

  Mary-Sub house-EYSE play-Dec

  ‘Mary plays in (at) the house.’
It is conventionally explained that both are locative particles but –ey is for ‘static location’ while –eyse is used for ‘dynamic location.’ That is, as seen in sentence (3.8 a), –ey is known to be ‘static location’ and it is often used with the verb iss-ta ‘to exist’ which contains a ‘static’ property. On the other hand, as demonstrated in sentence (3.8 b), –eyse is known to refer to a ‘dynamic location’ since it is used only with verbs with a dynamic property, such as non-ta ‘to play.’ As a result, it is said that –ey marks a static location that occurs mostly with stative predicates (e.g., ‘be,’ ‘exist,’ and ‘remain’) while –eyse marks a dynamic location that occurs only with dynamic eventive predicates (e.g., ‘jog,’ ‘fall,’ ‘dance,’ ‘run,’ ‘play’). Table 3.2 summarizes the different usages of these spatial markers according to the conventional account.

Table 3.2.

*Summary of meanings of spatial markers –ey and –eyse*

<table>
<thead>
<tr>
<th>spatial markers</th>
<th>Direction</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>–ey</td>
<td>‘to’: goal</td>
<td>‘in,’ ‘at,’ or ‘on’: static location</td>
</tr>
<tr>
<td>–eyse</td>
<td>‘from’: source</td>
<td>‘in,’ ‘at,’ or ‘on’: dynamic location</td>
</tr>
</tbody>
</table>

However, we can already see that the conventional account is somewhat at variance. The first problem that the conventional account poses is that additional polysemous meanings and other syntactic properties are not addressed at all. Even when, on the rare occasion, they introduce the other meanings of –ey and –eyse, the additional meanings are presented as if they are an arbitrary list that needs to be memorized at best. Secondly, close examination of the two markers shows that the terms ‘static’ and ‘dynamic’ are not very precise. For example, ca-ta ‘to
‘sleep’ and tut-ta ‘to listen’ do not involve movement like other verbs in the dynamic location group (e.g., ‘to eat,’ ‘to walk’), yet the verb ‘to sleep’ or ‘to listen’ are included under the term ‘dynamic.’ Thus, this terminology creates confusion in categorizing these verbs and could mislead the learner’s judgment.

Furthermore, the conventional account that –ey is a stative locative marker whereas –eyse is a dynamic locative marker has many exceptions: –ey can also occur with dynamic verbs (e.g., ‘write,’ ‘turn (on),’ ‘sit’) and similarly –eyse can also occur with stative verbs (e.g., ‘to exist,’ ‘to be gentle,’ ‘to be expensive’) in various contexts. Examples are shown in sentences (3.9 a) and (3.9 b) below.

(3.9) a. *chilphan-ey* _kulim-ul_ _kuli-ta._
    blackboard-**EY** picture-**Obj** to draw- **Dec**
    ‘I draw on the blackboard.’

    b. *ipen hakki-ey-nun* _swuep-i_ **ICC pilting-eyse** _iss-ta._
    this semester-**EY**-Top class-**Sub** ICC building-**EYSE** exist- **Dec**
    ‘A class is in the ICC building this semester.’

The third problem with the conventional account is that there are some ambiguous sentences that can use either –ey or –eyse (e.g., _sal-ta_ ‘to live’) as in sentences (3.10 a) and (3.10 b). According to the conventional account, it is unclear whether to consider the verb _sal-ta_ as a static verb or dynamic verb, since it can take either marker. It is conventionally regarded that a verb such as _sal-ta_ ‘to live’ is an exception that can take either –ey or –eyse.

(3.10) a. *meri-ka* _sewul-ey_ _sa-n-ta._
    Mary-**Sub** Seoul-**EY** to live-Pre-**Dec**
    ‘Mary lives in (at) Seoul.’
b. meri-ka sewul-eyse sa-n-ta.
Mary-Sub Seoul-EYSE live-Pre-Dec
‘Mary lives in (at) Seoul.’

These two sentences are certainly not synonyms, however. Some scholars have proposed that these sentences have slightly different interpretations for Korean speakers since they are used in different contexts, as sentence (3.10 a) implies more static living (existence) while sentence (3.10 b) implies more dynamic living (activity). But what does this mean exactly? It probably means the markers prompt for slightly different construals. However, the conventional account comes up short in explaining how exactly these two sentences differ in meaning. In an attempt to offer better explanations, the three problems that are mentioned so far will be readdressed in the actual analysis section of the present dissertation.

As shown above in the examples from such a conventional account, earlier studies such as by Yang (1973) and Sohn (1986) regarded the property of the verb as the most important factor in deciding the semantic meaning of –ey and –eyse. For example, Yang (1973) argues that the meaning difference between –ey and –eyse is attributable to two-way conditions: first, whether it is in construction with a verb or not; and second, whether the verb is directional or not. According to him, the meaning of –ey and –eyse is interpreted as either inner/outer location or ending/starting location. That is, –ey becomes the inner location when it is in construction with the verb and when that verb is [-directional]; –ey becomes the ending location when it is in construction with the verb but only if that verb is [+directional]; –eyse becomes outer location when it is not in construction with the verb and the verb is [-directional]; and–eyse becomes the

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6 Kim-Renaud (2009) provides a more elaborate explanation on the peculiar pattern with the sal-ta ‘to live’ verb, arguing that the confusion is due to the fact that the verb means two different things; ‘to live to be alive/exist’ and ‘to live as actively living a life.’ Therefore, she argues that when the verb means ‘to be alive/exist’ it goes well with –ey which means ‘a specific point,’ whereas when the verb means ‘to be actively living a life’ it goes well with the –eyse marker which indicates an area (p. 184).
starting location if it is not in construction with the verb and the verb is [+directional]. Despite his insightful observation of the phenomena of –ey and –eyse, his paper was difficult to follow especially with his ± feature theory, of which studies of semantic categorizations in cognitive linguistics have shown to be different from how human beings tend to categorize (Taylor, 2003).

Similarly, Sohn (1986) focuses on the verbs that determine the meaning of –ey and –eyse. For instance, he presents four groups of verbs that –ey can be used with, which he explains are different in degrees along a continuum. The four groups of verbs are 1) locative verbs (‘to go,’ ‘to come’), 2) non-locative verbs (‘to sit,’ ‘to write,’ ‘to ride’), 3) semi-action verbs (‘to live,’ ‘to stay’), and 4) stative verbs (‘to exist,’ ‘to be rare’). Sohn explains that –ey can be used with all four groups and different connotations that we obtain from –ey are due to the properties of these verbs. However, his study puts too much emphasis on verbs and does not offer a satisfactory analysis in capturing the subtle difference in terms of semantic meanings of these markers.

There are some additional studies which attempt to explain the semantic representations of the spatial markers as well. For instance, in addition to the static-dynamic properties of the verb, Song (1986) considers that themes of the TR prompted for by the sentence are also important factors. Although he does not provide specific definitions as to what he means by themes, it could be understood as characteristics of the TR. For example, consider the following examples:

(3.11) a. thom-i pyek-ey kulim-ul ke-n-ta.
Tom-Sub wall-EY picture-Obj to hang-Pres-Dec
‘Tom is hanging a picture on the wall.’ [S. Song, 1986:46]

b. thom-i pyek-ey kulim-ul kuli-n-ta.
Tom-Sub wall-EY picture-Obj to paint-Pres-Dec
‘Tom is painting a picture on the wall.’ [S. Song, 1986:46]
Song argues that location ‘the wall’ for the verb ‘to hang (a picture)’ denotes a finished product whereas location ‘the wall’ for the verb ‘to paint (a picture)’ denotes an unfinished product. Thus, he argues that the finished product can take the goal meaning as in (3.11 a), but the unfinished product (picture) as in (3.11 b) has a location meaning since it cannot take the goal meaning.

While it might be true that the properties of the TR have some consequences on developing a particular spatial scene, I do not think his analysis of finished versus unfinished properties of the TR is relevant in these examples. In fact, both sentences (3.11 a) and (3.11 b) have a goal meaning since the ultimate goal of the actions (i.e., painting, hanging) is aimed toward the target area, which is marked with –ey.

In addition, Ju. Lee (2007) argues that the subject of a sentence should also be taken into consideration when licensing the use of either –ey or –eyse. According to her, –eyse requires the verb to have an eventuality property, which denotes the beginning and the end of an action. In other words, she takes the property of an action verb as having an eventuality property and explains the co-occurrence patterns of eventuality verbs and the spatial marker –eyse. But then, in the case where the marker –eyse is used in the absence of the eventuality verb, she suggests that if the subject, and not just the verb, has an eventuality property (e.g., swuep ‘class,’ which has a beginning and endpoint) then it is still licensed to accompany –eyse. However, her study simply tries to display the co-occurrence of an eventuality verb with –eyse but fails to provide any explanations to why the particular locational meaning of –eyse correlates with eventuality.

As discussed thus far, the general understanding is that there are four distinctions between the –ey and –eyse particles: goal –ey, static location –ey, source –eyse, and dynamic location –eyse, with both spatial markers containing two unrelated meanings each. As shown,
much research has been focused on explaining the meanings of –ey and –eyse from the help of meanings of the verb or the themes of the TR. The general consensus for these questions is that the two different meanings that –ey and –eyse each impose have to be treated as homophonous. For instance, Song’s (1986) analysis says that in the case of –ey, the goal sense and the static location sense are two different entities, and likewise for –eyse, it also has two separate, unrelated meanings, of source and location. Song explains that the two separate senses each of –ey and –eyse thus can be explained as homophones. In fact, when it comes to the issue of primary sense this homophonous account seems to be the most popular view of the studies that are influenced by generative linguistics. In other words, those following a homophony approach argue that there is not one central meaning of –ey; likewise there is no single central meaning for –eyse either. Since they disregard viewing the multiple meanings of –ey and –eyse as a related category, they instead suggest multiple sets of the unrelated one to one form and meaning mappings. For instance, they would acknowledge that–ey has the meaning of ‘goal’ and the same form also has the meaning of ‘static location’ but the two different meanings are not assumed to be related. What is not much discussed in the literature is why both –ey and –eyse have two distinct meanings of direction and location, what their precise relations are to each particle, and how their precise meanings are distinct for each particle.

Contrary to studies with homonymy position, there do exist less popular views on the analysis of –ey and –eyse. One analysis involves polysemy but argues that there are only two (as opposed to four) clear distinctions between these two markers, –ey and –eyse, leaving only one central meaning for each particle. For example, Sohn (1986) asserts a different polysemy account in which he claims there are only two clear distinctions, namely between –ey as ‘goal’ and –eyse as ‘source.’ He provides an analysis based on his interpretation that two distinguished meanings
of –ey (i.e., direction and location) can be understood as just a ‘goal’ sense without having to
distinguish them as two separate senses. With this logic, he argues that the central meaning of
–eyse is a source sense.

In comparison, H. Lee (2000) argues that, although his analysis is based on the notion of
dynamicity that Sohn (1986) uses, the central meaning for –ey is stative and –eyse is dynamic,
and that after analyzing the different meanings of –ey and –eyse, contends that dynamicity such
as ‘static’ and ‘dynamic’ can be accounted for with this distinction. With this view, he explains
that what was viewed as the ‘goal’ sense is construed as no movement once the TR arrives at the
LM; therefore it is assumed to be ‘static.’ Similarly, what was explained as source sense, he
argues, can be assumed that there is activity at the point of origin. Even though I agree with an
attempt to find one central meaning each for –ey and –eyse, I do not agree with his interpretation
of no movement once the TR arrives at the LM. Research in cognitive linguistics has shown that
GOAL is a conceptual endpoint in a relation to the TR orienting the goal (LM), and the end result
of the TR reaching the LM can often give rise to a contact sense (the TR arriving at the LM and
making contact at the end) rather than only the goal sense as H. Lee suggests.

Along a similar vein, Lukoff (1982), in line with the views of Song (1986) and Kim-
Renaud (2009), suggests two different core meaning distinctions between –ey and –eyse as
difference of ‘a point’ and ‘area,’ respectively. The attempt is to explain the primary meaning of
–ey and –eyse as schematic changes. According to their analyses, both –ey and –eyse denote a
location but –ey indicates a specific static point of reference whereas –eyse denotes a domain
where the dynamic action takes place. Kim-Renaud explains that it is only when specific types of
verbs are used that the secondary meaning such as ‘goal’ (with a verb of directional movement
such as ‘to go’) and ‘source’ (with a verb of directional movement such as ‘to come’) occur
Their accounts resemble the monosemy approach in attempting the schematic differences such as point or area in order to explain the primary meaning of –ey and –eyse, but as mentioned in Chapter 2, such an abstract meaning as point or area alone seem unable to explain the wide range of multiple meanings of –ey and –eyse that are found. For example, how would the meaning of the Comparison Sense of –ey (e.g., ku apeci-ey ku atul-i-ta ‘Like a father like a son’) that, under a monosemy approach, is contextually inferred from the meaning of ‘a point’ be explained? Or how would it be possible to explain that the Motivation Sense of –eyse (e.g., komawun maum-eyse tuli-nun malssum-i-pnita. ‘I am saying this from the thankful heart’) is derived pragmatically from the abstract meaning of ‘area’ alone. In addition, the general lack of explanation for their claims makes it hard to see how their interpretations of primary sense came about. Finally, there are a number of other meanings of –ey and –eyse that they do not discuss; again, there is a lack of precise principles of meaning extension provided in these approaches that could systematically account for these extended meanings.

As shown, the analyses of the above mentioned studies (e.g., by Kim-Renaud, Sohn, and H. Lee) have tried to provide one primary meaning that combines the two senses of each marker, but their analyses came out opposite to each other as one chose the ‘location’ meaning as the primary meaning and the other chose the ‘goal’ meaning as the central sense. Thus, so far there is no consensus among the researchers as to which argument would account better and which is the central meaning of –ey and –eyse.

The confusion over what the primary sense or senses are of –ey and –eyse has been carried over to the present by an increasing number of scholars who have started to apply a cognitive linguistics framework and begun to pay attention to cognitive elements of their semantic meaning. The polysemy account asserts that the different meanings of –ey and –eyse
can be accounted for by a systematic set of principles which ultimately explains why we find two (or more) different meanings associated with the same form; in other words, the markers are best understood as polysemous. For example, K. Lee (1981, 1993) was one of the first scholars who explained various polysemous spatial particles such as –ey and –eyse by taking the cognitive linguistics approach. He proposes a schematic or basic definition for each particle and examined its other uses in terms of semantic extension. K. Lee postulates that the basic sense of –ey refers to a static location when used with the stative verb iss-ta ‘to be,’ as exemplified in a sentence such as meri-ka cip-ey iss-ta ‘Mary is in (at) the house.’ In short, he schematically characterizes the meanings of –ey and –eyse by giving a definition in terms of the contrastive relational notions of figure and ground as follows:

–ey denotes that X is related to Y. X (figure) is something that exists or changes its location in relation to Y, which is the base (ground). (1981, p. 62)
–eyse denotes a general background for a situation. (1993, p. 43)

K. Lee’s intuition on the meaning of –ey and –eyse is based on general principles of cognitive linguistics and his discussion of the semantics of spatial markers is focused on the schematic meanings of markers themselves compared to the previous studies. His focus is on finding the primary meanings of –ey and –eyse and their relation to other distinctive meanings by using cognitive linguistics principles rather than merely an arbitrary listing of dictionary meanings.

(3.12) a. emeni-ka naympi-ey/?naympi-eyse pap-ul cic-nun-ta.
   mother-Sub pot-EY rice-Obj cook-Pres-Dec
   ‘Mother cooks rice in the pot.’ [1993: 43]
   mother-Sub kitchen-EYSE rice-Obj cook-Pres-Dec
   ‘Mother cooks a meal in the kitchen.’ [1993: 43]

In the above examples, K. Lee explains that the reason why –ey is used with *naympi* ‘the pot’ in example sentence (3.12 a) above is because ‘the pot’ is a base (ground) for *pap* ‘the rice’ to cook in. Likewise, the reason why sentence (3.12 b) should have –eyse, and not –ey, with *pwuekh* ‘the kitchen’ is because kitchen is a general background for a cooking situation.

K. Lee’s analysis of the above sentences using notions such as ground or setting is very insightful and is in line with Langacker’s discussions of figure and ground (or TR and LM). However, his insight focuses on discussing mainly the difference of construals and does not attempt to build a semantic network for each particle nor offer an explanation for the relations of each meaning as the primary sense and the distinctive, extended senses.

Je. Lee (2004), who also studied –ey and –eyse using the cognitive linguistics approach, in particular following Langacker’s framework, argues that the difference between –ey and –eyse can be explained with the principle of relative prominence. She explains that in sentences (3.16 a) and (3.16 b), although both *naympi-ey* ‘in the pot’ and *pwuekh-eyse* ‘in the kitchen’ denote locative relations to the event ‘cooking,’ the difference is indicated by their roles in the sentence. More specifically, ‘mother’ is the sentential TR, ‘rice’ is the primary LM, ‘pot’ is the secondary LM, and ‘kitchen’ is the general setting or locative background for the cooking action chain. Je. Lee illustrates the relative prominence of the entities as shown in Figure 3.1.
In applying the principle of relative prominence of –ey and –eyse, Je. Lee argues that the concepts of proximity and contact relate to –ey (i.e., the secondary landmark ‘pot’ provides an immediate location for the primary landmark ‘the rice’); at the same time the opposite concepts such as non-proximity, non-contact, and inclusiveness involve –eyse (i.e., the location ‘the kitchen’ is conceptually less immediate for the cooking event than the other location ‘in the pot’). She applies the same principle of prominence to explain the goal sense. That is, she argues that the goal sense of –ey conceptually associates with the notion of ‘proximity’ in the sense that arriving at a location can be conceived as denoting a direct immediate relation between two entities (i.e., TR and LM) in which the TR is near or in contact with the LM. She argues that it is proper to say that the two distinct senses of the polysemous particle –ey, location and goal, are related to each other in terms of the subsuming notion of proximity. The analysis of Je. Lee is in fact a very insightful account for the functional elements such as proximity that –ey conveys and offered a fresh perspective on how to conduct research on Korean spatial markers under a cognitive linguistics framework. However her study remains incomplete, as it is lacking a detailed analysis of all the meanings associated with –ey and –eyse, especially since her analysis was only focused on the primary sense of the two spatial markers. Moreover, her explanations
are based on a limited number of sentence examples and her discussion did not provide enough explanation concerning how to apply Langacker’s framework of Relative Prominence to a spatial scene in general making it difficult to understand how to apply the theory to sentences. For instance, in the example sentence in Figure 3.1, it is not clear why is rice analyzed as the primary LM, rather than a secondary TR that is contained in the pot (LM).

In addition to the problems the literature poses concerning the central meanings of markers –ey and –eyse, there is another significant limitation that previous studies, including the ones based on the polysemous account, have not addressed. It is that a majority of the analyses seen so far have paid very little attention to the wide range of multiple usages of each particle, especially the ones denoting non-spatial senses such as time or abstract relations. It is important to be reminded that all of these spatial markers are highly polysemous. For example, –ey possesses many other meanings in addition to the two (i.e., goal and location) that have heretofore been discussed in this dissertation. As we have seen, most previous analyses have ignored these polysemous aspects and have focused their discussion only on the location and goal/source meanings of –ey and –eyse.

A recent by Turker (2005) acknowledges many more senses of than the four main distinctions of –ey and –eyse and, thus, emphasized the highly polysemous nature of their meanings. Working with the polysemy relation, Turker provides a complex semantic network motivated by a cognitive model. Her study contributes an explanation of motivation for semantic extensions from spatial meanings to non-spatial meanings such as temporal, abstract, and novel senses associated with these two spatial markers, –ey and –eyse. She utilizes Kabata’s (2000) study, which investigates the semantic network of the Japanese particle –ni, which is comparable to Korean –ey. Both Turker (2005) and Kabata (2000) employ Langacker’s network model, a
concept-based model, which Turker argues allows for designation of more than one prototype and the possibility of network growth, decay, and variability among speakers. Through fine-tuned analyses she proposes twelve different distinctive senses of –ey. She also proposes ten distinctive senses of –eyse.

Although Turker’s study is a breakthrough in providing a semantic network with a broad range of meanings, a perspective which is underdeveloped in previous studies, there are some shortcomings that need to be addressed. The first shortcoming is that, similar to the previous studies, she also struggles to provide an adequate explanation for choosing the primary sense –ey and –eyse. She states that although –ey and –eyse show highly polysemous semantic networks, it is impossible to posit a single sense for all usages of the locative expressions. With that, she assigns two proto-senses (goal and location) for –ey and two proto-senses (source and location) for –eyse in which the two primary senses for each marker are equally prominent and salient. In fact, she conducted a corpora study finding out the frequency distribution of semantic senses and her result shows that the goal sense was used most often (23%) over the location sense (18%). She also mentions that “[..] the Proto-Goal Sense is the most predominant sense in the semantic network” (2005, p. 135) connecting with the most number of peripheral senses. At the very least she could have used these two points as her argument in support of the goal sense as the prototype sense, but she did not develop her justification to choose two prototypes senses.

The second problem with her work has to do with the inconsistency that she shows throughout her analysis in terms of methodology. She claims to have followed the Principled Polysemy model (Tyler & Evans, 2003), but her constrained set of distinctive senses creates polysemy fallacy (Sandra, 1998; Tyler & Evans, 2003) by overly emphasizing the contextual information imposed in a particular lexical item and also failing to separate the meaning of the
spatial marker –ey and –eyse from other parts of speech (i.e., verbs). For example, in her analysis she did not separate the sense of motion, which in fact rises from the verbs, from the meanings of –ey and –eyse. More specifically, in the proto-scene of the goal sense that she identified, she presents “Source-Path-Goal schema,” where she argues that the TR moves along a path to reach a specific goal in a certain time span (2005, pp. 100-101). I believe this is an erroneous analysis similar to the case of Lakoff’s analysis of over as discussed in Chapter 2.

Lastly, Turker’s study comes up short in explaining the reasons why she was employing Genetti’s (1992, cited in Turker, 2005) domain model. In line with Kabata (2000), Turker presented four domains, which include the spatial domain, temporal domain, logical domain, and abstract domain. The distinctive senses that she analyzed were categorized into the different domains. She mentions that these domains were used in order to capture the relatedness of distinctive senses; however, the use of domains does not seem to add strength to her analysis. Especially, the distinction between logical domain and abstract domain is arbitrary and it confuses the overall semantic network. More specifically, she identifies seven senses that are derived from the abstract goal sense, of which four belong to the abstract domain (event/activity sense, purpose sense, reason sense, institutional sense), and three (additive sense, instrumental sense, value sense) belong to the logical domain. Even though she suggests that all these seven senses are derived directly from the goal sense, she mentions that the more closely related non-spatial senses should be situated in closer positions to the proto-senses, and thus she places the senses in the abstract domain closer to the spatial domain (where the abstract goal sense belongs) than the senses in the logical domain. However, it is difficult to follow her reasoning on what the distance represents between the proto-scene and the senses in the abstract domain or the senses in the logical domain. If she was following the model of Lakoff’s radial category, she could have
suggested that the senses in the logical domain are peripheral senses in the network perhaps which are not derived from the primary sense but from the other distinctive senses. Based on the limited explanations provided, however, that seems to not be what she is suggesting since she indicates that all of the senses from both the logical domain and the abstract domain are derived directly from the goal sense. Thus, the use of domains is not only inadequate but her explanations also contradict themselves.

As already discussed above, a good deal of research has been done on the semantics of spatial markers and especially on the distinctions of –ey and –eyse. Many studies are inspirational and influenced the present study. Nevertheless there were some limitations as discussed so far. In short, no study has clearly explained yet how and why one marker in Korean which has the same phonological form can denote so many different meanings; and out of these various meanings how the two major meanings, i.e., direction and location, are related to each other or contrast with similar meanings of other markers; and further, in the case where they are closely related, which of the two major meanings should be the primary sense.

As the discussion so far suggests, a majority of the studies consider a strictly synchronic view looking at –ey and –eyse as two different particles with two different semantic functions. However, there is overwhelming historical evidence that suggests a diachronic developmental relation between –ey and –eyse. The idea is that –ey and –eyse are highly linked since –eyse is formed after a single bounded morpheme –se is combined with the existing –ey. An increasing number of studies have documented the grammaticalization that took place from the 15th century (S. Lee, 1976; Ku. Lee, 1981; Suh, 1983; J. Kim, 1992; S. Kim, 1989; Rhee, 1996; Strauss, 1996, 2003, Ku. Lee, 2004; S. Kim, 2004). These studies have shown that a single morpheme –se is a combination of the morpheme isi-ta/sita ‘to exist’ and –e ‘connective.’ On that note, it can be
argued that the spatial distribution of –ey and –eyse is not a matter of dichotomy, but is on a continuum as –eyse is grammaticalized from –ey attaching –se. Thus, this is very important diachronic evidence to consider when constructing the semantic networks and it will provide an important guideline for the present study.

Drawing upon the historical corpus data from the 15th century Ku. Lee (2004) traces the historical developmental path of the –se morpheme from its lexical source (i.e., verb ‘to exist’) in Middle Korean to diverse grammatical markers in modern Korean including –eyse and –uloose. He explains that before the 15th century –ey alone was used for source, goal, static location, and dynamic location, but there was some transitional period when grammaticalized –eyse and existing –ey with source and dynamic location meaning co-existed. In Modern Korean –ey no longer denotes source and dynamic location but only denotes goal and static location.

Rhee (2006) also provides a line of thinking similar to Ku. Lee (2004) as he explains that this type of grammaticalization path is common, especially since –ey carried many meanings and thus later some meanings became derived from its host to relieve the semantic load, the same as has often been observed with grammaticalization processes in other languages (Hopper & Traugott, 1993, cited in Rhee, 2006). S. Kim (2004) also argues that –se was grammaticalized from isie > isye > sye > se and that the usages of –se in contemporary Korean show the meaning of movement (p. 335).

Of important consideration is Strauss (1997, 2003), which is the first study to focus on the identification of the meaning of the –se morpheme. Strauss claims –se carries the meaning of “groundedness” (in her earlier 1997 study, she used the term definiteness), and also functions

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7 Strauss (2003) analyzed not only the –se morpheme in –eyse ‘from (source)/at (location)’ and –eykeyse ‘from (animate source),’ which most of the previous studies have focused on, but also looked at other instances where –se systematically occurs as clausal connectives and argued that this morpheme –se is indeed meaningful and has a function of inclusiveness that links the TR both physically in location or links events on a clausal level.
as inclusiveness, which links entities to other location or events. She explains that the concept of ‘groundedness’ comes from “the physical action of a mobile entity making contact with and becoming connected to some stationary expanse of space” (2003, pp. 376-377). Figure 3.2 illustrates the continuum scale along the line of groundedness that she proposes.

<table>
<thead>
<tr>
<th>GOAL</th>
<th>location w/stative verb</th>
<th>location w/active verb</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>ey</td>
<td>ey</td>
<td>eys</td>
<td>eys</td>
</tr>
<tr>
<td>eykey</td>
<td>–</td>
<td>–</td>
<td>eykeye</td>
</tr>
<tr>
<td>Hanthey</td>
<td>–</td>
<td>–</td>
<td>hantheye</td>
</tr>
<tr>
<td>LOW GROUNDENESS</td>
<td>&gt;&gt; &gt;&gt; &gt;&gt; &gt;&gt; &gt;&gt; &gt;&gt; &gt;&gt;</td>
<td>HIGH GROUNDENESS</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 3.2. Groundedness continuum (from Strauss, 2003, p. 383)*

As shown, the goal sense of –ey demonstrates the lowest groundedness, designating an unachieved location or entity, while the source sense of –eys demonstrates the highest groundedness for being the specified origin of some actions. She explains that in the goal sense of –ey, which she argues to be the primary sense of –ey, the TR and the LM are not semantically linked (unmet goal); but in the source sense of –eys, the TR and the LM are semantically linked because of the semantic role of –se. As Strauss states, her analysis is similar to Sohn (1986), who argues that there is only one continuum scale of goal for –ey and source for –eys as he argues for one underlying meaning of –ey and –eys as goal and source, respectively. The difference between Sohn and Strauss is that while Sohn sees –ey and –eys as just dichotomous indications of two separate concepts, source and goal, Strauss argues for one continuum scale where a varying degree of groundedness shows between –ey and –eys.

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*Note that the definition of groundedness that Strauss uses in her study is different than the notion of grounding or grounded element in Langacker (1987, 1991), which is thought of as presupposing or establishing a coordinated mental reference between the speaker and the hearer (2010, p. 87).*
It is important to acknowledge the fact that Strauss provides a unifying analysis of the meaning of –se, and attempts to explain not just the meaning difference between –ey and –eyse but other grammatical function expressions that also include –se. Further, she points out the important functional element of –se as “inclusiveness” which links the located entity and the subsequent actions. In such a construction, the actor and the actions or events are separated. This notion of inclusiveness offers an important clue that –eyse may prompt for a distal perspective between the TR and LM and as a result allows for seeing the larger scene of the LM. It seems that with her analysis a varying degree of groundedness between –ey and –eyse as in goal sense and source sense is also very plausible. In other words, Strauss argues that –ey’s goal sense is in the realm of IRREALIS as it relates to an unmet goal. This is analogous to English to which has a goal sense and is also used to help mark the future (or an unachieved location or entity) in certain constructions (Langacker, 1987). When –se is present, as in –eyse, the derived particle has the meaning of source, which can imply a previous state in which the TR and LM were in contact. By Strauss’s definition, this past contact allows –eyse to imply REALIS. However, notice that, although Strauss does not mention it specifically, the goal sense of –ey has a meaning of contact as exemplified by sentences such as hakkyo-ey tochakhay-ss-ta ‘(I) arrived to the school’ and nayngcangko mwun-ey sacin-i iss-ta ‘The picture is on the refrigerator door.’ It is unclear how these uses of –ey would be accounted for by Strauss’s analysis of non-contact (or IRREALIS) for –ey. It is important to further note that source scenarios also often suggest a separation between the LM (source entity) and the TR (the product or dislocated entity).

Moreover, following Sohn (1986)’s study, Strauss explains that the location sense of both –ey and –eyse are not their respective primary senses and that they would fall in the middle along the continuum scale of ‘groundedness’ as shown in Figure 3.2 above. However, the definition
she provides leads to confusion in the analysis of the location sense of –ey and –eyse. For example, following Strauss’ s definition of groundedness, it is not clear how the location sense with a stative verb as in tosekwan-ey iss-ta ‘(S/he) is in the library’ would fall in a lower scale of ‘groundedness,’ which is based on the notion of a mobile entity making contact with a stationary entity or expanse of space, than the location sense with an active verb as in tosekwan-eyse kongpuha-n-ta ‘(s/he) studies in the library.’ Her suggestion that the location sense of –ey is in a lower scale of IRREALIS than the location sense of –eyse is also somewhat in the opposite direction from what Ke. Lee (1993) and Je. Lee (2004) present. Recall that both Ke. Lee and Je. Lee offer insight that was inspired from a cognitive linguistics perspective looking at the role of –ey and –eyse suggesting that –ey and –eyse schematically construe different scenes: with –ey being more base or proximate location and –eyse being more background, less relevant location. More specifically, recall that in the following sentence (3.13),

(3.13) emeni-ka puekh-eyse naympi-ey pap-ul cic-nun-ta.
mother-Sub kitchen-EYSE pot-EY rice-Obj to cook-Pres-Dec
‘Mother cooks a meal in the pot in the kitchen.’ [1993: 43]

Ke. Lee explains that –ey is a ground (basis) where figure (TR) either exists or moves and –eyse is a background for a situation (i.e., cooking). Je. Lee explains that –ey as in naympi-ey ‘in the pot’ carries a sense of relevance and therefore is a more proximate location whereas –eyse as in pwuekh-eyse ‘in the kitchen’ is more of a background where the TR is not proximate to the LM. Interestingly, if we follow this definition we would have the meaning of naympi-ey ‘in the pot’ that falls in the lower end of “groundedness” (IRREALIS) whereas we have the meaning of pwuekh-eyse ‘in the kitchen’ that falls in the higher end of “groundedness” (REALIS), which is somewhat unexpected in light of the analyses of Ke. Lee and Je. Lee. This discrepancy points
toward the need for further analysis, especially on the location sense of –ey in order to understand not only between –ey and –eyse but also between –ey and other expressions with –se as well.

Strauss (2003) offers an important analysis revealing that –se exhibits various functions and meanings; the present dissertation will also assume that these particles have a range of meanings and function. However, from the analysis of the studies discussed so far there is still to date a lack of a persuasive explanation how –ey and –eyse are synchronically distinct, which of the senses should be depicted as the primary sense of –ey given that –eyse is derived from –ey, and a full, systematic account of the multiple meanings of each particle. A detailed account of these issues will be discussed further in section 3.2.

Moving the discussion to the third spatial marker –ulo, which is typically translated as English to or through, –ulo has been studied significantly less compared to –ey and –eyse. The marker –ulo also has the counterpart –ulose, which the above mentioned researchers argue is the result of combining –ulo and –se. One of the most comprehensive studies of –ulo is by Ke. Lee (1998). Using a Lakoffian approach, he presents three primary spatial meanings that –ulo conveys: path, intermediate stops, and direction, as in the example sentences below.

(3.14) ku-nun  I-5-ulo  LA-ey   ka-ss-ta.
    he-Top    I-5-ULO     LA-EY   to go-PT-Dec
    ‘He went to LA via 1-5.’ [path]

(3.15) wuli-nun  mence  LA-ulo  ka-se  myechil  iss-ess-ta.
   we-Top  first   LA-ULO  to go-Con  a few days  to stay-PT-Dec
   ‘We first went to LA and stayed there a few days.’ [intermediate stops]

(3.16) ku-nun  hakkyo-ccok-ulo   ttwie-e-ka-ss-ta.
    he-Top   school-direction-ULO    to run-and-go-PT-Dec
    ‘He went running toward the school.’ [direction]
Ke. Lee argues that in the first sentence (3.14), the TR ‘he’ moved along the path (the I-5 freeway) to the goal of a final destination (LA), whereas LA in the second example (3.15) is an intermediate location where the TR stops temporarily before reaching a final destination someplace else. In the last example (3.16), he explains that the LM ‘school’ is marked with \textit{ccok} ‘side’ and it denotes the direction but it does not indicate if the TR reached the goal. If this sentence used spatial marker \textit{–ey} instead, as in \textit{ku-nun hak.kyo-ey ttwie-e-ka-ss-ta} ‘He ran to school,’ then school will be the goal and we can construe the TR reaching the LM ‘school.’

Although there are no schematic diagrams presented, Ke. Lee provides descriptions of an image-schema of path with elements such as source, goal, path, intermediate stops, and a direction and argues that only one element is profiled, whether it is path, intermediate stops, or direction, resulting in a different construal of image-schemas. In his analysis he explains that these path-related spatial meanings are metaphorically extended to denote some abstract meanings. He presents seven distinctive senses: progression, choice, changes, essentials, causes, reason, and procedural goal (1998, pp. 64-69). The following lists each sense along with a corresponding example sentence.

(3.17) \textbf{progression:}
\textit{ku-nun achim cenyek-\textbf{ulo} sswuksswuk khe-ka-n-ta.}
he-Top morning evening-\textbf{ULO} fast to grow-and-go-Pre-Dec
‘He is growing bigger morning to evening.’

(3.18) \textbf{choice:}
\textit{swul-un yakha-n-kes-\textbf{ulo} ma-si-p-si-ta.}
alcohol-Top weak-Mod-thing-\textbf{ULO} drink-Hon-let’s-Dec
‘As for the alcohol drink, let us drink a mild one out of the different kinds.’

(3.19) \textbf{changes:}
\textit{ku-nun ku ciyek-ul nok-citay-\textbf{ulo} mantul-ess-ta.}
he-Top that area-Obj green area-\textbf{ULO} to make-PT-Dec
‘He made the area into a green zone.’
(3.20) essentials:
   a. *ku-nun pihayngki-ulo w-ass-ta.*  
      he-Top airplane-ULO to come-PT-Dec  
      ‘He came by plane.’ [means]

   b. *i sin-un kacwuk-ulo toy-e-i-ss-ta.*  
      this shoe-Top leather-ULO to become-and-PT-Dec  
      ‘This shoe is made of leather.’ [materials]

      I-Top my watch-Obj new-watch-ULO change-PT-Dec  
      ‘I exchanged my watch with a new one.’ [materials]

   d. *kenkangsang-ulo.*  
      health-perspective-ULO  
      ‘From the viewpoint of health.’ [manner]

(3.21) cause:  
   *ku-nun kwalo-ulo pyeng-i na-ss-ta.*  
   he-Top overwork-ULO disease-Sub occur-PT-Dec.  
   ‘Through overwork, he became sick.’

(3.22) reason:  
   *ku-nun sengsilha-m-ulo wuli-nun ku-lul mit-ul swu iss-ta.*  
   he-Top to be sincere-Nom-ULO we-Top he-Obj to trust-capable of- Dec  
   ‘As he is sincere, we can trust him.’

(3.23) procedural goal:  
   *ku-nun tampay-lul kkunh-ki-ulo kyelsim-hay-ss-ta.*  
   he-Top cigarette-Obj to quit-Nom-ULO to decide-PT-Dec  
   ‘He decided to quit smoking.’

Ke. Lee’s analysis of the different senses of –ulo is very thorough and detailed, and contributes much to the studies in this area. The shortcoming of his study, however, is that his analysis stopped at listing different senses and not trying to build the semantic network by explaining the relations between each sense. Also there are some senses that are questionable as to how they became a distinctive sense (e.g., changes and replaceable sense) since they lack an explanation.
Thus far in this section, different approaches and views analyzing Korean spatial markers have been reviewed. From the literature it can be concluded that the meanings of –ey and –eyse are in dispute among many scholars. In fact, there is little agreement on how to treat the two distinct senses (direction versus location) of each spatial marker let alone the relationship between –ey and –eyse, or –ey and –ulo. Overall, there has not been a unitary account that could deal with all the problems posited above with regard to the semantics of all three spatial markers. However, there were some insightful studies that this present study is influenced by. It should be emphasized that those studies (e.g., Ke. Lee, 1981; Je. Lee, 2004) suggest that the spatial markers should be treated as highly polysemous since, for example, –ey is used for static location, goal, instrument, agent in a passive, standard, addition, etc.. As far as extended meanings of –ey, –eyse, and –ulo are concerned, Turker (2005) and Ke. Lee (1998) provide a well-thought-out list of extended meanings of –ey, –eyse, and –ulo accounting for what has traditionally been regarded as unrelated homophonous meanings that are linked together by means of profiling and metaphor. Building on this influential research, my dissertation attempts to deepen the discussion by providing a systemic analysis of semantic meanings that these spatial markers encode.

In the next section, first an analysis of the semantic network will be provided for the spatial marker –ey followed by –eyse and –ulo. By examining three different spatial markers, rather than only one or two markers as the previous studies have done, this study has an advantage to consider how different sets of spatial markers contrast with each other, which in turn provides valuable information to accurately characterize each spatial marker.
3.2 Analysis of semantic networks of spatial marker –ey

3.2.1 Finding the primary sense of –ey

As mentioned in the earlier chapters, this dissertation attempts to present a unitary account of a semantic network of Korean spatial particles under a cognitive linguistics framework using the *Principled Polysemy model* developed by Tyler and Evans (2001a, 2003), which provides a constrained set of principles for determining the primary sense (proto-scene) and mechanisms for distinguishing the distinct, extended senses.

As shown earlier in section 3.1, much previous research has assumed that –ey has both location and goal senses. The closest translation of –ey in these usages would be English prepositions at and to. Roughly speaking, the primary sense of –ey could be either something close to at or to, or more likely something combining the primary senses of at and to. Thus, the proto-scene analysis provided by Tyler and Evans on at and to is going to be summarized below in order to provide the background of the analysis of the English prepositions. However, one should not mistake thinking that English prepositions and Korean spatial markers function the same syntactically when they do not and, even if they do, there is no reason to believe different languages will have developed the same or even similar semantic networks.

The primary sense of the English preposition at has often been described as indicating co-location between the TR and LM, where the location is conceptualized as a one-dimensional point (Tyler & Evans, 2003, pp. 178-179). The primary sense of at is general and vague enough not to specify its contact relations (as English preposition on would) or its boundedness (as English preposition in would). Thus the proto-scene of at could be diagrammed as below:
In this diagram the TR is represented as a small circle and the LM a slightly larger circle. The TR does not have orientation toward the LM and it merely indicates close contact without support.

The preposition to, on the other hand, exhibits a relation of a TR directed toward a highlighted LM, in which the LM is interpreted as a primary target or goal (Tyler & Evans, 2003, p. 148). Tyler and Evans present the proto-scene of to in a diagram as follows:

In this diagram the arrow attached to the shaded sphere of the TR represents the orientation in which the TR is facing with respect to the highlighted LM, which is depicted as a long bar that is bolded. The highlighted LM represents a primary target or a goal. If the LM is not highlighted, it would not be realized as the primary target or a goal but as more of an oblique target. Thus, they identify the functional element of to as a goal of the LM. It is important to note that according to Tyler and Evans, English preposition to only indicates the element of the TR’s orientation (or directionality), so path and movement need to be dealt with as separate elements.
More specifically, they argue that any sense of motion from an utterance containing the preposition *to* is contributed by the verb. Thus, the movement sense as in *John ran to school*, which is derived from the verb, needs to be analyzed as a separate element despite the fact that it has confused many researchers in the past. In addition, Tyler and Evans distinguish trajectory and path as well. They explain that while trajectory is the line of motion that a TR in motion actually follows, path is a component of a small set of prepositions, such as *through*. They explain that although orientation and path conflate often, orientation can be separated since in a sentence such as *The clock tower faces to the east*, only orientation is evident in the semantics of *to* and not the path.

Keeping in mind the analysis of the English prepositions, we now turn to the criteria set out by the *Principled Polysemy model* in finding the primary sense of Korean –*ey*. Recall that scholars who analyzed –*ey* have been debating its primary sense without reaching a satisfactory rationalization and it is important to have such a discussion as to whether either of the two distinctive senses, i.e., ‘location’ or ‘goal,’ will be the primary sense. Committing to the argument by Tyler and Evans that the proto-scene of the primary sense should capture how other distinct senses may have become derived from the primary sense, this dissertation thus makes the case that instead of dealing with ‘location’ and ‘goal’ as two very different senses, it is necessary to identify what is connecting them in order to figure out which derives directly from which.

The analysis suggests that the primary sense of –*ey* is location sense and that the proto-scene of –*ey* is conceptualized as involving a spatial configuration in which the TR is located with respect to a LM, which is construed as an area as exemplified in (3.24).
street-EY people-Sub there is a lot-Dec
[lit. (at/on/in) street, people are abundant.] ‘The street has many people.’

b. namu-ey pilyo-ka philyoha-ta.
tree-EY fertilizer-Sub to be necessary-do-Dec
[lit. (at) tree, fertilizer is necessary.] ‘The tree needs fertilizer.’

In example sentences (3.24 a) and (3.24 b), the LM tends to be construed as an area with extended dimensions, and thus the location of the TR in relation to the LM tends to be less restricted in contrast to conceptualizing the TR as confined inside a container. The following example suggests that the LM in this primary sense is a salient location situated within close proximity to the TR. Note that the sentence suggests that if the LM linguistically implies that it is a vague place and thus not specifically within proximal range, –ey is not acceptable.

(3.25) *ku kapang-i amutey-ey iss-keyss-ci.
that bag-Sub somewhere-EY to exist-Conj-guess
‘That bag must be somewhere.’

If the LM is salient it means it is a highlighted (in focus) location in relation to the TR. It is often the case that when an entity is located in relation to a salient LM, the relationship between the TR and LM is construed as being close enough to influence each other. When the TR is within the sphere of influence, it is conceptualized as being proximal to an area but still within potential contact. As the following examples suggest, –ey often involves physical contact.

(3.26) a. pihayngki-ka incheon konghang-ey chaklyukhay-ss-ta.
airplane-Subj Incheon airport-EY to land-PT-Dec
‘The plane landed at Incheon Airport.’
b. cwucenca-lul kasuleyinci-ey olyye noh-ass-ta.
  kettle-Obj stove-EY to put up on -PT-Dec
  ‘(I) put the kettle up on the stove.’

In the sentences in examples (3.26 a) and (3.26 b), the TR is conceptualized as making physical contact with the LM. The airplane in (3.26 a) is construed as touching a part of the ‘airport’ and similarly the ‘kettle’ in (3.26 b) is construed as being placed on top of the stove with full contact. The verb chaklyukha-ta ‘to land’ or noh-ta ‘put on’ gives movement sense to an end point that is perceived as a goal. As a result of the TR moving to the end point of the LM, it eventually makes contact with the ‘airport’ or the ‘stove.’ Although the co-occurring verb implies eventual contact as well, sentences (3.26 a) and (3.26 b) would not be acceptable without –ey. Neither would it be acceptable with –eyse. The marker –ey then is an essential part of the meaning marking contact besides highlighting the endpoint. Indeed, many languages mark path and endpoint redundantly. For instance, English requires the preposition ‘on’ in the sentence ‘John put the pan on the stove.’ In theory, English speakers could infer that the pan ends up ‘on’ the stove and could articulate the action with a sentence like “John put the pan the stove.” However, this is clearly not an acceptable sentence in English.

Although this contact sense of –ey co-occurs with verbs that imply the notion of contact such as arriving (e.g., tochakhata ‘to arrive,’ chaklyukhata ‘to land’) or verbs that include a path element (e.g., olyye nohta ‘put up on top,’ naylye nohta ‘put down on top’), I claim that the TR’s movement itself and the path are evoked by the co-occurring verb, whereas the notion of contact at the end of the TR’s journey is conceptualized by the marker –ey.

The fact that interpretation of utterances involving location + –ey can involve contact suggests that the functional element of this particular spatial configuration is proximity. Recall
that the functional element reflects the TR and LM’s interaction in a particular spatial configuration. The following sentences show examples of this functional element.

(3.27) a. nayngcangko-ey iss-nun sacin-un nay-ka tasesssal-ctay ccik-un-ke-ta. refrigerator-EY to exist-CL photo-Top I-Sub 5-years-old when to take-PT-Dec ‘The picture that is on the fridge was taken when I was 5 years old.’

b. heyllyum phungsen-i cwumal-tongan chencang-ey maytallye iss-ess-ta. helum ballon-Sub weekend-during ceiling-EY to be put hanging-PT-Dec ‘The helum balloon was hanging on the ceiling during the weekend.’

In (3.27 a), context alone would not be enough to say a photo is stuck on the refrigerator, rather than inside or exist near it. This sense of –ey evokes the sense of attachment. Oftentimes instead of with the iss-ta verb as in (3.27 a) –ey co-occurs with verbs that add manner of contact such as puth-e iss-ta ‘put attached’ if a sense of attachment needs to be emphasized. In (3.27 b), the verb maytally-e iss-ta ‘put hanging’ also further specifies the manner of the contact between the balloon and the ceiling. By the TR being attached as a result of contact with the LM, the LM has control over the TR, so we could also then talk about the light (TR) that is on the ceiling (LM) with –ey as well.

Based on the evidence discussed so far and after considering other various criteria set by Tyler and Evans in a systematic way, as will be discussed more in detail shortly, this dissertation hypothesizes that the proto-scene for –ey designates a relation in which the TR is located in the proximal range of the LM, which is construed as an extended area. The functional element of proximity warrants the potential contact between the TR and LM.
In this representation of the proto-scene of -ey the sphere represents the TR, which is located in a relation to the LM that is depicted as a rounded area that has a container look. The LM is in a proximal distance from the TR and this proximal distance implies the TR is within the LM’s sphere of influence thus imposing a possible interaction between the TR and LM, including the potential of contact between the TR and LM. Thus, the functional element derived from this particular spatial configuration is ‘proximity.’ Since the TR is being conceptualized as being located within the sphere of influence of the LM, this functional element of proximity is delineated as having a dotted line on the left side to indicate the limit of the area that is proximal to the LM. The functional element of proximity also is conceptualized as having the area of interest, which is represented as a dashed line coming from the TR projecting toward the LM and creating a conical area. Also notice that the TR does not have an orientation toward the LM. The TR and LM represent a static relationship that does not involve movement or path either. The vantage point for this spatio-configuration is off stage. This off stage viewing arrangement (typically from the speaker or the listener’s point of view) is a default vantage point.

In the following section, application of each of the five criteria set out by Tyler and Evans will be illustrated more in detail. To determine the proto-scene, Tyler and Evans provided five criteria, which are 1) earliest attested meaning, 2) predominance in the network, 3) relations
to other spatial particles (contrast sets), 4) composite units, and 5) grammatical predictions (predictability of other senses in the network). While considering these 5 criteria, it is important to be reminded that, as Tyler and Evans indicate, it is not that a single criterion alone is important but rather what converges out of the entire body of evidence that matters when deciding which of the senses should be chosen as the primary sense. As will be shown below, these five criteria have become an important tool in adducing the primary sense associated with a semantic network of –ey.

**Earliest attested meaning**

The earliest historical usage of a primary sense has the potential to be good evidence of showing how a semantic meaning was derived. However, such historical evidence that might be able to tell which of the meanings of –ey was used earliest (in particular, whether the location or goal senses was used first) was difficult to locate. The Korean alphabet was invented rather late, during the 15th century, and the earliest existing book that implemented the Korean alphabet (in 1446), observed that –ey had phonological variations of {ay/ey, oyl/uy, yey}⁹ and already contained several meanings (i.e., location, direction, temporal, reason, and comparison). Thus, which of these senses was used first is not apparent in those written records. Despite this circumstance, there is some important information to consider. Ko (1996) notes that the two usages of –ey used around the 15th century in middle Korean,¹⁰ which are found in writings of

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⁹ The variation between -ay/-ey, or -oy/-uy follows the vowel harmony principle, which is a phonological process constraining which vowel (yin/yang, or bright/dark) can follow. The semi vowel 'y' inserted after a vowel to avoid vowel sequences.

¹⁰ Middle Korean (cwungsekykwe) refers to Korean spoken from the 10th to 16th centuries, or from the era of Goryeo to the middle of the Joseon Dynasty.
Buddhist doctrine and *Hwunmincengum Haylyeypyon*,¹¹ are 1) the landing location and 2) reference point. As expected from the previous research (e.g., Rhee, 1996; Strauss, 1997), and mentioned earlier in section 3.1, –eyse has been derived from –ey. –eyse most likely followed the grammaticalization path combining –se (which is a combination of the verb si ‘exist’ plus e ‘clause connective’) to –ey (i.e., –ey + –si ‘exist’ + –e ‘connective’ → –eyse). Ko (1987) shows the early examples of –eyse used in *sekposangcel*¹² in 1447. Ku. Lee (2004) also presents data from *Welin sekpo*,¹³ published in 1459, suggesting that –ey in those times was used interchangeably with the meanings that –eyse carries in Modern Korean so there is a possibility that –se was in the early process of grammaticalization at that time. –eyse is not found in written literature frequently until much later, during the 17th century. For example, in 1898, the Korean daily *toklipsinmwun* ‘Independent Newspaper’ illustrated many usages of –eyse used with the name of the city or country as in *syewulsye ‘Seoul-EYSE,’ ilponsye ‘Japan-EYSE,’ mikwuksye ‘U.S.-EYSE.’¹⁴

Importantly, without the direct evidence from history pinpointing the earliest attested meaning of –ey, the earliest evidence of the usage of the spatial marker is only inferred from the data which were produced before the Korean alphabet was created. These data are written texts of an archaic writing system called *itwu*, which was developed during the Three Kingdoms period of Korea (AD 57). *Itwu* script is a mixture of Chinese characters written for their meaning and Chinese characters written for their sound to mimic Korean pronunciation. According to the analysis of the *itwu* script, S. Kim (2006) explains that many Korean grammatical markers were

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¹¹ *Hwunmincengum Haylyeypyon* is a manuscript published in 1446 that explains the invention of the Korean alphabet system and describes in detail its proper usage.
¹² *Sekposangcel* [Episodes from the Life of Buddha], was published in 1447.
¹³ *Welin sekpo* [Buddha’s genealogy], published in 1459, is a collection of two books on Gautama Buddha, one written by King Sejong and one by his son King Sejo.
¹⁴ [http://gonews.kinds.or.kr/OLD_NEWS_IMG3/DLD/DLD18980210u00_03.pdf](http://gonews.kinds.or.kr/OLD_NEWS_IMG3/DLD/DLD18980210u00_03.pdf)
written with the special symbols representing Korean sounds with Chinese characters. In particular, S. Kim argues that the etymology of the spatial marker –ey begins with the character written as 中 (or sometimes written as 良中), read as two syllable a-uy. S. Kim speculates that 良 was often used together to indicate that 中 was used as the location marker in the itwu system rather than being used as the original Chinese letter for its meaning. He argues that the original meaning of a-uy is ‘middle (of the space)’ or ‘inside.’ This is an important piece of information constructing the proto-scene of –ey as the location or an area sense because the diachronically earliest meaning is often useful in determining the primary sense from which the other senses are derived.

**Predominance in the semantic network**

The second criterion is concerned with finding the majority of the network’s distinct senses. This criterion does not rely on the definitions provided by a dictionary for testing since a spatial particle’s distinct senses are not the meanings listed in a dictionary as Tyler and Evans (2003) point out. They found that the dictionary listed what they considered to be one meaning as two or three different meanings, or conversely, there were a number of meanings they did not list. Consequently when attempting to apply this criterion some preliminary analysis implementing one proto-scene to determine how a number of the meanings are related is necessary.

Assuming that the ‘location/area’ sense, as described above, is the primary sense for –ey and involves a spatial configuration in which the TR is oriented toward the LM, a majority of the other senses such as goal (Destination Sense), contact, and containment can then be seen as
related to the primary sense. That is, the major clusters of senses that were identified with –ey
(i.e., Goal Cluster and Containment Cluster) can be linked as follows: as the TR is oriented
toward the highlighted LM, the LM becomes an immediate ‘goal’ (Destination Sense). Through
human experience with the world, the TR is also conceptualized as further proceeding and
ending up inside of the LM to be inside the containment (Containment Sense). This point will be
more clearly explained in section 3.2.2, which discusses each of the extended senses.  

**Composite forms**

In the case of Korean spatial marker –ey, along with the ones already listed in section 3.1
such as –eykey ‘(animate) to’ and –eyse ‘at,’ many other composite forms of –ey exist as shown
below:

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15 Although different from frequency in the semantic network, there is some interesting empirical corpus study data
that relate the frequency in the corpus. Turker (2005) provided valuable study results in which she counted the
frequency of spatial markers. Frequency in the corpus does not guarantee dominance in the semantic network, nor
does it warrant the primary sense; however, it is an interesting piece of information to note. Turker analyzed the
frequency count of 12 senses she identified and found that ‘goal’ sense was used most often (23%) followed by
location sense (18%). This result is somewhat at odds with the primary sense that I proposed based on the “earliest
attested meaning” criterion. There might be two explanations for this. One is that over the course of the particle’s
use, the original meaning of –ey diachronically may have shifted significantly and played a less important role in the
current usage synchronically than the goal meaning. Another might be that the data used in Turker’s study were not
representative of general use. Given that the ‘goal’ sense (23%) and the location sense (18%) only differed by 5% it
might be just the case that both senses are highly frequent compared to other senses and that the relatively small
difference between the frequencies of these two senses is not particularly meaningful.

Interestingly, Kabata (2000) also reported results from a frequency analysis of Japanese –ni, which is
closely related to –ey. When Kabata counted the different senses from six types of written texts, and two spoken
texts, she found goal sense was used more than location sense when all were totaled. However, she also found the
effects of text type influencing the results as she found location sense was used more often than goal sense (she used
‘allative’ for this sense) in spoken text (11% vs. 9%) while goal sense was used more often than location in written
text (12.5% vs. 15.5%). Given the fact that breaking up the data into different text types resulted in Kabata having a
different result, it is possible that Turker might have seen different results had she considered different data sources
or divided the text sources.
Table 3.3.

List of composite forms of –ey (modified from Kim-Renaud, 2009)

<table>
<thead>
<tr>
<th>Composite Form</th>
<th>Meaning</th>
</tr>
</thead>
<tbody>
<tr>
<td>–ey iss-e-se</td>
<td>‘concerning’ (morpheme iss– ‘exist’)</td>
</tr>
<tr>
<td>–ey kwanha-ye</td>
<td>‘regarding/about’ (Sino-Korean morpheme kwan– ‘relevance’)</td>
</tr>
<tr>
<td>–ey tayha-ye</td>
<td>‘concerning/about’ (Sino-Korean morpheme tay ‘facing’)</td>
</tr>
<tr>
<td>–ey uyha-ye</td>
<td>‘according to’ (Sino-Korean morpheme uy ‘leaning’)</td>
</tr>
<tr>
<td>–ey ttal-a</td>
<td>‘according to’ (morpheme ttal ‘following’)</td>
</tr>
<tr>
<td>–ey piha-ye</td>
<td>‘compare to’ (Sino-Korean morpheme pi ‘comparing’)</td>
</tr>
<tr>
<td>–ey pwulkwuha-ko</td>
<td>‘despite’ (Sino-Korean morpheme pwulgwu ‘not being caught’)</td>
</tr>
<tr>
<td>–ttaemun-ey</td>
<td>‘because’ (morpheme ttaemun ‘reason’)</td>
</tr>
</tbody>
</table>

Following this criterion, the meanings of the composite forms and their relation to the senses of –ey were examined. Some words are used relatively productively in making new word forms but the composite forms related to –ey seem to be more fixed constructions. According to the current analysis, it seems that both the location (area) sense and the goal (destination) sense have compositional sets. For example, –ey iss-e-se ‘concerning,’ –ey kwanha-ye ‘regarding/about,’ and –ey tayha-ye ‘concerning/about’ is derived from the location sense, while –ey uyha-ye ‘according to’ and –ey ttala ‘according to’ is derived from the goal sense. If that is the case, this criterion also does not give direct evidence to pick the primary sense; however, as stated, Tyler and Evans suggest that participation in composite forms cannot directly determine the primary sense, but rather it suggests that the absence of a membership in composite forms can be an indicator that the sense is probably not the the primary sense.
Grammatical predictions

According to Tyler and Evans (2003) the criteria above assume that a number of senses should be directly derivable from the primary sense. In that case, the distinctive senses that are directly derived from the primary sense would be traceable. In instances where the distinctive senses were not derived directly from the primary sense, then it should be traceable to another sense that was derived from the primary sense. These criteria are tied to the hypothesis of the Principled Polysemy model that new meanings become derived from contextualized use, which eventually becomes entrenched through pragmatic strengthening. According to the analysis that will be discussed in the next section, the location/area sense seemed to persuasively explain the derived senses. This criterion is an important tool for mapping out the traceability of the entire network as the analysis in the next section will show.

Relation with other prepositions

Evidence of the relation of –ey with other prepositions comes from checking the existence of clusters of spatial markers forming compositional sets to understand how the spatial dimension is divided. In the case of English, the prepositions above, over, under, and below form a compositional set. In Korean, –ey, –eyse, and –ulo form a compositional set. For example, location –ey and location –eyse sometimes appear as synonyms, while goal –ey and source –eyse appear to be opposites. The primary sense of the location/area sense of –ey that I propose does create a contrast with the location/area sense of –eyse, but so does the goal sense as will be seen with the source –eyse and –ulo examples below. This criterion only gives partial support to the primary sense that I propose yet it is very important to consider, so teasing out the subtle
difference between location –ey and location –eyse and providing an adequate semantic representation is especially an important task.

The goal sense of –ey also most clearly contrasts with –eyse that expresses locations that denotes starting point or the source. When looking at sentences with the goal sense of –ey and the source sense of –eyse, at first, it seems as though the type of verb that occurs with the goal sense of –ey and the source sense of –eyse gives rise to these senses. That is, the goal sense of –ey is used mostly with goal highlighting verbs such as ka-ta ‘go,’ tochakha-ta ‘arrive,’ totalhata ‘reach,’ and ppaci-ta ‘fall in,’ while the source sense of –eyse is used with source highlighting verbs such as nao-ta ‘come out’ and chwulpalha-ta ‘depart.’ However, consider the following two sets of sentences in (3.28) and (3.29), which illustrate how the goal sense has its counterpart denoting the source sense when the same verb is present by creating a minimal set.

(3.28) a. namwu–ey  ttel-eci-ta.
    tree–EY    fall-become-Dec
    ‘(It) falls to the tree.’

b. namwu–eyse  ttel-eci-ta.
    tree-EYSE  fall-become-Dec
    ‘(It) falls from the tree.’

(3.29) a. hakkyo–ey  ka-ta.
    school–EY  go-Dec
    ‘(I) go to school.’

b. hakkyo–eyse  ka-ta.
    school–EYSE  go-Dec
    ‘(I) go (somewhere) from school.’
As can be seen in Figure 3.6 above, –eyse is used to denote the beginning phase of a journey (the TR begins, starts, departs the LM) while –ey is used to relate to the end phase of a journey (the TR reaches, arrives at the LM). Thus –ey and –eyse form a contrast set, which bisects the spatial dimension into two contrasting subspaces depending on the orientation of the TR (either toward the LM or away from the LM). That is, in the goal [destination] sense of –ey, the TR is oriented toward the highlighted LM, which indicates the end point of the motion. The end point of intentional motion often but not always includes contact between the TR and LM. This suggests that –ey prompts for a meaning of promixity which includes potential contact. In contrast, in the source –eyse sense, –eyse prompts for a scene in which the TR moves away from the source. Thus the TR is oriented away from the highlighted LM. This is a scene that involves separation of the TR from the LM, thus prompting for the interpretation of distance between the TR and the LM. A more detailed analysis of the Destination Sense of –ey (including a discussion of the LM that is conceptualized as highlighted immediate goal) will be discussed below in section 3.2.2.

As goal sense –ey is used as a contrast set with source sense of –eyse, in many cases –ey also makes a compositional set with –ulo as well. When –ey is used, the LM is highlighted and gives rise to the meaning of goal which is reachable and within its influence. However, it seems...
that when –uko is used, the LM specifies an orientation but the goal is not the focus as seen with sentences such as in (3.30).

(3.30) a. tosekwan-ey ka-ss-ta
    library-EY go-PT-Dec
    ‘(He) went to the library.’

    b. tosekwan-uko ka-ss-ta.
    library-ULO go-PT-Dec
    ‘He went toward the library.’

The correct interpretation of (3.30 a) is that the TR is directed with respect to the LM (library) and as a consequence, the LM constitutes the TR’s goal. If the TR did not necessarily wish to go into the library and do business, then sentence (3.30 b) is used, which only indicates the direction of the TR, while not highlighting the LM. In other words, LM is a reference to the general direction of where the TR is oriented, but not the focus. It does not say anything about the TR reaching the LM (library). So far the five criteria in determining the primary sense were reviewed\(^\text{16}\)

\(^{16}\) Besides the five criteria Tyler and Evans laid out, there is also interesting information from child language acquisition that could also be considered for establishing a primary sense. However, since results from child language acquisition do not always match with the primary sense of adults, this information should therefore be considered cautiously (Tyler & Evans, 2003). Choi (1990) reported on a qualitatively analyzed study of 5 children aged from 1:8 to 4:0. She reported that out of several spatial markers, –ey (inanimate goal and location) was acquired first, followed by –eyta (inanimate goal and location with transitive verb-colloquial), –eyse (source, dynamic location), and –hanthey (animate goal). When –ey was used, it was the goal sense that was used first. For Japanese child language acquisition, Kabata (2000) studied child speech by analyzing a child named Aki’s naturally occurring speech from the Aki Corpus (from the CHILDS database) and reported that the first occurrence of Japanese particle –ni was measured when he was 2:4.4 where it was used in an allative sense with the verb ‘go.’ When frequencies of each sense of –ni were determined by combining all the raw numbers used from when Aki was 1:5.7 through 3:0.0 it was found that allative was used most frequently (22.2\%) followed by location (18.8\%) coinciding with Choi’s findings on Korean.

The results from both Japanese and Korean child language acquisition data contradict with the primary sense for –ey in Korean that this paper proposes. However, it has been attested that children do not always acquire the primary sense first (Tyler & Evans, 2003) and that children are more likely to learn what is more salient (a moving object rather than a stationary object, for example) and what they frequently heard (Goldberg, 2005). Since
3.2.2 Finding extended meanings of –ey

The above section was devoted to identifying distinct senses of –ey. The primary sense of –ey was identified as the TR located within the interest zone of the LM and the functional element that arises in that relation was identified as proximity. Note that –ey also exhibits various other meanings other than the primary sense. Following the principles of cognitive linguistics, those various meanings of –ey are not regarded as homonyms that just happen to have the same form but rather as systematically related extended senses of –ey. This section is devoted to identifying which are the distinct senses of –ey. In order to determine the distinct senses, two principles proposed by Tyler and Evans (2003) were implemented: first, for a sense to be distinct, it must add additional meaning not apparent with any other sense associated with the spatial particle; and second, at least some of its instantiations cannot be derived from context (pp. 42-43). Both of these criteria must hold true for a usage to be counted as a distinct sense. If the senses do not meet these conditions, they should not be considered as distinctive senses.

Following the principles deciding distinctive senses, ten distinct senses of –ey were identified and broadly divided into four clusters: 1) the Goal Sense Cluster which denotes a proximate relation in which the TR is located toward the LM; 2) the Contact Sense Cluster which involves physical contact between the TR and LM; 3) the Container Schema Cluster in which stative location is construed as the TR being contained by the LM; and 4) the Locational Cluster, where the TR is situated in a proximate relation to the secondary LM but where the TR is not proximate nor does it constitute contact or containment to the first LM. The entire semantic network of –ey is diagrammed below.

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*goal sense is used more often in both Japanese and Korean, it may be the case that children just react to this frequency effect.*
Figure 3.7. The semantic network of –ey
As shown in the diagram in Figure 3.7, the primary sense is denoted by a proto-scene, while the clusters of senses are marked by an open circle and the distinct senses by small black circles in accordance with diagrams from Tyler and Evans, whose methodology suggests that these extended senses grow out of naturally occurring observations that human beings have of the TR and LM in a particular relationship. The extended senses can be systematically derived from the proto-scene. In the proto-scene of –ey the TR is oriented toward the LM, which is proximal to the TR. Therefore there is a sense of interaction between the TR and LM. The natural outcome of this particular configuration of the proto-scene is to develop the Goal Sense. It is because in the natural experience of human beings, if they are oriented toward the LM, they often perceive the LM as a goal or destination. One of the most natural things for a human being to do when they see a goal is to move toward the LM and when they move close enough toward the LM, there is going to be contact. If the LM is not just a point but perceived as a container, the TR will end up inside of the LM thus creating a Containment Sense Cluster as can be observed in the network.

Mapping out a semantic network is an important process when studying the semantics of spatial markers. A semantic network shows what distinctive senses are historically and experientially derived from the primary sense and shows how each sense is related and connected. The semantic map presented here however does not suggest that the native speakers of Korean have the knowledge of categorization of different senses or the mental representation of their cognitive process of identifying different meanings. This semantic map also does not suggest the order of acquisition among children (for example, whether the primary sense is learned first and the extended senses are learned later) as when it comes to child language acquisition the literature has suggested that frequency is the most important predictor. The next
section will discuss each distinctive sense of –ey that the current analysis identified with an explanation on how the different senses rose from the primary sense making conceptual linkage between the derived senses.

**Goal Cluster**

The first cluster is Goal Cluster. There are five distinctive senses identified belonging to the Goal Cluster: Destination Sense, Purpose Sense, Cause Sense, Instrumental Sense, and Passive Sense. The Goal Cluster arose from the experiential correlation that the proximity location of the TR and LM of the proto-scene gives rise to a new set of senses that relate to realization of the LM as an immediate goal. In real life, it is often the case that when an object is located within reach, we move toward the object for the purpose of obtaining it. In the following, each cluster of distinctive senses will be introduced along with subsenses derived from those clusters.

**Destination Sense**

*Figure 3.8. Destination Sense*
The first distinctive sense identified in the Goal Sense Cluster is the Destination Sense. Destination Sense denotes a relation in which the TR is oriented (marked with a short nose-like triangle in Figure 3.8) in proximity with respect to the profiled LM. Notice that the TR in this sense does have an orientation toward the LM. The first criterion for establishing a distinctive sense assumes that the spatial configuration between the TR and LM is a different one from the proto-scene and other senses. The fact that the TR is construed as being oriented toward the LM is important information that makes the Destination Sense different from the proto-scene.

In contrast, the LM is still highlighted as it was in the proto-scene. The highlighted aspect of the LM is also linguistically coded as observed in the following sentence which is only marginally acceptable:

(3.31) a. ?amutey-ey ttena-ca.
    anywhere-EY leave-let’s

    b. ?enutey-ey ttena-ca.
    somewhere-EY leave-let’s

The strangeness of (3.31 a) and (3.31 b) appears to be the mismatch in semantics between the vague LM ‘somewhere/anywhere’ and the more specific meaning of destination associated with –ey. In comparison, native speakers will find sentences (3.32 a) and (3.32 b) with –ulo more acceptable. I believe this is because –ulo, although oriented toward the LM, denotes the vagueness of the LM.

(3.32) a. amutey-ulo ttena-ca.
    anywhere-ULO to leave-let’s
    ‘Let’s leave to(ward) anywhere.’
b. *enutey-ulo-tunci ttēna-ca.*
   somewhere-ULO-whether to leave-let's
   ‘Let’s leave to(ward) wherever.’

The consequence of having the oriented TR and a highlighted LM is that the highlighted LM is realized as a destination that is an immediate goal that the TR can reach. This sense still carries the functional element of proximity shown in the proto-scene and designates a relation as such. The overall interpretation of Destination Sense derives from this particular TR-LM configuration and the functional element of proximity.

However, it is important to note that the proto-scene of –ey does not indicate path or motion. Recall that in the *Principled Polysemy model*, extracting out information that is filled from context is a very important step in finding out the primary sense in order to correctly characterize it as the semantic representation of the lexical form alone. For example, in the sentence, *The cat jumped over the wall*, just because we conceptualize the cat undergoing motion from one side of the wall to the other, it does not mean that the sense of motion is inherently coded in the preposition *over*. It is rather that the verb suggests for us to interpret it as motion sense (2003, p. 56). Tyler and Evans note that it is not surprising to find previous analyses which have conflated these distinct notions and associated path with the primary sense of the English preposition *to*.

This same principle was applied to Korean –ey. When discussing the Destination Sense of –ey, I claim that –ey does not have a path or movement element as part of its base meaning, but this does not mean that –ey cannot participate in utterances in which a movement reading derives. The functional notion of goal is derived from the fact that a consequence of the TR being oriented with respect to a highlighted LM is that in most cases the LM constitutes an objective or goal, which motivated orientation in the first place. The notion of trajectory and
motion thus is the result of conceptual integration given that we are typically oriented with respect to our goal when we undergo motion along a path towards our goal. The most typical Destination Sense of –ey assumes that motion is involved as in (3.33).

(3.33) a. cikum san-ey ka-n-ta.  
now mountain-EY go-Pres-Dec  
‘(I) am going to the mountain now.’

b. mayil hakkyo-ey on-n-ta.  
everyday school-EY to come-Pre-Dec  
‘(I) come to school every day.’

c. tongsayng-un pangkum cip-ey ka-ss-ta.  
brather-Top just home-EY to go-PT-Dec  
‘My brother just went home.’

d. cikum san ponguli -ey olu-ko iss-ta.  
now mountain peak-EY to go up-Prog-Dec  
‘(I) am going up to the mountain peak now.’

As seen in the examples in (3.33), the interpretation of locomotion is derived from the verb ka-ta ‘to go,’ and the TR is conceptualized as oriented toward the destination. It is the case that locomotive verbs are almost always used in Korean when the Destination Sense is used. This analysis that the sense of motion comes from the verb was made consistent with the examination offered by Tyler and Evans.

The Destination Sense can denote not just physical destination in space but also abstract goal through metaphorical extension. For example, sentence (3.34 a) and (3.34 b) specify that the LM is a goal, which draws on the conduit metaphor where the meanings are understood as traveling across to the experiencer or the experiencer is expected to understand the content upon reception.
(3.34) a. *cip-ey cenhwa-lul kel-ess-ta.*
   house-EY telephone to call-PT-Dec
   ‘(I) called home’

   b. *ku noin-un se-ccok-ey kwi-lul kiwuli-ko iss-ess-ta.*
   that old man-Top west-EY ear-Obj to pay attention-Prog-PT-Dec
   ‘That old man focused his ear to the west.’

The following examples illustrate where the LM is conceptualized as a more abstract location through metaphors. While (3.35 a) and (3.35 b) refer to a metaphorical place (i.e., ‘institution’ and ‘Ph.D. degree,’ respectively), the LM in (3.35 c) is an event as seen below. The LM could also be a benefactor/recipient as in (3.35 d) as well.\(^{17}\)

(3.35) a. *coh-un tayhakkyo-ey iphakhay-ss-ta.*
   good-modifier university-EY to admit-PT-Dec
   ‘(S/he) was admitted to a good university (institution).’

   b. *kunun paksahak.wi-ey tochenhako issta.*
   he-Top Ph.D. degree-EY to challenge-Prog-Dec
   ‘He is challenging (himself) to the Ph.D. degree (abstract goal).’

   every year ritual service-EY to attend-able-not-PT-Dec
   ‘Every year (I) couldn’t attend to the ritual service.’ (Event)

   d. *namu-ey pilyo-lul cwu-ess-ta.*
   tree-EY fertilizer-Obj to give-PT-Dec
   ‘(Someone) gave fertilizer to the trees.’ (Benefactor/recipient)

\(^{17}\) Note that the spatial marker –ey is only used with an inanimate benefactor/recipient such as a tree in (3.37 d) but in the case where it is animate, other forms (–hanthey or –kkey) will be used. This dissertation does not include a discussion of spatial markers denoting animate benefactor/recipient, but in the literature they are believed to be derived from –ey (e.g., Rhee, 2006; S. Kim, 2004).
Purpose Sense

Figure 3.9. Purpose Sense

When humans move toward a destination, it is often in order to achieve a purpose. Thus it is not surprising that –ey, with its highlighted LM and Destination Sense, has developed a Purpose Sense. Some examples of the Purpose Sense are shown in sentences (3.36 a) through (3.36 c). The LMs of the example sentences (i.e., ‘body,’ ‘cold,’ ‘accident prevention’) are conceptualized as purposes that the TRs seek, or a reason for carrying out an action.

(3.36) a. peses-i mom-ey coh-a yo.
muchroom-Subj body-EY to be good-Dec (Pol)
‘Mushrooms are good for the body.’

b. i yak-i kamki-ey cal tut-nun-ta.
this medicine-Sub cold-EY well to listen-Pres-Dec
‘This medicine reacts well for/to the cold.’

c. ancen peylthu-ka sako yeypang-ey towum-i toy-n-ta.
seat belt-Top accident prevention-EY to help-Sub to become-Pres-Dec
‘The seat belt is helpful for accident prevention.’

In (3.36 a) and (3.36 b), the TR ‘mushrooms’ and ‘this medicine’ are being discussed as a good idea for consumption for having a healthy body or for the purpose of treating a cold. In (3.36 c), ‘wearing a seatbelt’ is a reason for preventing an accident. Notice that once the LM is reconceptualized as the purpose for the TR’s actions this sense has become entrenched in the
network. The difference between the Destination Sense and the Purpose Sense is that the orientation of the TR that was inherited in the Destination Sense has dropped away in the Purpose Sense. As shown in the diagram above, the TR is depicted as a shaded sphere without the nose-like triangle illustrating the orientation that the TR is facing. Instead, the TR is depicted as being surrounded by an outer circle in order to indicate that the TR is motivated and the big solid line arrow is placed between the TR and LM to show the influence affected toward the LM.

*Cause Sense*

![Diagram of Cause Sense](image)

*Figure 3.10. Cause Sense*

→*ey can be extended to non-spatial usages such as cause (reason). Metaphorical extension is often possible due to experiential correlation. It might seem that the Cause Sense would be related to the source (of an action or event) but a correct interpretation of a Cause Sense would be that a motivating reason for some event is influenced and realized at the end of the event (thus closely related to the Destination Sense). As shown in the diagram, the event (LM) undergoes a change after having been influenced by the TR, which is depicted as a shaded sphere surrounded by the dotted line, the same as in the Purpose Sense. The difference between the Purpose Sense and the Cause Sense will be that of intention: i.e., intention for influencing is there in the Purpose Sense but not in the Cause Sense. In order to illustrate these differences of intention, the long arrow showing the influence of the TR over the LM is shown with a dotted line in the Cause
Sense whereas the arrow is bolded in the Purpose Sense. The sentences in examples (3.37 a) through (3.37 d) exemplify this usage, where the causer TR causes the LM, not intentionally with a purpose but rather accidentally.

    horse-Sub (car) noise-EY to surprise-PT-Dec
    ‘The horse became surprised due to the [motorcar] noise.’

b. *palam-ey kkoch-i ci-ta.*
    wind-EY flower-Sub wither-Dec
    ‘The flower died because of the wind.’

c. *ku-nun yolhan soli-ey cam-ul kkay-ss-ta.*
    he-Top loud sound-EY sleep-Obj to wake-PT-Dec
    ‘He woke up because of the loud sound.’

d. *ku-nun chongal-ey mac-a-cwuk-uss-ta.*
    he-Top gun bullet-EY to hit and die-PT-Dec
    ‘(He) died due to a bullet.’

*Instrumental Sense*

The next distinctive sense identified in the Goal Cluster is the Instrumental Sense. The Instrumental Sense has a very similar meaning when compared to the Cause Sense. The only difference is the object influencing the change of event is construed as an instrument rather than a random object. In the following sentences (3.38) the ‘sunshine’ and ‘lamp’ served as an instrument that made ‘drying clothes’ and ‘being able to read writings’ possible.

    we-Top sunshine-EY clothes-Obj to dry-PT-Dec
    ‘We dried the clothes in the sun.’
b. yeycen-ey-nun tungcanul-ey kul-ul ilk-ess-ta.
   before-EY-Top lamp-EY writings-Obj to read-PT-Dec
   ‘A long time ago, (people) read writings with a lamp.’

Passive Sense

Figure 3.11. Passive Sense

The next distinct sense of –ey is the Passive Sense. The passive construction indicates a change in construal of the event being described. In English, while active construction (e.g., The car hit the cat) places focus on the agent (i.e., the car), the passive construction (e.g., The cat was hit by the car) places focus on the patient/undergoer (e.g., the cat), Indeed, oftentimes the agent’s identity can be left out entirely and may be unknown. The two different constructions thus provide different ways to view the focal point of the event. Speakers choose between the two constructions in order to shape the listener’s understanding of what entity is in focus. This passive sense is in a construction of LM –ey and the verb containing the passive suffix as shown in (3.39 a) which is compared to the active sentence in (3.39 b).

cat-Sub car-EY to hit-Pass-PT-Dec
   ‘The cat was hit by the car.’

b. cha-ka koyangi-lul chi-ess-ta.
car-Sub cat-Obj to hit-PT-Dec
   ‘The car hit the cat.’
In an active construction (3.39 b), the subject a ‘car’ is an agent and the energy source; the energy flows from the agent to the affected entity (‘a cat’) (Langacker 1987). The agent (car) is in topic position. Notice that in the active construction, the ‘cat’ is marked with the object marker. In comparison, in the passive construction in (3.39 a) the agent, a ‘car,’ is not a subject anymore and the focus on its role as the energy source is de-emphasized. The changing construal of the scene, with the ‘cat’ in subject position, allows the speaker to shift attention to the cat. While the passive agent ‘car’ is still understood as the ultimate agent, since the agent ‘car’ is not the focal point in the construal of the passive sentence, the deemphasized agent is construed as a cause. In (3.39 a) the passive agent marked by –ey is in an oblique position; unlike English in which the by phrase can be omitted, in Korean the agent must be expressed (N + –ey) and co-occurs with the obligatory passive suffix –ye. The Passive Sense and the Cause Sense of –ey mentioned above are much related, but I identified the passive sense as a separate sense because it is clearly part of a larger construction which involves a semantic shift in perspective and the combination of –ey and the passive suffix on the verb. Following the principles laid out in Tyler and Evans (2003), I suggest that the unique construction of a passive sentence with the specific suffix is entrenched in the network resulting in a distinctive meaning. Notice that in the diagram the TR which is facing the LM, undergoes the change after having contact with the LM. In the passive sentence, the TR is not profiled, which is why it is drawn as a dotted line in the diagram. The LM is highlighted, indicating that it is the focus of the construction.
The next cluster identified is Inclusion Cluster. This cluster involves the TR being included within the bounded LM space. The senses in this cluster arose as a result of experiential correlation involving containment. After conceptualizing the LM as a salient destination to reach such as a home to arrive at, the salient place for a human being to be is inside the home, as a home provides protection, a place to rest, etc. When the LM is conceptualized as a bounded space in a three dimensional world, the LM entails the interior and exterior space. Through human beings repeated experience with containers in the real world, we understand functional consequences of containers such as containment (e.g., the cup contains coffee), support (e.g., what is inside the cup stays in even when the cup is lifted), and opaqueness (e.g., if the boundaries of a container are opaque, we cannot see through to the inside). Four distinctive senses belong in the Inclusion Cluster: Containment Sense, Additive Sense, Surface Sense, and Psychological State Sense. The following will list each. Notice that while the Goal Cluster Senses are often translated as to, the Containment Cluster Senses are often translated as in.

**Containment Sense:**

![Figure 3.12. Containment Sense](image)
The Containment Sense shows similarity to the Contact Cluster Senses shown above. This sense is related to our bodily experiences and our interaction with the container schema. If the LM is conceptualized as a container, from our bodily experience with the world, we conceptualize the LM to consist of an exterior space, interior space, and a bounded element. By virtue of having experiential correlations of dealing with a container in the real world, the container schema provokes the scene where the TR resulted in a bounded LM space. The following sentences demonstrate the examples of Containment Sense.

(3.40) a. chayk-i kapang-ey iss-ta.
   book-Sub bag-EY to exist-Dec
   ‘The book is in the bag.’

   b. pumonim-un kongcang-ey kyey-si-n-ta.
   parents-Top factory-EY to exist-Hon-Pres-Dec
   ‘The parents are in the factory.’

In the first example (3.40 a), the ‘book’ (TR) is contained inside the ‘bag’ (LM). Note that in the sentence in example (3.40 b), ‘factory’ is conceptualized as an LM that we experience in everyday life as containers. Note that compared to the area of the LM in the Area Sense of –ey, the LM in this Containment Sense is conceptualized as having a closed off space with inner and outer boundaries, much like a container. The TR in the containment sense is located within the conceptualized container space. Also, the containment has a function of providing support and protection to the TR, so the functional aspects associated with a container (i.e., support, protection) along with the geometrical aspects of boundedness contribute to the understanding of the meaning of the containment sense.
An interesting thing to note is that the Containment Sense –ey alone denotes the spatial relations of the TR being in the LM, especially when the function of the LM as a container is obvious in the context. However, the spatial noun an ‘inside’ can be optionally added before –ey to further emphasize the TR being in the bounded space of the LM.

It is important to recall here that Korean verbs often influence the interpretation of –ey whether –ey describes existence or movement. In the containment sense, if a verb with movement (e.g., put, attach, add, apply, etc) is used, the TR gains movement sense and shows path thereby closely relating to the Destination Sense in the Goal Cluster. For example, in sentence (3.41), the TR ‘ball’ will move into the LM ‘bag,’ which is a containment space. The LM ‘bag’ however is realized as a destination.

(3.41) kong-lul kapang-ey neh-e-la.
      ball-Obj    bag-EY to put in-Con-Com
‘Put the ball into the bag.’

By virtue of being in the containment, the TR has to be small enough to fit into the LM space, but the Containment Sense of –ey does not specify the tightness or looseness of the LM space. While the general containment sense is used when the TR is contained loosely, the tight fit sense is derived depending on the shape and function of the noun that –ey marks, which contains a tight fitting space. The first example sentence (3.42 a) exemplifies the sense of containment with the tight fit, whereas (3.42 b) illustrates the sense of containment where we construe the TR being in a loose fit containment space such as the ocean. Verbs such as kki-e-iss-ta signify the tight fit as in (3.42 a) while the circumstances tell the loose fit in (3.42 b).
Thus, tight fit and loose fit are not distinctive senses of –ey as these senses arise from context and do not satisfy the criteria for being distinctive senses as stated in the Principled Polysemy model. The schemas for these sub-senses of containment are drawn below.

**Figure 3.13.** Schema of the sub-senses of containment sense

*Additive Sense*

The next distinctive sense in the Inclusion Cluster is the Additive Sense. The Inclusion Sense is related to the Containment Sense in that the TR is contained inside the LM, but the TR
in the Additive Sense has an additional meaning that the TR is added in with another substance of the LM. Observe the following examples.

(3.43)  *kwuk-ey  pap-ul  mal-a-mek-ess-ta.*
        soup-EY  rice-Obj  to mix-Con-to eat-PT-Dec
        ‘(S/he) ate mixing rice in the soup.’

In (3.47), the TR (rice) is added in the LM (soup). As a result of adding, the substance of the LM undergoes some physical changes. As the TR is added to the property of the LM, the TR can even lose its shape or characteristic (e.g., sugar gets dissolved) and the LM takes on a different characteristic as can be seen in the example sentence of (3.44).

(3.44)  *khephi-ey  selthang-ul  manhi  neh-ess-ta.*
        coffee-EY  sugar-Obj  a lot  to put in-PT-Dec
        ‘(I) put a lot of sugar in coffee.’

The Additive Sense can be extended to the use of abstract numbers as shown in the next example sentence (3.45).

(3.45)  *sam-ey  sa-lul  teh-a-myen  chil-i  toy-n-ta.*
        3-EY  4-Obj  add-Cond  7-Sub  to become-Pres-Dec
        ‘If (you) add 4 to 3 (it) becomes 7.’

Mathematical addition is conceptually drawn from the notions of containers. This type of metaphorical extension to mathematical addition is also observed in English and other languages (Lakoff & Nunez, 2000).
Surface Sense

Surface Sense is directly derived from the Containment Sense. When you construe the LM as a container, the LM has an interior and exterior and is viewed in a three dimensional space. The Surface Sense, on the other hand only highlights one surface of the container as shown in the following examples.

(3.46) a. hoswu-ey  tal kulimca-ka  tte-iss-ta.
   pond-ΕΥ  moon shadow-Sub  to float-Pass-Dec
   ‘The shadow of the moon is floating on the pond.’

   b. k hemphyuthe hwam yen-ε Υ  kyeng ko sain-i  tte-ss-ta.
   computer screen-ΕΥ  warning sign-Sub  to float-PT-Dec
   ‘The warning sign showed up on the screen.’

The TRs in these example sentences exist on the surface of the LMs which are construed as containment. The difference of this Surface Sense and the Contact Sense that was discussed above is that while the Contact Sense has the functional element of control, the Surface Sense does not have an element of control.
The next distinct sense that is directly derived from the Containment Sense is the Psychological State Sense. In this sense we perceive humans as a TR contained in the emotional or psychological state of the LM. Our thoughts and feelings then are construed as a surrounding atmosphere of an interior space. Tyler and Evans (2003) explained that a human being experiences a particular emotion being in a particular location (e.g., a sense of security and love in a parent’s arm, a sense of fear when alone in a dark room, etc.) all the time. Borrowing Lakoff and Johnson (1999)’s primary metaphor, Tyler and Evans (2003) explained that through such repeated occurrences of correlated experience, it gives rise to conceptual association between psychological state and location (p. 187). Some examples of the Psychological State Sense of –ey are shown below.

(3.47) a. sayngkak-ey kiphi ppacy-e nay-ka o-nun soli-to mos tul-ess-ta.
   thought-EY deeply to fall in-and I-Sub to come-Mod sound-even not-to listen-
   PT-Dec
   ‘Because (s/he) was in deep thought, (s/he) did not hear me coming.’

b. hayngpok-ey camky-e wusum.ul chamci mos hay-ess-ta.
   happiness-EY be submerged-and smile-Obj to hold-not-to do-PT-Dec
   ‘(S/he) was in happiness and could not hold (his/her) smile.’
Location Cluster

The last cluster identified was the Locational Sense Cluster. The TR in the senses of this cluster does not have contact with the LM nor is it contained in the LM. Three distinctive senses belong in this cluster: Comparison Sense, Locational Sense, and Measurement Sense.

Comparison Sense

Figure 3.17. Comparison Sense

The first distinctive sense that belongs to Location Cluster is Comparison Sense. This sense is non-spatial but the comparison sense is probably derived from the human experience of comparing two items physically located relatively close to each other. Thus the functional element proximity that is inherited from the proto-scene of –ey still affects the scene this sense construes. The diagram depicts the relation of the TR and LM similar to the proto-scene, but the difference is that the LM is not construed as an area. The TR and LM in this sense are compared as shown in the next examples.

(3.48) a. *ku apeci-ey*    *ku atul-i-ta.*
  that father-EY    that son to be-Dec
  ‘Like father like son.’
Two distinctive senses were identified that are derived from the comparison sense:
locational sense and measurement sense, both described below.

**Locational Sense**

*Figure 3.18. Locational Sense*

The second distinctive sense identified in the Location Cluster is the Locational Sense.
This sense is probably derived directly from the Comparison Sense. The difference between the
Comparison Sense and the Locational Sense is that the TR in the Comparison Sense carries a
functional element of proximity but the Locational Sense does not have a proximate relation with
the LM. In order to illustrate this difference, a dotted line dividing the space in between TR and
LM is placed in the diagram as shown above. The sentences in this sense are always used with
spatial nouns that specify the TR’s relative position in relation to the LM (e.g., *aph* ‘front,’ *twi*
‘back,’ *yeph* ‘side,’ etc.). As the example sentences below suggest, the LM is a reference point to
the TR but its spatial distance (whether proximal or distal) is not relevant.
(3.49) a. *cip aph-ey sim-un namu-ka cal cala-ko iss-ta.*
    house front-EY to plant-Mod tree-Sub well to grow-Prog-Dec
    ‘The tree that was planted in front of the house is growing well’

b. *ilpon-un tonghay pata yeph-ey cali cap-un semnala-i-ta.*
    Japan-Top east sea beside-EY seat to take-Mod island country-to be-Dec
    ‘Japan is an island country which is located next to the east sea.’

c. *kepuk-i-ka thokki hancham twi-ey ccoch-a o-ko iss-ess-ta.*
    turtle-Sub rabbit quite a lot behind-EY to follow-Prog-PT-Dec
    ‘The turtle was following a way behind the rabbit.’

*Measurement Sense*

The measurement sense is derived directly from the comparison sense. The TR is compared against the unit of measurement (LM) as shown in the examples below.

(3.50) a. *halwu-ey twupen ippal-lul takk-a-ya toyn-ta.*
    one day-EY twice teeth-Obj wipe-have to-Dec
    ‘You have to brush your teeth twice a day.’

b. *ssal-i han-mal-ey oman-wen i-ta.*
    rice-Sub one measuring unit-EY 50000-won to be-Dec
    ‘Rice is 50,000 won per bag.’

As seen in the example sentences, what is being measured is presented as a unit. The human experience of presenting a bundle of items for comparison probably raised this non-spatial measurement sense. That is, anything quantifiable (e.g., age, time, speed, duration, weight, money, conventional metric measurement system, etc.) is expressed with –ey for comparison. A close relation exists between the measurement sense and the comparison sense and it is traceable how the measurement sense was derived from the comparison sense.
Additional senses

This section lists the rest of the senses of –ey that were identified. The Temporal Sense and the Idiomatic uses will be discussed here. These do not form a cluster but rather they are individual senses directly derived from the primary sense.

**Temporal Sense**

![Figure 3.19. Temporal Sense](image)

The last sense of –ey is Temporal Sense. In most cases –ey is used in spatial relations but it can also be used as a general temporal marker. The metaphoric extension from spatial domain to temporal domain is well documented (Lakoff & Johnson, 1980; Evans, 2005). The TIME IS SPACE metaphor is observed in many languages. Korean also uses –ey to introduce temporal expressions, which can be thought of as temporal location, as the sentences in (3.51) identify.

(3.51) a. **na-nun achim-ey wuntong-lul ha-n-ta.**
    1-Top morning-EY exercise-Obj to-do-Pres-Dec
    ‘I exercise in the morning.’

b. **wuli ohwu-ey manna-ca.**
    we afternoon-EY to-meet-let’s
    ‘Let’s meet in the afternoon.’
c.  

cintallray-nun ilun pom-ey phi-n-ta.
azalea-Top early spring-EY bloom-Pres-Dec
‘Azaleas bloom in the early spring.’

d.  

ku sikan-ey mwe ha-lke-ni?
that time-EY what to do-will-Q
‘What will you do at that time?’

e.  

tte na-lye-ten cham-ey kanye-ka w-ass-ta.
to leave-will-Retro moment-EY she-Sub to come-PT-Dec
‘She came at the moment I was leaving.’

There may be more than one temporal extension in the above examples. Sentences (3.5 a) through (3.5 c) suggest a large segment of time which designates some space in time. In contrast, sentences (3.5 d) and (3.5 e) suggest a conceptualization of time as a smaller segment of time.18

3.3 Analysis of semantic networks of spatial marker –eyse

The previous research noted that, similar to the observations made in the analysis of –ey, –eyse also possesses two seemingly different meanings: 1) ‘location’ as in entek-eyse namu-lul sim-nun-ta ‘(I) plant a tree on a hill’; and 2) ‘source’ as in namu-eyse naylyeo-on-ta ‘(I) come down from a tree.’ From the cognitive linguistics point of view, I claim that –eyse is also

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18 There are many idiomatic usages involving –ey worth mentioning: -ey kwanhay ‘relate to’; -ey tayhay ‘about’; -teyey issese ‘in regards to’; -ey tiite ‘according to’; -ey pulkwahaye ‘despite of.’ The following shows example sentences of such:

a.  

i muncey-ey kwanhan pokose-lul caksengha-y o-si-o.
this problem-EY about report-Obj write up-and come-Hon-Com
‘Write up and bring a report about this problem.’

b.  

i cem-i sicang-ul sencwulka-nun teyey issese kacang cwungsitoy-eya ha-l sahang-i-ta.
this point-Sub mayor-Obj to select-Nom-EY-about most become important -should-Pros item-it is-Dec
‘This point is the item that has to be most important in selecting a mayor.’
polysemous and that the different meanings it provides (not only the two location/source major meanings but also other various meanings) are related in a principled way. This section is devoted to parsing through the semantics of –eyse to find the primary sense and the extended senses that are derived from the primary sense. In the following section, I present the proto-scene of –eyse followed by an analysis of the semantic network of –eyse.

3.3.1 Finding the primary sense of –eyse

As shown in the previous section, the primary sense of –ey was argued to be Area Sense with its functional element of proximity. Recall that the proto-scene of the Area Sense of –ey was depicted as an unoriented TR locating closely within the zone of interest of an unoriented LM which is conceptualized as an area. As was the case for –ey, the key point for identifying the primary sense of –eyse is to decide which out of the two major senses, i.e., the location sense or the source sense, is the primary sense. The semantic difference between –ey and –eyse has been an intriguing one for researchers for many decades. In large part, the location sense and source sense of –eyse were often compared to the location sense and goal sense of–ey. First, observe the following sentences that demonstrate location sense.

\[(3.52) \text{ a. } \begin{array}{c|c|c} \text{con-i} & \text{entek-ey} & \text{iss-ta.} \\ \text{John-Sub} & \text{hill-EY} & \text{to exist-Dec} \\ \text{’John is on the hill.’} \end{array} \]

\[(3.52) \text{ b. } \begin{array}{c|c|c} \text{con-i} & \text{entek-eyse} & \text{iss-ta.} \\ \text{John-Sub} & \text{hill-EYSE} & \text{to exist-Dec} \\ \text{’John is on the hill.’} \end{array} \]
The first sentence (3.52 a) is a typical example of –ey co-occurring with an existential verb iss-ta. If the same sentence is marked with –eyse as in (3.52 b), the sentence is less acceptable. In fact, because of the tendency of –ey occurring more frequently with an existential verb, many language textbooks (e.g., Ihm et al., 2007; Lee et al., 2000) explain that –eyse, in contrast should be used only with a dynamic verb and is ungrammatical when used with the iss-ta verb. However, observe the following examples where –eyse is linking the TR entity to the larger action, or providing a perspective that would be achieved with a more distal construal on the overall scene. Recall that Strauss (2003) pointed out these functions of linking two events are contributed from –se as mentioned in section 3.1.

(3.53) a. khonsethu-ka entek-eyse iss-ta
    concert-Sub hill-EYSE to exist-Dec
    ‘The concert is on the hill.’

c. con-i entek-eyse namu-lul sim-umyense iss-ta.
    John-Sub hill-EYSE tree-Obj to plant-while to exist-Dec
    ‘John is on the hill while planting a tree.’

d. con-i entek-eyse namu-lul sim-ko iss-ta.
    John-Sub hill-EYSE tree-Obj to plant-Prog-Dec
    ‘John is planting a tree on the hill.’

As seen in (3.53 a) through (3.53 d), –eyse can also occur with the iss-ta verb along with another clause structure such as ‘while’ or ‘and then,’ or can be used as an auxiliary verb in the progressive form. In (3.53 a), –eyse can be used if the TR is conceptualized as an event such as a concert, class, meeting, etc. Here with marker –eyse the LM is construed as a larger area where
an event (TR) can take place. In (3.53 b), the first clause expresses the starting point of the scene. Although John and the hill are in contact at the initial part of the action, by the end of the scene being articulated, John and the hill are separated. The focus is on the end of the scene in which John and the hill are in a distal relation. In (3.53 b), the scene is represented by two separate clauses: one where John is located on the hill and a second in which the action is articulated. –eyse seems to be providing the perspective that the speaker is not simply locating John but also locating the action and linking John to it. Note that the information at the end of the sentence is in the near-universal focus spot, thus the end point of the action, articulated in the second clause, seems to be the focus of the sentence. In (3.53 c), although John ‘planting a tree’ and ‘being on a hill’ take place simultaneously, the semantics of –eyse seem to separate the two actions; while linking the two events, there is a subtle focus on the separation between John and the action. Also in (3.53 d), the progressive form of the verb is linking the two events, i.e., existing (locating) and acting (planting). In these examples, each demonstrates a slightly different way to construct the scene. It seems that the semantics of –eyse, which links two different events, provide the Korean speaker with a different grammatical construction which separates the whole scene into two parts, thus providing a subtle sense of separation or distance in construal.

The next examples further show that, although only –eyse is expected to co-occur with dynamic verbs according to traditional grammar, –ey also is used as shown in (3.54 b).

(3.54) a.  
\begin{align*}
\text{con-i} & \quad \text{entek-eyse} & \quad \text{namu-lul} & \quad \text{sim-nun-ta}. \\
\text{John-Sub} & \quad \text{hill-EYSE} & \quad \text{tree-Obj} & \quad \text{to plant-Pre-Dec} \\
\text{‘John plants a tree on the hill.’} \\
\end{align*}

b.  
\begin{align*}
\text{con-i} & \quad \text{entek-ey} & \quad \text{namu-lul} & \quad \text{sim-nun-ta}. \\
\text{John-Sub} & \quad \text{hill-EY} & \quad \text{tree-Obj} & \quad \text{to plant-Pre-Dec} \\
\text{‘John plants a tree on(to) the hill.’} \\
\end{align*}
In (3.54 a), the construal we get with –eyse is that John’s location is identified in reference to a larger area, that is a large enough location where an entire action (i.e., ‘planting’), which involves changes over time, can be viewed. This representation of the viewing arrangement offers a coherent explanation for why –eyse oftentimes co-occurs with action verbs. However, now consider sentence (3.54 b), in which the location between the TR and LM is marked with –ey but used with the dynamic/action verb ‘to plant.’ In the construal with –ey, the TR, John, is viewed in close proximiation to the LM so that only a snapshot of one piece of the action is available in the close up proximate area.

Considering all of the emerging evidence, this study hypothesizes that in comparison to the primary sense of –ey, which has a functional element of proximity, the primary sense of –eyse has a functional element of distance. In other words, the proto-scene for –ey involves the TR having a proximal distance to a LM and this results in a relation of a closer influencing force between the TR and LM. In contrast to –ey, the analysis and supporting data indicate that –eyse is represented as not being proximal to the LM; therefore the TR is freer from the LM’s influence, which is conceptualized to be more of a distal area. Following Talmy (2000) and Tyler and Evans (2003), I argue that the conceptual distances are not geometrically defined, but rather topological (or elastic) in nature. Thus, where the primary sense of –eyse is concerned, the LM is conceptualized as close enough to provide a reference point to locate the TR’s location, but when compared with the TR and LM’s interaction with –ey, the zone of influence between the TR and LM with –eyse is relatively distal.

In Figure 3.20 below I present the proto-scene of spatial marker –eyse to be compared with the proto-scene of –ey, which was presented in section 3.2.1. Both LM in –eyse and –ey are represented as a solid line (indicating that it is profiled) of an area like space, and the black
sphere of the TR in both –ey and –eyse are represented with a dotted line (indicating the zones of interest) spreading out to the LM. The only difference is the location of the vertical dotted line (indicating the functional element of proximity). In the proto-scene of –ey, the TR is placed on the right side of the vertical dotted line suggesting the TR and LM are within a close vicinity of influence. Note that when a viewer (TR) is closer to a LM, there is often a reduction in the scope of the viewing area, i.e., in a close-up perspective, the viewer sees less of the LM. In contrast, when the viewer is farther away from the LM, the viewer is typically able to see a larger portion of the LM or even the entire LM. In the proto-scene of –eyse, the TR is placed outside of the dotted line (to the left of) suggesting the TR is more distal. In such a distal arrangement, the LM is perceived as having a larger area with a larger radius. An important consequence of the TR and LM being in a distance relationship is that the TR and LM do not have potential contact with one another.

![Figure 3.20. Proto-scenes of –ey and –eyse](image_url)

Considering the evidence discussed so far, the analysis points to –eyse having a primary scene in which an unoriented TR is located in relation to an unoriented LM, which is conceptualized as composing a larger area (bigger radial area) relative to that of –ey. This results in the primary scene of –eyse involving the TR being conceptualized as being distant from the
The following discusses various criteria set forth by Tyler and Evans (2003) in more detail. The same criteria used in finding the primary sense of –ey were followed here as well.

**Earliest attested meaning**

The grammaticalization studies that were reviewed in section 3.1 suggested that –eyse was not present in the ancient texts but started to appear much later in history suggesting that –eyse had derived from –ey at around the 15th century. As mentioned in section 3.2, S. Kim (1992) claims that the primary sense of –ey is location, which has the etymology of ṭ นาย, which is interpreted as being ‘middle (of space).’ Based on the evidence of earliest attested meaning, the primary sense of –ey was argued as an area sense where the TR is conceptualized as being located within. According to S. Kim, the grammaticalization pattern shows that the location sense of –eyse is related to the root –ey and the meaning of –se. Given this history, it is thus expected that the proto-scenes of –ey and –eyse would have similar spatial configurations. The marker –eyse also denotes location sense (or as I have termed Area Sense), similar to the primary sense of –ey.

However, as the previous research rightly points out, the marker –eyse is often used with dynamic action verbs, with the LM space being conceptualized as a place where an action takes place as shown below.

(3.55) **hekong-eyse chensin-i puk-ul chi-myey hyang-ulp hiwu-myey kkoch-ul ppuliko…**

empty air-EYSE heaven god-Sub drum-Obj to hit-and incense-Obj to burn-and flower-Obj to scatter-and…

‘In the sky the heavenly god plays the drum, burns the incense, scatters the flowers and…[Ku. Lee 2004, p.18]

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19 The original text is from sekposangel [Episodes from the Life of Buddha, 3:3a] which was published in 1447. The spelling of this example is modified to contemporary Korean.
Ku. Lee (2004) and S. Kim (1992) both argue that the location sense of –eye is from –ey and the sense of action taking place is the result of adding –se, which has a role of connecting (and locating) clausal events. Ku. Lee (2004) explains –eye in the above sentence that the heavenly god exists in the sky (expressed with –ey); –se expresses a clausal connection between the existence of the god and the other activities (i.e., playing the drum, burning incense, and scattering flowers, which are expressed from the verbs) they engage in that location. In a sense then, –se is associated with locating where activities take place, not just locating the god. This analysis provides support for –eye’s earliest meaning having a locational function.

However, I did not find any study directly to show definitively that location sense occurred before the source sense, but observed the following sentence that shows the occurrence of the source meaning of –eye with a directional verb such as ‘to come.’

(3.56) sal-ten kwumeng-eye sey saym-i naw-a
      to live-Mod (Retro)   hole-EYSE   spring water-Sub to come-and…

‘From the hole that (it) lived, the spring water comes (out)...[Ku. Lee 2004, p. 20]

In (3.56) the LM ‘hole’ is marked with –eye, and –ey would not be allowed grammatically in contemporary Korean. Ku. Lee interprets the above sentence as that the ‘spring water’ exists in the ‘hole’ (expressed with –ey) and with the addition of –se, which connects the original location to the verb, the spring water is understood as coming out (expressed with the verb). Thus, Ku. Lee argues that the primary meaning of –eye is the location sense, the same as in –ey but –se provides the connective role with the action verb, which results in the additional interpretation of source (OUT). It seems that in (3.56) since –eye denotes a more distant relation with the LM being construed as a separated source, semantically the verb that denotes an entity ‘coming out’
goes well with –eyse. However, it would not be felicitous to employ –ey, which denotes a proximal relation, together with the verb ‘to come (out)’ which emphasizes a separation.

The grammaticalization studies have provided valuable information of the origin of –eyse and its connection to –ey. I follow the argument that –eyse went through a grammaticalization path from –ey, with a primary meaning of area, and that the primary meaning of –se as connecting the located TR to the action the TR engaged in. Note that in sentence (3.56), in terms of grammatical construction, the TR (the god), is separated from its actions. Thus the ‘connective’ function carries a notion of separation between the located actors and their located actions. Over time, as –eyse evolved into a separate particle, it is plausible that the separation implicature became entrenched resulting in –eyse developing a functional element involving distance.

The grammaticalization studies reviewed here provide diachronic evidence in which –ey+se serves to connect two clauses and thus connect a TR with an action. They also offer support for the analysis that the primary sense of –eyse is location sense and simultaneously indicates source. Thus, the –ey+se construction has evolved to a single morpheme which retains the source/connecting interpretation both of which imply a separation aspect.

**Relations to other spatial particles**

A minimal pair of sentences with contrastive spatial particles provides evidence showing that complementary functions divide up the conceptual space along a particular dimension. For instance, English prepositions *up* and *down* divide the conceptual space along the vertical dimension. Tyler and Evans (2003) also talk about the spatial contrast between *over* and *above*,
whose functional element of proximity or distance, respectively, between the TR and LM creates a different construal of a scene. Consider the following example where the location sense of –ey and –eyse are contrastive.

(3.57) a. emma-ka atul-uy ppyam-ey ppoppohay-ss-ta.
    mom-Sub son-Poss cheek-EY to kiss-PT-Dec
    ‘Mom kissed on the son’s cheek.’

    mom-Sub son-Poss cheek-EYSE to kiss-PT-Dec
    ‘Mom kissed on the son’s cheek.’

In (3.57), the LM ‘cheek’ is marked with –ey but not with –eyse. In this example, Mom and the LM ‘the cheek’ are construed as having contact. Thus, it shows that the conceptualization of –ey allows for possible contact between the TR and LM. In contrast, I argue that cheek cannot be marked with –eyse because –eyse involves a conceptualization of distance. It is physically impossible to kiss someone’s cheek and also be physically distant. Recall the proto-scene of –ey in which the TR is conceptualized as being within a proximal location to the LM, within its influence, thus allowing for possible contact between the TR and LM. This analysis suggests that the conceptualization of –eyse lacks this proximal element. The fact that –ey and –eyse comprise a contrastive set involving contact sense indicates that there are important differences in conceptualizations of –ey and –eyse in which one is perceived as being located within the proximal zone while the other is perceived as being located within a more distant LM.
Predominance in the network

When the initial research was done identifying different senses using the dictionaries and the actual corpus data, it became noticeable that the extended senses of –eyse were lacking an association with the functional element of proximity in the network. As discussed in section 3.2.2 the primary sense of –ey has been extended to the Destination Sense where the goal was perceived as potentially within reach. In contrast, –eyse shows that its semantic extension went quite opposite since one of the major extended senses is the Origin Sense where the separation from the original source space is highlighted. Having a functional element of proximity emphasizes the notion of involvement between the TR and LM which is coherent with a TR and a goal. In contrast, a functional element of distance emphasizes non-involvement or separation between the TR and LM; separation is one of the fundamental embodied experiences of prodigy and source. (For instance, a new born infant physically separates from the mother [the source].)

The following examples show a clear semantic distinction from the goal sense of –ey and source sense of –eyse.

\[(3.58)\mbox{a. } \begin{array}{llll} \text{con-i} & \text{entek-ey} & \text{ka-n-ta}. \\ \text{John-Sub} & \text{hill-EY} & \text{to go-Pre-Dec} \end{array} \]
\[ \begin{array}{l} \text{‘John goes to the hill.’} \end{array} \]

\[(3.58)\mbox{b. } \begin{array}{llll} \text{con-i} & \text{entek-eyse} & \text{o-n-ta}. \\ \text{John-Sub} & \text{hill-EYSE} & \text{to come-Pre-Dec} \end{array} \]
\[ \begin{array}{l} \text{‘John comes from the hill.’} \end{array} \]

In (3.58 a) the TR is construed as being oriented toward the hill, which is a destination, but in (3.58 b) the TR is construed as being away from the LM, which is where the TR originated from. The next sentences also show the goal versus source distinction.
(3.59) a. *cip-ey*  
house-EY  
wa-ss-ta.  
‘(I) came to house.’

b. *cip-eyse*  
house-EYSE  
wa-ss-ta.  
‘(I) came from house.’

In (3.59 a), the LM marked with –ey emphasizes the end point of the action construing a scene where the TR and LM end up being in close contact with each other. The original proto-scene of proximal relation between the TR and LM extended to a meaning similar to ‘to’ in English. On the other hand, in (3.59 b) the LM marked with –eyse is construed to be more distant from the LM emphasizing its separation from the original location ‘house.’ It shows how the proto-scene of –eyse, which is a distal relation between the TR and LM, has developed a meaning something like ‘from.’

The analysis of the entire semantic network also points to the direction that –eyse has expanded its meanings related to a distal element such as Background Sense, Origin Sense, Deduction Sense, Starting Point Sense, etc. (see the full network of extended senses in section 3.3.2). This is quite a contrast to the semantic network of –ey, which has expanded its meaning related to proximal/contact relations such as Destination Sense, Containment Sense, Comparison Sense, etc. (the entire network of extended senses were presented in 3.2.2).

In summary, this dissertation hypothesizes that the primary sense of –eyse is also an Area Sense. However, I argue that the Area Senses of –ey and –eyse involve the functional element, i.e., proximity vs. distance. The difference in functional element will be key to distinguishing the different meanings of these two spatial markers. With such an analysis of –eyse that is based on
principles of cognitive linguistics such as construal and functional element, I attempt to address problematic issues of the location sense of \(-eyse\) that the previous research does not.

*Salta verb in corpus*

The analysis presented so far has the potential to explain another of the problematic issues in the study of \(-ey\) and \(-eyse\). Recall a sentence such as, “Mary lives in Seoul,” which can be uttered either with \(-ey\) or \(-eyse\) in Korean. As mentioned in section 3.1, the difference in meaning for each spatial marker was conventionally explained in two ways. The first position would explain that the spatial marker \(-ey\) co-occurs with stative verbs such as *iss-ta* ‘to exist,’ and \(-eyse\) co-occurs with action verbs such as *mek-ta* ‘to eat.’ So the verb *sal-ta* ‘to live’ is an exception that can take either spatial marker \(-ey\) or \(-eyse\). From this point of view, the exact meaning of these spatial markers are not so important, rather identifying and categorizing the co-occurring verb is more important. The second position would explain that \(-ey\) denotes stative location and thus, “Mary lives in Seoul,” with \(-ey\) refers to stative living while \(-eyse\) denotes dynamic location so, “Mary lives in Seoul,” with \(-eyse\) refers to dynamic living. The second position is an improvement from the first point since it tries to assign a meaning to each spatial marker (although their meaning of stative versus dynamic location was assumed to be derived from the verb meaning) and by doing so trying to disambiguate the subtle difference the sentence entails with either \(-ey\) or \(-eyse\). However no previous research has offered systematic explanations on the differences of the meanings.

This difference in meaning between the area sense of \(-ey\) and the area sense of \(-eyse\), especially with a verb such as ‘to live,’ is so subtle that even native speakers oftentimes do not
recognize the differences nor are they able to articulate the differences when presented with minimal pairs of sentences. However, the linguistic differences of the usages between –ey and –eyse with the verb ‘to live’ are better observable in the corpus data. The corpus that was used for the main part of this dissertation, as was described in section 2.4, had a low count for sentences with the sal-ta verb, so a separate mini corpus was created to observe the linguistic environment of –ey or –eyse with the sal-ta verb. I mentioned in Chapter 2 that there have been an increasing number of studies highlighting the important role of corpora as this study was inspired, too. Important to add here is for cases where corpus data can be helpful, especially to enlist the mix of contexts where two different words (which are considered synonyms as well as related word senses of polysemy) appear in order to reveal the characters of linguistics and an extra-linguistic environment (Newman, 2011). Ravin and Leacock (2000) also state that “context plays a central role in causing polysemy, and therefore should be an integral part of trying to resolve it” (p. v-vi). This claim holds true for the investigation into the meaning differences of the locational sense of –ey and–eyse. Using the same online concordance program kkokkoma seycong malmungchi hwallyong sisutheym (Lee et al., 2010), 2000 sentences containing the verb stem sal- were randomly chosen. Out of those 2000 sample sentences with all different inflectional forms of the sal-ta verb, a total of 601 sentences that co-occur with either spatial marker–ey or –eyse were manually extracted. Out of these 601 sentences only 526 that included a LM as a physical location were included in the final data set. Those 75 sentences which were excluded contained a LM specifying a time element (e.g., caknyen-ey ‘last year’) or compositional form of –ey (e.g., ttaemun-ey ‘because of/due to). In sum, 336 sentences were identified as co-occurring with the spatial marker –ey; and 190 sentences were identified as co-
occurring with the spatial marker –eyse. Then I qualitatively analyzed the reoccurring patterns among those sentences.

I observed that there was a correlation between the tenses of the co-occurring verb and the choice of the marker. For instance, out of the total sentences in the data, there was a higher percentage (17.9%) of sentences of –ey with the present progressive tense of sal-ta than –eyse with the present progressive tense of sal-ta (9.5%). Additionally, when I compared the simple past tense, there tended to be a higher percentage of sentences of –eyse with the past tense of salta (20.5%) compared to the sentences of –ey and the past tense (5.7%). The following sentences illustrate the differences of tense: (3.60 a) as a present progressive and (3.60 b) as a simple past.

(3.60) a. meyli-ka cikum seoul-ey sal-koiss-ta.
Mary-Sub now Seoul-EY to live- Prog-Dec
‘Mary is living in (at) Seoul now.’

b. meyli-ka cwuk-ki-cen-ey seoul-eyse sal-ass-ta.
Mary-Sub die-Nom-before-EY Seoul-EYSE to live-PT-Dec
‘Mary lived in (at) Seoul before she died.’

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20 The online concordance program that this dissertation used permits a search for only one morpheme at a time (e.g., sal or –ey, etc.). A separate search was done using Google to further test out the constructions of spatial markers –ey and –eyse with the present progressive tense. I searched for cenun salko iss (I-Top to live-Prog) ‘I am living...’ I gathered the first 100 sentences with the spatial marker (either –ey or –eyse) and all of the search words (cenun LM-ey salko iss or cenun LM-eyse salko iss). The typical sentences that were returned with this search were ‘I am living in (place)’ from an online communication site (e.g., blog) profile page, or online forum page where people introduced themselves. The typical LM that was used with the spatial marker in this construction was name of city, name of country, or type of housing (e.g., apartment, rented home, dormitory, etc.). The typical sentence ending used was -a/e-yo Dec (Polite) or supni-ta Dec (Deferential). The result showed that a majority of the sentences (82%) was with –ey and only 18% of the sentences were used with –eyse. This result coincides with the sal-ta verb corpus analysis that when the present progressive is used, the spatial marker –ey is more likely to be used. All of the accounts of the sentences with –eyse had a distal element. That is, when –eyse was used, the LM tended to be the name of a foreign city or country, with a mention of plans to move or go back to the country in the text, or with the word of sikol ‘rural area’ with the mention of suggestions that the writer believes where they live is far from Seoul or the main city where everyone else lives.

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Then what does it mean that there is a correlation of spatial markers and the tenses? It turns out that it is well known in the cognitive linguistics based research supporting Conceptual Metaphor Theory that time is metaphorically conceptualized in terms of the spatial domain (Lakoff & Johnson, 1980). For instance, English speakers say things such as I need a long break, Christmas is approaching, Those days are behind us, etc. Following the concept that time and space are conceptualized as being homologous, it is not surprising to find that the tenses can also have time distance that is perceived from the present reference point. Talmy (2000) discusses extensive homology between the representation of space and time as well. Thus it is not implausible that language tends to match the spatial distance and the time distance in a given sentence.

This dissertation hypothesizes that the correlation between the spatial markers and tense observed in the data are not just coincidence and that these correlations can be explained based on the conceptual metaphors HERE IS NOW and THEN IS THERE (Tyler & Evans, 2001b). Tyler and Evans explain that this metaphor shows the conceptual mapping between proximal and distal spatial phenomena and analogous proximal and distal temporal language. They have provided evidence of the present tense being associated with a number of proximal spatial-physical elements (foreground, experiential proximity, emotional proximity, control, realis, etc), while the past tense is with a number of distance elements (background, experientially-emotionally distant, lack of speaker surety, etc.).

Tyler (2012) also reports more in detail about the HERE IS NOW metaphor being observed in the English modals. She explains that past tense indicates “a lower degree of certainty, realis, and an attenuation of speaker force or control.” Thus the past tense forms of present/past modal pairs (e.g., will/would, can/could, shall/should) indicate less speaker certainty or less social
and/or physical force (p. 50). With that she explains that the reason why the request or invitation is often said in the past tense of English modals is because the speaker is using the past tense as a politeness strategy by implying not only that s/he is physically distal from the addressee and therefore does not have control over the addressee but also to imply that the addressee is more free to reject the imposition made by the speaker. Figure 3.21 illustrates the functionality of present tense versus past tense that Tyler presents.

*Figure 3.21. Illustrating the HERE IS NOW metaphor (From Tyler, 2012, p. 50)*
Cofirming the proposed differences of proximity versus distance between the two proto-scenes, I
examined the corpus data and found some interesting patterns. The following illustrates
examples of patterns frequently occurring with –eyse and sal-ta but far less often with –ey.

(3.61) a. 2000nyen-pu*the sewul-eyse sal-ko iss-ta
     2000-year-from Seoul-£YSE to live-Prog-Dec
     ‘(I) have been living in Seoul since the year 2000.’ [present perfect]

b. DC-eyse sal-ten tongan kupun-ul manna-ss-ta.
     DC-£YSE to live-Mod(retrospective) duration that person(Hon)-Obj to meet-
     PT-DC.
     ‘I met that person during the time I used to live in DC.’ [retrospect:used to]

c. ssaynphulansisukho-eyse san-tatentey macna-yo?
     San Francisco-£YSE to live-hearsay-and to be correct-Dec (Pol)?
     ‘I heard (s/he) lives in San Francisco, is that correct?’ [hearsay]

d. eti changko-na pincip kath-un te-eyse sal-keyss-ci.
     where warehouse-or empty house like so-Mod place-£YSE to live-Conj-guess
     ‘(He) might live somewhere like a wherehouse or an empty house.’ [guess]

e. kulay-to ile-n kos-eyse phyengsayng sal-ko siph-neyyo.
     even-still this-Mod place-£YSE life time to live-would like to-Dec (Pol)
     ‘But (I) still would like to live in a place like this.’ [wish]

The example sentences above show the relation to the distal element. In (3.61 a), note
that the focus of the present perfect tense, such as in I have been living in Seoul since the year
2000, is in the past when the event started to take place (i.e., the year 2000). In (3.61 b), the
retrospect suffix –ten was added to the sal-ta verb impling that what used to be true in the past is
no longer in effect. The sentences from (3.61 c) through (3.61 e), which refer to hearsay
information, guessing of a fact, or a wish for the future, all lack in surety and therefore belong to
the distal element in Tyler (2012)’s THEN IS THERE illustration. Based on such correlation shown
between the tenses and proximal-distal conceptualization of other domains of experience such as
emotional intimacy, I interpret the tendency shown in the Korean corpus data as being consistent with the metaphorical mapping between the proximal-distal time elements and proximal-distal spatial elements. Thus, I argue that it is not accidental that the spatial marker that denotes proximate location co-occurs more frequently with the verb ‘to live’ in the present progressive tense, which foregrounds what is more experientially proximate in time, while the spatial marker that denotes distal location more often co-occurs with the verb ‘to live’ in the past tense or the perfect tense, which highlights more experientially distal time and experience. The mini corpus analysis of the sal-ta verb not only supported space and time homology as discussed previously in the literature, but also offers further evidence of the difference in the functional element of –ey and –eyse that the current dissertation proposes. Admittedly, the mini corpus contained a small sample size and of course a full scale corpus study with a significantly larger number of sentences is warranted to make a more definitive claim.

Going back to example sentence (3.60 a), since it is written in the present progressive tense in conjunction with the time expression ‘now,’ the LM Seoul with –ey is construed as more of a temporally proximal location, whereas the LM Seoul with –eyse in sentences (3.60 b) and (3.61 a) through (3.61 e) tend to appear more often with the past tense, perfect tense (present perfect, past perfect), and hearsay construction (lack of surety or realis), which construes a distal relation compared to the present tense.\(^{21}\)

However, it is important to emphasize that if the spatial marker is switched between (3.60 a) and (3.60 b) the sentences do not become ungrammatical or semantically anomalous.

\(^{21}\) The tendency of choice of –ey and –eyse was observed in the initial stage of corpus study when the author gave a quick look through the data, and then generated these two set sentences varying tenses based on the example sentences from the corpus and informally asked 10 native speakers to pick the preferred spatial marker out of two possibilities. Given that both –eyse and –ey could be used, it was interesting that when the native speakers were asked to fill in the blank between –ey and –eyse with the first marker that comes into their mind, they preferred –ey in the context of (3.54) a and –eyse in the context of (3.54) b through d coinciding the tendency observed in the corpus.
They just come to have a different construal. For example, if the speaker of (3.60 a) is perhaps living in the U.S. and construing the area of Seoul as a distal location, (3.60 a) could be said with –eyse instead. If the speaker of (3.60 b) uses –ey instead, it might be because it is construed as Mary lived in Seoul, perhaps the same place as the speaker had lived, where it is being construed as a proximal space. The proximal versus distal is not dependent on geometric distance, but rather it is a subjective and relative distance in construal. As discussed in Chapter 2, since construal is a subjective matter and one cannot read the construer’s mind as to if s/he is construing a particular location proximate or distal in a given utterance in isolation, discussing it can be a tricky matter. However, by studying the linguistic cues in the text and the context at the discourse level as I have attempted in this study, it was found to be a more feasible approach.

Since I claim that –ey and –eyse code for different spatial configurations and thus are not synonyms, then an explanation as to why they can be used interchangeably in certain contexts (e.g., with a verb such as ‘to live’) is necessary. In line with Tyler and Evans (2003, see the discussion of over versus above), I hypothesize that the two spatial markers are interchangeable in some contexts because, although they have a difference in functional element, they nevertheless encode very similar spatial configurations between the TR and LM. In the case of proto-scenes of –ey and –eyse, when viewing them without accounting for the proximal-distal functional differences, both code for the similar particular spatial arrangement of a TR being located in relation to a LM. Thus it is arguable that the speaker’s communicative purposes can be met by either spatial marker –ey or –eyse in some circumstances where the speaker does not feel the need to specify the proximal-distal distinction, and that is where you might see –ey and –eyse being used interchangeably.
When the sentences from the data were analyzed in a larger context considering the discourse, examples were consistently observed where proximity versus non-proximity seemed to play a role in the language choice, i.e., whether –ey or –eyse was chosen, given a particular situation where either one could have occurred. Consider the examples in (3.62).

(3.62) a. cwungkwuk-eyse sal-ko iss-nun han pwupwuuy phyenci-ka centaltuyess-ta.
    China-EYSE live-Prog-Mod one couple-Pos letter-Sub be delivered-Dec
    ‘A letter from a couple living in China was delivered.’

    b. ce-nun cwungkwuk peyicing-ey sal-ko iss-nun ttal hana twun phyengpem-han
       cwupwu-ta.
    I-Top China Beijing-EY be living-Mod daughter one left-Mod ordinary house
       wife-Dec
    ‘I am an ordinary housewife who has one daughter who is living in Beijing,
       China.’

In sentences (3.62 a) and (3.62 b), the same country China is marked with two different spatial markers in one text: (3.62 a) with –eyse and (3.62 b) with –ey. China in (3.62 a), in which it occurs with –eyse, is construed as a distal background like country where an unknown couple lives, whereas China in (3.62 b) occurs with –ey and is construed as a country where the writer’s daughter lives, which the writer could perceive as a proximal location (the utterance even mentions the part of China, i.e., Beijing).

Similarly in (3.63 a) and (3.63 b), a North Korean defector writes two sentences with two different spatial markers: North Korea with –eyse versus South Korea with –ey. It seems that the writer positions him/herself distal to North Korea by choosing –eyse and proximal to South Korea by choosing –ey.
(3.63) a. pukhan-eyse sal ttay kacang palaten sowen cwunguy hana-ka kyewul-I eps-nun nala-eyse salko siphta-nun kes.i-ess-ta.
North Korea-EYSE to live time most wished wish out of one-Sub winter-Sub not exist-Mod country-EYSE to live would like to to be-PT-Dec
‘One of the most wished wishes I had when I lived in North Korea was that I wished to live in a country where there is no winter.’

b. namhan-ey cengchakhay sal-ko iss-nun thalpukcatul-uy swuki-lul tam-ko iss-ta.
South Korea-EY settle and live-Prog-Mod defectors-Pos essay-Obj contain-Prog-Dec
‘It contains the essays of the defectors who are settled and living in South Korea.’

A similar phenomenon was observed with the example sentences (3.64 a) and (3.64 b).

(3.64) a. roh moo-hyun cengkwen-ttay tangsin-un enu nala-eyse salko iss-ess-nun-ka?
Roh Moo-hyun regime-time you-Top which country-EYSE to live-Prog-PT-Q
‘At the time of Roh’s regime, in what country were you living?’

b. pep-kwa cilse-ka concwung-toy-nun kulen nala-ey sal-ko iss-ta.
law-and order-Sub respect-become-mod like-so country-EY to live-Prog-Dec
“(I) am living in a country where law and order is respected.”

Observe that enu ‘which,’ an indefinite WH pronoun, is better suited with –eyse, which denotes a distal relation, while kulen nala ‘such country’ where ‘law and order is respected’ seems to be better suited with the spatial marker –ey, where the LM and TR is perceived in a proximal distance. It is important to be reminded that either marker is acceptable in all of the above sentences and thus the subtle construal differences that are different from each other is what is important. Thus, these subtle construal differences need to be analyzed with the discourse and the context. However, more in depth corpus based study, especially with some quantitative analysis, needs to be done in the future in order to validate the claim of proximity versus distal distinction as well as any correlation between the tenses and the usages of –ey and –eyse.
3.3.2 Finding extended meanings of –eyse

The same criteria used in identifying the extended meanings of –ey were similarly applied to identify the extended meanings of –eyse. An important key to recall is that the protoscene of –ey, which has an area sense that denotes the functional relations of proximity, expanded to other senses including the extended senses of goal, contact, and containment, all of which heavily related to the function of proximity. That is, conceptualizing the TR as being proximal to the LM and therefore within the sphere of influence of the LM resulted in construing the LM as a goal. –ey then further developed into senses that have contact when the goal is realized, and the LM resulting inside the bounded LM at the end. However, as discussed earlier, the semantics of the primary sense of –eyse lacks the sense of proximity and the sphere of influence, and thus any senses related to control or contact are absent in the extended senses. Instead the senses related to functional element of distance and separation, such as Background Sense and Origin Sense, are identified throughout the range of extended senses in the network. This dissertation argues that it is an important discovery to find relatedness between the primary senses and the extended senses of –eyse through the functionality of the TR being located distally. Figure 3.22 and the rest of this section present the semantic map of –eyse by identifying and listing all the extended senses.
Figure 3.22. Semantic network of –eyse
Bounded Sense Cluster

The first cluster of senses is the Bounded Sense Cluster. Three distinctive senses were identified: Background Sense, Agent Sense, and Deduction Sense. In these senses, the LM is construed as a bounded space. Each sense will be explained more in detail below.

Background Sense

![Image](image.png)

*Figure 3.23. Background Sense*

The first extended sense of –eyse identified is Background Sense. In this sense, –eyse denotes a confined and bounded area where it becomes the background of the event that takes place. This sense denotes a spatial configuration that is different from the proto-scene in two aspects. First, in the LM of the proto-scene of –eyse, the notion of boundedness (whether it has a limited boundary or an infinite boundary) was not important. The LM in the proto-scene of –eyse is more of an extended area designated in a two dimensional world. However, the boundedness of the LM is an important aspect in conceptualization of this extended sense. The LM is construed as a bounded region more in a three dimensional world that possesses a limitation and boundary. The boundary is determined less by geographical characteristics and more by conceptualization. If the region of the LM is conceptualized as having a bounded space, the boundedness entails the
interior and exterior of the bounded space. The second difference of the spatial configuration between the proto-scene and this Background Sense is whether the vantage point is off stage, or on stage within the LM. As mentioned in Chapter 2 and other sections, any spatial scene can be viewed from different vantage points, thus a change in vantage point gives rise to a new sense. According to Langacker (2002) the default vantage point is off stage, which was the case for the proto-scene of –eyse. This dissertation hypothesizes that the vantage point of the proto-scene of –eyse is off stage, but it changes to an on stage vantage point in the Background Sense. The consequences of changing the vantage point to on stage is that in a scene associated with the Background Sense, the construer is considered as residing within the bounded area construing the TR being located within the bounded space of the LM. I suspect that the functional distal element from the proto-scene of –eyse is still present, therefore the LM is not construed as an intimately confined space but rather it is construed as a large backgrounded space where an event can unfold. Recall that in the sentence from K. Lee (1993) and Je. Lee (2004) from example (3.19), emeni -ka puekh-eyse pap-ul cic-nun-ta ‘Mother cooks a meal in the kitchen,’ the ‘kitchen’ is marked with –eyse. When the LM is the ‘pot’ as in ‘Mother cooks rice in the pot,’ –eyse does not work and only –ey does. I interpret that this is because the TR is conceptualized as being located in the LM, where it is a backdrop space for the main event of the sentence, making rice. With this analysis, it is clear that we expect sentences where the LM is larger than the TR (to allow a person to fit within the space of a kitchen in the above example) but we do not expect sentences such as *emeni-ka naympi-eyse pap-ul cic-nun-ta ‘Mother cooks a meal in the pot’ where the LM is smaller in size than the TR (for example, a person does not fit in a pot) as shown in the below example. As further support for this analysis, consider the following examples where there are two LMs that are conceptualized as a container. However, the first LM
is perceived as a larger LM where a person is contained while performing an action (thus –eyse is allowed), while the second LM is perceived as a too small container to conceptualize a human inside that space (thus –eyse is not allowed and only –ey is allowed).

(3.65) *na-nun peylanta-eyse hwapwun-ey kkoch-.ul kilu-n-ta.*
I-Top balcony-EYSE flower pot-EY flower-Obj to grow-Pre-Dec
‘(I) grow flowers in the flower pot in the balcony.’

In (3.65), both the ‘balcony’ space and the ‘flower pot’ are perceived as a space with an internal space where an object (TR) can be contained. For the TR a person ‘I’ can only be perceptualized to be within the balcony space but not in the flower pot. So the flower pot cannot have –eyse attached. If this sentence changed to be about the flower and the flower becomes the TR, both the ‘balcony’ and the ‘flower pot’ can have the –eyse marker. The next example illustrates the same pattern.

(3.66) *na-nun hwacangsil-eyse seyswustayya-ey ppallay-lul hay-ss-ta.*
I-Top bathroom-EYSE washing bowl-EY laundry-Obj to do-PT-Dec
‘(I) did laundry in the washing bowl in the bathroom.’

The TR ‘I’ is perceived to be within the ‘bathroom space, but not within the washing bowl. Thus the ‘bathroom,’ which is a background place, is marked with –eyse but not the ‘washing bowl.’

This finding is in line with Langacker (2002)’s explanation that vantage point can be of the construer, which is oftentimes a speaker, addressee, or some other individual’s perspective that has been adopted (pp. 317-318).
Similar construal can be found in the following example sentences (3.67 a) and (3.67 b), where the bounded area of the LM acts as a background space for the event of meeting a friend taking place.

(3.67) a. wuli-nun achim-ey tosekwan-eyse manna-ss-ta.
   we-Top morning-EY library-EYSE to meet-PT-Dec
   ‘We met in the library in the morning.’

   b. na-nun pyengwen-eyse kunye-lul wuyenhi manna-ss-ta.
   I-Top hospital-EYSE she-Obj coincidentally to meet-PT-Dec.
   ‘I met her coincidently at the hospital.’

This sense displays an interesting contrast with the containment sense of –ey that was discussed in section 3.2.2. Recall that the previous literature has observed the co-occurrence of the spatial marker –eyse with action verbs (sometimes labeled as dynamic verbs), and the co-occurrence of spatial marker –ey with stative verbs (i.e., iss-ta, eps-ta, manh-ta, cek-ta, etc.). Many researchers have stopped reporting these co-occurrence phenomena, and no one has attempted to explain the semantic differences of both spatial markers involving bounded space. Although the LM of both senses is conceptualized as a confined/bounded space, I hypothesize that the difference between the Containment Sense of –ey and the Background Sense of –eyse has to do first, with the vantage point and second, the notions of distal and proximity. In the case of the Containment Sense of –ey, the vantage point is in default setting (i.e., off stage) and although it has a functional element of containment, it also inherited the functional element of proximity from the primary sense of –ey.

The consequence of having an external vantage point of a container is that the TR located in the LM is invisible and inaccessible. In addition, since the LM, the container, inherited the
functional element of proximity, it is construed as an intimately limited space. As a result of this particular configuration, I hypothesize that the Containment Sense of –ey is used when reporting the state of the TR inside the LM (resulting in the use of stative verbs). In contrast, in the case of the Background Sense of –eyse, the vantage point is within the LM and it has inherited the functional notion of distal. The consequence of having this particular spatial configuration is that since the vantage point of the bounded space is internal, the TR is in sight and thus is visible to the construer. Also, since the LM is construed as carrying the functional element of distal, the LM is construed as more of a backdrop where an unfolding event can take place within eyesight. I hypothesize that this is why the Background Sense of –eyse is used with action verbs most often. The following sentences compare the bounded sense of –ey (i.e., Containment Sense) and –eyse (i.e., Background Sense). For example, (3.68 a) and (3.68 b) illustrate the Containment Sense of –ey where the LM (i.e., internet) is construed as a place where the TR (i.e., teacher and earthquake prediction, respectively) existed.

(3.68) a. sensayngnim-un ophisu-ey kyeysi-n-ta.
   Teacher-Top office-EY to exist(Hon)-Pres-Dec
   ‘The teacher is in the office.’

   b. intheneyse-ey imi cicin yeychuk-i iss-ess-tako potohay-ss-ta.
   internet-EY already earthquake prediction-Sub exist-PT-Ind Q to report-PT-Dec
   ‘(The news) reported that there was a prediction in the internet already.’

The following sentences (3.69 a) and (3.69 b) illustrate the Background Sense of –eyse where the LM (i.e., ICC building and school reunion) is construed as a place where the TR (i.e., a class and an incident, respectively) takes place.
The cases where –eyse is used with the verb iss-ta ‘to exist,’ as shown in example sentences (3.69 a) and (3.69 b), are worth noticing more carefully. The corpus data revealed that most of such cases are when the TR is perceived as an event (i.e., a class, lecture, party, incident, etc.) rather than an entity. This is consistent with the proto-scene of –eyse that I am proposing, with a distal functional element; in cases when the TR is conceptualized as an event, the marker –eyse is used, which denotes distally located background (or at least not as proximally as it is with the Containment Sense of –ey).

The corpus data showed that the Background Sense of –eyse often is used with the topic marker –un/nun to set the premise of the topic of the sentence. Korean, as well as Japanese, is considered a topic prominent language, where the topic is set out at the beginning of the sentence. The frequency of –ey marked with the topic marker –un/nun was only 5% in the corpus data of 2000 sentences with the –ey spatial marker. In comparison, the frequency of –eyse marked with the topic marker –un/nun was 12.8% in the corpus data of 2000 sentences with the –eyse spatial marker, which is a 155% difference. When the Background Sense of the background space marked with –eyse is used in conjunction with the topic marker, it sets out a ground from which the argument that the rest of the sentence makes applies to. It has the effect of topicalization as in English, with a so called island constraint as can be observed in (3.70 a) and (3.70 b).
(3.70) a. i kul-eysenun kyengceyt yeksa-lul cenchesek-ulo salphy-e po-keys-ss-ta.
   this text-EYSE-Top economy development history-Obj overall-Ulo to look-
   and-try-Conj-Dec
   ‘In this text, (I) will try to look through the overall economy development
   history.’

   b. cikum hakkyo hyencahyeyse-nun kyosa-tul-i haksayng-tul-ul ettehkey citoha-
   yya ha-lici honlansule-weha-ko iss-ta.
   Now school site-EYSE-Top teacher-Pl-Sub student-Pl-Obj how to discipline-
   have to-whether to be confused-Prog-Dec
   ‘At the school site, teachers are being confused about how (they) have to
   discipline the students.’

The Background Sense of –eyse also includes the highlighted notion of boundary. The
boundary is set for the argument of the sentence and is oftentimes used with the superlative
construction.

(3.71) a. seysang-eysenun kacang alumtawu-n kes-i palo salang-i-ta.
   world-EYSE most beautiful thing-Sub very love-to be-Dec
   ‘The most beautiful thing in the world basically is love.’

   b. wuli pan-eysenun yengswu-ka kacang kongpwu-lul cal hay-yo.
   our class-EYSE Young-su-sub most study-Obj well to do-Dec(Pol).
   ‘Young-su studies as the best in our class.’

The Background Sense of –eyse also metaphorically refers to a bounded space for our
abstract thoughts such as point of view. In this case, the literal expression of perspective (e.g.,
kyenci ‘viewpoint,’ kwancem ‘point of view,’ ipcang ‘position’) is used along with –eyse. The
notion of perspective and the vantage point of the construer in the LM go very well together.

(3.72) a. kyoyukcek kyenci-eysenun po-myen i kyokwase-nun ssuleyki-i-ta.
   educational point of view-EYSE to look-if this textbook-Top garbage-to be-Dec.
   ‘If (you) look from an educational view point, this textbook is garbage.’
b. *muncey-lul talun kwancem-eyse sayngkakha-y po-ca.*
   problem-Obj different point of view-EYSE to think-try-Let’s.
   ‘Let's consider the matter from a different point of view.’

c. *nay ipcang-eyse po-myen kulen hayntong-un yongnap-toy-ci anh-nun-ta.*
   my point of view-EYSE to look-if like that actions-Top to accept-to be-not-
   Pres-Dec.
   ‘If (you) look from my position, actions like that are inexcusable.’

This is not a separate extended sense but rather it is a subsense that the confined/bounded sense
exhibits.

*Agent Sense*

![Figure 3.24. Agent Sense](image)

The Agent Sense is derived directly from the Background Sense of –eyse. In this sense, the LM acts upon as an agent. To depict the role of the agent that the LM is playing, the eye is placed inside the LM and the body figure is placed under the LM as shown in the diagram to indicate the LM has its own mobility. The Agent Sense of –eyse is used as a subject in a sentence and thus can be replaced with the subject marker –i/ka. The different construal you get from the LM with the regular grammatical subject marker versus the LM with the Agent Sense of –eyse is that in the former the LM is construed as a single unit or entity, whereas in the latter, the LM is
construed as every part that consists of the bounded LM playing a role. For example, in the following sentences, the whole premises of school, government, and the company is conceptualized.

(3.73) a. *ipen tayhoy-nun wuli hakkyo-eyse wusung-ul chacihay-ss-ta.*
    this time competition-Top our school-EYSE championship-Obj take-PT-Dec
    ‘As for this competition, our school took the championship.’

    b. *cengpu-eyse silsiha-n cosa kyelkwa-ka palphyotoy-ess-ta.*
    government-EYSE try-Mod investigation result-Sub be released-PT-Dec
    ‘The investigation result that the government conducted was released.’

    c. *piyong-un hoysa-eyse putamha-n-ta.*
    expense-Top company-EYSE to take care of-Pres-Dec.
    ‘Speaking of expenses, the company will cover/pay (them).’

*Deduction Sense*

![Deduction Sense Diagram](image)

*Figure 3.25. Deduction Sense*

Some of the sentences employing –eyse have a meaning of deduction. The Deduction Sense is derived from the Background Sense. This sense denotes non-spatial relations among entities in which the notion of deduction is indicated. The TR that is placed in the bounded LM space undergoes changes (i.e., amount or quantity reduces) when some TR members have been
taken out. The focus is on the preexisting situation of the LM and TR. The following examples exhibit the Deduction Sense of –eye.

(3.74) a. 10-\textit{eye} 7-ul ppay-ta.
\hspace{1cm} 10-\textbf{EYSE} 7-Obj to subtract-Dec
\hspace{1cm} ‘Subtract 7 from 10’.

b. pongkup-\textit{eye} 10man wen-ul kongceyhay-ss-ta.
\hspace{1cm} salary-\textbf{EYSE} one hundred thousand won-Obj to deduct-PT-Dec.
\hspace{1cm} ‘(They) deducted [took away] one hundred thousand won from (my) salary.’

As seen in example sentence (3.74 a), all mathematical deduction is spoken using the –eye spatial marker, but also other words are used to serve as the LM where the TR is taken out as in (3.74 b). The key difference between Deduction Sense of –eye and the Background Sense of –eye, which was discussed above, or the Origin Sense of –eye, which will be mentioned below, is the fact that the nature of the LM in the Deduction Sense undergoes changes and does not remain as the same.

Deduction Sense exhibits an interesting contrast with the Addition Sense of –ey that was discussed earlier in section 3.2.2. The difference between the Addition Sense of –ey versus the Deduction Sense of –eye is whether the focus is on the latter part of the change (what is perceived as a goal) or on the the earlier part of the change (what is perceived as a source). In the Addition Sense of –ey, the LM which you are adding the TR into (i.e., goal) is in focus, whereas in the Deduction Sense of –eye, the LM where the TR originally was located (i.e., source) is in focus.
**Source Cluster**

Five senses were identified as belonging in the Source Cluster. The relationship between the Background Sense versus the senses in this cluster can be understood from experiential correlation. Tyler and Evans (2003) point out that one of the many ways we interact with the bounded LM is an emerging where the TR is coming ‘out of’ (along with many other functional consequences of containment, such as support, protection, goals, pp. 179-180). For example, we come out of the house to leave for work, or take out something from a box to show. This certain way of interacting with the bounded LM is the way we understand the LM as the source.

In the Source Cluster Senses, the notion that a bounded LM serves to highlight the salient place in which the TR is originated from gives rise to a range of closely related senses: Origin Sense, Starting Point Sense, Temporal Starting Point Sense, Motivation Sense, and Comparison to Previous Event Sense.

**Origin Sense**

![Figure 3.26. Origin Sense](image)

The first distinctive sense identified in the Source Cluster is the Origin Sense. This sense is derived from the Background Sense. As shown in Figure 3.26 above, the TR is depicted as a dot with a nose-like arrow, which indicates the orientation that the TR is facing. The LM, which
is depicted as a cylindrical shape, is highlighted. The TR is oriented away from the LM to depict the relation of origin or the emersion. The following example sentences show the meanings of source/origin.

(3.75) a. *i mulken-un sicang-eyse sa wa-s-ta.*
   this stuff-Top market-NEYSE to buy and come-PT-Dec
   ‘As for this stuff, I bought and brought it from the market.’

b. *sewul-eyse myech si-ey chwulpalha-l yeycengi-nya?*
   Seoul-NEYSE what time-EY to depart-to be scheduled-Que?
   ‘What time (are you) scheduled to depart from Seoul?’

c. *namu-eyse tte-l-eci-ta.*
   tree-NEYSE to fall-become-Dec
   ‘(It) falls from the tree.’

d. *thayyang-un tongccok-eyse tuu-n-ta.*
   sun-Top east side-NEYSE to rise-Pres-Dec
   ‘The sun rises from the east.’

e. *cwumeni-eyse ton-ul kkenay-se keci-eykey cwu-ess-ta.*
   pocket-NEYSE money-Obj to take out-and begger-to to give-PT-Dec
   ‘(S/he) took money out of the pocket and gave it to the begger.’

f. *ku-nun mo kiep-eyse ton-ul pat-un hyemuy-lo hyencay cosa cwung-ey iss-ta.*
   he-Top some company-NEYSE money-Obj to receive-Mod allegation-ULO
currently investigation in the middle-EY to exist-Dec
   ‘He is currently under investigation with the allegation of receiving money from some company.’

g. *syeyiksuphie-uy 'lomio-wa cwullieys'-eyse inyonghay-ss-ta.*
   Shakespeare-Pos ‘Romeo-and Juliet’-NEYSE to quote-PT-Dec.
   ‘(I) quoted (it) from Shakespeare's Romeo and Juliet.’

h. *hakkyosiktang umsik-eyse kholleylakyun-i kemchwil-toy-ess-ta.*
   school restaurant food-NEYSE Cholera germs-Sub to find-become-PT-Dec.
   ‘Cholera germs were found in the food of school cafeteria.’

As shown in the example sentences, the LM can be a physical location (a market), geographical area (Seoul), object (food), or an absolute location term (east side). Also, whether
the LM is an object of a reference point (tree) or more of a container (pocket), they are construed as a place where the TR has originated from.

The Origin Sense of –eyse makes an interesting contrast with the Destination Sense of –ey. The difference between the Destination Sense (of Goal Cluster) of –ey and the Origin Sense (of Source Cluster) of –eyse is compared in the diagrams in Figure 3.27. Both have a highlighted LM but the orientation of the TR is different as the TR in –ey is directed toward the LM to indicate the TR is orienting toward its target (goal), whereas the TR in –eyse is directed away from the LM in order to suggest the TR is originated from the LM and is orienting away from it. Note that since the TR in the Destination Sense of –ey is orienting toward the highlighted LM, the functional element of proximity is still in effect, while in the Origin Sense of –eyse, the TR is facing away from the LM showing a lack of proximity.

![Diagram of Destination Sense of –ey vs Origin Sense of –eyse](image)

*Figure 3.27. Destination Sense of –ey versus Origin Sense of –eyse*

**Starting Point Sense**

![Diagram of Starting Point Sense](image)

*Figure 3.28. Starting Point Sense*
Starting Point Sense is derived from the Origin Sense. Like the origin sense, the TR with a nose-like arrow is facing away from the LM which is construed as the TR emerging from it. The difference is that in the Starting Point Sense, there is a secondary LM in the direction that the TR is facing. Although the secondary LM is not in focus it is construed that the TR is in its journey from the beginning point where it began its journey to the end point where it ends its journey.

The LM marked with spatial marker –eyse denotes the starting point of the path to the goal. The endpoint of the path toward the secondary LM, however, is usually marked with other spatial markers denoting the end of the path such as –ulo or –kkaji, which will be discussed further in the next section. This sense satisfies its criteria to be a distinct sense by providing additional meaning that was not apparent in the Origin Sense. This sense has probably arisen through pragmatic strengthening. That is, the new sense of starting point is related to the origin sense but the additional meaning of the starting point in a given range is derived in sentence context. The continued usage of this form in this context probably gave rise to conventionalized implicatures and this particular usage was entrenched in our memory (Tyler & Evans, 2003, p. 60).

This sense highlights the starting point instead of conceptualizing a path to a goal (highlighting the end point). With this analysis, I hypothesize that Starting Point Sense does not have a path element built into –eyse. The path meaning is originated from either the other marker highlighting the end path or from the verb of motion. As shown in Figure 3.28, the TR has an orientation with a nose-like triangle (away from the first highlighted LM and toward the secondary unhighlighted LM), but not any path element. It seems at first that the TR in the
Starting Point Sense is an animate object going through a motion, as a human being typically associates path with animacy that can generate a movement and travel to a goal on its own as in example (3.76).

(3.76)  
**sewul-eyse pusan-ulok a nun salam-i manh-ase phyoka ta ttel-ecy-ess-ta.**  
Seoul-**EYSE** Busan-ULO to go-Mod people-Sub there are many-so ticket-Sub all run out-PT-Dec  
‘Because there are many people who go to Busan from Seoul, the tickets were sold out.’

However, the TR in this Starting Point Sense oftentimes is not animate, and also gives rise to the conceptualization of a starting point in a motionless range. The following sentences (3.77 a) through (3.77 c) illustrate a starting point of a range, which still consists of the end of the range with another spatial marker.

(3.77) a.  
**1-eyse 20-kkaci sey-ca.**  
1-**EYSE** 20-up to count-Let’s  
‘Let’s count from 1 to 20.’

b.  
*i ceypwum-un ai-eyse elun-kkaci motwu sayongha l swu iss-ta.*  
this product-Top child-**EYSE** adult-up to all to use-be able to-Dec  
‘As for this product, from children to adults are all able to use it.’

c.  
**tapinchi-eyse mathisu-ey ilukik-kaci kutul-un inchey-uy kicho-lul kuly-e po-ko kongpwuha-ko iss-ta.**  
da Vinci-**EYSE** Matisse-EY to reach-up to they-Top body-Pos basic-Obj to draw-and to study-Prog-Dec  
‘They are drawing and studying the human body’s basics from da Vinci (style) up to Matisse (style).’
As discussed earlier in section 3.2, time is conceptualized in a spatial world and expressed with spatial markers. The general assumption in cognitive linguistics is that spatial and temporal senses are metaphorically related through a metaphor such as \textit{TIME IS SPACE}. Also, notice that time is conceptualized as one travels in one dimensional space as in the \textit{TIME IS A PATH} metaphor (Lakoff & Johnson, 1980). That is, time is conceptualized as moving along a path. The Temporal Sense bears a lot of similarity with the Starting Point Sense. As depicted in Figure 3.29 above, there are two LMs located on either side of the TR. The one that is on the left is highlighted and is in focus. The TR is diagrammed to look like a clock. Thus time is conceptualized as moving from the beginning point to the end point. The end point is marked with other spatial markers such as –\textit{kkaci} ‘up to’ or –\textit{saiey} ‘in between.’ As was the case in the Starting Point Sense of –\textit{eyse}, I hypothesize that the Temporal Starting Point Sense also does not have a path element.\footnote{I suspect that the marker –\textit{pwuthe} ‘from,’ which can be used interchangeably or in conjunction with –\textit{eyse}, has a functional element of path along with its spatial element. Since –\textit{pwuthe} has a path element, it can be used in (3.66 a) but not in (3.66 b), where the suggested time for a visit is certainly not continuous time from 4 to 6 o’clock.} The movement also is derived from the verb but not from –\textit{eyse}. The following sentences show examples of the Temporal Starting Point Sense.
Interestingly, the spatial marker –ey also has an extended sense of Temporal Sense. The Temporal Sense of –ey was derived from its primary sense, so the TR was conceptualized as being proximal to an area in the time dimension. In comparison, the Temporal Starting Point Sense of –eyse is derived from the Starting Point Sense of Source Cluster and therefore is conceptualized as a beginning point of time in an array of time.

**Motivation (reason for actions) Sense**

![Figure 3.30. Motivation Sense](image)

The next distinctive sense identified in the Source Cluster is Motivation Sense. This sense is a non-spatial sense and is derived from the Origin Sense. Unlike the Starting Point Sense or the Temporal Starting Point Sense, the Motivation sense interacts with only one LM, similar to the Origin Sense. The TR has a nose-like arrow to indicate the orientation it is facing. There are two differences between this sense and the Origin Sense that need to be pointed out. The first
difference is that the LM in the Motivation Sense is an abstract feeling or motivation to carry out an action. The bounded LM, which is depicted as a cylindrical space, is associated with a psychological, emotional state. This Motivation Sense displays an interesting contrast with the Psychological State Sense of –ey. Different from the Psychological State Sense that the spatial marker –ey conveyed (where the TR is construed as being inside the state of psychological emotions, which is depicted as a bounded space), the psychological emotional space of the LM in the Motivation Sense of –eyse is conceptualized as the source of a certain behavior. Thus, the TR is conceptualized as being motivated to carry out an action. This motivation factor is depicted as the TR being surrounded with a dotted circle. The experiential correlation of the motivated TR originated from a certain psychological state that gave rise to the meaning of the Motivation Sense. The following sentences exhibit the meanings of the Motivation Sense of –eyse.

(3.79) a. komawun maum-eyse tuli-nun malsslum-i-pnita.
   thankful heart-EYSE to give (Hum)-Mod saying-it is-Dec (Def).
   ‘I am saying this from a thankful heart.’

   b. kuce cokumahan pothaym-i-lato toy-koca ha-nun ttus-eyse hayngha-n il-i-ta.
      just small addition-even to become-Mod meaning-EYSE to conduct-Mod work-
      it is-Dec
      ‘This is what I did from an intention to become even a small addition.’

   c. ku-uy hayngtong-un hokisim-eyse pilostoy-n kes-i-ta.
      he-Pos action-Top curiosity-EYSE to begin-It is-Dec
      ‘It is the case that his action began from curiosity.’
Comparison to Previous Event Sense:

![Figure 3.31. Comparison to Previous Event Sense](image)

The Comparison to Previous Event Sense is also an abstract sense derived directly from the Origin Sense. As in the Origin Sense, the TR is oriented away from the LM. Similarly, like the Origin Sense where the TR was construed as having been originated from the LM, the TR in this sense is construed as having left the previous event of the LM and now the state is of the TR and LM being compared to one another. The spatial configuration that is depicted in Figure 3.31 is very similar to the one in the Origin Sense. The difference is that a horizontal line and the triangle under the line that resembles a scale suggest that the TR (at its current state) and LM (where the TR belonged before) are being compared. The following sentence shows such an example.

(3.80)  `ithis’ or yeki ‘here.’ The situation of the phrases or the sentences uttered before i ‘this’ plus –eyse is understood as being compared to the main argument of the sentence. For example, the speaker was talking about the bad luck that (s)he had

In sentence (3.80), the meaning of Comparison to Previous Event of –eyse is oftentimes used with demonstratives such as i ‘this’
recently in his/her personal life, of which was referred by the demonstrator as ‘this’ and marked with –eyse and then compared if anything could be worse. Observe more examples below.

(3.81) a. cwuk-un pwumo-ka sal-a tol-a-o-ntul i-eyse te kippu-cinun anh-ul kes-i-ta.
    decease-Mod parents-Sub to live and return-even if this-EYSE more happy-not-Pros Nom-Dec
    ‘(I) wouldn’t be any happier than this even if my deceased parents come back alive.’

b. i-eyse te khu-n salang-i eps-nani.
    this-EYSE more big-mod love-Sub not exist
    ‘There is no greater love than this.’

In sentence (3.81 a), the hypothetical situation (deceased parents coming back alive) is being compared upon to see which is a happier event. In (3.81 b), God’s love that is mentioned in the previous sentence is being compared to any bigger love, which is argued as nonexistent.

This sense shows an interesting distinction from the Comparison Sense of –ey, which is used to compare with normality, or a rule. Since the Comparison Sense of –ey is derived from the Primary Sense of –ey, it has a sense of proximity built into what it is being compared to. However, the Comparison to Previous Event Sense is an associated functional element of distal along with the consequence of spatially orienting away from the previous event, which is conceptualized as a source.

So far, the semantic networks of –ey and –eyse were presented and argued for. Their primary sense and the extended senses were identified following the Principled Polysemy model (Tyler & Evans, 2003) as each spatial configuration along with functional element was discussed. Throughout the semantic network, it was observed that not only were the spatial configurations related with each other within the network but also the functional element was inherited from the
proto-scene of –ey and –eyse (proximity and distal, respectively). It was shown that the experiential correlation along with pragmatic strengthening were the motivation to give rise to their new distinct senses from the primary senses. In the following section, the semantics of the last spatial marker –ulo will be studied.

3.4 Analysis of semantic networks of spatial marker –ulo

It has been widely accepted that spatial marker –eyse was derived from –ey through grammaticalization at around the 17th century. The etymology of spatial marker –ey can be traced back to the Silla Dynasty (6th century); S. Kim (1992) argues persuasively that the noun meaning ‘middle’ or ‘inside’ seemed to have grammaticalized to the spatial marker –ey. In contrast, the actual usage of the spatial marker –ulo, although its etymology is not clear,23 is traced back to the Koryo Dynasty (10th century). –ulo, as was the case for the other spatial markers, exhibits a highly polysemous nature as it is often translated as ‘toward,’ ‘through,’ ‘throughout,’ ‘with,’ ‘by,’ ‘as,’ ‘because of,’ etc.

3.4.1 Finding the primary sense of –ulo

The same set of principles put forth by Tyler and Evans (2003) were applied when analyzing the semantic network of the third Korean spatial marker –ulo. Since the first attested meaning of –ulo was not available in the literature, other criteria, especially the relation to other

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23 S. Kim (1992) speculates on the etymology of –ulo as a ‘reason’ or ‘cause’ as he argues the polysemous meanings of –ulo are all related to the meaning of a ‘reason’ or ‘cause’(pp. 213-217). However, based on the analysis discussed in this dissertation I have come to a different conclusion that the marker –ulo originated from a spatial marker, similar to –ey and –eyse, and gave rise to non-spatial abstract meanings such as ‘reason’ or ‘cause’ through experiential correlation.
spatial markers, were considered. The proto-scene of –ulo is identified as the TR being oriented toward an unhighlighted goal.

The proto-scene of –ulo can be best understood in contrast to the Destination Sense of –ey, which was an extended sense of the Goal Cluster derived from the primary sense of the Proximal Area Sense, as discussed in section 3.2. When distinguishing the meaning of the Destination Sense of –ey and the primary sense of –ulo, the highlighted status of the LM becomes an important difference to consider. In other words, in the Destination Sense of –ey, the LM is highlighted (thus the LM is conceptualized as an immediate goal); while in the proto-scene of –ulo, the LM is not highlighted (thus the LM is conceptualized as a more neutral, secondary destination). Observe the following minimal sentences.

(3.82) a. hakkyo tosekwan-ey ka-yo.
  school  library-EY to go-Dec(Polite)
  ‘(I) am going to the school library.’

  b. hakkyo tosekwan-ulo ka-yo.
  school  library-ULO to go-Dec(Polite)
  ‘(I) am going to(ward) the school library.’

In (3.82 a), ‘the school library’ is the destination, where the speaker will end up arriving at, while in (3.83 b), the speaker is on the way toward the direction of ‘the school library,’ but it is not directly implied whether the library is the ultimate destination or not. That means (3.82 b) could be ambiguous since the speaker could end up being in the library or was just heading that way but did not necessarily have to be in the library at the end, and could have been, for example, just meeting a friend in front of the library.

Compare the Destination Sense of –ey with the proto-scene that I hypothesize for the spatial marker–ulo as seen in Figure 3.32.
Both of the TRs in the above figure are marked with a nose-like arrow to indicate orientation toward the LM. However, the LMs are different in that for –ey, it is drawn in bold to suggest it is highlighted as opposed to that in –ulo, where the LM is drawn with a dotted line to suggest it is not highlighted. I propose that the proto-scene of –ulo involves a LM that is vague in nature as the example sentences in (3.83 a) and (3.83 b) are allowed.

(3.83) a. amutey-ulo-na sso-myen sako na-pnita.
    anywhere-ULO-(where)ever to shoot-if accident occur-Dec (Def)
    ‘If (you) shoot (it) to anywhere, accident occurs.’

    b. enutey-ulo-tun ttena-ko sip-ta.
       somewhere-ULO-even to leave-want to-Dec
       ‘(I) want to leave to wherever.’

In other words, the difference between the Destination Sense of –ey and –ulo is that while the LM associated with –ey is realized as that of an immediate, specific goal, the LM associated with –ulo has an unhighlighted goal relation. The corpus data showed that the usual LM that is used with –ulo tended to be a less specific location, such as name of the city, country, general direction (e.g., right, left, up, down, etc.), continents, name of an ocean, and phrases with demonstratives (e.g., this, that). Two additional important elements to compare are the motion and path elements. The functional element of path is one of the many ways we interact with a
According to Tyler and Evans (2003), “the concept of path requires a particular spatial goal, which is achieved by being connected to a spatial source by virtue of a series of contiguous points” (p. 218). Oftentimes paths correlate with motion so they are conceptualized linearly. Tyler and Evans explain that the functional element of path can be understood as different from motion (related to change of location), trajectory (the shape of the motion actually followed by the instance of a TR in motion), or orientation (the direction of the TR in relation to the LM). Often path is conflated with motion, trajectory, or orientation; Tyler and Evans argue that it is important to separate these in order to understand the true meanings of spatial markers.

Following this principle, the proto-scene of –ulo is hypothesized to have an orientation and functional element of path, but not motion and therefore not a trajectory.

As was discussed in section 3.2, path and movement are not a part of the Destination Sense of –ey; instead, the meaning of path and movement arise from the co-occurring verb. In the case of the proto-scene of –ulo, I argue that path is a functional element that resulted after humans interacted with this particular spatial configuration. Thus, the functional element of path and orientation are depicted as two separate elements in the proto-scene of –ulo. As seen in Figure 3.32 of the proto-scene of –ulo, there is a solid line depicting the functional path element under the TR.

The proto-scene of –ulo is closely related to path schema. Lakoff (1987) explains that human beings possess the classic schematic image of SOURCE-PATH-GOAL that consists of a starting point, and a path that leads to an end point. In other words, when a human being conceptualizes the TR locating in between the source and destination, and orienting toward one particular direction, we understand the TR is in a path from the source to the goal. The minimal

24 However, Tyler and Evans (2003) noted that it is entailed that a path could have a diverse range of shapes. They explain that the source and goal could follow diverse trajectories (e.g., arc-shaped, zig-zagged, circular, etc.) and not necessarily be linked with the shortest distance between them (p. 218).
element for a human being to conceptualize the path is the end point of the path involving the LM as a target. The proto-scene of –ulo denotes such a path toward an unhighlighted goal. Going back to sentences (3.82 a) and (3.82 b), which were previously described above, I hypothesize that if you are at home getting ready to go out and somebody asks the question, ‘Where are you going (to)?’, example sentence (3.82 a) is likely to be said to highlight the destination, whereas if you are walking on a street or driving a car and someone asks the same question it is more likely to be answered with example sentence (3.82 b) in order to focus on your path from point A to B. This does not mean that if you choose the marker the other way around, then it is ungrammatical or semantically anomalous. It is the different construal that the speaker intends with a particular different marker that I am discussing. The construal you get with the marker –ey in (3.82 a) is destination (the focus is GOAL); while the construal you get with –ulo in (3.82 b) is that the TR is traveling on a PATH. The following example (3.84) illustrates a usage of –ulo that denotes such a path element.

(3.84)  

\textit{cehuy cip-eyse hakkyo-ulo ka-nun kil-ul al-ly-ecwu-s-eyyo.}  
our (Hum) house-EYSE school-ULO to go-Mod road-Obj to know-Cau-Aux-Hon-Dec(Pol).  
‘Please let me know the way to school from our home.’

Sentence (3.84) is asking for directions. With the marker –ulo, the focus is on the path to school from home (i.e., the route and process of getting to the destination).

Similarly, in examples (3.85 a) and (3.85 b), the LM as a destination (i.e., the ‘door’ or the city of Kwangju) is not in focus, but rather the TR’s travel path from the source to the goal is in focus.
(3.85) a. *etwüwe-se tetumkeli-myë mun cëok-*ulo ka-yahay-ss-ta.
be dark-so to group-and door direction-ULO to go-have to-PT-Dec
‘Because it was dark, (I) had to grope [feel] my way to the direction of the
door.’

today Kwangju-ULO to go-Mod plane-Obj to ride-Mod schedule to-Dec
‘Today I am scheduled to ride a plane that goes to Kwangju.’

Since the end of the path is the minimal information in the primary sense of –ulo, oftentimes the
beginning of the path is assumed. However, if you want to specify the beginning of the path, you
use it with the spatial marker –eyse to denote the beginning point of the TR’s journey as it was
the case in sentence (3.84).

In the next sentence (3.86), the spatial marker in conjunction with the verb ‘to depart’
highlights the TR’s journey to the U.S. rather than highlighting the arrival to the destination
element (which then would have been said with the spatial marker –ey along with the verb ‘to
arrive’).

(3.86) *ku-nun pelsse mikwuk-*ulo yehayng-ul ttena-ss-ta.
he-Top already America-ULO trip-Obj to depart-PT-Dec
‘He already departed to America.’

In this notion of path becoming a focus (rather than focusing the end point: destination), I found
many examples of data in the corpus that used –ulo when talking about something that had
happened during the middle of the journey before reaching the destination, as shown in the
example sentences in (3.87) below.25

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25 Spatial markers were frequently absent in the expression, LM(-ulo)+ ka-nun kil-ey ‘on the way to(ward) LM.’
Chapter 4 discusses the omission of spatial markers.
Example sentences (3.87 a) and (3.87 b) present situations where the destination (LM) is marked with –ulo. Since –ulo highlights the path toward the destination, situations such as the sentences in (3.87), where something (i.e., meeting someone or taking a picture) happened during the path toward reaching the destination (i.e., somewhere before reaching Yangphyeng city or home) is being emphasized. These examples are consistent with the findings from –ey and –eyse that, depending on the spatial markers chosen, a subtle construal difference of the spatial scene is expressed.

**3.4.2 Finding Extended meanings of –ulo**

Again, the same principles that were used in identifying the distinctive senses of –ey and –eyse were applied to finding distinctive senses of –ulo. The functional element of path that exists in the proto scene of –ulo is still present in the following distinctive senses. It will be shown that this functional element is vital in the development of extended senses. Three clusters were identified: Approach Cluster, Progression Equation Cluster, and Pathway Cluster. The following figure presents the semantic network of –ulo.
Figure 3.33. The semantic network of –ulo
Approach Cluster

In association with the Approach Cluster, six distinct senses were identified: Orientation Sense, Choice Sense, Promises/Decision Sense, Limit Sense, Boundary Crossing Sense, and Changes Sense. In all of these senses the TR’s orientation plays a big part. The functional element of PATH in the proto-scene evokes the schema of journey. In other words, the TR gets on a journey from a source to reach a destination. Rather than focusing on the source or the destination, the senses in this cluster focus on the PATH, or the space between the source and the destination. Thus, the schema of journey evokes the TR facing the destination (LM), getting closer to the LM, and ultimately arriving and crossing into the LM; then turning into a different state after crossing over the LM. The following explains each sense of this cluster in detail.

**Orientation Sense**

![Figure 3.34. Orientation Sense](image)

The diagram depicts the TR having a nose-like arrow orienting toward the LM. The LM is depicted as a cylinder-like area but it is outlined with a dotted line to suggest that the LM is not highlighted. When the LM is not highlighted, the LM is not construed as an immediate
arrival destination, as was the case for the proto-scene of –ulo. The following sentences illustrate examples of the Orientation Sense.

(3.88) a. nay pang changmun-i nam-ccok-ulo na-iss-ta.
   my room Window-Sub south-side-ULO be out-exist-Dec.
   ‘My room window is existing out (faces) toward the south side.’

   b. i-ccok-ulo po-sey-yo.
     this side-ULO to look-Hon-Dec
     ‘Please look toward this side.’

   c. kunye-nun tung-ul changmun ccok-ulo hyangha-ko anc-ass-ta.
     she-Top back-Obj window side-ULO to face-and to sit-PT-Dec.
     ‘She sat with her back to (facing toward) the window.’

The LM in this sense is usually marked with the word for the direction ccok ‘side’ followed by the spatial marker –ulo. The LM is used as a reference point of orientation. The LM could be a directional location such as east/west in (3.84 a), a subjective location such as this/that way in (3.84 b), or a large object in the room as in (3.84 c). The TR in this sense is typically not in motion therefore the location of the TR does not change. However, it has inherited a functional element of path from the proto-scene. The TR’s path of travel, the perceptual path in between the TR and LM, is created and plays an important role. In this sense, the functional element of path is the consequences of the TR facing the LM in that it creates an invisible, yet conceptual line of path (a “sensory path of a fictive motion” borrowing the notion from Talmy, 2000) between the TR and LM. Thus the proto-scene of –ulo has a combination of the spatial aspect of orientation and functional element of path. The arrow depicting path in the proto-scene was in a solid line but the path in the Orientation Sense is in a dotted line to suggest it is a perceptual sensory path. In the case of the Orientation Sense of –ulo, motion is absent.
Choice Sense

The next distinct sense identified in the Approach Cluster is the Choice Sense. In this sense, what is perceived as closer is understood as being preferred and, therefore, to be chosen. The following example sentences illustrate the Choice Sense of –ulo.

(3.89) a. swul-un yakha-n-kel-ulo sa-ka-ca.
   alcohol-Top be weak-Mod-Nom-ULO buy and go-let’s
   ‘As for the alcohol, let’s bring the weaker one.’

   b. ppalkansayk mal-ko ikel-ulo cwu-seyyo.
      red color not and this thing-ULO to give-Hon-Dec (Pol)
      ‘Please give me this one, not the red one.’

   c. twul-cwung hana-ulo ppalli kyelceng-hay cwu-seyyo.
      two-out of one-ULO quickly to decide-to do for sb-Hon-Dec (Pol)
      ‘Please decide quickly on one out of two.’

In the above sentences, the ultimate choice (i.e., the weak alcohol, this one, one of the two) is chosen out of other possible options. This Choice Sense is possibly evolved from experiential correlation of human experience involving closer objects. Suppose you are holding two objects in your hand and somebody asks you which one you want to choose, you would probably hold the preferred one out so that it becomes closer to the listener (Tyler, personal communication). Tyler explained that the preferred entity/event being closer, i.e., the more salient one, fits in with
the larger metaphor \textsc{closeness is intimacy} (salience, preferred element) versus \textsc{distance is lack of intimacy} (backgrounded, less preferred).

This sense is derived from the Orientation Sense as a result of a change of vantage point. Recall that change of vantage point often results in a new meaning resulting in the development of an extended sense. The perspective point of the Orientation Sense was off stage. Thus the spatial scene of the Orientation Sense was conceptualized as the construer looking at the scene from off stage. In the Choice Sense, the perspective point is shifted to on stage. As seen in Figure 3.35, the eye is put to the left of the TR to show an effect of having a perspective point there looking at the TR and LM. Once the vantage point changes to on stage next to the TR, the TR is perceived as closer and becomes even more salient as the LM is perceived to be at a distance. To depict this spatial arrangement, the TR is drawn with a bolded circle opposed the LM, which is drawn with a dotted line in the diagram. The orientation of the TR is no longer relevant but an alignment between perspective points, the TR and LM, has become important.

\textit{Promises/Decision Sense}

\begin{figure}[h]
\centering
\includegraphics[width=0.5\textwidth]{promises_decision_sense}
\caption{Promises/Decision Sense}
\end{figure}

\footnote{Tyler (personal communication, 2012) pointed out that people sometimes raise the preferred object somewhat so English gets the ‘up for preferred’ metaphor for \textit{over} as in ‘\textit{I would prefer tea over coffee.’}
The next distinct sense in this cluster is the Promises/Decision Sense, in which an event is promised or decided. I hypothesize that this sense is directly derived from the Choice Sense, in which the preferred choice was conceptualized as being closer. As part of the journey schema that arose from the functional element of PATH, the event in this sense (e.g., making a decision, promise, or vow) places the TR on a metaphorical path towards the end point. That which is promised is projected in the future which metaphorically becomes true at the end of the journey. The diagrams of the Choice Sense and the Promise/Decision Sense are almost identical in that the on-line perspective (with the shape of an eye) is aligned with the TR and LM. The only difference is that the TR is surrounded by an outer dotted line, which signifies that it is an event (i.e., making a decision, promise, or vow) rather than a physical entity. The result of the alignment from this particular perspective is that the unrealized promised event (TR) appears close to what will come true in the future (LM). This sense is used with a verb denoting an event (expressed in verb form) plus the nominalizer –ki followed by –ulo. This repeated occurrence of non-spatial usage of –ulo with the nominalizer –ki added a new sense as it became entrenched in memory. Consider the following examples.

(3.90) a. ku-wa nayil manna-ki-ulो yaksokhay-ss-ta.  
he-with tomorrow to meet-Nom-ULO to promise-PT-Dec  
‘I promised meeting him tomorrow.’

b. matangey hwacho-lul sim-ki-ulो kyelsimhay-ss-ta.  
yard-EY plant-Obj to plant-Nom-ULO to decide-PT-Dec  
‘(I) made a decision (on) planting the plants in the yard.’

c. tasi-nun kuleci anh-ki-ulо pumonim aph-eyse mayngseyhay-ss-ta.  
again-Top to do-not-Nom-ULO parents front-EYSE to vow-PT-Dec  
‘(I) made a vow not doing that again in front of the parents.’
In these sentences the event (i.e., meeting, planting, and not doing it again) was promised and decided. Although the act of promising happened in the past (used with the past tense), with the usage of the marker –ulo, the event that was promised (i.e., meeting, planting, and not doing it again) is conceptualized as a result that would be realized in the future.

Limit Sense

![Diagram of Limit Sense](image)

Figure 3.37. Limit Sense

The next extended sense in this cluster is the Limit Sense. I hypothesize that this sense is derived from the Orientation Sense, which also derived the Choice Sense and Promises/Decision Sense. The Limit Sense entails a spatial configuration of the TR reaching the end boundary of the LM denoting a limit, as drawn in the diagram in Figure 3.37. I hypothesize that the experience of the TR’s journey in a path gave rise to this sense, which denotes the TR reaching a point or level beyond which something does not or may not extend or pass.

(3.91)a. `sewul-ey on ci olhay-ulo sip nyen-i toy-n-ta.
   Seoul-EY to come-since this year-ULO ten year-Sub to become-Pres-Dec
   ‘It has been ten years by this year since I came to Seoul.’

b. onul an-ulo ta kkuthmachy-e ya ha-n-ta.
   today-inside-ULO all to finish-have to-Pres-Dec
   ‘(I) have to finish (it) all by today.’

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c. *i kes-ulo kuman machi-keyss-supnita.*
   this thing-ULO just finish-Conj-Dec(Deferential)
   ‘With this, we will stop [lit. (We) will just finish up to this].’

In (3.91 a), the total number of years mentioned is ten years counting up to this year. So this year is conceptualized as the boundary. Similarly, in (3.91 b), the time reference of today is conceptualized as having a boundary space and it is conceptualized as that if you cross over that boundary then you do not meet the deadline, but if you stay within today’s time reference then you satisfy the deadline. In (3.91 c), *i kes* ‘this thing’ refers to the previous discourse and when added with –ulo, it signals the end of a speech or a dialogue.

*Boundary Crossing Sense*

![Figure 3.38. Boundary Crossing Sense](image)

I hypothesize that the Boundary Crossing Sense is directly derived from the Limit Sense. In this Boundary Crossing Sense, it is important to note that the LM is conceptualized as a container. As human beings we interact with containers everyday and we understand that a container has an interior space and an exterior space. –ulo denotes a spatial configuration where the TR is located exterior to the LM, crosses the boundary, and enters into the interior space. Consider the following sentences.
The LM is conceptualized as a bounded space and its boundary becomes a key aspect. All of the spatial markers have a cluster of senses involving a conceptualization of a bounded space. The spatial marker –ey has a Containment Sense where the TR is conceptualized as being confined in the container, while the spatial marker –eyse has a Background Sense where the TR is conceptualized as being surrounded by a spacious backdrop. In the Boundary Crossing Sense, the TR is conceptualized as crossing into the bounded space.

**Changes Sense**

![Figure 3.39. Changes Sense](image)

The Changes Sense has evolved to non-spatial relations and is derived from the Boundary Crossing Sense. This is the last sense identified in the Approach Cluster. As it was the case for the other senses in this cluster the schema of the TR’s journey is relevant information to understand the meaning of the sense and its relation from the previous sense where it is extended.
from. The TR’s journey, being oriented toward the LM (Orientation Sense), reached the boundary of the LM (Limit Sense), and then crossed into the boundary to the interior space of the containment (Boundary Crossing Sense). Now, in the Changes Sense, the TR crosses the LM completely and is conceptualized as turning into a new changed second state. Thus, the TR is linked as not being the same entity or state. The changed new TR is in focus. Consider the following examples.

(3.93) a. elum-i mul-ulo toy-ess-ta.
    ice-Sub water-ULO to become-PT-Dec
    ‘Ice became water.’

    b. cheyon-i tutie 37 to-ulo ttel-ecy-ess-ta.
       body temperature-Sub finally 37 degree-ULO to drop-become-PT-Dec
       ‘The body temperature finally dropped to 37 degrees.’

    c. kyengki-ka hoypok kwukmyen-ulo tol-a-se-ss-ta.
       economy-Sub recovery face-ULO to turn around-PT-Dec.
       ‘The economy has made a turn to the recovery stage.’

**Progression Equation Cluster**

In the Progression Equation Cluster, three distinct senses were identified: Reason Sense, Role Sense, and Designation Sense. The senses in this cluster are derived directly from the proto-scene of –ulo. In this cluster, the path element inherited from the proto-scene is intact and becomes an important element emphasizing the prolonged effect of an event.
Reason Sense (prolonged situations)

This sense is directly derived from the primary sense. In this sense, the prolonged situation is perceived as a reason for an event to occur the way it does. Recall that section 3.2.2 discussed the Cause Sense of –ey, which has a similar meaning to the Reason Sense of –eyse. Observe the difference in the following sentences.

(3.94) a. ku-nun kyengchal chong-ey cvuk-uss-ta.
    he-Top police gun-EY to die-PT-Dec
    ‘He died due to a bullet.’ [cause]

    b. ku-nun olay-n pyeng-ulo cvuk-ess-ta.
    he-Top old-mod disease-ULO to die-PT-Dec
    ‘He died due to an old disease.’ [prolonged reason]

In both sentences, a person died and the reason for his death is being articulated. When the reason is marked with –ey, it simply expresses the cause of death, which implies that it is rather accidental (without indication of a purpose or a prolonged circumstance). However, when the reason ‘old disease’ is expressed with –ulo, it not only indicates the reason for an outcome (his death) but also adds the meaning that the process of the disease over some time killed the
person. In –ulo, the path element highlights the prolonged process of an event, which becomes the reason for the consequence.

The diagram is almost identical to the proto-scene of –ulo except for the dotted circle around the TR. To indicate that the TR is a situation rather than an object, a dotted circle was put around the TR and a solid arrow indicating the functional element is placed under the TR. Thus for the TR, a situation is conceptualized as in path having a continued influence. The following sentences (3.95 a) through (3.95 d) illustrate the Reason Sense of –ulo. Note that the Reason Sense is typically translated as for, of, due to, because of, etc.; however, what English articulates through for, of, due to, and because of are conveyed in –ulo.

(3.95) a. ipen kyewul-ey-nun kamki-ulo kosaynghay-sa-ta.  
   this winter-EY-top cold-ULO to suffer-PT-Dec  
   ‘(I) suffered because of a cold this winter.’

b. kapcaksewu-n phokwu-ulo nongckmul-i tte-nayly-e-ka-sa-ta.  
   be sudden-Mod heavy rain-ULO crops-Sub to float-down-and-go-PT-Dec  
   ‘The crops were washed away because of a sudden heavy rain.’

c. i kocang-un sakwa-ulo yummyenga-ta.  
   this town-Top apple-ULO be famous-Dec  
   ‘This town is famous for the apples.’

d. kanan-ulo hakko-loyl cwungkan-ey kumantwu-ss-ta.  
   poverty-ULO school-Obj middle-EY to stop-PT-Dec  
   ‘(He) stopped school in the middle due to poverty.’

In the Reason Sense, sometimes a phrase such as malmiam-a, which literally means ‘with the cause,’ can be added after the spatial marker –ulo. Also, as shown in the examples below, –ulo can also be said in m-ulo hayse, which means ‘by doing so,’ or –ulobo, which means ‘based on (the observation)” (literally meaning ‘by looking at [something] as’).
   this winter-EY-top cold-ULO malmiam-a (with the cause) to suffer-PT-Dec
   ‘(I) suffered because of a cold this winter.’

b. *ku-ka iss-um-ulo hayse i seysang-i te coh-acy-ess-ta.*
   he-Sub exist-Nom-ULO hayse (by being so) this world-Sub more good-become-PT-Dec
   ‘Because he existed, this world became better.’

c. *kul-uy hulum-ulo boa cwueci-n muncang-i tuleka-l kacang almac-un kos-un?*
   text-Poss flow-ULO boa (based on) given-Mod sentence-Sub to go into-Mod
   most appropriate place-Top
   ‘Based on the flow of the text, (where is) the place the given sentence can go into?’

**Role Sense**

![Figure 3.41. Role Sense](image)

Role Sense is related to Reason Sense. In this sense the role that the agent is playing is expressed with the spatial marker –*ulo*. The diagram is almost identical to the Reason Sense, but the TR is portrayed as a stick figure to suggest that the TR is playing an agent role. There is also a mathematical equals sign between the TR and LM to suggest that the TR and a role or a title of a person is considered to be referring to the same agent. Note that the path element inherited from the proto-scene is still intact, suggesting that the person’s role is not an instantaneous event but rather one that has been played for quite some time. This sense probably arose with the
repeated occurrences of the name of titles or roles with the spatial marker –ulo. As seen in the following example sentences, the Role Sense of –ulo is often translated to “as.”

(3.97) a. *ku-nun pucascip-uy maknay-ulo calana-ss-ta.*
   he-Top rich man house-Poss youngest child-ULO to grow-PT-Dec
   ‘He grew up as the youngest child of a rich house.’

   b. *ku-nun i hakkyo kyosa-ulo iss-ta.*
   he-Top this school teacher-ULO exist-Dec
   ‘He works as a teacher of this school.’

   c. *aitul-un cwungnyen salam-tul-ul acwu nulkuni-ulo kancwuha-n-ta.*
   children-Top middle-aged person-PL-Obj very the old-ULO to consider-Dec
   ‘Children consider middle-aged persons as extremely old persons.’

In the sentences above, the roles (i.e., youngest child, teacher, old person) are marked with –ulo. In these sentences, the logic is that ‘he’ equals ‘a youngest child’ in (3.97 a), ‘a teacher’ in (3.97 b), and ‘middle aged person’ equals ‘an old person’ in (3.97 c).

Sometimes the Role Sense can be uttered using –ulo with –se, as in the following examples.

   Chosun dynasty-Top brother’s country-ULO-SE peace preservation-Obj to promise-PT-Dec.
   ‘Chosun promised to keep the peace as a brother country.’

   b. *ku-il-un salam-ulo-se mos-hal cis-i-ta.*
   that work-Top person-ULO-SE not be able to do-work-it is-Dec
   ‘That work is work that (one) cannot do as a person.’

   c. *ku pohem-un hwacaypohem-ulo-se lenten sangin-tul-uy canglye-ulo mantul-e-
   cy-ess-ta.*
   that insurance-Top fire insurance-ULO-SE London merchant-Pl-Poss
   encouragement-ULO to make-become-PT-Dec
   ‘Speaking of that insurance, it was made by the London merchants’ encouragement as fire insurance.’
The marker –se in the above sentences has the effect of grounding according to Strauss (2003). She argues that –se, which is also used in –eyse, grounds the argument making IRREALIS to the realm of REALIS. She suggests that the marker –se, as a unified morpheme, is translated as ‘in the capacity of’ by moving the entity into the highly grounded level. If the sentences in example (3.98) above are used without –se, as in simply –ulo, it has just the meaning of a role or title. Instead, with –se, it would emphasize the meaning that the TR’s (i.e., ‘Chosun Dynasty,’ ‘that work,’ ‘that insurance’) full capacity of the ability or the power is in effect.

**Designation Sense**

Role Sense can be metaphorically used with inanimate entities but the ‘A equals B’ equation still stands. This new sense involving inanimate entities is termed Designation Sense, as shown in the examples in (3.99), where ‘his remark’ was equated as ‘an insult’ and ‘that money’ as ‘loaned money.’

    she-Top he-Poss remark-Obj insult-ULO to receive-PT-Dec.
    ‘She took his remark as an insult.’

b. ku ton-ul pillyecwu-n ton-ulo sayngakha-key-ss-tako khaysi-eykey malha-seyyo.
    that money-Obj to loan-Mod money-ULO to think-will-Indirect quotation
    Kathy-to to speak-Hon-Dec.
    ‘Please tell Kathy you are going to consider that money as money given as a loan.’
Pathway Cluster

In the Pathway Cluster, there were six senses identified: Enclosed Path Sense, Intermediate Stop Sense, Means Sense, Manner Adverb Sense, Measuring Sense, and Temporal Progression Sense.

Enclosed Path Sense

Enclosed Path Sense, which is the first sense in the Pathway Cluster, is extended from the primary sense. The spatial scene that is evoked in this sense is that of a series of continuous points entering the LM from one side and exiting the LM on the other side. A consequence of this kind of particular spatial relation is that the functional element of path is evoked. In line with Tyler and Evans (2003), the functional element evoked by the Korean spatial marker –ulo is different from the motion or trajectory. However, in this sense, path and movement oftentimes coexist. The spatial configuration is diagrammed as shown in Figure 3.42 above. The arrow is depicted as going through the LM. The path in the proto-scene (also drawn as an arrow) and the path in the Enclosed Path Sense are conceptualized differently. The LM in the Enclosed Path Sense is conceptualized as a confined passage, thus creating an enclosed path. Note that the
A diagram for this sense is similar to that of the proto-scene of *through* in English by Tyler and Evans (2003).

(3.100)a. *palam-i namwuskaci sai-ul* *ppacy-e-naka-n-ta.*
wind-Sub tree branch between-ULO go out-Dec
‘The wind goes out through in between the branches.’

b. *pemin-i *twiskil-ul* *ppacy-e-naka-ssta.*
criminal-Sub back road-ULO go out-PT-Dec
‘The criminal went out through the back road.’

c. *I-95-ul* *tha-ko ka-ta* 72pen *chwulkwu-eyse nao-seyyo.*
I-95-ULO ride and go-and then 72-number exit-EYSE come out-please
‘Take [it] through I-95 and then come out from exit #72.’

d. *pyek-uy kwumeng-ul* *tulye-tapo-ta.*
wall-Pos hole-ULO to look into-Dec.
‘(I) look in through a hole in the wall.’

What is construed in the above examples is that there is an enclosed passageway that leads from point A to point B, and that the pathway in between the TR and LM is what is in focus. Interestingly, in Korean, when the path is conceptualized as an enclosed space, object marker –*ul/lul* can replace the spatial marker –*ulo*.27

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27 The object marker –*ul/lul* is used with verbs such as *cinakata* ‘go through’ / *thongkwahata* ‘pass through’ / *kennekata* ‘cross over’ / *nallakata* ‘fly over’ when the TR is construed as going through the enclosed pathway. When the sentence is said with the object marker instead of with the spatial marker –*ulo*, the LM is more emphasized.
**Intermediate Stop Sense**

![Figure 3.43. Intermediate Stop Sense](image)

In the Intermediate Stop Sense, there are two LMs involved. The first LM serves as an intermediate stop before reaching the ultimate destination. By having a stopover or a barrier before the final destination, it is conceptualized that you have to go through the first stopover to go on to the entire journey. The functional element of path is still present in the Intermediate Stop Sense. Figure 3.43 above depicts the path element as a dotted line. Notice that the first LM is highlighted, and the second LM is a dotted line, suggesting it is not highlighted. The following examples illustrate the usage of this sense.

(3.101)a. *sewul-eyse taykwu-ulo hay-se busan-ey ka-ss-ta.*
Seoul-EYSE Daegu-ULO and then Busan-EY to go-PT-Dec
‘I went from Seoul to Busan through Daegu.’

Hong Kong-ULO and then America-Obj into-and-go-Mod-plan to-Dec
‘I plan to enter America via Hong Kong.’
Means Sense (materials/method/instrument)

Figure 3.44. Means Sense

The next sense is the Means Sense, which is non-spatial. I hypothesize that the Means sense was derived from the Enclosed Path Sense and has a ubiquitous experience of PATH. The same functional element that was prevalent in the proto-scene of –ulo and the Enclosed Path Sense exists in the Means Sense also. That is, when going on a path from a starting point trying to reach the end point, it is natural to talk about the particular means of activity (i.e., how to perform certain things) in order to accomplish the goal. The diagram in Figure 3.44 depicts the path element as a dotted arrow reaching toward the LM, which is construed as an end point. The LM, however, is not in focus; the means through the path is in focus, which is depicted as multiple circles surrounding the path, to suggest that there are various ways of achieving a goal. As can be observed in the following example sentences, the Means Sense includes the materials used to accomplish the task as in (3.102 a) and (3.102 b), instruments as in (3.102 c) and (3.102 d), method as in (3.102 e) and (3.102 f), and transportation as in (3.102 g).

(3.102)a. namu-ulo cip-ul cis-nun-ta.
   wood-ULO house-Obj to build-Pres-Dec
   ‘(They) build a house with wood.’

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b. *san cengsang-un kwulum-ul̂o twitephy-e iss-ess-ta.*
   mountain summit-Top clouds-ULO to cover-and exist-PT-Dec
   ‘The mountain top was covered with clouds.’

c. *kwail-ul khal-ul̂o calu-ta.*
   fruit-Obj knife-ULO to cut-Dec
   ‘(I) cut the fruit with a knife.’

d. *thikheys-un intheney-ul̂o phanmaytoy-ko iss-ta.*
   ticket-Top internet-ULO to sell-Pass-Prog-Dec
   ‘The tickets are being sold through the internet.’

e. *ku muncey-nun kanungha-myen tayhwa-ul̂o haykyelha-psita.*
   that problem-Top possible-if conversation-ULO to solve-let’s
   ‘Let’s solve that problem with conversation if possible.’

f. *wuntong-ul̂o kenkang-ul̂o yucija-l swu iss-ta.*
   exercise-ULO health-Obj to maintain-be able to-Dec.
   ‘(You) are able to maintain your health with exercise.’

g. *ceywuto-kkaci pihayngki-ul̂o elmana kelli-na?*  
   Jeju-island-up to plane-ULO how much to take time-Q?
   ‘How much time does it take to Jeju Island by airplane?’

*Manner Adverb Sense*

![Figure 3.45. Manner Adverb Sense](image)

In Manner Adverb Sense, manner is expressed with –ul̂o in conjunction with adjectives making an adverb. Consistent with the path element that is prevalent in this cluster, and especially similar to the Means Sense that conceptualizes the means of reaching a goal as a path,
the Manner Adverb Sense conceptualizes the manner of reaching a goal as a path. The spatial scene is depicted as a sinuous line reaching the LM suggesting that the manner of reaching the LM could be multifarious and variegated. Thus, I hypothesize that this sense is closely related and therefore is derived from the Means Sense. If the Means Sense denotes a means of achieving a goal, this sense designates a manner of achieving a goal. The following sentences provide examples of –ulo used as an adverb with –cek in (3.103 a) and (3.103 b), and some other adverbs in (3.103 c) and (3.103 d).

(3.103)a. *pukhan-un mikuw-kwa-uy yangcahyepsang-ul kongkaycek-ulo hwanyenghay-

ss-ta.*
North Korea-Top U.S.-with-Poss one-on-one bargaining-Obj open-Adj-ULO to welcome-PT-Dec.
North Korea openly welcomes one-on-one bargaining with the United States

b. *kwukceycek-ulo cohci mosha-n phyengphan-ul pat-ass-ten coci pwusi
taythonglyeng-un 8nyen-kan-uy cipkwen-ul mamwulihay-ss-ta.*
International-ULO be good-Neg-Mod evaluation-Obj to receive-PT-Dec
George Bush president-Top 8 years-between-Poss holding power-Obj to wrap up-PT-Dec.
‘President George Bush, who used to receive evaluations that are not good internationally, ended his career of the last 8 years.’

religion-Obj to believe-so that forceful-ULO to insist- not able to-Dec
‘(One) cannot insist forcefully so that (one) believes (in) a religion.’

d. *sayngkakha-myen hal swulok sil-ulo ki-ka mak-hi-nun il-i-ta.*
to think-if more to do the more real-ULO ki-Sub to block-Pass-Mod incident-is-Dec.
‘The more (I) think about it, the more it is really an incident that (my) inner energy is blocked.’
Measuring Sense (criterion basis)

In this sense, –ulo designates the Measuring Sense. This sense is closely related to the Means Sense and the Manner Sense of –ulo. Recall that the Means Sense denoted a spatial scene where the means to reach a goal was conceptualized as a path while the Manner Sense denoted a spatial scene where the manner to reach a goal was conceptualized as a path. In comparison, the Measuring Sense denotes a scene where means of quantification in gauging the goal is conceptualized as a path. The following sentences provide such examples.

(3.104)a. koki-nun kulaym-ulo pha-n-ta.
   meat-Top gram-ULO to sell-Pres-Dec.
   ‘Speaking of meat, (it) is sold by the gram.’

b. keth mosup-ulo salam-ul phantanka-ci mala.
   outside appearance-ULO person-Obj to judge-don’t.
   ‘Don't judge a person by (his/her) outside appearance.’

c. hyenci sikan-ulo ohw 2si-eys kyengki-ka sicaktoy-n-ta.
   local time-ULO afternoon 2 o’clock-EY match-Sub to begin-Pres-Dec.
   ‘The game will start at 2 pm in local time.’

d. cwungkwuksan ceyphum-ul taylyang-ulo kwuipha-ki sicakhay-ss-ta.
   China made product-Obj large quantity-ULO to purchase-begin to-PT-Dec.
   ‘(They) began to purchase ‘made in China’ products in large quantities.’

The Measuring Sense is different from the Measurement Sense of –ey, which is often translated as ‘per.’ In the Measurement Sense of –ey, what is being measured is presented as a quantifiable unit for a comparison. The Measuring Sense of –ulo, on the other hand, denotes a way of quantification in measuring the goal. The functional element of proximity was inherited by the Measurement Sense of –ey from the proto-scene, thus the measured unit is conceptualized as coming about through close comparison. In contrast, the functional element of path is present in
the Measuring Sense of –ulo, as the measuring unit is conceptualized as the means to reach the goal.

**Temporal Progression Sense**

![Figure 3.46. Temporal Progression Sense](image)

As seen in the earlier analysis, time is expressed using spatial markers –ulo and –eyse. In the Temporal Progression Sense, the time frame is conceptualized as a prolonged duration such as ‘day through night,’ ‘morning through night,’ or ‘Spring to Fall,’ as shown in the example sentences below. The path of extended time is emphasized when time is expressed with –ulo.28

    night day-ULO parents-Dat(Hon) regards to give (Hum)-Dec
    ‘(I) give my regards to parents through night and day.’

b. *achimcenyek-ulo sensenhay-ciko iss-ta.*
    morning dinner-ULO be cool-become-Prog-Dec
    ‘It's getting cooler through the mornings and evenings.’

---

28 There are idiomatic expressions used with –ulo such as + hayekum (the person who has been caused) and + tepwule (the person who are together) as shown below.

a. *tongsayng-ulo hayekum cip-an-il-ul po-key hay-ss-ta.*
    younger sibling- ULO hayekum house-inside-work-Obj look (after) cause-PT-Dec
    ‘(I) had (my) younger sibling to look (after) the inside house work.’

b. *ne-ulo tepwule i kwaep-ul wanswu-hakoca ha-n-ta.*
    you-ULO tepwule this task-Obj complete-intend to do-Pres-Dec
    ‘(I) intend to complete this task along with you.’
3.5 Summary of the findings

This chapter presented a cognitive account of Korean spatial particles using the *Principled Polysemy model* devised by Tyler and Evans (2001a, 2003). The *Principled Polysemy model* is able to offer both a method for determining the central sense of English prepositions and a more comprehensive explanation of the constrained meanings of extension mechanisms involved in polysemy networks. To determine what the central meaning of a spatial marker is, Tyler and Evans suggest four criteria to be considered, which are earliest attested meaning, predominance in the network, relation to other spatial particles, and grammatical predictions. By considering these 4 criteria of the *Principled Polysemy model*, this dissertation was able to present the proto-scenes of the primary senses of three Korean spatial markers –ey, –eyse, and –ulo.

The analysis carried out here suggests that –ey and –eyse have a very similar spatial configuration in the proto-scenes, but that the subtle differences of meaning that arise from –ey and –eyse have to do with the functional element, which arises as a consequence of being in that particular spatial scene. My dissertation suggests that the key difference between these two primary senses is proximity of the TR and LM. Spatial marker –ey, which has a LM within potential reach, has developed an extended network of senses which include the Goal Cluster, Inclusion Cluster, and Location Cluster. On the other hand, spatial marker –eyse, in which the TR and LM are in a non-proximal position, developed extended senses belonging to a Bounded
Sense Cluster and Source Cluster. Spatial marker –ulo, which has a TR orienting toward an unhighlighted goal, has a functional element of path; –ulo has developed an extended polysemy network which includes those that belong to the Approach Cluster, Progression Equation Cluster, and Pathway Cluster.

The most important mechanism involved in the extension of the senses is experiential correlation. This mechanism allowed the uncovering of the relatedness between the central meaning and the extended meanings. The cognitive linguistics analysis of the semantics of Korean spatial markers that is provided here has the potential to address the problems that exist in the literature, which have confused researchers over the decades, in a more principled way. By analyzing the entire semantic network of three very polysemous spatial particles, this dissertation has attempted to show how what seemingly appeared to be an unrelated abstract array of lists of meanings might have derived from the central meaning in a systematic way. The model set forth by Tyler and Evans (2003) has provided useful methodological tools as well as theoretical motivation to do just that.
Chapter 4  Korean Spatial Language Construction

In this chapter, other linguistic elements that also denote spatial relations will be addressed. When attempting to study spatial semantics in Korean, it can be difficult to pinpoint how a spatial concept such as the concept of on, for example, is lexicalized in Korean. For instance, Korean spatial noun wi ‘the top,’ the Contact Sense of spatial noun –ey, and the spatial verb noh-ta, which denotes an action of putting an entity on a vertical surface, all contribute to the concept of on. Therefore, it is crucial that all three of these major linguistic elements (i.e., spatial markers, spatial nouns, and spatial verbs) are studied in a sentence construction in order to fully understand what the spatial markers –ey, eyse, and –ulo, which were extensively studied in the previous chapter, contribute to the interpretation, and also to explore how the Korean language lexicalizes the semantics of spatial relations in general. In this chapter, the semantics and functions of Korean spatial nouns will be examined first. In certain circumstances, Korean expresses a spatial relation using a construction that is a combination of a spatial noun followed by a spatial marker such as –ey, eyse, or –ulo, and in other contexts the spatial relationship is conveyed in the absence of the spatial noun. To deepen our understanding of how Korean expresses spatial relations, it is essential to explore the semantics of spatial nouns and their relation to spatial markers. Second, the semantic overlap of spatial verbs will be discussed. It is observed that Korean verbs conflate and distribute spatial semantics with other linguistic elements such as spatial markers. Thus this conflation and distribution phenomena of spatial
related semantics in Korean will be explained using the notion of distributed semantics by Sinha and Kuteva (1995).

4.1 Korean Spatial Nouns

As mentioned earlier, Korean uses a set of place-denoting spatial nouns, which translate into notions such as ‘on top of,’ ‘beside,’ ‘inside of,’ etc., that are also used to denote the specifics of the TR-LM orientation. (4.1) is a list of Korean spatial nouns with their equivalent English meanings.²⁹

(4.1)  

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>an</td>
<td>(the inside)</td>
</tr>
<tr>
<td>sok</td>
<td>(the inside)</td>
</tr>
<tr>
<td>pakk</td>
<td>(the outside)</td>
</tr>
<tr>
<td>wi</td>
<td>(the top)</td>
</tr>
<tr>
<td>alay</td>
<td>(the below)</td>
</tr>
<tr>
<td>mith</td>
<td>(the bottom)</td>
</tr>
<tr>
<td>aph</td>
<td>(the front)</td>
</tr>
<tr>
<td>twi</td>
<td>(the rear)</td>
</tr>
<tr>
<td>yeph</td>
<td>(the side)</td>
</tr>
<tr>
<td>kawun tey</td>
<td>(the middle)</td>
</tr>
<tr>
<td>kwusek</td>
<td>(the corner)</td>
</tr>
<tr>
<td>kacangcali</td>
<td>(the edge)</td>
</tr>
<tr>
<td>sai</td>
<td>(the gap)</td>
</tr>
<tr>
<td>olun-ccok</td>
<td>(right side)</td>
</tr>
<tr>
<td>oyn-ccok</td>
<td>(left side)</td>
</tr>
<tr>
<td>tong/nam/puk</td>
<td>(east/west/south/north)</td>
</tr>
</tbody>
</table>

These spatial nouns have many qualities of regular nouns as they can be used as a subject or an object, as can be seen in (4.2 a) and (4.2 b).

²⁹ There are Sino-Korean versions of spatial nouns as well (i.e., nay ‘inside,’ oy ‘outside,’ sang ‘top,’ ha ‘bottom,’ cen ‘front,’ hwu ‘back,’ chuk ‘side,’ cwung ‘middle,’ etc.). However, they are much limited in their usage combining with Sino-Korean lexemes and not showing the same spatial construction with spatial markers as the native spatial nouns do.
Spatial nouns also participate in creating compound nouns such as cip-an-il ‘house-inside-work,’ sok-paci ‘inside-pants (undergarment),’ wi-s-salam ‘aboveness-s insertion-person (the elders),’ and twi-s-tongsan ‘back-s insertion-hill. However, spatial nouns are always used in a relation of some spatial or temporal referent LM (e.g., ‘desk’ in the case of the example sentences above), and are sometimes referred to as relational nouns.\(^{30}\) As a spatial noun denotes a relation with the referent, it shows the same semantic quality as other relational nouns such as the noun ‘father’ (meaning, to be a father means you are always a father of someone X, i.e. in a relationship with another human) or ‘child’ (i.e., a child of someone X). As a relational noun is expressed in a generative postnominal of X construction in English, the Korean LM referent and the spatial noun are often translated as such, as in ‘the top of the desk’ in the above examples.

Inclusion of spatial nouns in a sentence in conjunction with a spatial marker, such as –ey, eyse, or –ulo, will result in a postpositional phrase construction of the following form: Noun (LM) + spatial noun + spatial marker. This spatial construction, which is a topic of interest in this study, is seen in the example construction below:

\[(4.3) \text{ chayksang wi-ey. } \text{desk top -EY } \text{LM spatial noun spatial marker} \]

\text{‘On top of the desk.’}

---

\(^{30}\) Spatial nouns are sometimes referred to as spatial nominals (Levinson et al., 2003, p. 102). Levinson argues that “spatial nominals” are a subclass of “relational nominals.”
In example (4.3), the spatial noun *wi* is optional as *chayksang–ey* ‘desk-EY’ is possible, but the spatial marker is obligatory. Cognitive linguistics argues that so-called optionality of any linguistic element is a function of construal or pragmatic differences. Thus the optionality of spatial nouns provides an opportunity for a full understanding of the contexts in which the omission occurs as well as a fuller understanding of the semantic functions of the spatial nouns which are playing an obligatory role. At the end of this section, the context where spatial nouns will more likely be used is going to be discussed.

Another interesting feature of a Korean spatial noun is its inherent ambiguity as the search region denoted by the spatial noun can refer to part of the named LM or some region adjacent to the named LM. This is an important difference between Korean and English. Consider the following examples in English.

(4.4) a. X is in the front of the car.
   b. X is in front of the car.

Sentence (4.4 a) is denoting the front ‘part’ of the car, whereas (4.4 b) is denoting a ‘region’ adjacent to the front of the car. However, the spatial noun in Korean is inherently ambiguous as to whether it denotes the search region as a part of the LM or a region of the LM. That is, if one says:

(4.5) *cha aph-ul takk-usey-yo.*
    *car front-Obj to wipe-Hon-Dec (Pol)*
    ‘Please wipe the front of the car.’ / ‘Please wipe in the front of the car.’
it is ambiguous as to whether you would have to wipe the front part of the car or the space in
front of the car. In the same vein, when someone says:

\[(4.6) \quad \text{sang}ca \ w\text{-e}y \ \text{iss}-eyo.\]
\[\text{box} \quad \text{top}-\text{e}y \ \text{to exist-Dec (Polite)}\]
\[\text{‘(It) is (on) top of the box.’}\]

and there is not a context clue on where to look, it would be confusing to know whether to look
on the top surface of the box or the space above the box. Sometimes another spatial noun
pwupwum ‘part’ needs to be added after the spatial noun to disambiguate the situation and direct
the listener that it is referring to a part of the LM. The current analysis shows that this part versus
region distinction is also an important factor for cases where a spatial noun could be omitted.
This phenomenon will be discussed more at the end of this section as well. The following
discusses the details of the semantics of the spatial nouns.

### 4.1.1 Semantics of spatial nouns

In contrast to much research on spatial markers and spatial verbs, Korean spatial nouns
have not been well researched and also very little work has been dedicated to the meaning of
spatial nouns. Min (1999)’s discussion of spatial nouns 1) an versus sok, 2) alay versus mith, and
3) wi is one of the very rare studies that investigated the semantics of spatial nouns.\(^{31}\) Although
the focus of Min’s study is the bilingual acquisition of spatial relations more generally, his
discussion on spatial nouns is nevertheless relevant to this present study.

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\(^{31}\) Min (1999) labels what I call spatial nouns as spatial postpositions, and what I call a spatial marker (i.e., –ey, –eyse, –ulo) as a locative case marker. To avoid confusion, in this summary I changed his labeling to how I used them throughout this paper.
First, Min (1999) suggests that the properties of the referent of the spatial nouns could be differentiated in terms of part, surface, and region (in a continuum rather than in clear cut categories), and that spatial nouns express either vertical relations or in/out orientations of containment. Min further argues that the differences between *an* and *sok*, both of which refer to ‘in-orientation’ of containment relations, have to do with accessibility and visibility. That is, although *an* and *sok* are in most cases interchangeable, he argues that *sok* is predominantly used when visibility and accessibility to the inside of containment is limited (e.g., cave, grave, coffin, mind). Conversely, *an* is used more often in all other cases to refer to ‘in-orientation’ where the referent is accessible. Min illustrates the differences of *an* and *sok* with a series of pictures of a bowl, either transparent or not, and piles of apples in it as below:

![Figure 4.1. an versus sok picture (from Min, 1999, p. 62)](image)

He argues that if the contents (i.e. apples) are visible from the bowl as in a, c, d, e, or f, then sentence (4.7a) is used, while if the contents are not visible as in b, c, or e, then sentence (4.7b) is used. Notice that there is an overlap since either *an* or *sok* could be used for c or e.

(4.7) a. *sakwa-ka kulus-an-ey iss-ta.*  
apple-nom bowl-innness-loc to exist-Dec  
‘Apples are in the bowl’ [Min 1999, (75).a]

b. *sakwa-ka kulus-sok-ey iss-ta.*  
apple-nom bowl-innness-loc exist-Dec  
‘Apples are in the bowl’ [Min 1999, (75).b]
I reason that what Min observed has a good resemblance to the findings of Tyler and Evans (2003), who report that English preposition *in* shows divergent meanings (such as accessible versus inaccessible qualities of the TR contained in the LM). Although English lexicalizes accessible inness versus inaccessible inness through extended meanings of the same form of the word, and Korean actually uses two different words (i.e., *an* and *sok*) to differentiate this distinction, both languages relate the nature of the LM (e.g., visible or not) with the meanings of the word (e.g., different senses of *in* in English, and *an* and *sok* in Korean) through experiential correlations.

Second, Min addresses that Korean has two words that denote vertical relations of ‘belowness,’ *alay* and *mith*. Min speculates that the distance between the TR and LM determines the difference between these two words: when there is more distance between the TR and LM, *alay* would more likely be used. This distinction is analogous to the English prepositions *under* (proximal) and *below* (distal) discussed in Tyler and Evans (2003). Last, there is only one lexical item that denotes ‘aboveness’ in Korean, *wi*, which can be roughly translated to ‘on’ or ‘above.’ Min explains that, unlike English preposition *on* that includes the notion of ‘support’ and ‘attachment,’ Korean *wi* ignores whether the TR is supported, attached, contacted, or distant to the LM. Rather, *wi* only highlights the ‘vertical’ relation. He provides the following pictures of a cliff and a flower to describe the usages of *wi, alay, and mith*. 
Figure 4.2. Depiction of wi, alay, and mith (from Min, 1999, p. 41)

He argues that different spatial nouns can be used to describe each picture as below.

\[(4.8)\]

\begin{enumerate}
\item \text{kkoch-} \text{pyelang-wi-ey} \text{phi-e-iss-ta.}
\begin{itemize}
\item flower-nom
\item cliff-\text{aboveness-loc}
\item blossom-cont-\text{dec}
\end{itemize}
\begin{itemize}
\item ‘There is a flower blossoming on the cliff.’ [Min 1999, (55).a]
\end{itemize}

\item \text{kkoch-} \text{pyelang-mith-ey} \text{phi-e-iss-ta.}
\begin{itemize}
\item flower-nom
\item cliff-\text{belowness-loc}
\item blossom-cont-\text{dec}
\end{itemize}
\begin{itemize}
\item ‘There is a flower blossoming on the cliff.’ [Min 1999, (55).c]
\end{itemize}

\item \text{kkoch-} \text{pyelang-aley-ey} \text{phi-e-iss-ta.}
\begin{itemize}
\item flower-nom
\item cliff-\text{belowness-loc}
\item blossom-cont-\text{dec}
\end{itemize}
\begin{itemize}
\item ‘There is a flower blossoming on the cliff.’ [Min 1999, (55).d]
\end{itemize}
\end{enumerate}

He argues that only illustration a in Figure 4.2 can be said with \textit{wi}, as expressed in sentence (4.8 a), since it is the only scene that is satisfying the vertical aboveness. Pictures c through f can be said with \textit{mith} as in (4.8 b), while pictures e and f can be said with \textit{alay} as in (4.8 c). Note that pictures e and f can use either \textit{mith} or \textit{alay}.

Min (1999)’s discussion of the semantics of spatial nouns is very insightful and detailed and in line with the analysis of the present study. However, he treats the spatial markers, for example –\textit{ey}, as a default locative particle and assumes that spatial markers such as –\textit{ey} by itself do not connote anything since they are just case markers. For example, in the above examples, he
explains that pictures a through d can be said without a spatial noun and by using just the spatial marker –ey because –ey simply marks the figure-ground relationship. His account of –ey fails to explain why –ey alone cannot be used to describe pictures e and f, and that e and f need a spatial marker (either mith or alay) followed by –ey. I argue that –ey alone can describe pictures a through d because –ey has a functional sense of proximity that engages the flower (TR) and the cliff (LM), but e and f do not. Then in pictures e and f, –ey denotes the proximal relation with the new LM, i.e., the below area of the cliff, which is marked with the spatial noun –mith or –alay. My analysis suggests that Min has missed an important piece of the puzzle that impacts how he presents the spatial nouns and its interaction with the spatial marker. The analysis from the current study seems to point out the predisposition that spatial nouns only specify the general area of orientation, such as front/back, or top/bottom. Orientation is a designation where the LM is conceptualized as being oriented toward. However, it is the spatial markers that assign the more specific spatial arrangement of the TR and LM. When the two linguistic elements (the spatial nouns and spatial verbs) are composed together, they structure a construction. I attempt to explain the semantic roles of Korean spatial nouns in this regard following the notion of Search Region, which was termed by Hawkins (1981, cited in Langacker, 1987).

Langacker defines Search Region as “the region to which a locative predication restricts its trajectory” (p. 493). He explains that a sentence such as The axe is outside in the backyard has a ‘nested locative construction’ of outside and in the backyard (pp. 285-286). He contends that the order of this construction is important as the first locative outside only specifies the location of the TR being exterior to the LM, and the second locative in the backyard gives a smaller region that narrows down the position of the TR. Therefore, Langacker argues that the role of the
locative construction with multiple locative elements is then to confine the TR simultaneously in multiple Search Domains, each within a particular region.

Adapting Langacker’s term, I interpret the construction of a spatial noun followed by a spatial marker as simultaneously confining the TR to specific regions; a first spatial noun that is locating the TR in a more generally oriented region (e.g., front, back, top, side, etc.) in relation to the LM, while a second spatial marker is locating the TR in a more specific relation to the LM. For instance, –ey specifies the TR’s proximate, goal orienting, or contact relation with the LM; –eyse specifies distal, background, or source relation between the TR and LM; and –ulo specifies the journey/pathway/progression toward a destination relation of the TR and LM. It seems that the spatial markers have an obligatory role of defining the specific spatial relation between the TR and LM. This results in some occasions where Korean spatial nouns are added to spatial markers only when specifying a certain spatial orientation is necessary.

The next section presents the meaning differences of spatial nouns, which are important for discussion. This study presents spatial nouns in terms of the LM’s orientation: in-out orientation, top-bottom orientation, front-back orientation, and middle-near orientation. The spatial nouns in these categories generally have a contrast pair. For example, the orientation of the LM is coded into inward or outward, upward or downward, or frontward or backward. However, they do not indicate a simple binary opposition from each other; rather each spatial noun marks out a uniquely conceptualized area, which will be discussed below. In analyzing the meaning associated with each spatial noun, the same principles were followed from those of Tyler and Evans (2003) in explaining the semantic network for prepositions. Every sense of each spatial noun is not reported here as the spatial nouns are not as polysemous as the spatial markers, although they have developed a few extended senses.
In-out orientation

First, in this category the containment schema is evoked; containment involves a bounding element which separates an inside space and an outside space. Thus, there are three components which contribute to containment. There are three spatial nouns belonging to this category: *an*, *sok*, and *pakk*.

As shown in the diagram in Figure 4.3 below, both *an* and *sok* denote an interior region of the bounded space. The spatial nouns provide general information about the LM, which is a Search Domain. However, since the spatial nouns are relational nominals, the schemas of *an* and *sok* still presuppose a TR, which is specified elsewhere in the construction. Thus the image schema incorporates both a TR and LM. The TR is drawn as a dark circle and the LM is drawn as a container. The difference between the two lexical items is that *an* is used more often when the LM is conceptualized as a container that is transparent, as the diagram depicts a container with a dotted line on the top side marking its accessibility. On the other hand, *sok* is used more often when the inside of the container is conceptualized as non-transparent and the content inside the container is perceived as invisible or inaccessible, as the diagram depicts its inaccessibility as a container with a solid line on all four sides. The spaces that these spatial nouns denote are cross-hatched. It is conceptualized that the TR could be at any point of the cross-hatched region. The viewpoint lies at a default setting, which is off stage, for both *an* and *sok*. I hypothesize that the accessible versus inaccessible differences come from the conceptualization of the LM. Subsequently, when the LM is construed as a container with some access point the spatial noun *an* is used; whereas when the LM is construed as a container with no access point, thus being hard to have access to or see the interior space of the LM well, then the spatial noun *sok* is used.
The noun (LM) followed by a spatial noun followed by a spatial marker has to be understood as a construction. Following the Search Domain construct mentioned earlier, it has to be understood that the TR is located within the search domain for the two predications of the spatial noun and the spatial marker; together they compose to a region to which the TR is confined. Search Domains are used in order for the speaker to help direct the listener’s attention so that the listener can appropriately locate the TR as the speaker is construing it.

(4.9)  
\text{caysayong} \text{ phullasuthik pyeng} \text{ an-ey} \text{ seykyun-i} \text{ manh-ta.} 
\text{reusage} \text{ plastic bottle} \text{ inside-EY} \text{ bacteria-Sub} \text{ be abundant-Dec} 
‘There are many bacteria in the inside of the recycled plastic bottle.’

Sentence (4.9) shows an example using spatial noun an, which denotes an accessible interior region and, along with the spatial marker –ey, which has a Containment Sense, the TR is construed as located within the LM ‘bottle’ that does not have an inaccessibility quality.

(4.10) \text{centongcha an-eyse} \text{ tampay-lul phiwu-taka elusin-hanthey honna-ss-ta.} 
\text{subway inside-EYSE} \text{ cigarette-Obj to smoke-but then the elder (Hon)-Dat be scolded-PT-Dec} 
‘(He) smoked a cigarette inside the subway, but then was scolded by the elder.’

In example sentence (4.10), ‘subway’ and an together denote an interior space of the subway from an off stage vantage point. In this sentence the noun is suffixed with –eyse, which
has a bounded background sense. The viewing point is reset to an on stage vantage point as the LM (inside of the subway) is conceptualized as a background space for the actions that went on inside the subway.

(4.11).  

\[ \text{cecywu-to-chuk-un myech nyen-an-ulo kolphucang swu-ka nulena-l kes-ulo po-ko iss-ta.} \]
\[ \text{cecywu-island-side-Top a couple year inside-ULO golf course number-Sub to increase-Nom(fut)-ULO to see-Pro-Dec} \]
\[ \text{‘Jeju Island side is (fore)seeing that the number of golf courses will be increased within some years.’} \]

In sentence (4.11), the LM is metaphorically extended to a temporal domain, and \textit{an} along with \textit{ulo} designates the TR being within the boundary limit of the LM. The spatial noun \textit{an} has developed a functional aspect of being contained, which is associated with being safe. Thus sentence (4.11) being within the temporal boundary satisfies its projection (i.e., number of golf courses being increased).

In line with Min (1999), the corpus data showed that \textit{an} is used more widely with a LM that allows a visible or accessible TR (e.g., \textit{cip} ‘house,’ \textit{pyeng} ‘bottle,’ \textit{cwumek} ‘fist,’ and \textit{kwankayk} ‘audience’). In contrast, \textit{sok} is commonly used with a more visually inaccessible entity (e.g., ‘watermelon,’ \textit{ttang} ‘soil (what is under the surface of the earth),’ \textit{etwum} ‘darkness,’ \textit{kothong} ‘pain,’ and \textit{yeksa} ‘history’). Overall in the data \textit{sok} also co-occurred frequently both with physical body parts (e.g, brain, organs, stomach, etc.) and also with nouns of psychological state (e.g., mind, heart, thought, dream, etc.) and emotions (e.g., pain, happiness, laughter, sadness, etc.). The following sentences in example (4.12) illustrate the usages of \textit{sok}. 

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As the examples show, sok is used to denote the inside space of the soil (4.12 a), the movie where other lives are portrayed (4.12 b), and the heart where hate and love coexist (4.12 c), all of which are construed as an inaccessible space that you do not have a good view of. An abstract LM such as heart or movie is a metaphorical extension, as these abstract spaces are conceptualized as containers. The noun sok in sentences (4.12 a) and (4.12 b) is used along with –eyse, which together denote the TR as a SOURCE where the TR has been ‘dug out’ or ‘came.’ Sentence (4.12 c) denotes the TR being confined within the bounded space along with sok and the Containment Sense of –ey since heart is conceptualized as a container containing the hate and love.

On the other hand, spatial noun pakk is used to denote the external space associated with the LM/container. The focus is on the conceptualized boundary as shown in Figure 4.4. The image schema of pakk illustrates the boundary of the LM; the shaded circled TR is located in the external region. The region that the TR is conceptualized as being confined within is cross-hatched. The LM is oriented in the exterior space of LM.
Consider some examples of *pakk*. Again, in these examples, the spatial noun and spatial marker combination has to be understood as a construct of multiple *Search Domains*, within which each TR is confined in a specific region.

(4.13) *il-cwuil man-ey cip pakk-ey na-ka-ss-ta.*
       one-week end-EY house **outside-EY** out-to go-PT-Dec
       ‘(I) went out to outside of the house (first time) in one week.’

In (4.13), the spatial noun *pakk* denotes the TR located in a region exterior to the ‘house’ and the spatial marker –*ey* denotes a spatial arrangement of the TR being oriented to the destination. The LM ‘house’ is conceptualized as having a boundary and co-occurs with the verb *na* ‘out’ specifying the TR crossing the boundary as well. As the *pakk-ey* construction designates that the destination is outside of the LM, without the spatial noun *pakk* the destination would be understood as the ‘house,’ which is not the meaning this sentence intended to deliver.

(4.14) *sengcin-un cha-chang pakk-ul*o* naytapo-myense etwum-ul sayngkakha-ko iss-ess-ta.*
       Seng-jin-Top car-window **outside-U**LO to look out-while darkness-Obj to think-Prog-PT-Dec
       ‘Seng-jin was thinking (about) the darkness while looking outside through the car window.’
Sentence (4.14) presents a spatial scene which is a construct of outside of the ‘window’ region and the TR orienting an unspecified LM profiling the conceptual path. The spatial noun *pakk* and the spatial marker –*ulo* together denote the conceptual pathway of the TR orienting to the exterior region of the LM. Consider the next example.

(4.15)  
*acik-to hoysa-eyse sangsa-uy nwun pakk-ey na-myen cinkup-ul ha-ki-ka elyep-ta.*  
yet-also company-EYSE boss-Poss eye **outside-EY** out-if promotion-Obj to do-Nom-Sub be difficult-Dec.  
‘Even now if (you) are out of the boss’s eye at work, it is difficult for being promoted.’

In (4.15), the TR is construed as outside the ‘boss’s eye,’ being away from the bounded region, which is conceptualized as favored or preferred. Since *pakk* is being conceptualized as designating the region outside of a container, it has developed the functional aspect of being not contained. One of the consequences of not being contained is associated with not being favored. If (4.15) was said with *an* instead, this would construe as you being inside of the boss’s eye, which then has the meaning of being favored. Sentences (4.15) and (4.16), which follows, are metaphorical extensions.

(4.16)  
*hapkyekca-nun ne pakk-ey-to yele myeng-i iss-ta.*  
accepted person-Top you **outside-EY**-also several person-Sub exist-Dec  
‘Speaking of accepted persons, there are several people outside (beside) you.’

In example sentence (4.16), the TR is construed as being exterior to the LM ‘you,’ so it refers to other possible candidates out there than the LM ‘you.’ The functional aspect of this sense is an exclusion as the LM ‘you’ is being excluded when tallying the possible candidates. As shown
from the examples above, the spatial noun sets up a *Search Domain* and guides the listener to locate the TR and LM in a correct relation, which is signified by the spatial markers. Therefore, treating the spatial markers as a case marker without a meaning or just a default locative that basically tells a minimum TR-LM configuration would not correctly explain the correct interpretations.

**Top-bottom orientation**

Korean divides space along the vertical dimension into three parts. There are three spatial nouns that belong in this category: *wi*, which denotes a vertically higher space for the LM, and *alay* and *mit*, both of which denote a vertically lower region vis-à-vis the LM. First, the image schemas of the spatial noun *wi* are presented below. The LM is depicted as a bolded horizontal line which is oriented upward. The shaded circle represents the TR and it is conceptualized as being on top of the LM, confined within the cross-hatched search region which is vertically elevated in relation to the LM. As a result of having the TR in this particular geometric position, *wi* has developed senses associated with being better or superior. Many studies in cognitive linguistics (e.g., Lakoff & Johnson, 1980; Grady, 1997; Tyler & Evans, 2003) have provided evidence of a human being’s experiential correlations of an elevated physical height with positive experiences.
As shown in the diagram the LM is conceptualized as a horizontal surface, depicted as a horizontal line. In the conceptualization of *wi*, the LM being perceived as a horizontal line and the TR being located on top of the horizontal line are very important elements. Geometric contact, and/or functional support or proximity, is not an important aspect of ‘*wi*.’ In contrast with English, as shown in Tyler and Evans (2003), English would divide the domain which is vertically higher than the LM into up to three scenes through three different prepositions (i.e., *on*, *over*, and *above*). For example, in English, if the TR and LM have physical contact and the LM provides support for the TR, the preposition *on* is used as in *The fly is on the ceiling* or *The cap is on the bottle*. If the construal does not involve the TR and LM in a support relation, the upward space is divided by *over* and *above* depending on whether the relationship between the TR and LM is construed as a proximal space or not; if the vertical space between the TR and LM is perceived as proximal or within the sphere of influence, *over* is used; and if the vertical space is perceived as distal, *above* is likely used. *Over* is used as in *The fly is hovering over the plate* when the distance between the fly and plate is construed as proximal, but *above* is used as in *The sky above the earth* when the space between the sky and earth is construed as distal. In Korean, on the other hand, recall that the primary sense of spatial marker –*ey* is Proximal Area Sense, and it has also developed an extended meaning of Contact Sense with a functional element of support as discussed in the previous chapter. It seems that Korean utilizes the two different linguistic
elements of spatial marker –ey and spatial noun wi in order to denote concepts similar to English on, over, or above., but as is well expected, the two languages do not divide up the space in exactly the same way conceptually or linguistically. The following examples illustrate the usage of spatial noun wi, denoting the TR being located on top of the LM. Observe the following sentences.

   ‘The manager stacked the mountain like resources on top of the desk and went (out).’

   b. el-e-puth-un hoswu wi-eysa salam-tul-i sukheyithu-lul tha-ko iss-ess-ta. to freeze and stick-Mod lake top-EYSE person-PL-Sub skates-Obj to ride-Prog-PT-Dec
   ‘The people were riding (ice) skates on top of the frozen lake.’

The English preposition on is used in the case of the ‘resources’ contacting the surface of the ‘desk’ or the ‘ice skates’ contacting the ice as in (4.17 a) and (4.17 b). In Korean, however, the spatial noun wi as well as spatial marker –ey or –eysa is used together in a sentence. The spatial marker –ey in (4.17 a) denotes Contact Sense, while –eysa in (4.17 b) denotes Background Sense, which is perceived as a distal background space where the ice skating activity is taking place. In sentences (4.17 a) and (4.17 b), the spatial noun wi designating the vertical area together with the spatial marker –ey denoting the Contact Sense signify a spatial relation where the TR (i.e., ‘mountain like resources’ or ‘people’) are marking a top vertical surface of the LM (i.e., ‘desk’ and ‘pond’). Consider the next example sentences.

dining table **top-EY** to hang-Mod fluorescent light-Gen switch-Obj to push
(down)-PT-Dec

‘(I) pushed down the switch of the fluorescent light that hung on top of the
dining table.’


that bird-Top roof **top-EYSE** round and round to circle-and then temple hall
front-Gen bird feeder **top-EY** to sit-PT-Dec

‘That bird circled round and round on top of the roof and then sat on top of the
bird feeder that is in front the temple hall.’

Sentences (4.18 a) and (4.18 b) designate the space where English would translate as
‘above’ since the TR (i.e., ‘fluorescent light switch’ and ‘bird’) is located vertically higher than
the LM without physical contact (i.e., ‘dining room table’ and ‘roof’). The spatial marker –*ey* in
(4.18 a) denotes Locational Sense where the TR is proximately located to the upwardedness
without contact, and –*eyse* in (4.18 b) denotes Background Sense, which is perceived as a distal
backgrounded space where the ‘bird’ was circling.

Although in the primary meaning of *wi* the LM being conceptualized as a horizontal line
and the TR being vertically higher than the LM, *wi* can be extended to a usage where it appears
that gravity no longer matters. Here, cognitive elements such as perspective (i.e., vantage point)
come to play an important role when interpreting the scene. Consider the following sentence.


Romans-Top ceiling **top-EY** mirror-Obj to hang-And sensual pleasure-Obj to
enjoy-PT-Dec

‘Romans hung a mirror on the ceiling and enjoyed the sensual pleasure.’

In English, the scene in (4.19) would be translated as *on* since the physical contact and the
functional element of support are the key points construing the TR-LM arrangement. However,
in Korean, support or contact is not important in *wi*. With the use of *wi*, the mirror is conceptualized as being on top of the ceiling.

There is another way to construe this scene. That is, as the TR ‘mirror’ being located underneath the LM ceiling, which is conceptualized as a surface. In Korean the second spatial scene can be expressed with another spatial noun *mith* ‘below’ which is discussed below in detail. Notice then how this scene can be construed both as the TR ‘mirror’ being located on top of the LM surface ‘ceiling’ (thus with *wi*), and also the TR being located underneath the LM ‘ceiling’ (thus with *mith*). One would think that the latter would seem to be a more intuitive choice, but the language data shows that both construals are possible in Korean.

Building upon Min (1999)’s basic argument about *wi*, I argue that if you allow the vantage point to change, the choice of *wi* can still be explainable. Imagine lying on the floor looking up at the ceiling, i.e., a perceptual reversal of the typical off-stage viewing arrangement and construing the ceiling being on the bottom and the mirror being on top of it. The next sentence (4.20) is similar to (4.19) except that the TR ‘stars’ and LM ‘sky’ are not conceived as having contact.

(4.20)  
\begin{align*}
\text{taynac-ey} & \quad \text{hanul wi-ey pyel-i tte-ss-ta.} \\
\text{middle of the day-EY} & \quad \text{sky top-EY star-Sub to rise-PT-Dec} \\
\text{‘Stars rose on top of the sky in the middle of the day.’}
\end{align*}

In (4.20), the TR ‘gourd dipper’ is conceptualized as being on the top surface of ‘the wall.’

(4.21)  
\begin{align*}
\text{pyek wi-ey phyocwupak hana-ka kelly-e iss-ess-ta.} \\
\text{wall top-EY gourd dipper one-Sub to be hung-Asp-PT-Dec} \\
\text{‘One gourd dipper was hung on top of the wall.’}
\end{align*}
The (4.21) scene cannot be expressed with *mith* but only with *wi*, or just the spatial marker –*ey* that has a Contact Sense. The following diagrams illustrate the instantiations of *wi* as shown in examples (4.19) through (4.21). Interestingly, Korean spatial noun *wi* is not going to work with a scene such as *The gum is on the bottom of the shoe* where the TR is only perceived to be under the horizontal LM (the same analogy of changing the viewing position does not work for this scene). *wi* tended to be used only for scenes viewed at an average viewing range or higher (something on the wall, ceiling, or sky as shown in the examples above).

![Diagram](image)

*Figure 4.6. Instantiations of *wi* in (4.19) – (4.21)*

Next, let us consider the space below or under the LM. The space vertically below the LM is a counterpart of *wi*, the vertically higher space in relation to the LM. However, unlike *wi*, which did not have a further division of upward space, the vertically lower region is divided into *alay* and *mith*. The diagrams in Figure 4.7 are image schemas for *alay* and *mith*. For *mith*, the TR is placed within a region vertically proximal to the LM. For *alay*, the TR is conceptualized as being placed within a region under the LM, but not distal. Therefore, the distance between the TR and LM is perceived as proximal for *mith* and distal for *alay*. This division of space resembles the distinctions between English *below* and *under* discussed in Tyler and Evans (2003). Although *under* denotes a proximal relation while *below* denotes a distal relation between the TR and LM, both *below* and *under* represent a TR and LM that is distant from each other. However,
Korean *mith* denotes proximal distance with an emphasis on the right under the surface area, so *mith* might be better translated as *underneath*, and *alay* as *under*.

![Image schemas of *mith* ‘underneath’ and *alay* ‘under’](image)

*Figure 4.7. Image schemas of *mith* ‘underneath’ and *alay* ‘under’*

As noted above, both *mith* and *alay* denote the space below the LM, but *mith* denotes where a space vertically below the LM is construed as a shorter distance (e.g., *nwun-mith* ‘underneath the eye,’ *tali-mith* ‘underneath the bridge,’ *mith-ey chung* ‘lower floor,’ and *kimcengil mith* ‘underneath [North Korean leader] Kim Jong-il,’ etc.). In comparison *alay* denotes the space underneath that is construed as a space with increased distance between the TR and LM than *mith* (e.g., *san alay* ‘under the mountain,’ *mwucikay alay* ‘under the rainbow,’ *polumtal alay* ‘under the full moon,’ and *ilum alay* ‘under name’). The noun *mith* has a functional element of proximity and has developed to abstract senses as well such as under the influence, or the basis or foundation. Grammatically, *mith* and *alay* can often be used interchangeably; subjective construal is what determines the choice and not any determining physical condition. For example, picture two different versions of a table, one a typical dining room table with a height appropriate for use while sitting on a chair and the other a short legged table used traditionally while sitting on the floor. Suppose a cat is sleeping under one of these tables and someone asks where the cat is. It is more likely that a Korean speaker uses *mith* for the short legged table as in *sang mith-ey iss-eyo* ‘(The cat) is *mith*-EY the short legged table,’ while
alay is more likely to be used for the typical dining room table as in sikthak alay-ey iss-eyo ‘(The cat) is alay-EY the dining room table.’ Similar to all the categorizations dealt with in cognitive linguistics, the categorization between mith and alay seems to be fuzzy and usage depends on the construal projected by the speaker. The usages are shown in examples for mith in (4.22).

   son-Obj leave (behind)-Mod house-Poss spoon and chopsticks-Obj to steal-and then pillow underneath-EY to hide-and-Mod example-also exist-PT-Dec ‘There was also an example that [one] steals the spoon and chopsticks of the house that has a son and then hides [them] underneath a pillow.’

   blanket underneath-ULO hand-Obj to put in-and-see-as warm feeling-Sub to come up-in the middle-PT-Dec ‘Since I put my hand into underneath the blanket, the warm feeling was in the middle of coming up.’

c. elum cang mith-ulo mul hulu-nun soli-nun pom-i o-nun soli
   ice sheet underneath-ULO water to run-Mod sound spring-Sub to come-Mod sound ‘The sound of the water running underneath the sheet of ice is the sound of spring coming.’

The space under ‘pillow,’ ‘blanket,’ and ‘ice sheet in the pond’ is not far, rather it is perceived as underneath the space of these LMs so mith is used. Compare the space that is perceived below the LM (i.e., pillow, blanket, ice sheet) in (4.22 a) through (4.22 c) and the space that is perceived under the LM (i.e., 29 floors, fluorescent light, cloud) in (4.23 a) through (4.23 c). The space under ‘29 floors,’ ‘fluorescent light,’ and ‘cloud’ is rather spacious and perceived as distant so alay is used.
    midnight-Sub to be over-Mod time 29 floor under-ULO to be seen-Mod apartment plaza-Top reservoir-like be calm-PT-Dec
    ‘The apartment plaza that is seen 29 floors below at past midnight time was calm like a reservoir.’

    be pale-Mod fluorescent light under-ULO be seen-Mod hallway-Top light-more than smoky-Mod dark-ULO to filled up-PT-Dec
    ‘The hallway that is seen through under the pale fluorescent light was filled with smoky darkness (rather) than light.’

c. *phollantu-uy kwulum-to ce pusan cwu-kyengkicang-uy phulu-n kwulum alay-se chwulleng-iko iss-ess-ta.*32
    Poland-Poss cloud-also that Busan main-stadium-Poss blue cloud under-(EY)SE to wave-Prog-PT-Dec
    ‘Poland’s clouds also were waving under the blue clouds of Busan’s main stadium.’

**Front–back orientation**

The spatial nouns in this category are *aph* and *twi*. Unlike the other spatial nouns mentioned so far, *aph* and *twi* can be used following either an intrinsic orientation of the object (object centered) or extrinsic orientation imposed by the viewer (viewer’s perspective). The same flexible viewing arrangements are reported in other languages as well (Tyler & Evans, 2003; Shakhova & Tyler, 2010; Levinson, 1997; Nuyts & Pederson 1997; and Talmy 2000). *aph* designates the anterior space in relation to the LM and *twi* designates the posterior space in relation to the LM. Figure 4.8 illustrates the image schemas of *aph* and *twi*.

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32 The corpus data showed that spatial marker –*ey* is omitted on many occasions when followed by *alay* ‘under.’ This omission seems to be driven from a phonological process as *alay* ends in the same sound [e] as does spatial marker –*ey*. Along the same reasoning, spatial marker –*eyse* tends to be shortened to –*se* after *alay.*
Figure 4.8. Image schemas of *aph* ‘front’ and *twi* ‘back’

The cross-hatched circle TR in the left picture is conceptualized as being in front of the LM. The TR is not oriented but the LM is oriented toward the TR (marked with an arrow). Since the LM is oriented, if a speaker is the LM, the scene is viewed from the speaker’s point of view. If the LM is an object, the scene is viewed in terms of an intrinsically oriented object LM. The LM is drawn as a three dimensional object, but can be conceptualized as having only two dimensions, i.e., front and back. The consequence of having a TR in front is that it is accessible or visible. Through the human experience of having a TR in front, spatial noun *aph* has developed extended meanings relating to progression, future, and responsibilities. Interestingly, *aph* also refers to elders and ancestors. In comparison, as seen in the right picture of Figure 4.8, spatial noun *twi* has a similar but opposite spatial scene from *aph*. The TR is situated behind the LM, which is diagrammed as a three dimensional space oriented away from the TR. Humans have eyes on the front side, thus the human experience of this spatial scene is that the TR is perceived as being not visible or as inaccessible. Thus, *twi* has extended to meanings such as background, later in time, support, and unresolved feelings. The sentences in example (4.24) help illustrate the usage of *aph* and *twi*.

(4.24) a. *sengcin-un* *sensayngnim* *aph-ey* *anc-ass-ta.*
Seng-jin-Top teacher *front-EY* to sit-PT-Dec
‘Seng-jin sat at the front of the teacher.’
In (4.24 a), the scene is viewed with an intrinsic orientation. Seng-jin is the TR and the teacher is the LM. We know that the LM ‘teacher’ is oriented toward the student, but we do not know whether the TR ‘Seng-jin’ is facing the teacher or not, as the TR does not have a designated orientation. In (4.24 b), the scene has an extrinsic orientation, which is imposed by the viewer’s perspective. The viewer, i.e., the speaker in this case, views the flowers, which are not intrinsically oriented. From the viewer’s perspective, the TR ‘the child’ is located on the other side of or behind the flowers. Tyler and Evans (2003) report that English has the contrast pairs *in front of/before* and *behind/after*, which denote the space of the front/back orientation.

**Middle-next region**

There are three spatial nouns in this category: *sai, kawuntey*, and *yeph*. First, *sai* designates the TR being in between the space of two LMs. The distance in between the two objects is perceived as about the same. Two items could be the same kind or different in nature. Second, *kawuntey* designates the TR being located in the middle of the LM. However, *sai* could be extended to a usage where the LM is conceptualized as being a boundary of a circle surrounding the space, similar to the image schema of *kawuntey*. Then the difference between the extended use of *sai* and *kawuntey* is that *kawuntey* focuses on the centralness of the surrounded space. The spatial noun *sai* and *kawuntey* can be used interchangeably in many instances especially when the TR is construed as being surrounded by a series of LMs making up a circled area. The overlap between semantically similar lexical items, as the categorization between
spatial nouns is rather fuzzy, as is also shown with the mith/aley or an/sok distinction. The following represents their image schemas.

![Figure 4.9. Image schemas of sai, kawuntey, and yeph](image)

The following examples illustrate the usage of sai.

   our house-and under-s insertion-house between-EY-Top small-Mod vegetable garden-sub be put-PT-Dec
   ‘The small vegetable garden is put between our house and the lower house.’

   b. na-nun inhyeng-tul sai-ulo cha-uy wumciki-m-ul cwusiha-ko iss-ess-ta.
      I-Top doll-PL between-ULO car-Pos movement-Obj to pay attention-Pro PT-Dec
      ‘I was paying attention to the car’s movement through the gap (between) the dolls.’

   c. 10nyen sai-ey polimsa-to pyenhay-ss-ko, na-to manhi pyenhay-ss-ta.
      10 year between-EY polimsa-also to change-PT-and, I-also a lot to change-PT-Dec
      ‘Between 10 years, Polim Temple also changed and I also changed a lot.’

Spatial noun sai denotes an in-between space between two entities, for example, ‘front house’ and ‘back house’ in (4.25 a), between multiple entities ‘the dolls’ in (4.25 b), and between a metaphorically extended temporal domain ‘10 years’ in (4.25 c). Consider the next examples which illustrate the use of kawuntey.
Spatial noun *kawuntey* denotes the TR being located in the middle of a contained space, for example, a ‘room’ in (4.26 a), a middle space within the audience which is perceptualized as a mass entity in (4.26 b), and out of an abstract entity ‘culture’ in (4.26 c).

Next, the example sentences below illustrate the usage of *yeph* ‘beside’ which is apart from the LM. Spatial marker –ey in (4.27 a) and (4.27 b) has Locational Sense. *Yeph* could be translated as either *next to* or *beside*.
4.1.2 Optionality of spatial nouns

In the previous section, the semantics of spatial nouns were surveyed. It is important to be reminded here that spatial nouns are often optional as seen below in the example sentences, where both can roughly be translated as ‘The book is on the desk.’

\[(4.28)\] a. chayk-i chayksang-ey iss-ta.
\[\text{book-Sub desk-\text{EY} exist-Dec}\]
‘The book is at/on the desk.’

\[\text{b. chayk-i chayksang wi-ey iss-ta.}\]
\[\text{book-Sub desk top-\text{EY} exist-Dec}\]
‘The book is on the top of the desk.’

If the two sentences have roughly the same meaning, how ambiguous are they? Also, what can be said as to what determines when a speaker of Korean uses spatial nouns or does not? Not much research has dealt with this issue. The purpose of the next section is to understand what meanings, such as from the examples above entail, and to find out the semantics of spatial nouns and its interaction with the semantics of spatial markers.

Although Min (1999) accurately provides some situations in which spatial nouns are either not allowed or redundant in a sentence, his analysis does not go any further than just observing such cases and does not attempt to explain the optionality phenomena more systematically. He also disregards the polysemous meanings of spatial markers such as –ey by calling them a “default expression only showing the figure-ground relationship” (p. 17). By this, he means that if –ey is used without a spatial noun it shows only that there is some kind of figure-ground relationship, but the exact nature is inferred, assumed, or ignored. However, as
was shown in earlier chapters of this dissertation, Korean spatial markers are more meaningful and polysemous than Min’s analysis suggests.

This dissertation hypothesizes that Korean spatial nouns are optional (thus often omitted) when 1) the spatial nouns refer to part of the LM; or 2) the spatial marker alone can direct the listener to efficiently locate the TR. In reverse, this dissertation hypothesizes that spatial nouns are obligatory when 1) the spatial nouns refer to the region away from the LM (not the part of LM); and 2) multiple Search Domains are employed to direct the listener’s attention to the appropriate search region. This dissertation makes a claim that spatial nouns and spatial markers are linguistically different elements but together present different Search Domains of which the TR is confined within its region as processing cues for the listener to locate the TR efficiently. The following discusses each case.

**Optional spatial nouns**

Sentence (4.28 a) in the precious section above is understood as ‘The book is on the desk.’ Spatial marker –ey alone is denoting a spatial relation of the TR (i.e., book) and LM (i.e., table) in this case. –ey in this sentence is interpreted as the Contact Sense. Now, what could then be ambiguous with sentence (4.28 a) is what part of the desk is making contact with the book (e.g., the top, the back, the bottom, etc.). The most prototypical location will be the top surface, which is inferred from our knowledge about the world and the function of a desk since the property feature of a desk is commonly understood to have an extended space where an item such as a book can be put. Therefore, to an average native Korean speaker, this sentence is understood as the book making contact with the top surface of the table. Since the canonical
relation of book and desk is the book resting on the top surface of the desk, it is most likely to be understood as ‘the book is on top of the desk.’

However, if the specifics of location of the book in relation to the LM (desk) is unclear from context or unexpected, this needs to be highlighted and a spatial noun, such as wi ‘top,’ alay ‘bottom,’ twi ‘behind,’ yeph ‘side,’ is necessary to give a specific focus of the location in relation to the LM. Alternatively, a spatial noun as in sentence (4.28 b) is suitable, since it needs to give a specific surface of focus; In this respect, it can be argued that the spatial noun in sentence (4.28 b) has an effect of ‘on the TOP of the desk’ and not ‘under the desk’ per se, since the spatial noun wi specifies the vertical geometric space of the LM ‘the desk.’

Similarly, if the LM is perceived as a container or bounded entity, the spatial noun an (‘inside’) is often not present leaving just the LM and –eyse as in (4.29 a) and (4.29 b).

(4.29) a. cip(an)-eyse-man iss-ci mal-ko pakk-eyse wuntong-to com ha-ko kulay.
   house (in)-EYSE-only exist-not-and outside-EYSE exercise-also a little do-and so
   ‘Don’t just stay (inside of) home but do some exercise outside and so on.’

   b. kapang(an)-eyse   kkenay-ss-ta.
   bag (in)-EYSE     take out-PT-Dec
   ‘(I) took (it) out from (the inside of) the bag.’

The spatial noun an denotes the inside space of the container. The spatial marker –eyse in (4.29 a) and (2.29 b) denotes a bounded background space where the TR can be located in or where the TR is originated from (source) as discussed in Chapter 3. The LMs (i.e., house, bag) also have properties of a container. Thus, the construction all together evokes a containment schema. When the Containment Sense is this strong and well established with a construction, the spatial noun is redundant, and with an absence of the spatial noun an, the bounded meaning (e.g.,
Containment Sense, Background Sense) is still recoverable. Therefore, it is likely that only the spatial marker is used without the spatial noun an, unless it needs to emphasize insideness and not the outside. For example, if you are looking for your mother from the backyard, someone can answer you that she is an-EY the house to emphasize the inness. Interestingly, another spatial noun sok is less likely omitted as sok adds the semantic meaning of the LM as an inaccessible entity. In the Sejong corpus, it was observed that sok has two times more frequency count (23,139) than an (10,975). This is an interesting result as the properties of the LM (i.e., inaccessible) for sok are quite limited. Therefore, the data suggest that the frequency of an is low since it is only used when emphasis is necessary.

Going back to sentences (4.28 a) and (4.28 b), interestingly, chayksang wi–ey (the desk the top-EY) in sentence (4.28 b) could be still ambiguous as to whether it refers to the top surface of the table (Part) or space over or above the desk away from the table (region). Another interesting point of wi is that such a Korean spatial noun is ambiguous on whether it is referring to a part of the LM or a region adjacent to the LM as mentioned briefly at the beginning of this chapter. Note that when the TR is conceptualized as being on top of the LM, it does not necessarily entail the contact sense between the TR and LM. If the TR would be conceptualized as making contact with the LM, the TR is perceived as being a part of the LM, whereas if the TR would be conceptualized as not making contact but being away from the LM, then the TR is perceived in a (top/bottom, front/back, side/middle) region with respect to the LM. I hypothesize that this part versus region ambiguity in Korean spatial nouns is in part due to the schematic conceptualization of spatial nouns as I presented, for example, with the image schema of wi. In addition, I hypothesize that the addition of spatial marker –ey does not help much with resolving the ambiguity since –ey has both Proximity Area Sense and Contact Sense. Whichever sense is
provoked would determine part versus region distinction but–ey offers inherently both possibilities. Because of this nature of wi, if you say ‘laymphu-ka chayksang-wi-ey iss-ta (the lamp-SUB the desk the top-LOC exist-DEC), it becomes ambiguous as to whether the lamp is sitting on top of the desk (contact: part) or hanging above it (no contact: region). This dissertation argues that in order to disambiguate this ambiguity, spatial markers are obligatory and some specific spatial verbs are employed. This dissertation also argues that inherently ambiguous spatial nouns are one of the key elements to understanding the optionality of spatial nouns. I hypothesize that when the LM refers to a part of the surface (Contact Sense), the spatial marker is optional as shown in the examples below.

(4.30) a. sacin-i nayngcangko mun (wi)ey maytally-e iss-ta.
   photo-Sub refrigerator door (top)-EY be hung-Asp-Dec
   ‘The photo is hung on (top) of the fridge door.’

   b. sacin-i nayngcangko mun (aph)ey pwuth-e-iss-ta.
   photo-Sub refrigerator door front-EY stick-Con-exist-Dec
   ‘The photo is attached on (the front of) the refrigerator door.’

Spatial nouns wi and aph in the sentences in (4.30) refer to a part of the refrigerator door and thus can be omitted. In situations of such where the spatial noun is omitted, specific verbs such as pwuth-e-iss-ta ‘be attached’ or maytally-ta ‘be hung’ are often employed to suggest its contact meaning to disambiguate any possible ambiguous meanings.
Obligatory spatial nouns

The above section talked about the cases where the spatial noun is optional and more likely to be omitted. For example, when we talk about a person and house, we often talk about a person being inside the house as it was the case in (4.29 a). However, when the relationship between the TR and LM is not the canonical one, spatial nouns are required to specify the exact spatial relationship, such as ‘outside’ in (4.31), making the spatial noun *pakk* obligatory.

(4.31)  *phithe-ka  cip pakk-eyse  tampay-lul  phiwun-ta.*
Peter-Sub  house outside-EYSE  cigarette -Obj  to smoke-Dec
‘Peter smokes cigarettes outside of the house.’

The next case where the spatial noun is likely to be omitted is when the spatial noun refers to a part of the LM. This means that if the situation is contrary, that is, if the spatial noun denotes a region away from the LM, the spatial noun cannot be omitted and becomes an obligatory element. This is shown in the following example sentences.

(4.32) a.  *tosekwan  yeph-ey  tongsang-i  poin-ta.*
library  side-EY  statue-Sub  be seen-Dec
‘The statue is seen at the side of the library.’

b.  *namu  twi-eyse  swum-e  iss-ess-ta.*
  tree  back-EYSE  hide-and  exist-PT-Dec
  ‘(He) was hiding behind the tree.’

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34 Lindner (1981) suggests that *in* has developed into the default location. The default location for a person in relation to home is being inside the house.
In (4.32 a), *yeph-ey* denotes a TR being located at the side away from the LM (i.e., library), and in (4.32 b), *twi-eyse* denotes a TR being located behind and away from the LM (i.e., tree). So far, this study has discussed various aspects of the semantics of spatial nouns. My dissertation suggests that spatial nouns only denote the general area in relation to the LM, and it is only when a spatial noun is used in relation to the spatial marker in a construction that the TR is assigned a specific place in a particular relation to the LM (e.g., the TR being proximal to the LM, the TR making contact with the LM, the TR being contained in the LM, or the TR being in a journey on a path toward the LM, etc.). Thus it has been shown that it is important to undertake an analysis of the meanings of spatial nouns in combination with the study of spatial markers. The next section addresses Korean spatial verbs.

### 4.2 Korean Spatial Verbs

Korean has SOV word order so the verb comes at the end of the sentence. Since Korean is an agglutinative language, the subject and object more or less have freer variation positions, but nonetheless verbs are kept in the last position consistently. Verbs can denote state, movement, direction, manner, or path. Many researchers who have worked on Korean verbs employ the notion of Talmy (1985)’s verb-framed versus satellite-framed language distinction. According to Talmy, languages such as English and Dutch are satellite-framed languages, in which verbs can incorporate the manner of motion (e.g., run) while the path is expressed by other elements such as a preposition or prefix (e.g., out, up) as in *My son ran out*. On the other hand, languages such as Spanish and Turkish are known as verb-framed languages since the verb often expresses the direction and path of motion while the manner of motion is expressed separately. This typological difference is demonstrated, for example, in Spanish mono-morphemic path verbs
such as *entrar* ‘enter-in’ or *salir* ‘move-out,’ whereas in English, prepositions that encode path will be used with a verb as in *go in* or *move out* (Talmy, 1985).

Much research has been done following Talmy but there has been a growing body of research pointing out that some languages such as French, Mandarin, and Thai do not really belong to either category. Furthermore, there have been mixed views on where the Korean language fits in the verb-framed versus satellite-framed dichotomy (Zubizarreta & Oh, 2007; Son, 2007). Slobin (2006) has suggested there should be a third category for a language that has path and manner saliency on equal terms, termed equivalently-framed languages.

In contrast, Sinha and Kuteva (1995) attempt to explain the conflated semantics in spatial language with the notion of Distributed Semantics. More specifically, Sampaio et al. (2009) point out that although it is true that there are some languages that do not fit into the verb-framed versus satellite-framed dichotomy, putting whatever languages that are left out into an equivalently-framed language category as a general category overlooks important differences in patterning. They report the case of Amondawa, one of the Amazonian languages, which not only shows a frequent use of path-conflating verbs and manner/movement conflating verbs (condition of equivalently-framed language) but also shows the semantics of path distributed onto postpositions, which is obligatory in the construction.

Distributed Semantics attempts to explain the phenomenon of languages in which spatial semantics such as path, motion, and manner are conflated into various syntactic elements and overtly distributed languages such as Japanese and Amondawa which show a tendency to exhibit a construction of path, motion, and manner in multiple morphological places (e.g., spatial nouns, postpositions, spatial verbs, etc.) within one sentence. This dissertation borrows the notion of

I present six groups of verbs that can be constructed with spatial nouns and/or spatial markers: existence verb, placement verb, deictic/motion verb, displacement verb, directional verb, and manner verb (adapted from Rhee, 1996). The following table lists examples of each group. This list is not in any way exhaustive or conclusive.

Table 4.1.

*List of different verb types*

<table>
<thead>
<tr>
<th>Type of Verb</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>existence verbs:</td>
<td><em>iss-ta</em> ‘exist,’ <em>kyeysi-ta</em> ‘exist (hon.),’ <em>eps-ta</em> ‘not exist’</td>
</tr>
<tr>
<td>placement verbs</td>
<td><em>twu-ta</em> ‘put on,’ <em>noh-ta</em> ‘put on,’ <em>neh-ta</em> ‘put in,’ <em>enc-ta</em> ‘put on,’</td>
</tr>
<tr>
<td>(movement-path conflation)</td>
<td><em>tam-ta</em> ‘put in,’ <em>kkoc-ta</em> ‘put in,’ <em>kki-ta</em> ‘put in,’ <em>kkiwu-ta</em> ‘put in,’</td>
</tr>
<tr>
<td></td>
<td><em>kel-ta</em> ‘put on,’ <em>puth-i-ta</em> ‘put on,’</td>
</tr>
<tr>
<td>deictic verbs</td>
<td><em>ka-ta</em> ‘go,’ <em>o-ta</em> ‘come,’ <em>tani-ta</em> ‘go regularly,’ <em>oka-ta</em> ‘come and go’</td>
</tr>
<tr>
<td>(movement-deixis conflation)</td>
<td><em>peli-ta</em> ‘empty,’ <em>chiwu-ta</em> ‘put away,’ <em>kal-ta</em> ‘exchange,’</td>
</tr>
<tr>
<td></td>
<td><em>ketwu-ta</em> ‘take away,’ <em>ppay-ta</em> ‘take out,’ <em>ppop-ta</em> ‘pick out,’</td>
</tr>
<tr>
<td></td>
<td><em>ssul-ta</em> ‘sweep,’ <em>tta-ta</em> ‘pick off,’ <em>nay-ta</em> ‘put out,’ <em>kkakk-ta</em> ‘chip off,’</td>
</tr>
<tr>
<td></td>
<td><em>nalli-ta</em> ‘let fly’</td>
</tr>
<tr>
<td>displacement verbs</td>
<td><em>olu-ta</em> ‘ascend,’ <em>nayli-ta</em> ‘descend,’ <em>il-ta</em> ‘stand up,’ <em>ttu-ta</em></td>
</tr>
<tr>
<td>(movement-path conflation)</td>
<td>‘rise,’ <em>sos-ta</em> ‘rise,’ <em>ci-ta</em> ‘fall,’ <em>ppaci-ta</em> ‘fall in,’ <em>se-ta</em></td>
</tr>
<tr>
<td></td>
<td>‘stand,’ <em>anc-ta</em> ‘sit,’ <em>tul-ta</em> ‘come in,’ <em>na-ta</em> ‘come out,’ <em>tol-ta</em></td>
</tr>
<tr>
<td></td>
<td>‘turn’</td>
</tr>
<tr>
<td>directional verb</td>
<td><em>nal-ta</em> ‘fly,’ <em>talli-ta</em> ‘run,’ <em>ttwi-ta</em> ‘jump,’ <em>ket-ta</em> ‘walk,’</td>
</tr>
<tr>
<td>(movement-manner conflation)</td>
<td><em>ki-ta</em> ‘crawl’</td>
</tr>
</tbody>
</table>

The type of verb and its meaning shows a high correlation with the meaning of the spatial marker that it evokes. For example, the spatial marker –ey with a Proximal Area Sense co-occurs
with existence verbs and placement verbs, whereas the spatial marker –ey with Destination Sense or –ulo with Path Sense is used with deictic/motion verbs. The spatial marker –eyse with Source Sense is used with a majority of displacement verbs such as ppay-ta ‘take out,’ ppop-ta ‘take out,’ and tta-ta ‘pick out.’ If the existential verb iss-ta ‘to exist’ is used as a V2 (auxiliary verb) for the progressive tense, –eyse with a location sense is evoked.

Korean placement verbs are very narrowly used depending on the nature of the figure. This figure-specific nature results in many different verbs in Korean for putting in as illustrated in example (4.33) below.

(4.33) a. kkoch-ul kkochpyeng-ey kkoc-ta.
flower-Obj flower vase-EY to put in-Dec
‘Put the flowers in the flower vase.’
b kwail-ul pakwuni-ey tam-ta.
fruit-Obj basket-EY to put in-Dec
‘Put the fruits in the basket.’
c. kong-ul sangca-ey neh-ta.
ball-Obj box-EY to put in-Dec
‘Put the ball in the box.’
d. sikyye-lul sonmok-ey cha-ta.
watch-Obj wrist-EY to put on-Dec
‘Put the watch on the wrist.’

Out of the placement verbs, kki-ta, neh-ta, and noh-ta are the verbs that have been in the spotlight in the literature since Choi et al. (1999) proposed that Korean sub-categorizes the putting verbs as tight fitting verbs (i.e., kki-ta) versus loose fitting verbs (i.e., neh-ta, noh-ta). For example, when a verb such as kki-ta ‘insert tightly’ is used, it indicates that the TR moves into a tight space where the TR will be contained, as in example sentence (4.34). Note that the spatial marker –ey is used specifying the Destination Sense.
Choi’s numerous experiments (e.g., Choi & Bowerman, 1991) consistently demonstrated that Korean infants showed sensitivity to these lexical distinctions. In Figure 4.10 below, the scenes in the left circle show containment relations and the scenes in the right circle show support relations. Tight-fitting relations are shown in the center circle that intersects both containment and support relations.

Figure 4.10. An example of how spatial relations are categorized in English and Korean. (from McDonough et al., 2003, p. 233)

However, what is not often discussed is the phenomenon that verbs such as *kkita* denote a path of spatial relation of containment and thus are often used in a serial verb construction along with the *neh-ta* verb (4.35 a-c) or *noh-ta* verb (4.35 d) as seen below.
As the example sentences show, the *kkita* verb construction includes instances such as the TR being inserted completely inside the ‘case’ (4.35 a), the TR being put through the ‘hole’ (4.35 b), the TR being connected by inserting the end part (4.35 c), or the TR being put onto the bottom of the ‘table legs’ (4.35 d). Examples of such suggest that spatial verbs such as *kki-ta*, *neh-ta*, and *noh-ta* are not easily categorizable, and especially when attempting to compare to the equivalent meanings of English. The next section will address Korean spatial verbs, especially how manner and path are expressed in a serial verb construction along with spatial markers.
Verb serialization

Korean verbs allow so-called serialization, i.e., verb connection with clause connectives (e.g., –e). A frequently observed verb construction would be $V_1 + \text{connective} + V_2$.\textsuperscript{35} When this is the case, it is suggested that $V_1$ usually denotes manner while $V_2$ denotes motion/deictic/path as in the following example.

(4.36) a. ttwi + e + ka-ta (to run + and + to go ‘go running’) –spontaneous motion

b. kki + e + neh-ta (to fit + and + to put-in ‘tightly put in’) –caused motion

For this tendency, researchers working under Talmy’s definition categorize Korean as a verb-framed language. However, Korean verbs show a more complex construction as $V_1 + \text{connective} + V_2 + \text{connective} + V_3$, where $V_1$ usually denotes manner while $V_2$ denotes path and $V_3$ conflates motion and deictic as in the following sentence (4.37).

(4.37) a. ttwi - e - nem - e - o-ta (run + and + over + and + to come ‘come over running’).

b. nal - a - tul - e - ka-ta (fly + and + into + and + to go ‘go into flying’).

Also, the fact that spatial markers interact closely with the meaning of verbs is an important observation that a majority of the studies on spatial verbs have overlooked. It is important to point out that Korean shows a tendency to allow conflation of path/deictic information both on spatial markers and verbs, and manner/movement conflation both on spatial markers and verbs. Observe how the serialized verb in example (4.38) is used.

\textsuperscript{35} V2 often are referred to as light verbs or auxiliary verbs.
As seen in (4.38), spatial grammar is lexicalized in four different places: spatial noun (top), object case marker (which is used to emphasize the path), manner-signifying movement verb (run), and path/movement conflating verb (over). All the spatial elements are highly distributed to multiple syntactic elements in one string of sentential construction.

(4.38)  
\[ \text{totwuk-1} \quad \text{tamcang} \quad \text{wi-lul} \quad \text{ttwi-e} \quad \text{nem-ess-ta}. \]

\[ \text{thief-Sub} \quad \text{wall} \quad \text{top-Obj to run-and} \quad \text{over-PT-Dec} \]

‘The thief ran over the top of the wall.’

For (4.39), the path, manner, and movement elements are distributed into five different syntactic elements: spatial noun (inside), spatial marker (path), manner specifying verb (fly), path/movement conflating verb (into), and directional verb (go). When the Korean language exhibits highly distributed patterns such as these, it is impossible and erroneous to identify the spatial dimension with only one of these elements. This study suggests that the symbolic commitment and the careful, systematic analysis of each of the spatial elements in a spatial construction is a necessary step to a full, explanatory understanding of the spatial relations expressed in Korean.

(4.39)  
\[ \text{napi-ka changmun} \quad \text{an-ulo nul-a} \quad \text{tul-e ka-ss-ta}. \]

\[ \text{butterfly-Sub window inside-ULO to fly-and into-and go-PT-Dec} \]

‘The butterfly flew into the inside of the window.’

Another interesting aspect of distributed semantics is that the spatial marker –ey can often be omitted in casual speech with directional verbs, as shown in the example below.\(^{36}\)

\(^{36}\) Grammatical markers such as subject or accusative markers in Korean tend to be deleted oftentimes especially in colloquial speech. Compared to those grammatical markers, spatial markers are obligatory especially in writing, except in the cases that are discussed here.
What is interesting is that the other spatial markers are obligatory, except the goal/destination usages of –ey shown above. It is only when –ey is used as the goal/destination meaning in conjunction with the directionality verb that the spatial marker –ey can be omitted. This phenomenon, however, has not been studied well. This study hypothesize that the directionality from the spatial marker –ey (Destination Sense) and the directionality from the verb ka-ta/o-ta ‘to go/to come’ are distributed in multiple places and this makes the information normally supplied by –ey redundant. Thus, omission of the spatial marker is allowed for.

Equally interesting is the phenomenon of connection between the semantics of spatial markers and the semantics of serial verbs as shown in the following examples.

\[(4.41) \text{a. } \underline{an-ey} – \text{tul-e iss-ta, tam-a iss-ta, kki-e iss-ta, camky-e iss-ta} \]
\[\text{ (put) into-have-en }/\text{(fill) into-have-en }/\text{ tight fit-have-en }/\text{ sink-have-en} \]

\[\text{b. } \underline{an-ul}o – \text{tul-e ka-ta, cip.e nehta, phako tulta} \]
\[\text{into-and go pick-and put in dig-and into} \]

Among the the verbs in (4.41 a) manner/movement conflated verbs are used with the resultative tense (–e iss-ta Aspect), which highlights the end state as a result of movement that has occurred prior. The end result is often realized as a containment sense (recall the earlier example that a person’s default location is realized as a Containment Sense). Since the verb highlights the end location, only the spatial marker –ey, which has a Containment Sense, can co-occur. Any other spatial marker such as –eyse or –ulo will create a semantic anomaly. All of the serial verbs in
(4.41 b) on the other hand, have a path element and thus the spatial marker –ulo, which denotes a path of TR to LM, is allowed.

In this chapter, the semantics of spatial nouns and spatial verbs of Korean were analyzed. This study emphasizes the importance of observing the relation between the spatial markers with the spatial nouns and/or spatial verbs. Often ignored phenomena such as optionality of spatial nouns and the omission of spatial markers with directional verbs were addressed. This dissertation attempted the various spatial concepts being distributed in multiple syntactic elements borrowing the notion of Distributed Semantics.
Chapter 5 Conclusion

Cognitive linguistics argues that linguistic units such as prepositions or spatial markers are complex categories with multiple meanings. Meanings are organized in terms of polysemy networks in which meanings are systematically extended from the central sense; through cognitively motivated processes the extended meanings from the central meaning are cognitively motivated (Lakoff 1987; Langacker 1987, 1991) so the links between different senses are well connected and related. Among the many studies on the semantics of English prepositions (e.g., Lakoff, 1987; Brugman, 1981; Lindstromberg, 1998; Tyler & Evans, 2001a, 2003), the *Principled Polysemy model*, which is a model of semantic extension developed by Tyler and Evans (2001a, 2003), is of particular significance since it is a procedural framework that provides methodologically constrained principles for determining the primary sense (proto-scene) of a preposition and mechanisms distinguishing the distinctive senses (2001a, p. 91). In particular, Tyler and Evans (e.g., 2001a, 2003) have demonstrated that English prepositions have polysemous networks, with many extended meanings that are non-spatial in nature, and that those meaning extensions can be explained with experiential correlation and other cognitive mechanisms. For instance, Tyler and Evans identified that the preposition *over* has the central spatial scene of ‘a trajectory (TR) being vertically high but within the potential contact with landmark (LM)’ (2003, p. 65). They also argued that *over* has at least 15 extended meanings ranging from Completed Sense, as in *The class is over,* to More than Sense, as in *The gas is over $3 a gallon.*’ Tyler and Evans explain that there are experiential correlations between the primary sense of *over* and the Completed Sense, as well as the More than Sense.
The analysis carried out in this study focused first on the usages of Korean spatial markers –ey, –eyse, and –ulo following the same principles put forth by Tyler and Evans. The analysis aimed to present the full semantic networks of –ey, –eyse, and –ulo. One of the major problems with the previous work in Korean spatial markers was that they failed to provide any single unifying explanation for the multiple meanings associated with each of the three markers. For instance, in previous analyses, there is no explanation for why –ey has two major meanings of location and goal among many other various meanings that are seemingly unrelated. The meaning differences that exist in the meanings of location/area –ey and location –eyse, for example, were not clearly explained in the previous research either. Thus the challenge to move beyond the previous analyses was to provide systematic accounts of relatedness of multiple meanings of each spatial marker; this analysis started by deciding on the proto-scene for each spatial marker.

In this work, I proposed a fuller, more plausible analysis explaining the polysemous meanings of three spatial markers, i.e., –ey, –eyse, and –ulo. First, this dissertation argues that the proto-scene of –ey is that of location/area and that the meaning of goal/destination derives from the location/area sense. The grammaticalization studies also suggested that one of these senses, either ‘location’ or ‘goal’ (I argue that it was location/area sense), was the primary sense diachronically but began its grammaticalization process over the course of history starting from the 15th century as –eyse started to show up on texts published at around this time; synchronically these two senses became entrenched in a way so that native speakers perceive them as two different senses. This unifying analysis recognizes the proto-scene of –ey as a TR located in proximate distance to the highlighted LM. By virtue of this particular spatial configuration, I argue that –ey also denotes proximity, the function that basically differentiates it
from –eyse and –ulo. In contrast, the proto-scene for –eyse depicts the spatial relation of the TR located in a distal relationship relative to the highlighted LM, and the proto-scene of –ulo depicts the TR oriented toward an unhighlighted LM with a functional element of path. To my knowledge, the analysis in this dissertation is the first to provide a unified representation of the semantic networks of –ey, –eyse, and –ulo, as well as an analysis that explains the experiential correlation of all three spatial markers including the functional element that each spatial scene depicts as an integral part of the representation of the proto-scene.

After discussing the semantic networks of the three major spatial markers of Korean, spatial constructions including spatial nouns and spatial verbs were analyzed by discussing the notions of distributed semantics (Sinha & Kuteva, 1995). This was a necessary work since there is also a gap in the literature in that the distributed spatial meanings between the spatial markers, spatial nouns, and spatial verbs have not been considered in the previous literature. This study seeks to extend our knowledge of spatial language through a thorough consideration of the distributed meanings among these elements and also to give a foundation for future researchers to investigate distributed semantics more in depth. Especially optionality of spatial nouns and deletion of spatial markers with certain verbs were discussed in detail suggesting that ellipsis is allowed when similar meanings such as directionality or path were expressed in multiple syntactic categories (i.e., spatial markers, spatial nouns, and spatial verbs).

5.1 Challenges and limitations

When trying to compare the semantics of one language to another, there is nothing that is straightforward about it. In the studies of spatial semantics, there have been numerous investigations into the semantics of spatial language both within the lines of research in cognitive
linguistics and cognitive psychology with different methodologies and with different issues in mind. For example, cross-linguistic studies are particularly interested in spatial concepts such as containment and path, which were thought to be primitive and therefore universal in all languages (Mandler, 1992). Bowerman and Pederson created a set of pictures, which included a range of topological spatial relations, and used it to test 34 languages. Since they used the same set of pictures to test the many languages, it served as a control for cross-linguistic comparison. They found that the semantic distinctions in each language were categorized differently but the patterns of categorization appeared interestingly to be arranged in a systematic way displaying a semantic map (Haskelmath, 2003), thus creating a continuous systematization in a language specific way.

There are other lines of studies which have performed research on the cross-linguistic difference of spatial conception and the interaction of language specificity. For example, Bowerman and Choi (1991, 2001) describe how English makes a fundamental distinction between the action of placing an object in contact with an external, supporting surface (‘putting on’) and placing it into a container (‘putting in’), while Korean makes a distinction between putting two objects into a close-fitting, interlocking relationship (kkita) and putting two objects into a loose-fitting relationship (nehta). When Bowerman and Choi studied preverbal children in a preferential looking task, they found that even young children under the age of two were more likely to look at video displays significantly longer if the pairings of the containment situations matched the containment situations depicted in their own language. Choi explains that infants rapidly pick up language-specific properties and an early distinction of spatial categories.

Another line of study on language influence of spatial concepts is by Levinson and Wilkins (2006), who report a long-term project involving 40 researchers at the Max Planck
Institute (MPI) for Psycholinguistics researching how conceptual domains (spatial concepts) may be coded differently across 12 languages. They started with a functional base (i.e., how one answers ‘where’ questions) and asked what semantic parameters/semantic notions are used to structure the relevant semantic fields. They argue that their approach is different from typical works in typology, which pick just one or two functions and ask how different languages use different formal means to satisfy this function. They conclude that an overwhelming diversity between languages both on coding of space distinction and semantic basis was found. Based on these results, they argue against the notion that some spatial concepts such as on and left are semantic primitives and universal in language and cognition. However, they also point out that under this diversity, significant language specific constraints are observed suggesting much more abstract underlying parameters as the common root of human conceptualization.

However, each of the different lines of research mentioned above lack some components that the others offer and have its own challenges. For example, studies in cognitive psychology on semantic typology (e.g., Bowerman & Choi, 2003; Mandler, 1992; Coventry et al., 2001; Feist & Gentner, 2003) only focus on the central concept and do not focus on the complex semantic extensions associated with spatial markers.

Even the traditional cognitive semantics studies (Lakoff, 1987; Langacker, 1987) when studying the grammatical morphemes (i.e., prepositions, locative markers) it is easy to overlook considering other linguistic morphemes in a spatial sentence construction. Since Korean uses a combination of spatial markers, spatial nouns, spatial verbs, and case marking to encode spatial relations, it is vital to observe how all these elements interact in a construction. Moreover, the networks they develop need empirical evidence to support how it is that a person organizes and processes the spatial markers. The biggest challenge in this tradition of study would be to
establish whether the proposed accounts of semantic structure have any reality in cognition. In other words, good psycholinguistic and cognitive science based experiments are needed in order to show the psychological reality of the conceptualization of spatial relations. In fact, both classical and prototype accounts of category structure studies have been challenged by some theorists. One of the most outspoken critics, Bert Peeters (2001), argues that:

There has to be a clear recognition that neurocognitive linguistics and analytical cognitive linguistics are both valid forms of Cognitive Linguistics, but that, in the interest of outside recognition, increased visibility, and greater integration with the other cognitive sciences, and to improve the standing of Cognitive Linguistics both among linguists and in the cognitive science community as a whole, more research activity than is currently being undertaken by Cognitive Linguists is needed in the neurocognitive arena. Only then will we be able to truthfully state that Cognitive Linguistics does indeed live up to its name. (p. 103)

In the past 20 years, there have been a growing number of cognitive scientists studying psycholinguistic and neurolinguistic aspects of cognitive linguistics (Coventry, 1999, 2001; Feist & Gentner 2003, 2007; Gibbs, 2006; Lamb, 1999). For instance, there have been numerous studies in neuroscience investigating perceptual representation of spatial language (e.g., Gorniak & Roy, 2004; Regier & Carlson, 2001) and the brain neural correlates of spatial language and processing (e.g., Damasio et al., 2001; Kemmerer, 2006). Recall that the semantic analysis, especially of the semantic networks of –ey, –eyse, and –ulo, presented in this study is not argued to be Korean speakers’ mental representations when they encounter these spatial markers. However, it is a profound question as to how a human being understands and processes the correct meaning of highly polysemous words such as the spatial markers–ey, –eyse, and –ulo. Although such a question is outside my expertise and beyond the scope of the current study, I hope that the analysis carried out in this dissertation is an important step towards carrying out
future neurocognitive investigations of how the human mind works generally and in expressing spatial relation in Korean specifically.

If the Peeters critique was more of a theoretical challenge in the field, the current study also has limitations in terms of its scope of methodology. The analysis of the semantic network of spatial markers and spatial nouns that is presented here is based on a qualitative analysis carried out on a corpus consisting of randomly chosen contemporaneous written sentences of Korean. Although the qualitative analysis was called for in order to build semantic networks and modify them with the data from the corpus directly, future quantitative aspects of corpus analysis have the potential to improve the analysis significantly. Simple frequency counts of spatial language (e.g., each spatial marker or noun) could potentially be useful but do not necessarily ensure whether a study has identified the full range of meanings or the mechanisms motivating meaning extensions. However, what is especially vital information in studying the construction of spatial language are the co-occurrence patterns of the data, which could reveal the linguistic environment of the spatial language. Therefore, quantitative reports on these co-occurrence patterns, for example, revealing the tense choices and the choice of spatial markers, or quantitative analysis of the spatial marker –ulo and serialization verb patterns, can further validate the arguments suggested in this study. Although the size of the corpus was large enough for a qualitatively oriented study, any such quantitative analysis such as a co-occurrence pattern study would benefit with an increased corpus size.
5.2 Contributions to future research

The current investigation of Korean spatial constructions sheds additional light on how spatial arrangements are encoded in the lexical and morpho-syntactic structure of Korean. Although there have been many different studies analyzing the meaning of spatial markers heretofore, this study attempts to contribute by providing a unified explanation of the semantics of spatial markers. There has not been any previous research in this direction, so the findings of the present study can encourage dialogue among Korean linguists concerning this matter.

Foremost, the present study could benefit tremendously classroom teachers developing teaching materials for students who are learning Korean as a foreign language (KFL). It has been very well known that KFL learners struggle to master the usage of spatial markers, especially confusing the usage between the markers –ey and –eyse, and –ey and –ulo. With findings from the current study, classroom teachers will be better equipped to prepare the materials that can enhance student understanding of language usage.

More specifically, explaining the multiple meanings of the spatial markers to students in a systematic way rather than as an arbitrary list that they have to memorize and presenting the semantic maps has the potential to enhance student understanding of the meanings of the markers and overall improve the correct usage in real language. Tyler (2008) talks about the teacher’s hesitance to explore new theoretical approaches and states that “one of the most central challenges for applied cognitive linguists is to provide accessible, precise explanations of various linguistic phenomena to nontheoreticians (p. 456).” Keeping this in mind, one of my ultimate goals in writing this dissertation was to provide cognitive linguistic perspectives on the meanings of spatial language in Korean and how they work together in a sentence, so that this new way of
looking at these seemingly intractable particles could give classroom teachers guidance in developing teaching materials that could help students learn more effectively.

In order to find out if such teaching materials or instruction is actually more effective, or at least better than the traditional way of teaching, second language acquisition research is needed. However, the recent trends on second language research in cognitive linguistics are promising. For example, more researchers are discovering the effects of explicit instruction with explicit feedback (Norris & Ortega, 2000; Ellis et al., 2006). After all, what one notices and pays attention to can be learned and remembered better (Ellis & Robinson, 2008). The cognitive linguistics approach to language instruction is trying just that: to bring student awareness to the differences of semantic categorization, for example, from their first language. Tyler (2012) surveys a growing number of classroom experimental studies which have applied the theories of cognitive linguistics to L2 instruction materials and demonstrated positive effects on learning grammar such as prepositions and modals. There has been very little work done on this topic in Korean, however. The study by Min (1999), who studied spatial concept organization (i.e., vertical orientation and containment) of Korean-English bilinguals, and Krainz (2006), who investigated how second language learners are expressing spatial relations, are the only ones that I located. Thus the current study calls for more future studies testing the effectiveness of teaching Korean spatial markers while incorporating a cognitive linguistics approach.

With much needed future studies and verifications, grammar explanations of meaning relatedness in Korean spatial language need to be included in textbooks for learners of the Korean language as well.

In addition, the investigation of the semantics of Korean spatial language might be able to help our understanding of Korean speakers’ difficulties in learning English prepositions. For
example, the analysis in this study might be able to suggest how to interpret the errors that
Korean learners of English as a foreign/second language (EFL/ESL) make on English
prepositions: whether the errors are due to the differences in conceptualization might become an
issue.

Tyler and Evans (2001a, 2004) suggest that spatial relations are conceptualized in
different ways between different languages and that L2 learners often transfer the
conceptualization of space from their L1 to their L2. For example, English prepositions do
distinguish the spatial relations in which the TR is located vertically higher than the LM with two
separate prepositions: one with the TR and LM potentially in contact (proximal distance), which
is denoted as the preposition *over*, and the other with the TR and LM not contacting (distal
distance), which is denoted as the preposition *above*. Korean, however, does not make this
distinction along the vertical dimension. Whether or not the TR has contact with the LM, the
spatial relation will be encoded as a combination of a spatial noun meaning *the top* and the
spatial marker –*ey*. Thus, it can be expected that native Korean learners of ESL would have
difficulty telling *on*, *above*, and *over* apart.

The concept of spatial relations is universal. For instance, all languages perceive a three-
dimensional space that has an interior with as a containment sense and the functional element
that is associated with it. However, also true is how the spatial concepts are lexicalized and
encoded by each language differently and how the speakers of that language construe the spatial
relations to something relevant to their language in a specific way. Any spatial relation that is
language specific is more difficult to acquire. Thus the second language learners can benefit
from the instruction that teaches explicitly how their target language construes the given scene.
The present study, by analyzing the semantics of spatial markers of Korean and exploring its
sematic relations with spatial nouns and verbs, presents a theoretical basis that could be adapted into the classroom in order to improve students’ understanding of spatial relations expressed in the Korean language.
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