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A COGNITIVE SEMANTIC ANALYSIS OF MANIPULATIVE MOTION VERBS
IN KOREAN WITH REFERENCE TO ENGLISH

JEONG-HWA LEE
ABSTRACT

A Cognitive Semantic Analysis of Manipulative Motion Verbs

in Korean with Reference to English

by

Jeong-Hwa Lee

In this thesis I adopt the framework of Cognitive Grammar developed by Langacker (1987a and 1991a) in order to provide a unified account of a cluster of senses of certain force-dynamic motion verbs, namely the Korean verbs *kkulta* and *tangkita* ‘pull’ and *milda* ‘push’, and their corresponding English verbs *pull* and *push*. The different senses of each of these polysemous verbs are related to one another in terms of family resemblance relationships. These motion verbs, thus, are complex semantic categories, encompassing their distinguishable, yet related senses within the same lexical forms.

Although the Korean verbs *kkulta* and *tangkita* are conceptually related to each other within the semantic field of force-dynamic motion, and are translated as ‘to pull’ in English, they have different conceptual imports with regard to distinct prototypical semantic structures. The semantic differences of the prototypical events *kkulta*-1 and *tangkita*-1 are described in terms of their cognitive-functional attributes. *Kkulta*-1 generally involves a heavy, slow, and labored motion of the large landmark over a long path through space and time. The trajector as well as the landmark moves along an
extended path. By contrast, *tangkita*-1 generally associates with a light and sudden movement of a relatively small landmark along a short path. The trajector of this event does not have an extended path, and only the landmark movement is manipulated to move toward the source of force. The landmark is directed toward the trajector, and the trajector is, thus, conceived as the goal of the landmark’s movement as well as the source of force. This event seems to require more manipulative control of the trajector over the landmark than the trajector of *kkulta*-1.

The prototypical events *kkulta*-1, *tangkita*-1, and *mila*-1 motivate their respective semantic extensions in a coherent way. Their semantic extensions are established via the different, yet related conceptualizations of the cognitive-functional attributes of *kkulta*-1, *tangkita*-1 and *mila*-1. The multiple senses of these verbs and their semantic structures are not limited to a physical domain, but are also characterized relative to different abstract domains. They are described with reference to *kkulta*-1, *tangkita*-1, and *mila*-1, and are related to one another in terms of similarity.

The English verbs *pull* and *push* contrast with their corresponding Korean verbs *kkulta, tangkita, and mila* in terms of formal and semantics aspects. *Pull* and *push* are conventionalized differently from *kkulta, tangkita, and mila* because of the speaker’s different construals of semantic structures and concepts, different metonymy/metaphor, image schemas, and cognitive models associated with *pull* and *push*, different etymological information, and different psychological, cultural, social, and experiential factors.
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Through his lectures and his own book The Said and The Unsaid, Prof. Stephen Tyler encouraged me to expand my interest in categorization and metaphor. As an anthropologist as well as linguist, he broadened my view about linguistics, especially concerning the relationship between language and cognition.

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### LIST OF ABBREVIATIONS

#### Grammatical abbreviations

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<tbody>
<tr>
<td>Acc</td>
<td>accusative marker</td>
</tr>
<tr>
<td>Adv</td>
<td>adversative connective particle</td>
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<tr>
<td>Benf</td>
<td>beneficiary auxiliary verb</td>
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<tr>
<td>Caus</td>
<td>causative marker</td>
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<tr>
<td>Cond</td>
<td>conditional marker</td>
</tr>
<tr>
<td>Conn</td>
<td>connective particle (except for -e, -ko, -ciman)</td>
</tr>
<tr>
<td>Cons</td>
<td>consolidating connective particle</td>
</tr>
<tr>
<td>Dat</td>
<td>dative marker</td>
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<tr>
<td>Decl</td>
<td>declarative</td>
</tr>
<tr>
<td>Dest</td>
<td>destination locative marker</td>
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<td>Exclm</td>
<td>exclamatory</td>
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<td>Fut</td>
<td>future tense</td>
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<td>genitive</td>
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<td>honorific</td>
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<td>Imp</td>
<td>imperative</td>
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<tr>
<td>Instr</td>
<td>instrumental marker</td>
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<tr>
<td>Isol</td>
<td>isolating connective particle</td>
</tr>
<tr>
<td>Loc</td>
<td>locative marker (except for -ulo and -kkaci)</td>
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<tr>
<td>N</td>
<td>noun</td>
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<tr>
<td>Neg</td>
<td>negative</td>
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<tr>
<td>Nom</td>
<td>nominative marker</td>
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<td>Nomlz</td>
<td>nominalizer</td>
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<tr>
<td>Orient</td>
<td>orientation locative marker</td>
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<tr>
<td>Pass</td>
<td>passive marker</td>
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<tr>
<td>Perf</td>
<td>perfective auxiliary verb</td>
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<tr>
<td>Pl</td>
<td>plural marker</td>
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Pres  present tense
Pst  past tense
Rel  relative marker
Sugg suggestive marker
Top  topic marker
V    verb

Abbreviations of Cognitive Grammar

AZ    active zone
C     conceptualizer
L     location
LM(lm)  landmark
M     mover
p     participant
t     time
TR (tr)  trajector
§ 1.1 General Orientation

§ 1.1.1 Purpose of the Thesis

The general purpose of this thesis is to provide an integrated, functional and cognitive account of the several meanings of some force-dynamic motion verbs, based on the framework of Cognitive Grammar developed by Langacker (1987a, 1991a and 1991b). The verbs I will discuss are the Korean verbs *kkulta* and *tangkita* ‘pull’ and *milda* ‘push’, and their corresponding English verbs *pull* and *push*. These verbs are treated as polysemous¹, i.e., each word has a cluster of related senses, as illustrated in the following instances of the verb *kkulta*:

(1a. ku namca-ka son-swuley-lul kkul-ess-ta
    the man-Nom hand-cart-Acc pull-Pst-Decl
    ‘The man pulled the cart.’

b. ku-nun phengkhu-nan cacenke-lul cilcil kkul-ko ka-ss-ta
    he-Nom flat-tired bicycle-Acc draggingly pull-Isol go-Pst-Decl
    ‘He dragged the bicycle which had a flat tire.’

c. ku yeca-ka chima calak-ul kkul-ess-ta
    the woman’s skirt the end-Acc pull-Pst-Decl
    ‘The woman’s skirt trailed (across the floor).’
    lit. ‘The woman trailed the end of her skirt.’

d. ku-ka thulek-ul kkul-ess-ta
    he-Nom truck-Acc pull-Pst-Decl
    ‘He drove the truck.’

e. cwunghtong-i samak-eyta mwul-ul kkul-ess-ta
   the Middle East-Nom desert-Loc water-Acc pull-Pst-Decl
   ‘The Middle East drew water to the desert.’

f. ku-ka kwuntay-lul kkul-ko ka-ss-ta
   he-Nom troop-Acc pull-Isol go-Pst-Decl
   ‘He came out, leading the troops.’

g. ku saken-i phengsayng-ul kkul-ess-ta
   the case-Nom lifetime-Acc pull-Pst-Decl
   ‘The legal case dragged out through his lifetime.’

h. i chayk-i Chelswu-uy kwansim-ul kkul-ess-ta
   this book-Nom Chelswu-Gen attention-Acc pull-Pst-Decl
   ‘This book attracted Chelswu’s attention.’

Concerning the various senses of a lexical item, this thesis has several specific goals to achieve. First, it aims to demonstrate that the different meanings of a polysemous motion verb (i.e., the Korean verbs *kkulta*, *tangkita* and *mitta*, and their corresponding English verbs *pull* and *push*) are interrelated in terms of a family resemblance relationship. Like the preposition *over* (Brugman 1981), the particles *up* and *out* (Lindner 1981), and the verb *take* (Norvig & Lakoff 1987), these polysemous motion verbs establish complex categories, encompassing various distinguishable, yet related senses of the same lexical forms. To complete this goal, I will use various theoretical notions from Langacker’s Cognitive Grammar (1987a, 1991a and 1991b) such as profile and base, cognitive domains, trajector and landmark, active zone, scanning, prototype and schema, perfective and imperfective processes, etc.

Second, in order to explain the interrelationships of the different senses of a polysemous verb, this study attempts to build up a semantic network for each lexical unit. In the semantic network, the multiple senses of a lexical item are represented by the nodes, which are linked to one another by three different types of categorizing relations (i.e.,
extension, elaboration and bi-directional extension by mutual resemblance). Many semantic extensions, i.e., some sort of deviance from the prototype of the lexical item with regard to their specifications, are found in the semantic network. The semantic extensions of a lexical item are cognitively motivated in close relation to human perception, cognitive processing and capacities, bodily experience, social and cultural knowledge, and so on. We also find a set of hierarchical schematic relations between abstract schemas and their specific instances in the semantic network. The semantic network, as a whole, allows us to represent our understanding of how human beings, linguistically and cognitively, organize and categorize the distinct, but related, senses of a lexical item in the mind.

Third, the two Korean verbs *kkulta* and *tangkita* ‘pull’ are widely considered to be synonyms by Korean speakers, with similar conceptual and collocational structures, as exemplified in (2):

(2)a. *ku haksayng-i uyca-lul kkul-ass-ta*
the student-Nom chair-Acc **pull-Pst-Decl**
‘The student pulled the chair’

b. *ku haksayng-i uyca-lul tangki-ass-ta*
the student-Nom chair-Acc **pull-Pst-Decl**
‘The student pulled the chair’

Despite their close semantic relationship, they have different conceptual imports with regard to distinct prototypical semantic structures, and should, accordingly, be described to bring out their semantic differences in terms of their cognitive-functional attributes. This present study also sheds light on the antonymic relation between *kkulta/tangkita* ‘pull’ on the one hand and *milia* ‘push’ on the other hand in regard to the speaker’s construal of their semantic structures.
The fourth purpose of this thesis is to offer a comparative semantic analysis of
\textit{kkulta}, \textit{tangkita}, and \textit{milta}, pointing out some contrastive aspects of the corresponding
English verbs \textit{pull} and \textit{push}. This comparative lexical semantic analysis of motion verbs in
English and Korean has some linguistic motivations. It can promote other contrastive
studies of different morphological, and grammatical categories such as nouns,
prepositions, adjectives, tense-aspect, and so on. This study is thus meant to be an
exemplar in the research on semantic variation and commonality between languages within
the framework of Cognitive Grammar.

Finally, the comparative lexical semantics of the Korean and English motion verbs
has some pedagogical motivations. Primarily, it enhances the language learner’s
understanding of similarities and differences of Korean and English. Presumably, it also
provides a model that teachers can use to do their own analysis for improving their
teaching of vocabulary or other uses from the teacher’s point of view.

\textbf{§ 1.1.2 Organization of the Thesis}

This study is organized in the following way. In the first half of Chapter 1, the
purpose and organization, the overview of the Korean language, and the introduction to
the data of the thesis are briefly discussed. In the second half of Chapter 1, some previous
studies are critically reviewed. Regarding the multiplicity of word meaning, there are in
general two competing approaches to lexical semantics: the classical and structural
semantic approach on one side, and the cognitive and functional semantic approach on the
other. The classical and structural semantic approach claims that a word is structured by a
finite number of binary semantic features with equal importance of membership. In
cognitive and functional semantic approach, lexical items are treated as polysemous,
embracing its related senses. Those interrelated senses of a word are recognized to
have fuzzy boundaries of membership and a gradience of membership from a prototype to
its variants. I am advocating the cognitive and functional approach to explaining the
polysemous motion verbs (kkulta, tangkita, and milta, and their corresponding pull and
push) in Korean and English because it offers a unified account of the multiple senses of
those polysemous verbs in a more comprehensive manner. I am arguing against the
classical and structural approach, so called 'criterial attribute model' or 'checklist
approach', since it reduces the expansive and complex phenomenon of polysemy to
unrealistic segmentation and simple objectivism.

Chapter 2 discusses some theoretical assumptions of Cognitive Grammar in regard
to meaning (i.e., conceptualization). Before beginning with the semantic analyses of the
polysemous verbs in the succeeding chapters, several primary concepts and mechanisms of
Cognitive Grammar will be characterized. Of the numerous notions of Cognitive
Grammar, cognitive domains, profile/base organization, trajector/landmark, semantic
network, prototype and schema, scanning, active zone, perfective and imperfective
processes, action chain, and stage metaphor are the most relevant and necessary devices
for the semantic analysis.

Chapter 3 provides a semantic analysis of the two Korean motion verbs kkulta and
tangkita, each with many different senses (e.g., the senses 'to drag', 'to trail', 'to drive',
'to supply with', 'to exert gravitational/magnetic attraction', 'to attract', 'to prolong' and
‘to lead’ for the verb *kkulta* and the senses ‘to exert gravitational/magnetic attraction’, ‘to ignite’, ‘to appeal to one’s appetite’, and ‘to advance’ for the verb *tangkita*). Chapter 4 provides a semantic analysis of another Korean motion verb *milta* ‘push’, analogous to Chapter 3. Like the verbs *kkulta* and *tangkita*, the verb *milta* has a wide range of distinct but associated senses such as ‘to push’, ‘to smooth the surface’, ‘to push ahead’, ‘to support’, ‘to postpone’, and ‘to push off’. The conceptions of these events are schematically described with regard to its conceptual base in order to grasp the commonalities among the individual senses of the verb *milta*. The most central senses (called prototypes *kkulta*-1, *tangkita*-1, and *milta*-1) and their semantic structures are investigated in regard to some cognitive-functional attributes in the domain of physical space. These various senses of each of the verbs *kkulta*, *tangkita*, and *milta* involve spatial, temporal, and abstract motions in spatial and non-spatial domains, and are related to one another by metonymic or metaphorical relations, forming a semantic category. Based on the categorizing relations, i.e., extension, elaboration, and bi-directional extension, the semantic networks of the meanings of the verbs *kkulta*, *tangkita*, and *milta* are constructed to represent the relationships of the various senses of these polysemous verbs.

Chapter 5 briefly presents a contrastive analysis of the corresponding English verb *pull* and *push*. The semantic differences and similarities between *kkulta*, *tangkita*, and *milta* on one side and *pull* and *push* on the other will be examined.

Chapter 6 will summarize and conclude all the previous discussions, and provide some implications and suggestions for further studies.
§ 1.1.3 General Assumptions and Orientation

The general assumptions of this study are as follows. First, language is not separated from other cognitive capacities (e.g., perception), but is intertwined with them. A close relationship between cognition and language is found in the realm of metaphor and metonymy. Second, the meaning of a linguistic form is not independent of the language use. In fact, a speaker (or his viewpoint) significantly contributes to the conceptualization of any linguistic construct in various ways. Meaning is, thus, encyclopedic, reflecting our physical, psychological, social, cultural and experiential knowledge of the world. Third, conceptual structure differs from language to language to some degree, accommodating the conventionalized grammatical and semantic characteristics of an individual language. Fourth, the distinct senses of a polysemous lexical item are not arbitrary. Rather, they are motivated via different sorts of cognitive mechanisms such as image schemas, metaphor, metonymy, and so on, and are regarded as members of a complex category linked by different kinds of similarity. Fifth, the semantic structure of a linguistic unit is described with regard to other cognitive knowledge, e.g., frames, cognitive models, and cognitive domains. Sixth, the present study is a usage-based investigation using the semantic analysis of polysemous motion verbs. It seeks to make generalizations and specifications of a language in a non-reductive fashion.

The relationships among the meanings of a lexical form will mainly be investigated from a synchronic point of view, although supplementary diachronic explanations are added to produce a more comprehensive understanding of meaning extension (cf.
Sweetser 1986 and 1990; Traugott 1986). The synchronic perspective treats the multiple senses of a given lexical item as semantic extensions (including metaphorical projection) from prototypical senses, if the current language users synchronically interpret them as "psychologically related" to one another in meaning (Leech 1974:228). Many early lexical semanticists (cf. Leech 1974; Lyons 1977; Palmer 1981) rightly note that etymological relatedness does not necessarily coincide with synchronic relatedness of meanings. As a representative example of this position, let us take the lexical item ear. In Old English, the noun ear\(^2\) has two separate historical origins, 'the organ of hearing' and 'part of grain', which were a case of homonymy (i.e., different lexical items associated with the identical sounds). However, today's English speakers often intuitively reinterpret these senses associated with each other as a polyseme ear (i.e., distinct but related senses of a single linguistic form). A relevant principle in regard to polysemy is here that human categorization is not entirely arbitrary, and evolves from the central instances of a category to the marginal ones (cf. Rosch 1975, 1977, and 1978). A prototypical sense is directly linked to a physical, concrete domain and extends to different physical or abstract, cognitive domains. Another possible cognitive principle, based on the relatedness of meanings in the synchronic analysis, is that human beings tend to pursue the maximal effect with minimal cognitive processing, as discussed in relevance theory (cf. Sperber & Wilson 1986).

\(^2\) The example comes from Lyons (1977:550).
§ 1.1.4 Overview of the Korean Language

This section is an overall sketch of the Korean language, primarily summarized from Nam & Ko (1993). Korean is morphologically characterized as an agglutinative language like Turkish, Japanese, and Hungarian. A new word is formed by combining a root and one or more affixes or *emi* ‘verb endings’, especially by prefixing and suffixing:

(3)a.  *salam-tul-i kalay-cil-ul pom-ey ha-n-ta*
    
    person-Pl-Nom plow-Nomlz-Acc spring-Loc do-Pres-Decl
    
    ‘People do the plowing in spring.’

   b.  *(apeci-kkeyse) mwukewun kapang-ul kkul-ko ka-si-ess-ta*
    
    (Father-Nom(Hon)) heavy bag-Acc pull-Isol go-Pst-Decl
    
    ‘(My father) went, pulling the heavy bag.’

In (3a), the derived noun *kalay-cil* ‘plowing’ is made by the process of agglutinating the free root *kalay* ‘plough’ with the suffix *-cil* ‘nominalizer’. Nominalizer suffixes such as *(u)m, -i, and -ki* also change verbs into nouns, as in the examples *ca-m* ‘sleeping’, *nol-i* ‘playing’, and *ket-ki* ‘walking’. All the grammatical morphemes must occur after the root or stem they are attached to. For example, Case markers such as Nominative (*-kkeyse, -ka* or *-i*), Accusative (*-lul* or *-ul*), and Locative (*-ey*) in (3a-b) must be placed after the nominal roots or stems (*salam-tul* ‘people’, *kalay-cil* ‘plowing’, *apeci-kkeyse* ‘father-Nom’, and *kapang-ul* ‘bag-Acc’). The noun phrase *pom-ey* ‘spring-Loc’ in (3a) behaves like a postpositional phrase, compared with the prepositional phrase *in spring* in English. The plural marker *-tul* is attached to the nominal root *salam* in (3a). For the verb, connective particles (e.g., *-ko* ‘Isol’ and *-e* ‘Cons’), honorific markers (e.g., *-si*), tense markers (e.g., *-n/-nun* ‘Pres’, *-assl-ess* ‘Pst’, and *-keyss* ‘Fut’), and verbal ending markers (e.g., *-ta* ‘Decl’ and *-kwun* ‘Exclm’) must be suffixed to the verbal stem (e.g., *kkul- ‘pull’* and *ka- ‘go’*).
Syntactically, Korean has the word order of Subject + Object + Verb, as shown in (3b). The subject can be omitted as long as its referent is understood by the speaker/the hearer, from the context, or is repeated from the previous sentences, as is indicated in (3b) with the use of parentheses around the optional subject apeci-kkeyse ‘father-Nom’. An adjective occurs before the modified noun, as in the noun phrase mwukewun kapang-ul ‘heavy bag-Acc’ formed by the adjective mwukewun ‘heavy’ plus kapang-ul ‘bag-Acc’.

In Korean, a relative clause occurs before the specified noun:

(4) ku-nun kay-tul-i kku-nun sselmay-lul tha-ko wa-ss-ta
    he-Top dog-Pl-Nom pull-Rel sled-Acc get on-Isol come-Pst-Decl
    ‘He came here, getting on the sled which the dogs had pulled.’

In (4), the relative clause (kay-tul-i kku-nun ‘which the dogs pulled’) is placed before the modified noun phrase sselmay-lul ‘sled-Acc’. Unlike English, a Korean relative clause does not have a relative pronoun, but rather a relative marker on the verb.

A sentence can consist of more than one subject or one direct object:

(5)a. Inswu-ka maumssi-ka kop-ta
    Inswu-Nom mind-Nom pretty-Decl
    ‘Inswu is nice.’

b. ku-ka na-lul tung-ul mil-ess-ta
    he-Nom I-Acc back-Acc push-Pst-Decl
    ‘He pushed my back.’

In (5a), the first subject, Inswu-ka ‘Inswu-Nom’, is the subject for the whole sentence, and the clause, maumssi-ka kop-ta ‘(His) mind is pretty’, functions as the predicate of the sentence. When two different subjects successively occur, there is a semantic relationship between the first subject and the second one, for example, possessor-and-possessed, as in (5a), whole-and-part as in (5b), Agent-and-Patient, category-and-instance, and so on.
A passive sentence is formed by the verb stem plus a suffix -i (variously realized as the allomorphs -i, -hi, -li, and -ki) (cf. Baek 1997):

(6a) chima-ka cilcil kkul-li-ess-ta
skirt-Nom dragglingly pull-Pass-Pst-Decl
'The skirt was trailed'

b. na-uy tung-i Inswu-eykey mil-li-ess-ta
I-Gen back-Nom Inswu-Dat push-Pass-Pst-Decl
'My back was pushed by Inswu'

In some intransitive sentences, the verbal morphological elements remain unchanged from its corresponding transitive one:

(7a) kwuswuhan ccikay-ey kwumi-ka tangki-n-ta
tasty pot stew-Loc appetite-Nom pull-Pres-Decl
'The tasty pot stew appeals (to the speaker).'

b. kwuswuhan ccikay-ka kwumi-lul tangki-n-ta
tasty pot stew-Nom appetite-Acc pull-Pres-Decl
'The tasty pot stew appeals (to the speaker)' lit. 'The tasty pot stew pulled (the speaker’s) appetite.'

Now, let us consider the serial verb construction (to be extensively discussed in Section 3.2.6.2) (cf. Lehmann 1995:34) defines it as “the combination of two or more asyndetically juxtaposed verbs with at least one shared argument in order to express a complex, but unitary situation” (cf. Sebba 1987; Schiller 1990). In particular, I am interested in the serial verb construction composed of a manner verb and a path verb linked by one of the two “connective particles”, -e or -ko (cf. Rhee 1996).

(8a) kanye-ka chima-lul tangki-e olli-ess-ta
she-Nom skirt-Acc pull-Cons raise-Pst-Decl
'She pulled her skirt up.'

b. mal-i swuley-lul kkul-ko ka-ss-ta
horse-Nom cart-Acc pull-Isol go-Pst-Decl
'The horse went, pulling the cart.'
Another construction which will concern us is one which uses auxiliary verbs (to be discussed in detail in Section 4.2.7). A verb (e.g., *cwuta* ‘to give’, *pelita* ‘to throw away’, *nayta* ‘take out’, *kata* ‘to go’) can be grammaticalized as an auxiliary verb, when it is preceded by another verb called *pontongsa* ‘primary verb’ connected by the connective particle -e. Choi (1971) distinguishes *pontongsa* ‘primary verb’ from *cotongsa* ‘auxiliary verb’ as follows: The former functions as a main predicate with its full lexical content while the latter does not have fully independent lexical content.

(9a)  Swuni-ka  Inswu-eykey  semmwul-ul  cwu-ess-ta  
Swuni-Nom  Inswu-Dat  present-Acc  give-Pst-Decl  
‘Swuni gave Inswu a present.’

b.  Swuni-ka  hwilcheye-lul  mil-e  cwu-ess-ta  
Swuni-Nom  wheelchair-Acc  push-Cons  Ben-Pst-Decl  
‘Swuni pushed the wheelchair (for the person who was sitting on the chair).’

(10a)  ku  namca-ka  tampay  kkongcho-lul  kil-ey  peli-ess-ta  
the man-Nom  cigarette butt-Acc  street-Loc  throw away-Pst-Decl  
‘The man threw away the cigarette butt on the street.’

b.  ku-ka  noin-ul  hwayk  mil-e  peli-ess-ta  
he-Nom  old man-Acc  suddenly  push-Cons  Perf-Pst-Decl  
‘He suddenly pushed the old man.’

In (9a) and (10a), the verbs *cwuta* and *pelita* are functioning as full lexical items representing physical activities (i.e., ‘to give’ and ‘to throw away’). By contrast, *cwuta* in (9b) functions as a beneficiary auxiliary verb. *Pelita* in (10b), as a perfective auxiliary verb, involves a metaphorical extension from a physical motion in a physical domain to a non-physical motion in an abstract domain. The physical activity *mil-e pelita* in (10b) establishes the process as perfective bounded within its definite initial and final points of time. There must be some observable change of the location and state of the direct object *noin-lul* ‘old man-Acc’. K. Lee (1976:47) argues that in addition to the perfective or
completive semantics, the auxiliary verb *pelita* also presents “the speaker’s evaluation or attitude toward an event or situation”, to be more specific, “spoiling the speaker’s expectation” or “removing psychological hindrance”. This semantic characteristic of *pelita* (as an auxiliary verb) is claimed in K. Lee (1976) to be more important than its perfective meaning. Sentence (10b) is interpreted in the following way: ‘suddenly pushing the old man’ is evaluated by the speaker as an irrevocable and undesirable behavior.

§ 1.1.5 Introduction to the Data

The present thesis is an empirical study focusing on the analysis of the Korean motion verbs *kkulta*, *tangkita* and *milta*, and their corresponding English verbs *pull* and *push*. The comparison of the semantics across the two languages is accomplished by examining some available corpora. For the Korean data in the thesis, I have used the Yonsei Standard Corpus. It contains a number of modern written texts such as textbooks, novels, newspapers, magazines, essays about history, society, culture, economics, sports, politics, and so on. It excludes translated materials, special professional articles, theses, poems, scripts, and Chinese-driven materials in order to prevent various biases. For the English data, I have had access to the newspaper and academic corpora in Oxford’s Corpus Collection A and the Times/Sunday Times Corpus (Barlow 1995) and analyzed it using the corpus research program, MonoConc (Barlow 1996).

While the range of these text corpora does not exhaustively cover the data relevant to completely explicating the semantics of *kkulta* ‘to pull’, *tangkita* ‘to pull’, and *milta* ‘to push’, and the English verbs *pull* and *push*, I will nevertheless regard it as representative
data. The simple forms of the verbs are taken in the simple past tense in order to keep the examples consistent as much as possible. There appears to be no significant correlation of polysemy with the choice of tense, aspect, mood, causation, and so on. Many Korean and English dictionaries are also used for definitions and meanings of words, although they typically do not provide the semantic relationships among the meanings of a lexical form.

§ 1.2 Previous Studies

Before discussing the approaches to polysemy, two contrastive approaches to lexical semantics (i.e., classical and structural approach and prototype approach) will be reviewed. With regard to polysemy, there are generally two alternative approaches: the abstractionist approach and the cognitive and functional approach. In this section, general assumptions on each side and important notions relevant for the present study will be first introduced. Then, some specific previous studies are briefly reviewed. The basic concepts of Langacker’s Cognitive Grammar will not be treated in this review of the literature, but will be deferred to Chapter 3.

§ 1.2.1 Approaches to Lexical Semantics

There are two contrastive approaches relating to the structure of a category: classical and structural approach and prototype approach. The classical and structural approach to categories or categorization is alternatively called “checklist”, “componential analysis”, and “criterial-attribute model” (cf. Katz & Postal 1964; Bierwisch 1970; Fillmore 1975b; Nida 1975; Langacker 1987a and 1991a). It
hypothesizes that a category is structured by a finite number of universal semantic features. For example, Bierwisch (1970:169) decomposes the meaning of the lexical unit *boy* as *HUMAN, MALE, and not ADULT*. The semantic features of a category are regarded as necessary and sufficient conditions so that every member of the category must fully have every semantic feature in order to be a member of the category. Each semantic feature is an equally important contribution to membership in the category. The membership of a category is a binary, all-or-nothing matter (i.e., instance or non-instance). Thus, a category is supposed to have a clear-cut boundary.

This criterial-attribute model has several problems in describing or explaining category structure and categorization, although it works for the definitions of straightforwardly technical terms such as geometric shapes (e.g., *right triangle, square, and circle*), negation (e.g., *not*), and conjunctive and disjunctive connectives (e.g., *and* and *or*) (cf. Aitchison 1997).

This criterial-attribute approach cannot deal with a category with a blurry boundary (e.g., *tomato* as a fruit or a vegetable), which has some semantic features of the other categories. Categorizing vases, cups and mugs in an experiment, Labov (1973) found that there are not always clear-cut boundaries of objects in real world. With regard to shape, height, and contained substance of these containers, the experiment subjects give various and inconsistent responses, which suggest a fuzzy edge phenomenon. The fuzzy edge phenomenon is not limited to the natural categories of kitchen containers such as cups and mugs, but pertains to the linguistic categorization of a polysemous word. Labov also argues that the same object can be differently classified and categorized, depending on
how people use it or how they interact with it. Therefore, semantic features can be functional or interactional. Labov’s approach to a category is connected with Wierzbicka’s (1985) functional approach that the semantic features of an object can be variously defined, according to the roles of the object related to human beings in culture. The complex components of a category is neither the binary choice of the classical approach nor the abstract entities of autonomous linguistics.

Exploring the interrelationship of the two verbs, *kill* and *cause to die*, Verschueren (1981) points out that the componential analysis of a word in terms of semantic features does not adequately account for the hierarchic semantic structure of the word. The verb *kill*, as in the sentence *Tom killed Mary*, is analyzed as AGENT (*Tom*) CAUSES PATIENT (*Mary*) to BECOME NOT ALIVE. Despite the equivalence of the semantic features, the expression *to cause to die* cannot replace *kill* due to their distinct internal semantic structures, i.e., direct causative vs. indirect causative. Accordingly, the sentence *Last week Tom killed Mary on the street* is not equal to the sentence *Last week Tom caused Mary to die on the street*. The first sentence with the verb *kill* requires the direct cause-effect of its internal semantic structure in accordance with the presence of “unity of time” and “unity of place”, which is not necessary for the second sentence (cf. Wierzbicka 1975; Langacker 1991a). The second sentence can have the interpretation ‘Mary did not die until yesterday (not last week) and died at home (not on the street)’, which is not possible with the first sentence. With semantic features, this approach cannot differentiate the synonyms, *kill* and *cause to die*. 
The classical and structural approach to a category cannot appropriately explain metaphor. Aristotle states that metaphor is based on the shared properties of two or more entities. Interpreting a metaphor is to recognize the difference and similarity of objective characteristics across different conceptual constructs in the objective world. In this view, language has fixed forms and meanings.

Now, let us move on to the prototype approach to categorization. Through an examination of color terms in different languages, Berlin and Kay (1969) introduced the notion of focal colors (i.e., the prototypical examples referred to by the color terms) analogous to the concept of prototype, which are, regularly and consistently, chosen by the speakers across languages.

Rosch (1975, 1977, and 1978) made a significant and major contribution to prototype theory for categorization. Her experiments on natural categories (e.g., bird, furniture, fruit, vegetable, toys, etc.) show that a category consists of the best representative example(s) called prototype(s) and its peripheral examples. She argues that human categorization is not arbitrary, but is organized around the central instances of a category. Although Rosch warns that prototypes are not the direct representations of category structure, she shows that a category reveals prototype effects, i.e., asymmetry between the privileged prototypical members of a category and the marginal members. To be more specific, the prototypical members are learned the earliest, are recognized first, and experimental subjects respond more quickly to prototypical instances than to non-prototypical instances (cf. Taylor 1995:43-46). From a diachronic point of view, Sweetser (1986:528) states that "often there is an observable direction to the relationship between
these senses (of a polysemous word), one being more central than, or prior to, others” [insertion of parentheses mine JHL].

Nonprototypical instances of a category are assigned the membership of a category to the extent that they are construed as approximating the prototype. Therefore, category membership is a matter of degree, allowing variations among the members of a category from a central member to its variants. In fact, all the members of a category cannot equally share all the features of the class. For example, we have the categorization judgment that penguin is a bird, although it cannot fly. So, a penguin does not have the same membership value as a robin in the sense that it is not a typical bird.

In addition to nominal categories, we can find prototypicality in verbal processes (cf. Fillmore 1978; Coleman & Kay 1981). Fillmore (1978) identifies the prototypical meaning of the verb climb as incorporating two semantic units, ASCENDING MOTION and CLAMBERING MANNER.

(11)a. A monkey climbed up a flagpole.
   b. The monkey climbed down the flagpole.
   c. A snail climbed up the flagpole.

(examples from Fillmore 1978:153)

Sentence (11a) is more central and prototypical than (11b) and (11c), because the verb climb in (11a) describes an ASCENDING MOTION in a CLAMBERING MANNER while the verb climb involves only CLAMBERING MANNER in (11b) and only ASCENDING MOTION in (11c).

As another example of prototypicality, Coleman & Kay (1981) show that the verb lie is characterized by three semantic features, i.e., FALSITY OF BELIEF, INTENDED
DECEPTION, and FACTUAL FALSITY, but these features contribute differently to category membership with relative importance. So, the feature FALSITY OF BELIEF is said to be most crucial in identifying the meaning of the verb *lie* while the feature FACTUAL FALSITY is relatively less important. With the gradience of the semantic features of the verb *lie*, they argue for the notion of prototypicality in terms of degree, depending on whether a situation associating with the lexical item contains all of the semantic features, or lacks some of them.

Beyond the classical and structural approach, Lakoff (1987b) critically reviews Coleman & Kay’s explanation of *lie* in terms of whether the gradient of semantic features is adequate for representing and constituting the prototype of lying (cf. Sweetser 1984; Aitchison 1993: 56-57). Understanding *lie* is much more complex than merely identifying the sum of necessary and sufficient semantic features. He believes that it is the structure of cognitive models (not simply feature bundles) that are essential to completely understanding *lie*.

Prototype theory provides several practical benefits. First, because of the notions of centrality-peripherality, degree, resemblance, and continuum, prototype theory can offer an explanation of some categorization problems unsolved in the classical and structural approach, i.e., non-central and peripheral category members (e.g., *penguin* of category BIRD), damaged objects (e.g., *a three-legged dog* and *a boat with a hole*), and fuzzy boundaries of a category (e.g., *cups* and *mugs*) (cf. Aitchison 1993: 55-56; Taylor 1995). Second, prototype theory offers a consistent mechanism for other interdisciplinary studies of philosophy, anthropology, linguistics as well as psychology. Third, prototype theory
also sheds new light on the relationship between polysemy and homonymy, or between polysemy and monosemy in terms of a continuum (not in terms of rigid separation). It provides a more sufficient coherent description and explanation of the multiple senses of a polysemous word than the classical and structural approach (cf. Aitchison 1993; Geeraerts 1985, 1988, 1989, 1990, and 1992; Taylor 1995). A prototypical sense of a semantic category functions as a cognitive reference point for the non-prototypical senses; we come to understand the semantic relatedness among the various senses of a polysemous word with reference to its prototypical sense. Various new senses are continuously adapted as the members of a category (a polysemous word), based on the meaning relatedness toward the prototypical sense while the more established senses of the polysemous word maintain the categorial structure at the same time. In this regard, Geeraerts (1985:141) clearly states that “prototypical categories are eminently suited to fulfill the joint requirements of structural stability and flexible adaptability” [emphasis mine JHL].

§ 1.2.2 Approaches to Polysemy

There are two alternative approaches to polysemy regarding whether it is reasonable to leave the various specific senses of a polysemous word to the semantic characterization of the word, or to the situational context: the abstractionist approach and cognitive and functional approach.
§ 1.2.2.1 Abstractionist Approach to Polysemy

First, let us discuss the abstractionist approach to polysemy. The abstractionists' fundamental claim is that a polysemous word is assigned a single abstract core sense. In favor of a formal minimal approach, Ruhl (1989:51) defines "abstract" as "the opposite of concrete" and "superordinate" as the absence of contextual meaning so that the general abstract sense of a word is unspecified and hence "nearly empty" in meaning. The single core sense, which is characterized by a set of semantic features, is common to, and derives all the related senses by abstract instruction rules or pragmatic specifications (cf. Caramazza & Grober 1976; Ruhl 1989). Abstractionists rightly note that there is some relationship among the various senses of a lexical item on the surface level. They also put some considerable weight on the role of human cognitive process, i.e., inference and metonymic shift. However, they argue that the multiple meanings of a word are attributed to contextual and pragmatic factors, which are not part of inherent semantic knowledge of an abstract core monoseme.

In favor of monosemy against polysemy, Ruhl (1989) also argues that the verbs kick and slap, as their respective abstract senses, represent MOVEMENT and CONTACT VERBS. He states that MOVEMENT and CONTACT VERBS are the only inherent semantic cores in characterizing the verbs kick and slap, and encompass all the various senses of the verbs kick and slap. All additional information, e.g., path, direction, and instrumental entities, is presented by certain prepositional phrases, sentence structures, and pragmatic specifications:

(12)a. I started kicking around in the snow.
b. *I took a breath and drove my head into the cold, kicking down and against the current that swept me back.*

c. *The kid kicked out with his left leg ....* (examples from Ruhl 1989:208-209)

With a similar perspective, Shin3 (1991a and 1991b) analyzes the contact verb *tayta* 'touch' and the perception verb *pota* 'see' in Korean in terms of an abstract core sense and many different concrete senses. The abstract sense of the contact verb *tayta* is THE CONTACT OF TWO ENTITIES (X and Y) THROUGH TIME, which primarily focuses on the result of the event designated by the verb *tayta*. She argues that this abstract sense is recognizable within a neutral context-free situation, and is common to the different grammatical uses (i.e., transitive verb, intransitive verb, auxiliary verb, verbal ending, and postpositional suffix), and to the multiple specific senses (i.e., SUPPLY, SAY, FACE, CONTINUE, REPEAT, LIKE A HABIT, CONTINUOUSLY, AS, ACCORDING TO, and so on). These concrete senses are regarded as inferable from the context, associating with the real world.

There are several other works supporting this abstractionist approach, e.g., the analysis of the verbs *have*, *take*, and *give* in Bendix (1966), *componential analysis of meaning* in Nida (1975), the noun *line* in Caramazza & Grober (1976)4. Adopting componential analysis, Bennett (1973:297) views the semantic phenomenon of polysemy

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3 Shin, Hyen-suk (1991a and 1991b) does not state that her semantic analyses of the contact and perception verbs, *tayta* 'touch' and *pota* 'see' are based on the abstractionist approach to polysemy. However, it is clear to me that her analysis attempts to present a unifying account of the distinct, but related senses of these polysemous verbs in terms of single abstract core senses, respectively (personal communication with Keedong Lee).

as "neutralization". He asserts that the preposition over is defined by the abstract sense SUPERIORITY independently of any context. Compared to the allophones of a phoneme, the various surface senses of over in a dictionary are subsumed under this single abstract sense SUPERIORITY, and are differentiated by the other context-dependent semantic features such as DIRECTNESS, CROSSING, COVERING, DOWNWARDNESS, and COLLISION on the surface (cf. Bennett 1975).

This approach encounters serious problems. First, the existence of an abstract core sense, common to all related senses, has doubtful existence in the mental lexicon. Ruhl (1989:51) admits that the core sense of a word is so abstract and general that the language user is often "unconscious" of it or has difficulty in "accessing" it. If a single abstract core sense of a word is only specified, characterized, and recognized by certain pragmatic contextual knowledge, how do we know if it exists independently of its related specific senses in our memory? Langacker (1987a: 42) argues that "general statements and particular statements can perfectly well coexist in the cognitive representation of linguistic phenomena". Thus, both rules (abstract schemas) and list (specific instances) should be adequately described in the grammar of a language. The particular plural instances like hands, fingers, and arms can be entrenched by frequent use so that they become conventionalized as holistic cognitive units in our memory in addition to the rule of plurality.

Moreover, it is not generally possible to assign to a polysemous word a single abstract sense which subsumes all the concrete senses. Or, to define one common abstract sense from different senses might be arbitrary and inconsistent, reflecting only the analyst's
subjective point of view. For example, the Korean verb *mekta* ‘eat’ is used to express many different meanings, e.g., *pap-ul mekta* ‘eat rice’, *mvul-ul mekta* ‘drink water’, *tampay-lul mekta* ‘smoke cigarette’, *ton-ul mekta* ‘illegally take money’, *kwuy-lul mekta* ‘lose one’s hearing’, *kkwum-ul mekta* ‘have a dream’ (examples from C. Im 1993:60). But a single abstract core meaning covering all of these senses is not definite and is practically impossible to detect.

Now, let us reconsider the abstract core meaning SUPERIORITY of the preposition *over* argued by Bennett (1975) with the following examples (cf. Deane 1988; Na 1993):

(13)a. *There were flies all over the ceiling.*

b. *The spider had crawled all over the ceiling.*

(examples from Lakoff 1987a:429)

Sentences (13a) and (13b) do not share the abstract core sense SUPERIORITY, because the flies and the spider are not above the ceiling (with reference to the speaker’s position), but are actually below the surface of the ceiling. Or, we can say that the meaning of SUPERIORITY plays a secondary role (not a primary role) in understanding *over* in (13a) and (13b). Based on this abstractionist approach, we are immediately confronted with a categorization puzzle. The abstraction semanticists argue that an abstract core meaning distinguishes polysemy from homonymy; two or more words in homonymic relations do not have shared a core meaning. Then, we should exclude the non-representative use of *over* in (13a) and (13b) from the semantic category OVER, and incorrectly treat it as a homonym, because the preposition *over* in (13a) and (13b) does not have the sufficient and necessary semantic feature SUPERIORITY.
Third, within the abstractionist approach it is implausible to explain the interrelationship and differentiation among the concrete senses of the same lexical form by means of a single abstract sense. Rather, we would have to leave this explanation to pragmatics. We would not be able to integrate it into the speaker's knowledge of the meaning, i.e., the semantics of the word. The distinction of the related senses of a lexical item is determined by the context, rather than the intrinsic semantic content. To be more specific, the bodily instrument (i.e., foot or leg) is immediate and essential to the physical action of kicking. However, Ruhl (1989) argues that foot or leg is not a part of the intrinsic semantic core (i.e., MOVEMENT VERB) of the verb kick, and is pragmatically specified, or inferred from the context. Therefore, contextual or pragmatic specification seems to play an all-problem-solving role in characterizing the multiple meanings of a word. In addition to this disadvantageous point, this abstractionist approach cannot distinguish one word from another in the knowledge system because of overgeneralization. For example, Ruhl (1989) characterizes the verb kick by the abstract broad sense (MOVEMENT VERB), which also encompasses many other motion verbs such as go, walk, run, crawl, and so on. Such differentiation would also be left to contextual use, an unintuitive solution.

Fourth, the abstractionist view cannot deal with the semantic extension of a polysemous lexical item by metaphor. Semantic extension by metaphor is too complex to be defined by a single core sense, as in (14a-b):

(14)a. Sam was passed over for promotion.

b. The rebels overthrew the government.

(examples from Lakoff 1987a:436 and 439)
Bennett's abstract core sense SUPERIORITY of the preposition *over*, which is now reduced to almost no real semantic content, cannot characterize the subtle and complex cases involving some metaphors (i.e., CONTROL IS UP, LACK OF CONTROL IS DOWN, and CHOOSING IS TOUCHING), as in (14a) and (14b). Again, metaphor would have to be part of the pragmatics of use.

Finally, additional rules and mechanisms, e.g., a set of instruction rules, as in Caramazza & Grober (1976) and coherence conditions, as in Ruhl (1989), are required to obtain the various specific surface senses from a single abstract core sense.

§ 1.2.2.2 The Cognitive and Functional Approach to Polysemy

The cognitive and functional approach, as opposed to the abstractionist perspective, regards polysemy as a flexible cognitive phenomenon. Cognitive linguists argue that polysemy reflects the important aspects of human cognitive capacity and process, as Deane (1988:358) discusses them related to "cognitive flexibility, memory organization, and categorization". Instead of assuming that concepts have a single abstract core sense, cognitive linguists posit a psychological and functional view of the various meanings of a single lexical item, which are interrelated, and are coherently unified within the semantic network in terms of categorizing relations.

In addition to the previously discussed notions of fuzzy boundaries and degree of membership, let us consider some other concepts essential to understanding the cognitive and functional approach to polysemy. Wittgenstein (1953) early on introduced the metaphor of *family resemblance* to get beyond the limits of the classical structural
approach to categorization. He claims that a category is not structured by a set of common criterial features satisfying all the category members. Rather, a category is a complicated network of family resemblance structure such that various (but not all) similarities are shared among the members of the category in an overlapping and criss-crossing manner. Through the semantic analysis of motion verbs in English and Korean, this present study will demonstrate that there are no necessary and sufficient conditions common to all the cases of a polysemous verb and the various senses of the Korean and English motion verbs are interrelated with one another, forming semantic networks with categorizing relations, i.e., schematicity and extension.

In order to fully understand the semantics of polysemous motion verbs from the cognitive and functional perspective, we need to discuss various sorts of knowledge constructs such as frames, scripts, idealized cognitive models, image schemas, and domain⁵, as suggested by Fillmore (1975b, 1977, 1982, and 1984), Schank & Abelson (1977), Lakoff (1987a), and Langacker (1987a and 1991a). These knowledge configurations reflect the human conceptual system in a systematic way, how knowledge is internally structured, and how it is represented as a whole. These kinds of global knowledge related to a given situation offer an explanation of the limitations arising from the checklist theory of meaning (cf. Fillmore 1975b). The basic idea of these notions is that a word evokes a whole scene and frame associated with the word, which includes encyclopedic knowledge (e.g., experience, imagination, and belief) as well as other related words. Frames refer to memory organization as an aspect of cognition, suggesting that an

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⁵ The notion of cognitive domain will be discussed in Section 2.1.
entity or event in a situation is not, separately and randomly, stored and activated independently of other associated entities and knowledge in such a situation. Rather, it is organized as an integral part of the structured whole of knowledge in memory, and interacts (or is activated together) with other elements. So, the complete understanding of a word requires thoroughly comprehending the holistic complex scene and frame connected with the word. For example, the verb *buy* invokes the COMMERCIAL EVENT frame (or scene) composed of a BUYER, a SELLER, MONEY, and GOODS (cf. Fillmore 1977:106; Dirven 1985; Taylor 1995:87-90; Ungerer & Schmid 1996:206-211). Within this COMMERCIAL EVENT frame are included related nouns such as *credit, cash,* and down payment (describing different ways of payment), and other verbs such as *purchase, sell, pay, charge, cost,* and *spend.* Each of these associated verbs perspectivizes and highlights distinct syntactic and semantic aspects of the monetary transaction scene partly through use of different syntactic structures. Let us consider some examples:

(15)a. *David bought an old shirt from John for ten pounds.*

b. *John sold an old shirt to David for ten pounds.*

(examples from Ungerer & Schmid 1996: 206-207)

In (15a), the verb *buy* takes the buyer’s perspective, and assigns the BUYER (*David*) and the GOODS (*an old shirt*) to the subject and direct object as the most prominent syntactic components with the SELLER (*from John*) and the MONEY (*for ten pounds*) backgrounded in the oblique and adverbiaial. By contrast, from the seller’s perspective in the same commercial event frame, the verb *sell* in (15b) highlights the SELLER (*John*) and the GOODS (*an old shirt*) as the subject and direct object, with the BUYER described by the indirect object (*to David*). Comparable to Fillmore’s frame, Lakoff (1987a) suggests the
term, idealized cognitive model. This refers to a relatively more complex and elaborate conceptual structure than an image schema (to be discussed later in this section).

Closely related to frame, Schank and Abelson's (1977) script is another sort of complex knowledge configuration. This knowledge is deeply entrenched in our mind, because of our habitual interaction with the recurrent sequence of subordinate events and states within an action frame (cf. Taylor 1995:87-88). A script is internally structured by some sequential actions and states associated with one another, according to temporal and causal relations, e.g., the RESTAURANT script in Schank & Abelson (1977:43), VISITING A DOCTOR in Taylor (1995:89), and the FLYING ON A PLANE script in Ungerer & Schmid (1996:211-214). The whole script is, thus, conventionalized as a gestalt-like cognitive unit. But a script is differentiated from a frame in that it is more dynamic than frame. Frames refer to relatively "static configurations of knowledge" (Taylor 1995:89).

An image schema is another kind of cognitive structure embedded in our everyday experience. It is more elementary and simpler than some other cognitive models, with less semantic richness and concreteness (cf. Lakoff 1987a:440-444 and 453-459; Ungerer & Schmid 1996:160). Lakoff (1987a) claims that our rich cognitive experience (e.g., perception and rich mental images) is internally organized by the elements of skeletal image schemas. He also argues that image schemas play an important role in metaphorically configuring other complex concepts. He stresses that the human body functions as a cognitive mechanism connecting many elaborate idealized cognitive models with abstract image schemas and as a grounding (or reference point) for semantic extension.
Image schemas have several characteristics. First, an image schema is schematic in the sense that it can apply to a variety of cases (including peripheral cases which do not completely accord with that schema), and it does not have concrete and specific information related to it. Second, an image schema is dynamic and flexible in that it can be modified in relation to our knowledge of the world, accommodating different construals (by the speaker) of the elements, i.e., trajector and landmark (to be discussed further in Section 2.4). Third, image schemas, which reflect (or represent) our various kinds of experience (e.g., sensory, spatial, kinesthetic, and other mental experience), are not arbitrary. Some relations among image schemas, so called "image-schema transformations", exist, and function as a motivation for the semantic extension of polysemy (Lakoff 1987a:440; Dwell 1994:351-352).

From a cognitive and functional perspective, Vandeloise (1984) offers a semantic analysis of several pairs of the French orientational prepositions (i.e., *au-dessus/en dessous* 'above/below', *devant/derrière* 'in front of/behind', *à gauche/à droite* 'on the left/on the right' and *dans/hors* 'in/out of') by different, but related gestalt experiences. These spatial prepositions are polysemous, establishing a family resemblance category. Based on Brugman's (1981) detailed investigation of *over*, Lakoff (1987a) presents a semantic analysis of the English particle *over* from central spatial senses to metaphorical senses in terms of several image schemas (e.g., PART-WHOLE, REFLEXIVE-NONREFLEXIVE, and MULTIPLEX-MASS). The different senses of *over* are related to one another by modifications of image schemas, building up a radially structured network (linked by family resemblance relationships).
Some other image schemas are frequently mentioned, e.g., the MOTION image schema consisting of structural components such as SOURCE, PATH, GOAL, and DIRECTION, and the CONTAINER image schema incorporating INTERIOR, EXTERIOR, and BOUNDARY (cf. Lakoff & Johnson 1980; Lakoff 1987a; Radden 1996). Focusing on a particular structural component of an image schema presupposes the whole image schema, and provides a motivation for semantic extension of a lexical item (cf. Lakoff 1987a:442; Dwell 1994:355-357; Radden 1996:384). For example, the verb *kata* ‘go’ focuses on the physical departure point (SOURCE) among the components of the MOTION IMAGE SCHEMA with reference to the speaker’s position, and is possibly used for representing the initial state or abstract departure (e.g., death) for change of states:

(16)a.  
\[ \text{wuyu-ka mas-i ka-ss-ta} \]  
\[ \text{milk-Nom taste-Nom go-Pst-Decl} \]  
\[ \text{‘The milk went bad.’} \]

b.  
\[ \text{halmeni-kkese hamul nala-lo ka-si-ess-ta} \]  
\[ \text{grandmother-Nom (Hon) sky nation-Orient go-Hon-Pst-Decl} \]  
\[ \text{‘Grandmother passed away’} \]

Now, let us discuss the notions of **metonymy** and **metaphor**. For extending and relating the senses of a polysemous unit, the role of metonymy and metaphor must not be neglected. Metonymy involves any sort of semantic associations (e.g., part and whole, author and his work, possessed and possessor, container and contained, dish and a person eating the dish, and so on), based on “contiguity” within a single conceptual structure (cf. Ullmann 1962:212; Lakoff 1987a:288 and 417; Goossens 1990:324-325; Ungerer & Schmid 1996:128-129). In a metonymic relationship, one thing stands for another within the same idealized cognitive model. By contrast, metaphor is based on “similarity” by virtue of metaphoric mapping across completely different conceptual structures (i.e.,
source domain and target domain), in a so-called “associative leap” (Dirven 1985:98). Metaphor is a process of understanding one entity, state or process (more generally, experience) in a target domain in terms of another in a source domain.

(17)a. *The mushroom hamburger is waiting for his check.*

b. *I am feeling up.*

Sentence (17a) involves a metonymic relation. The name of dish (*the mushroom hamburger*), which has a contiguous intrinsic relationship with the person eating that dish within the same cognitive structure of the RESTAURANT frame (or script), cognitively stands for the person having eaten it. Sentence (17b) assumes a non-contiguous relationship of two distinct conceptual domains, i.e., orientation and emotion. The speaker’s emotional state is metaphorically understood in terms of orientational metaphor: HAPPY IS UP AND SAD IS DOWN. This metaphorical meaning of emotion is semantically extended from the physical orientation, i.e., UP-DOWN. Dirven (1985:98) asserts that a metonymical relationship is more “transparent and self-evident” than metaphor. Similarly, Taylor (cf. 1995:124) asserts that because of the intrinsic relationship of two entities within a conceptual structure metonymy is more fundamental than metaphor.

Against a formal objective view, cognitive linguists (Lakoff & Johnson 1980; Dirven 1985; Lakoff 1987a and 1993; Langacker 1987a and 1991a; Deane 1988; Goossens 1990; Croft 1993; Radden 1996; among many others) have had great interest in the issue of categorization related to metaphor and metonymy, because metaphor and metonymy are ubiquitous in our everyday language and help us understand the relation between language and cognition. From an experiential point of view, Lakoff (1987a) attempts to illuminate the human conceptual system via metaphor. His main idea is that
our everyday language is basically metaphorical, and metaphors reveal aspects of human
cognitive processes; metaphors reflect how we think of, communicate, and perceive
reality. Therefore, there is no discrete separation between language and cognition. In
categorizing entities, concepts, states, and processes via various types of metaphor (e.g.,
structural, conceptual, orientational and ontological metaphors), he argues that metaphor
and metonymy are not reduced to language per se (i.e., rhetoric), but are embedded in our
daily experience, especially in human bodily experience.

Furthermore, cognitive linguists claim that metaphor and metonymy are cognitive
in nature, reflecting aspects of cognitive structures, and play a primary role in extending
and creating meanings. Investigating the different senses of the polysemous lexical items
cup and sweet, for example, Dirven (1985) argues that metaphorical processes in a broad
sense (including metaphor, metonymy, and synaesthesia) are productive and natural
mechanisms for semantic extension. Metaphorical extension generally progresses from
concrete entities (e.g., coffee cup) to abstract entities (e.g., in one's cups), not in the
opposite direction. A human being visualizes a concrete object in his mind, and then maps
it onto an abstract, less visual mental concept. In regard to semantic extension, Johnson
(1992:351) comments on metaphor as follows:

One of the most basic ways we achieve coherence and comprehensibility is thus
via metaphorical mappings of structure from one experiential domain to another
that is different in kind. Such metaphorical mappings allow us to ground our
conceptual systems experientially and to reason in a constrained but creative
fashion.

There are many semantic analyses of polysemous words within the cognitive and
functional approach, including Lindner (1981), Brugman (1981 and 1984), Vandeloise
(1984), Lakoff (1987a), Norvig & Lakoff (1987), Poteet (1987), Janda (1990), K. Lee (1990 and 1996a), Cuyckens (1995), Serra Borneto (1996), and Shen (1996). This list is not complete. As an example, Lindner (1981) offers a coherent and integrated explanation of the polysemous English particles *out* and *up*; the distinct senses of these particles are related to one another like the members of a complex category, and are united within an incorporating and continuously-evolving semantic network. All the different, yet related senses of *out* or *up* do not have a single abstract common sense, but rather demonstrate some similarities in a meaning-chained fashion. In order to explicate the interrelationships among the multiple senses of these particles, she employs various cognitive concepts and mechanisms such as trajector and landmark, various image schemas, categorizing relations (elaboration and extension based on metonymy and metaphor), and so on.

Since the present study deals with the semantics of polysemous motion verbs within the semantic field of force dynamics, let us briefly review some representative studies of two associated verbs within the cognitive and functional approach. In particular, Geeraerts (1988b) differentiates two synonyms, i.e., *vernielen* and *vernietigen* ‘to destroy’ in the nineteenth century Dutch. He concludes that despite the same paradigmatic and syntagmatic range of applications these two verbs are not perfect synonyms, but differ in terms of their prototypical semantic structures. In favor of abstract applications, the verb *vernietigen* refers to an abstract sense ‘to destroy’ as its primary meaning. By contrast, a concrete actual destructive action (in accordance with physical application) is the predominant and central sense for the verb *vernielen*. 
Serra Borneto (1996) presents a semantic analysis of the two German locative verbs *liegen* ‘to lie’ and *stehen* ‘to stand’ using two contrastive dimensions (i.e., horizontality and verticality). He begins with basic schemas and physical perceptual experience associated with these verbs. And non-perceptual experience or abstract metaphorical usages are semantically connected with the basic perceptual sense in a spatial scene in regard to the prototypical conceptual centers, *liegen* ("horizontality") and *stehen* ("verticality").

This chapter has provided a general orientation (i.e., purpose of the thesis, general assumptions and orientation, overview of the Korean language, introduction to the data, and organization of the thesis) and an overview of previous studies (i.e., the approaches to lexical semantics, the abstractionist approach to polysemy, and cognitive and functional approaches to polysemy). In the following chapter, the basic concepts of Cognitive Grammar (cf. Langacker 1987a and 1991a) immediately relevant for the present study will be discussed with examples.
Chapter 2
Overview of Cognitive Grammar

§ 2.0 Introduction

As the theoretical framework of this thesis, I adopt Cognitive Grammar developed by Langacker (1984, 1986, 1987a, 1987b, 1988a, 1988b, 1990, 1991a, 1991b, and 1993). The central claim of Cognitive Grammar is that grammatical structures do not constitute an autonomous formal system, but are inherently symbolic. A grammatical unit is bipolar, composed of its semantic unit on one pole and its phonological unit on the other pole. This framework treats grammar as the structuring and conventional symbolization of the semantic content, and every valid grammatical construct is, therefore, meaningful. It also claims that meaning is identified with conceptualization based on cognitive processing in accordance with linguistic convention. The notion of conceptualization is used in a broad sense in that it incorporates continuously evolving novel conceptions as well as conventional conceptions of a linguistic expression. The conceptualization of an expression accommodates its structuring and construing (by the speaker) as well as the semantic content in a conceived situation. Cognitive Grammar opts for a non-reductive, usage-based model; describing a lexical item within this approach includes all the specific usages of the lexical item, schema and prototype, and their interrelationships by virtue of various categorizing relations. This chapter briefly overviews those basic concepts of Cognitive Grammar particularly relevant for the present study.
§ 2.1 Cognitive Domain

Semantic structures ("predications") are characterized in relation to cognitive structures called domains. Any type of knowledge structure (e.g., perception, mental interaction, actions, emotion, and a frame or cognitive model of a real-world situation) can serve as a domain for the conceptualization of linguistic or other cognitive expressions (cf. Lakoff 1987a; Rudzka-Ostyn 1988; Langacker 1991a; Croft 1993). Therefore, there is no valid basis for the sharp distinction between dictionary and encyclopedia, and between semantics and pragmatics (cf. Haiman 1980). For instance, two-dimensional space is understood as the cognitive domain for the characterization of geometric figures such as triangle, circle, and rectangle. We characterize Monday as the first day of the week by invoking the knowledge configuration of the seven-day week.

Langacker (1987a:147) defines a domain as "a context for the characterization of a semantic unit". A cognitive domain for a linguistic expression functions as the base for the semantic characterization of the expression, because it presupposes essential conception in conceptualizing the expression. For example, the conception HANDS OF CLOCK\footnote{A linguistic expression is written in Italic letters, for example, push and pull. Its semantic unit or semantic structure (equal to predication) is written in small CAPITAL LETTERS, for example, PUSH and PULL. The translation of a Korean phrase or sentence is put in 'single quotation marks'.} presupposes the conception CLOCK, which is essential to identifying the conception of HANDS OF CLOCK and provides the domain for the conception HANDS OF CLOCK. Within the scope of the predication CLOCK, the concept HANDS OF CLOCK is characterized.
Some domains are more elementary than others, and cannot be further reduced. Langacker calls this primitive cognitive structure a **basic domain**. Perceptual and sensory experience involving space, color, pitch, taste, or temperature, experience of time, and certain emotions are considered basic domains. On the other hand, certain complex concepts cannot be adequately characterized with reference to only a single basic domain, but are characterized against a non-basic or abstract domain integrated by several basic domains, and/or abstract concept(s). For example, some deictic motion verbs such as *go*, *come*, *leave*, and *arrive* take as their cognitive domains several basic domains of the complex motion image schema constituting source, direction, path, and goal (cf. Lakoff 1987a). For another example, let us consider the complex semantic unit: MOTHER. For the full characterization of the composite concept MOTHER, five cognitive domains (i.e., genetic domain, birth domain, nurturance domain, genealogical domain, marital domain) should be simultaneously accessed in addition to the concept FEMALE HUMAN (cf. Lakoff 1987a; Taylor 1995).

Now, let us think about domain selection, which plays a significant role in motivating semantic extensions of a lexical item. The speaker is capable of differently conceptualizing a lexical item by selecting a particularly relevant domain. Consider some examples. The Korean expression *nolahta* is immediately recognized relative to the basic domain of color, meaning YELLOW, as in *nolan kaynali* ‘yellow forsythia’. When it is characterized related to the domain of human personality, however, it refers to a ‘stingy person’, as in *nolayangi*. When it refers to abstract mental experience, it signifies ‘no hope’ or ‘no promise’, as in *ssakswu-ka nolahta* ‘There is no hope or no promise (lit. a bud is
yellow). Let us take another example: tongue. Central to the conceptualization of the English noun tongue is the movable organ relative to the internal mouth configuration of a human being or an animal. When tongue is particularly characterized with regard to its function by a metonymic relation, however, it is conceptualized as 'speech' or 'language'.

Now, let us move on to the notions of **primary domain** and **secondary domain**. When a semantic unit simultaneously involves different domains, one of these cognitive domains is more prominent and immediately relevant for the characterization of the semantic unit than the other domains, and this is called a primary domain.

The relative prominence of cognitive domains is applicable to different, but associated lexical items such as salt and sodium chloride, caviar and roe, and harbor and bay, distinguishing different characters of the entities (cf. Langacker 1987a and 1991a; Taylor 1995). Both salt and sodium chloride designate the same white substance with a certain taste. From our world knowledge, salt is characterized as an entity for seasoning and preserving food within the domain of food. The cognitive structure of food serves as the primary domain for the lexical item salt. But the chemical domain, which defines salt as a chemical compound, is backgrounded as a secondary domain. By contrast, sodium chloride takes the chemical composition as its primary domain, and secondarily associates with a food condiment. Let us consider the pair of related lexical items, caviar and roe. Both semantically share the same referents, i.e., a mass of fish eggs. The domain of food is crucial and necessarily activated for characterizing caviar as a special food served as appetizer, and fish reproduction is seen as a peripheral domain for caviar. However, the relative prominence of these domains is reversed with roe. With the same referent ('a
mass of fish eggs'), *roe* is primarily understood against the domain of reproduction, and is less likely thought of as a food.

§ 2.2 Profile and Base

Langacker (1987a, 1991a, and 1991b) considers that *profile/base* organization is the most important dimension of imagery (compared with level of specificity, scale and scope, perspective and so on) for the semantic analysis of linguistic expressions. The distinction between profile and base is based on the principle of prominence. The base for a linguistic predication is part of the relevant domains necessary for the characterization of the profiled entity. Its profile is defined as “a substructure of the base that is elevated to a distinctive level of prominence as the entity which the expression designates” (Langacker 1991a:61). Thus, the profiled entity of a base selectively stands out against the base.

Langacker emphasizes that neither the base nor the profile can individually bring out the whole semantic value of an expression, but their mutual relationship is essential to the conceptualization of the expression. Let us consider the lexical items *hypotenuse*, as illustrated in Figure 1:
Figure 1 illustrates the profile/base organization of the two semantic units, HYPOTENUSE. In Figure 1(a), although the two-dimension, i.e., space, provides the domain for the semantic unit RIGHT TRIANGLE, it is not the immediate scope of the predication for the semantic unit HYPOTENUSE. The concept of "predication" is termed for the semantic pole (meaning) of any kind of a linguistic expression. The scope of predication (Langacker 1991b:552) refers to "those portions of active domains that a predication specifically invokes and relies upon for its characterization".

The base for the semantic unit HYPOTENUSE is the right triangle within which HYPOTENUSE is characterized as the particular portion of a right triangle as a whole. The unit HYPOTENUSE is profiled as the most salient sub-structure of the base (the right triangle), as indicated by the heavy line in Figure 1(a). The profiled segment is only characterized as an oblique line within the space, without the immediately relevant base (i.e., right triangle), as in Figure 1(c). Without imposing the profile of the hypotenuse on the right triangle, the conception HYPOTENUSE is suppressed, and only a right triangle is seen with reference to space, as in Figure 1(b).
The semantic unit KNUCKLE can be, most sufficiently and accurately, characterized relative to the base FINGER as a whole, not relative to the more inclusive domain HAND or BODY, although a knuckle is roughly understood as a part of a hand or of a human body. The conception FINGER is the most salient and immediate scope of predication with regard to which the unit KNUCKLE is profiled. The adequate characterization of the concept KNUCKLE evolves from several steps of part-whole relationships. The three dimensional space is the base for the semantic unit BODY, which provides the base for the semantic unit ARM, which serves as the base for the unit HAND, which in turn is the base for the unit FINGER, which finally denotes the base for the unit KNUCKLE.

Through cognitive abilities and cognitive processing, speakers (conceptualizers) can construe a single conceptual content (base) in different ways. Some expressions take the same base, and semantically differ by imposing the different profiles on their shared base. Let us consider the expressions hub, spoke, and rim (cf. Langacker 1991b:5):

![Figure 2. Profiles within the same domain](adapted from K. Lee 1990:16)

The conception of a wheel provides the common base for hub, spoke, and rim. These three expressions designate different portions of the base wheel; hub profiles the center part a wheel, as in Figure 2(a); spoke designates one of the metal supports of a wheel inserted in the hub for supporting the rim; rim profiles the outer, circular part of a wheel.
Within the same conceived base (a wheel), its various parts obtain the special prominence designated by the expressions, respectively (hub, spoke, and rim), and are thus profiled.

Alternate modes of profiling within the same conceptual base largely divide classes of words into “nominal” predications and “relational” predications (Langacker 1991a:74-75). The nominal predication (designated by a noun or pronoun) profiles a thing (more generally an entity) constituting a region within a given cognitive domain. The schematic nominal entities are usually represented by circles.

By contrast, a relational predication (designated by such categories as adjectives, adverbs, verbs, and prepositions) profiles a relation interconnecting conceived entities. Langacker (1991a:22 and 78) further divides the relational profiles into “atemporal relations” (expressed by classes of prepositions, adjectives, adverbs, infinitives, and participles) and “processes” (expressed by a class of verbs). A process differs significantly from an atemporal relation in the sense that it consists of many distinctive successive configurations (states) of a conceived event, is sequentially scanned through the conceived time, and is temporally profiled. Since this present study focuses on the semantic analysis of motion verbs, the difference between a nominal profile (representing the participants of an event) and a relational process profile (representing an event) needs to be examined.

Now, let us consider how the different grammatical categories enter and entrance are distinctively profiled. Let us assume that both enter and entrance involve two
participants\textsuperscript{2}, MOVER (M) and LOCATION (L), within their conceptual base, and the conceptual content (i.e., a MOVER’s going into a LOCATION) is conceived as intrinsically shared by \textit{enter} and \textit{entrance}, as illustrated in Figure 3(a):

(a) conceptual content (base)  (b) process \textit{enter}  (c) noun \textit{entrance}

\textbf{Figure 3} Profiling choice for \textit{enter} and \textit{entrance}

The single upper arrow in each figure represents a movement line of the same MOVER (indicated by the dotted and solid small circles) along a path through time, including all of his different locations. In Figure 3(a), the common conceptual content does not specify the profile/base organization. Figure 3(b) schematically represents the relational process designated by the verb \textit{enter} in which the MOVER’s entering the LOCATION (indicated by the heavy-lined upper arrow) and sequential temporal flow (indicated by the heavy line from \(t_1\) to \(t_2\)) are profiled within the domain of space (indicated by the outer rectangle). In Figure 3(c), the noun \textit{entrance} profiles the region, i.e., “a set of mutually interconnected entities” (depicted by the outer heavy-lined circle) as a whole (Langacker 1987a:492). On the other hand, its internal facets remain unprofiled in the base.

\textsuperscript{2} In the sentence \textit{He entered the house}, the location \textit{the house} is conceived as a participant of the event described by the verb \textit{enter} in a locative relationship despite its immobility and large size because \textit{the house} functions as the clausal direct object (cf. Langacker 1987b and 1991a).
Sentences (1a) and (1b) are examples of *enter* and *entrance*:

(1) a. *Tom entered the bank.*

b. *Tom made a dramatic *entrance* into the room.*

The difference between *enter* and *entrance* does not reside in the basic conceptual content of the expressions, but lies in how the shared content is construed with respect to profiling through cognitive processing (cf. Langacker 1987a and 1991a).

Now, let us consider the notion of *profile determinant* with respect to the profiling relationship between a component structure and its composite structure. When a composite structure is analyzed into two or more component structures and inherits its profile from one of its component structures, that component structure is called the profile determinant (cf. Langacker 1991a and 1991b):

(c) BALL-ON-FLOOR

![Diagram](image)

(a) BALL  (b) ON-FLOOR

Figure 4. Profile determinant for BALL-ON-FLOOR

Figure 4 illustrates the integration of the two component semantic structures (BALL and ON-FLOOR) to form the composite semantic structure of the noun phrase (BALL-ON-
FLOOR). The integrating process is established by the correspondences of the elements; the vertical dotted lines denote the correspondences between the elements of the component structure and composite structures; the horizontal dotted line also represents the correspondence linking the elements of the component structures. The component structure (the noun predication BALL) in Figure 4(a) profiles a thing in a three-dimensional spatial domain. The component structure BALL, as the head of the noun phrase ball on the floor, serves as the profile determinant for its composite structure BALL-ON-FLOOR in Figure 4(c) because it superimposes its profile on the composite structure. Thus, the profile of the composite structure (BALL-ON-FLOOR) in Figure 4(c) corresponds to the nominal profile of BALL in (a). To be more specific, the composite structure (BALL-ON-FLOOR) profiles the ball, but the specific landmark FLOOR of the locative relation ON remains unprofiled in the base of space. The rectangle representing the predication of the profile determinant is enclosed by a heavy line. On the other hand, the component structure ON-FLOOR in (b) profiles the locative relation ON where a schematic trajector (indicated by the small circle) is profiled and the specific landmark FLOOR (indicated by the horizontal line) is also profiled. Based on a schematic relationship, the unspecified trajector of the preposition on in (b) is elaborated by the noun predication BALL in (a), as indicated by the arrow. Note that the profiled images in (b) are not imposed on the composite structure in (c). So, the component structure in (b) is not the profile determinant for the composite structure in (c).
§ 2.3 Perfective Process and Imperfective Process

Since the present study centers on the semantic analysis of motion verbs, the concept of process (designated by a verb) is very important. A process refers to a temporally-profiled relation which constitutes a set of sequentially scanned states of an event through time. Langacker (1987, 1991a, and 1991b) divides processes into **perfective processes** and **imperfective processes** within their respective scopes of relational predications. A perfective (exemplified by the verbs LEARN, KICK, RISE, or BUILD) exhibits change through time, and is bounded in time within the scope of the relational predication:

![Perfective Process Diagram](image)

Figure 5. Perfective Process (adapted from Langacker 1991a:88)

In Figure 5, the large rectangle represents the scope of predication for the characterization of an event. Let us take the sentence *John built a new house*. Since all the subsequent component states of the event designated by the verb *build* (e.g., planning, making a foundation, setting up wall supports, and roofing) are not internally homogeneous, the processual predication BUILD profiles some kind of change through time, as diagrammed by the profiled zigzag line in Figure 5. The predication BUILD is bounded with regard to time. It involves at least two distinctive states, initial and final, and temporal points of the event, along with the progression constructing the house. The temporal bounding is
marked by the short vertical lines at the left and right sides of the zigzag line in Figure 5. A perfective process frequently occurs in the past tense, which is differentiated from the speech event time indicated by the small box in Figure 5.

By contrast, an imperfective process (expressed by the imperfective verbs such as resemble, have, want, know, and believe) does not describe any change through time; thus its component states and subevents are construed as identical and constant through time, as indicated by the straight horizontal line in Figure 6 (adapted from Langacker 1991a. 88f). It is not bounded in time, so its initial and final states are not clearly demarcated within its scope of predication, as indicated by the dots to the right and left of the upper heavy line. Figure 6 shows that the imperfective process in the present tense accords with the time of speaking, as indicated by the small box. Despite indefinite expansibility or contractibility, the profile of an imperfective is limited to the scope of predication. Because perfective and imperfective are processes, Figure 5 and Figure 6 have temporal profiles as indicated by the time line, marked t:

![Figure 6. Imperfective process (adapted from Langacker 1991a:88)](image)

Let us examine the following pair of sentences, which consist of two clauses in the past and present tenses:

(2)a. *Paul learned the answer — in fact he still does.*
b. *Paul knew the answer -- in fact he still does.* (from Langacker 1991a: 88)

Sentence (2b) is possible because the imperfective *know* designates the expansibility of a stable situation through the present. By contrast, (2a) is not acceptable in a canonical interpretation because the perfective *learn* designates a process that was completely finished in the past and does not continue throughout the present.

A process expressed by a perfective verb (*learn, build, or rise*) often establishes an imperfective process with the use of the progressive construction\(^3\) (*be ... -ing*). The gerund morpheme *-ing* attached to the verb stem (*build or learn*) atemporalizes the temporally profiled process, constructing the atemporal participle (*building or learning*). The verb *was* (*be*), as a finite verb, imposes a processual profile on the composite progressive construction (*was building or was learning*) by retemporizing the composite structure:

(3)a. *John was building a new house.*

b. *Mary was learning Spanish.*

In (3a), the progressive construction (*was building*) describes an imperfective process in which the distinctive changes of a perfective process (designated by the verb stem *build*) are suspended in the base through time. Although the perfective (*build*) and the imperfective progressive construction (*is building*) share the same base and scope of

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\(^3\) A progressive construction (*be -ing*) functions as a way of imperfectivizing a perfective process. Thus, an imperfective cannot be used with a progressive construction because it is redundant (cf. Langacker 1991a).
predication, the distinct initial and final states of the perfective process are not included within the immediate scope of predication as shown in Figure 7 below:

![Diagram](image)

Figure 7. Imperfective process of *was building*
(adapted from Langacker 1991a:92)

The progressive construction in Figure 7 imposes its profile on a limited intermediate portion of the perfective process in Figure 5 with respect to the immediate scope of predication. The immediate scope of the predication is indicated by the smaller rectangle enclosed by the larger rectangle in the figure. Within this immediate scope of predication the internal facets of the progressive construction are construed as schematically identical, as illustrated by the heavy-lined upper straight line in Figure 7. It is similar to the homogeneity (no change) of an imperfective process in Figure 6, but contrasts with the change of a perfective process indicated by the zigzag line in Figure 5. The imperfective process can be contracted or extended within the boundary of the perfective process, characterizing the situation as an unfinished episode.
§ 2.4 Figure and Ground: Trajector and Landmark

Talmy (1978:627) characterizes the contrastive concepts of Figure and Ground (originating from Gestalt psychology) in the following way:

The Figure object is a moving or conceptually movable point whose path or site is conceived as a variable the particular value of which is the salient issue.

The Ground object is a reference point, having a stationary setting within a reference-frame, with respect to which the Figure's path or site receives characterization.

These concepts are relational, as we see in the examples in (4a-b). Figure and ground are closely connected with the principle of relative prominence; the figure is considered to be more prominent, easily recognized and remembered than the ground (e.g., the sea and the table):

(4)a. The seagull flew over the sea.

   b. vase on the table

In (4a) the small moving object the seagull is the figure within the relational predication FLY OVER, and the fixed environment the sea functions as ground (or as a reference point). Thus, the seagull is characterized as a salient element with reference to the sea. In the noun phrase vase on the table in (4b), vase is the figure and the table is the ground within the relational predication ON. As to the ground the table, the figure vase is identified by a locative relation designated by the preposition on.

As a further step of Langacker (1987a and 1991a), Ungerer & Schmid (1996) seek to provide a unified explanation of a variety of linguistic and non-linguistic mental processing (e.g., landmark and trajectory, subject and direct object, profile and base/domain, head and tail of an action chain, participants of an event and the event, on-
stage event and off-stage event) in terms of the general cognitive principle of figure/ground distinction.

The linguistic concepts of *trajector* and *landmark* defined by Langacker are closely related to the psychological concepts of figure and ground. Related to figure and ground organization, trajector is defined as "the figure within a profiled relationship" and another prominent entity other than the trajector of a relational predication is called landmark (Langacker 1991b:555). The notions of trajector and landmark are also based on the principle of prominence. In an event, trajector and (primary) landmark are relational substructures, i.e., primary and secondary participants, within the semantic structure of a processual relation:

(5)  *The boy broke the vase on the table.*

The trajector is characterized as the most prominent clausal element (i.e., the primary figure), while the landmark is the second most prominent clausal element (i.e., secondary figure). The locational oblique *on the table* provides the setting for the participants, and serves as the ground (the immediate scope) for the trajector and/or the landmark. Syntactically, the trajector in a transitive clause, as in (5), is expressed by the subject (*the boy*) while the landmark is expressed by the direct object (*the vase*). And the location is expressed by the prepositional phrase (*on the table*). Semantically, in the most prototypical transitive sentence like (5), the trajector and landmark play the roles of *AGENT* and *PATIENT*, respectively. However, trajector and landmark may play different semantic roles, depending on the construal of participants in a given profiled relationship,
e.g., AGENT and MANIPULATED MOVER in (6a), EXPERIENCERS in (6b), RECIPIENT and PATIENT in (6c), and INSTRUMENT and PATIENT in (6d):

(6)a.  *The horse pulled a cart.*

b.  *Tom loves Mary.*

c.  *John receives a birthday present.*

d.  *A stone broke our mirror.*

The notions of trajector and landmark are highly schematic with respect to the full range of different linguistic specifications or to various kinds of entities, as long as we can consistently relate them to and construe them as the essential elements of the general cognitive schema, e.g., a locative relation OVER (cf. Lakoff 1987a). Any mobile entities such as balloon, fly, bird, kite, and plane can serve as the schematic trajector of the locative relation OVER, and such stationary objects as house, sea, hill, and field can elaborate the schematic landmark of it. In another schematic sense, we systematically use the terms of trajector and landmark to present a unified account of any kind of profiled relationships (e.g., verbs, prepositions, adjectives, and adverbs).

§ 2.5 Summary Scanning and Sequential Scanning

Langacker differentiates “processes” from “atemporal relations” and “nominal profile” in terms of two different modes of cognitive processing, summary scanning and sequential scanning. In summary scanning, the different phases of a situation are continuously examined in an incremental way until the most complex assembly is built up. Summary scanning is likened to “examining a photograph” for a complex static configuration (Langacker 1987a:145). Once a phase of the situation is scanned, it
continues to be available and active throughout the scanning of the final phase; it does not fade away as the scanning of its next phase is initiated. Therefore, when the whole scene is eventually scanned, all the accumulated facets of it are simultaneously activated and coexistent as a single gestalt.

By contrast, in sequential scanning, the successive phases of a processual situation are accessed in sequence. Sequential scanning is compared to “watching a motion picture” consisting of a series of distinct configurations (Langacker 1987:145). Once one initial phase of the conceived event is accessed, it is momentarily activated. It is not available when its following phase is scanned. The scanned content of one phase at a certain point of time is completely different from that of another phase at another point of time. When the final phase of an event is accessed, its content does not occupy a holistic configuration accumulated by the previous states of the event, but is limited to representing the conception equivalent to only this final phase.

These distinct types of cognitive processing play a crucial role in distinctively explaining related concepts expressed by variety of different grammatical categories (e.g., cross and across, rise and up, enter, entry and into, fall (V.), fall (N.), and down); the respective pairs share an intrinsic conceptual content, but differ in the styles of scanning, as illustrated in Figure 8 (adapted from Langacker 1987a:144):
Figure 8. Sequential and summary scanning

Figure 8(a) illustrates how the process FALL is sequentially scanned with five representative component configurations (subsuming the infinitely intermediate configurations indicated by the sets of three dots between the states). It represents the conceptualization of 'trajector (indicated by the small circles) falling onto a flat surface' (the landmark indicated by the smaller rectangles), successively distributed through the series of points of conceived time. The accessed content or visual image of each stage is distinct from that of the next stage, reflecting the different evolving facets of the entire scene. Figure 8(b) describes the summary scanning of the atemporal relation DOWN; every phase of 'the trajector falling onto a flat surface' is superimposed in a cumulative way, leading to a simultaneously accessed additive configuration as a whole. Each phase
of the relation DOWN serves as some facet of the whole scene; the schematic trajector and landmark are profiled with regard to the spatial domain because of the interconnection in the relation designated by the adverb down. In Figure 8(c), the noun fall is also examined with summary scanning, as in the case of the adverb down in Figure 8(b). But it is different from the adverb down in that its internal aspects (e.g., trajector and landmark) are not individually profiled. The nominal predication is generally different from the relational predication (e.g., process FALL and atemporal relation DOWN), because it profiles a region as a gestalt, without highlighting its internal subportions, as discussed in Section 2.2 on profile/base organization.

§ 2.6 Active Zone: Shift of Focus

The notion of active zone is identified as the subportion of an entity which immediately participates in a given relational predication, or most directly interacts with a given domain. In (7a-b), the trajectors (Mary and the computer), as integral wholes, directly interact with the relational predications VISIT and BE ON:

(7)a. Mary is now visiting her grandmother.

b. The computer is on the desk.

Every part of Mary is apparently traveling toward her grandmother’s place in (7a). The relational predication BE ON in (7b) profiles a locative relationship in which the entire computer is placed on the surface of the desk. A similar explanation fits (8a-b):

(8)a. ku-ka kewul aph-eyse swuyem-ul mil-ko iss-ta
    he-Nom mirror front-Loc beard-Acc shave-Isol be-Decl
    ‘He is shaving his beard in front of the mirror.’
b. *thayyang-i cikwu-lul kkul-e tangki-n-ta*
sun-Nom earth-Acc pull-Cons pull-Pres-Decl
'The sun exerts gravitational pull on the earth.'

The relational predication SHAVE\(^4\) designated by the Korean verb *mita* in (8a) directly involves the entire landmark (sweuyem-ul ‘beard-Acc’) as an undifferentiated unity; the beard is completely shaven in a given relation. No particular part of the landmark distinctively receives the focal attention within the relational predication SHAVE. The active zone of the landmark accords with the whole, and is elevated to the profiled landmark. In (8b), the active zones of both trajector and landmark (*thayyang-i ‘sun-Nom’* and *cikwu-lul ‘earth-Acc’*) correspond to the entire bodies, which directly interact with each other within the relational predication PULL. So, the active zones are themselves profiled as the clausal trajectors in (7a-b), the clausal landmark in (8a), or the clausal trajector and landmark (8b), and no discrepancy exists between the active zones and the profiled entities:

![Figure 9. Coincidence of profile and active zone](image)

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\(^4\) The motion verb *mita* basically means ‘push’, and is extended to mean ‘shave’ with the semantic effect of ‘complete removal’. Since the present study aims at providing a semantic analysis of the verb *mita* in terms of a semantic network, it will be discussed in full detail in Chapter 4.
However, for some relational predications the active zone of an entity may be restricted to some particular subpart of the profiled entity, as in (9a-b):

(9a. *Your dog bit my cat.*

b. *Roger peeled an orange.* (from Langacker 1991a:190-191)

In (9a), the teeth of the dog (the trajector) is the active zone in the given relational predication BITE because they most immediately participate in this relational predication. By contrast, its hair and legs are relatively more indirect and peripheral parts for the act of biting than its teeth. So, the entire body of the dog does not associate with the biting activity. In (9b), the outer surface of the orange (not the whole orange) serves as the active zone in the relational predication PEEL. We observe a discrepancy between the active zone and the profile within the relational predication; the active zones (i.e., the dog’s teeth and orange peel in (9a-b)) are not profiled as the trajector and landmark, but the whole entities designated by *your dog* and *an orange* are instead profiled:

(a) DOG (TR) and TEETH (AZ)  
(b) ORANGE (LM) and ORANGE PEEL (AZ)

Figure 10. Discrepancy between profile and active zone

Langacker (1991a:191-192) claims that this discrepancy between profile and active zone should be accommodated as a “normal situation” because it frequently occurs in a number of verbs and other grammatical categories (e.g., nouns, prepositions and adjectives). This discrepancy is considered a cognitively natural phenomenon in terms of “cognitive
salience" because a whole is cognitively more salient and is more easily perceived than a limited portion of it (Langacker 1991a:193). Profile-Active Zone discrepancy allows the great flexibility of language use, and makes unnecessary the superfluous elaboration of the active zones of an entity.

§ 2.7 Semantic Network of a Polysemy: Prototype and Schema

In order to categorize the multiple senses of a polysemous lexical item, Langacker (cf. 1987a, 1991a, and 1991b) employs two cognitive models, prototype model and schema model, in the construction of a coherent semantic network. These models provide an alternative to criteria-attribute model (discussed in Section 1.2). He claims that the two models are "not incompatible" with each other, reflecting different aspects of a complex category, although categorization by prototype is differentiated from categorization by schema.

Let us consider the polysemous noun ring. We conceive of this concept as a circular object, as a circular piece of jewelry, as an arena, as a group of people, as a circular mark, and so on. The different senses of this noun are related to one another in terms of categorizing relations, establishing the semantic network of family resemblance relationships, as represented in Figure 11 (from Langacker 1991a:3):

![Semantic Network of ring](image)

Figure 11. Semantic Network of ring
In Figure 11, the multiple senses of the noun ring are represented by the nodes, which are linked to one another by two different categorizations (i.e., extension and elaboration). The heavy-lined box represent the global prototypical sense (i.e., 'circular object'). The prototype is a central instance of the semantic category RING. With considerable linguistic and cognitive plausibility, it is predicted that this prototypical sense of ring will be one that is learned first, most quickly recognized as an instance of ring, and remembered most easily, and most likely to be activated in a neutral context, because it is strongly entrenched as a cognitive unit by the speaker's frequent experience. It is characterized with reference to the most cognitively salient and pervasive domain, that of space.

In Figure 11, we recognize several semantic extensions from the prototype (i.e., 'circular object') of the lexical item ring with discernible differences between them, as indicated by the dotted arrows. This prototype is not fully compatible with the extended senses; the latter are assimilated to the category to the extent that they can be construed as related to that prototype. The prototypical sense is semantically extended to mean 'circular mark' and 'arena'. In Figure 11, the schema 'circular entity' is also extended to mean 'group of people operating together (clandestinely)' and 'arena'.

In Figure 11, we find a set of schematic relations between a schema and its specific instances, as represented by the solid arrows. To be more specific, the sense 'circular entity' is schematic to more specific instantiations such as 'circular mark', 'circular object', and 'circular piece of jewelry'. We abstract this schema by perceiving the common factor (i.e., 'circular entity') of those specific senses. The prototypical sense 'circular object' is elaborated by the specific sense 'circular piece of jewelry'.
The meaning of the noun *ring* is not reduced to a single sense (represented by a single node), a single schema or a single extension from the prototype, but includes all the specific senses of the noun *ring*, all the categorizing relations and their interrelationships. All relevant information is unified in the entire semantic network where the closely related but distinct models (prototype and schema models) are synthesized. Furthermore, the semantic network of the noun *ring* can continually expand with some structural modifications. In this respect, the semantic network of this complex category is "dynamic and continually evolving" in nature (Langacker 1987a:376). There is no definite restriction how far "upward" or "downward" a speaker extends the semantic network through the characterization of abstraction or of extension into more specific senses.

§ 2.8 Action Chain: The Billiard-ball Model

Langacker (cf. 1987a and 1991a) offers the billiard-ball model to visualize the concepts of energy transfer and energetic interactions of participants (between persons and objects) at the event level. In an event one participant, by means of physical contact, exerts energy (force) upon another participant, which then transmits the energy to a third participant. This sort of energy flow continues throughout until the energy is completely absorbed by the last participant. In terms of energy exertion and energy consumption, this continuous linking of forceful interactions among the event participants are called an action chain. It is metaphorically compared to the billiard-ball model because pushing against one ball (initiated by the billiard cue) induces the successive responses of some other balls:
In Figure 12, the participants are indicated by circles, and the energy flow among the participants is depicted by a double arrow. The prototypical transitive sentence *Floyd broke the glass with the hammer* has three archetypal semantic roles (AGENT, PATIENT, and INSTRUMENT) within its conceptual base. The first participant (the AGENT *Floyd*) initiates the action (*breaking*) by first transmitting the energy to another participant (the INSTRUMENT *the hammer*), which then supplies the energy to the third participant (the PATIENT *the glass*). The initiator or AGENT of the action is called the "head" of an action chain, or the source of energy with regard to the energy flow. By contrast, the last participant or PATIENT is characterized as absorbing the transmitted energy, and is called the "tail" of the action chain or the "energy sink" (Langacker 1991a:215). As indicated by the zigzag line within the final circles in Figure 12, the PATIENT undergoes some change of state. The INSTRUMENT (an inanimate object *the hammer*) is in immediate physical
contact with the AGENT, and is used to transfer energy from the AGENT to the PATIENT as an intermediate element of the energy flow. The “head” and “tail” of participants of an action chain are alternatively termed “upstream” and “downstream” participants in the energy flow, respectively (Langacker 1991a:217). As in the sentences The hammer (easily) broke the glass and The glass (easily) broke in (b) and (c), the speaker linguistically selects some participants of the energy flow with others uncoded, based on the principle of prominence, and produces different corresponding sentence structures.

It should be noticed that the energetic interactions of the participants associate with the notion of force-dynamics (cf. Talmy 1985a and 1988). Within an event, motion, path and direction are caused or controlled by the relative force interactions of participants; AGENT’s force exertion, PATIENT’s (or MOVER’s) resistance, AGENT’s overcoming such a resistance (obstacle), external physical force, and internal abstract force are important subconcepts of force-dynamics in construing a motion event.

In the case of no physical energy transfer, an event may involve mental activity, as in the sentence Jeff figured out the problem. Within the profiled relationship, the trajector (Jeff) does not have any physical contact with the landmark (the problem), which does not undergo change of its state or location. Jeff experiences mental interaction with the problem, and plays the role of EXPERIENCER. Mental interaction is considered much less dynamic than physical action chains in regard to energy flow. It is indicated by a single-lined arrow in Figure 13, by an analogy to a physical action chain (cf. Langacker 1987a, 1991a; Ungerer & Schmid 1996):
Jeff figured out the problem.

Figure 13. Schematic representation of mental interaction

§ 2.9 Stage Model: Participant and Setting vs. Conceptualizer

With the metaphor of the stage model, Langacker (cf. 1987a, 1990, and 1991a) distinguishes an on-stage event from its off-stage observer (i.e., speaker/conceptualizer), based on the cognitive principle of prominence. Figure 14 illustrates the relationships between an event and conceptualizer and between its participants and its setting within an event:

[p1 and p2: participants; C: conceptualizer]

Figure 14. Representation of the stage model
(adapted from Langacker (1991a:211))

The conceptualizer (C) is analogous to the audience off the stage, watching the on-going play on the stage. The whole rectangle represents an event on stage. An event expressed by a finite clause, as in Jeff broke the vase this morning, is compared to a performance on the stage. The event refers to the temporally profiled relational process constituting
participants (*Jeff and the vase*) and setting (*this morning*). Participants and setting in a sentence are conceived as the syntactic figures (trajector and landmark) and syntactic ground within the profiled relationship. So, the participants (corresponding to the actors on the stage) are relatively smaller and movable distinct entities (indicated by the circles in Figure 14), energetically take part in physical interactions of the event (symbolized by the double-lined arrow), and obtain the most prominent highlight on the stage (profiled by the heavy lines). The first participant (p1) functions as the subject or the primary figure in the sentence, and the second participant (p2) serves as the direct object or the secondary figure. By contrast, the setting expressed by adverbials (specially those expressing time and space) provides a larger and stable background (ground) for the active participants.

Now let us consider some examples where the setting of an event is elevated to a more prominent element (syntactic figure) than its participants:

(10)a. *The garden is swarming with bees.*

b. *My cat is crawling with fleas.* (Langacker 1991a:231)

In (10a), *the garden* is a stationary place, and *my cat* in (10b) is a relatively inactive entity. They function as the settings for the relational predications BE SWARMING and BE CRAWLING, as illustrated in Figure 15. However, they are construed as the syntactic figures\(^5\) within these profiled relationships, and receive focal prominence, as profiled in this figure with the heavy lined rectangle, because they occur in the subject positions. So, they are termed “setting-subjects” (Langacker 1987b:389). By contrast, *bees* and *fleas*

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\(^5\) Keep in mind that the subject is characterized as the syntactic figure within the profiled relationship and is not necessarily a participant (cf. Langacker 1987a, 1987b, and 1991a).
are active, serving as participants. They are less prominent than garden and my cat. Again, the figure/ground organization (to be more specific, "container-contained relation") applies here:

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  p
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setting: garden/my cat

Figure 15. Setting-subject
(adapted from Langacker 1991a:232)

The distinction between participants and setting is attributed to the speaker’s construal in regard to the choice of the sentential subject, rather than to the conceptual content itself.

§ 2.10 Perspective: Objective Motion and Subjective Motion

Perspective is regarded as one dimension of “conventional imagery” in Cognitive Grammar, in which a conceived entity or scene is structured or construed in many different fashions. In addition to profile/base asymmetry, three more dimensions of imagery, i.e., level of specificity, scale and scope of predication, and perspective, are important in conceptualizing certain linguistic expressions. Pertaining to the way of viewing a scene, the notion of perspective or viewing arrangement itself is used in a broad sense, including various specific concepts such as viewpoint (comprising orientation and vantage point), deixis, and objectivity/subjectivity (cf. Langacker 1987a, 1988a, and 1991a).
A viewer observes an object or scene from different viewpoints, leading to different conceptualizations. The notions of vantage point and orientation are essential to explaining relational expressions in regard to either physical spatial relations such as front/back, up/down, above/below, and top/bottom, or relational verbs such as give/receive, sell/buy, and lend/borrow.

A scene with a deictic expression, e.g., here and there, now and then, this and that, and come and go, is characterized with regard to a reference point (cf. Fillmore 1975a and 1997; K. Lee 1977; Radden 1996). For example, a sentence with the verb come, as in He came to eat dinner, is conceived as having the speakers' position as its reference point, and as the MOVER (he) moving toward the reference point (goal). By contrast, a sentence with the verb go, as in He went to the station, describes a motion away from the same reference point (the speaker's position), which functions as a source or departure point of the motion.

Of the distinct aspects of perspective, the asymmetrical concepts of objectivity and subjectivity are most important in taking into account the semantic extensions of motion verbs in the present study, because they provide the motivation and mechanism for the semantic extension. So, more attention must be paid to these concepts, in particular, objective and subjective motion. The choice of objectivity and subjectivity is determined by the conceptualizer's construal of an entity or situation concerning where the conceptualizer places himself, either outside the scene, or within the expanded scene. Using the stage metaphor discussed above, the conceptualizer (viewer or speaker/hearer) of a linguistic predication situates himself off-stage, away from the on-stage region for an
objective construal. By contrast, for a subjective construal the conceptualizer views the scene including himself within the on-stage region, as illustrated in Figure 16:

(a) objective construal

(b) subjective construal

Figure 16. Construal relationship between conceptualizer and scene
(adapted from Langacker 1991a:317)

In Figure 16, the on-stage region is indicated by the respective larger rectangles in (a) and (b), the small circles containing C represent the conceptualizer of a linguistic predication, and the heavy-lined smaller rectangles indicate the explicitly-encoded linguistic entity or event within the on-stage region (i.e., focus of attention). The dotted arrow is drawn to indicate the construal relationship between the conceptualizer and the scene. The on-stage region functions as the immediate scope of predication. The objective construal of an object or situation in Figure 16(a) is also called the "optimal viewing arrangement" because the conceptualizer is not aware of himself, and only focuses on conceptualizing the scene on the stage when conceptualizing (observing) it (Langacker 1991a:316). In this regard, the object or situation being conceptualized is completely separated from the conceptualizer. On the other hand, the subjective construal in Figure 16(b) is called the "egocentric viewing arrangement" because the conceptualizer is conscious of himself in the conceptualizing process; is elevated within the on-stage domain; and receives some
degree of focus of attention as the object of the conceptualization (Langacker 1991a:317). In the maximally subjective construal, the conceptualizer himself takes part in the linguistic event as an explicit participant (i.e., the speaker) in speech act and emotional experience, as in the sentences *I pronounce you husband and wife* and *I feel delighted*, and receives the focal attention (i.e., the most prominent element in the event).

Now, let us consider some examples which pertain to the asymmetry of objectivity and subjectivity involving certain motions. Motion is in general characterized by three important factors: directionality or change in location, temporality, and the existence of the moving entity (cf. Langacker 1987a and 1991a; Matsumoto 1996):

(11)a. *A black dog walked across the field, through the woods, and over the hill.*

(b) *(from Langacker 1987a:170)*

b. *The butterfly flew from the tree to the flower.*

(12)a. *The mountain rises out of the plain.* *(from Langacker 1987a:175)*

b. *The road goes from the village to the river.*

Sentence (11a) describes an objectively construed physical motion process in which the subject (*a black dog*) is the actual moving entity (MOVER) changing its location along the spatial paths (designated by the locative prepositional phrases) through conceived time. In (11b), the subject (*the butterfly*) moves with a specific directionality expressed by the source and goal prepositional phrases. The conceptualizer is situated outside the motion situation, objectively viewing it.

Some linguists (cf. Talmy 1983; Langacker 1986, 1987a, and 1988a; Matsumoto 1996) argue that sentences (12a-b) also describe kinds of motions (although not prototypical), with the presence of source and goal prepositional phrases, in that they involve directionality, temporality, and a sort of a moving entity. Sentences (12a-b) are
different from (11a-b) in that they do not have specific physical entities moving along the spatial path through time. The entities representing the subjects (i.e., the mountain and the road) do not physically move at all, but rather have permanent static configurations. Instead, it is the conceptualizer’s (the speaker) eyesight or his path of mental scanning that is moving along the space from one place to another place (e.g., out of the plain and from village to the river) over some span of time. Note that the conceptualizer’s movement is not explicitly expressed in the subjective motion expression (Matsumoto (1996:188) calls this phenomenon “the suppression of a moving entity from the surface expression”), instead it is implicitly conceived. Therefore, sentences (12a-b) describe subjectively-construed abstract motions in the sense that the conceptualizer places himself in the scenes of the linguistic predications by subjectification, serving as both the conceptualizer and the subjectively-induced moving entity of the conceptualization.
Chapter 3
Semantic Analysis of the Korean Motion Verbs: *kkulta* and *tangkita*

§ 3.0 Introduction

The two Korean verbs *kkulta* and *tangkita* can have a wide range of multiple but related senses. The polysemous verb *kkulta* can mean ‘to pull’, ‘to drag’, ‘to trail’, ‘to drive’, ‘to be supplied with’, ‘to exert gravitational/magnetic attraction’, ‘to attract’, ‘to prolong’ and ‘to lead’. The verb *tangkita* can also signify ‘to strain’, ‘to exert gravitational/magnetic attraction’, ‘to ignite’, ‘to appeal to one’s appetite’, and ‘to advance’. These various senses of the verbs *kkulta* and *tangkita* to be discussed in this chapter involve spatial and abstract motion in a spatial setting and in many metaphorical extensions. These two verbs in two distinct forms are conceptually closely related within the same semantic field of force-dynamic motion and both are roughly translated as ‘to pull’ in English:

(1a.  *ku haksayng-i uyca-lul kkul-ess-ta*
the student-Nom chair-Acc pull-Pst-Decl
‘The student pulled the chair.’

b.  *ku haksayng-i uyca-lul tangki-ess-ta*
the student-Nom chair-Acc pull-Pst-Decl
‘The student pulled the chair.’

My first claim is that the two different verbs *kkulta* and *tangkita* have different conceptual imports, and should accordingly be described to bring out their semantic differences. Another claim is that apparently distinct but associated senses of a single lexical item are not arbitrarily created usages, but are related to one another in terms of family resemblance relationships, establishing a semantic category. Both of my claims are
based on the central theoretical claim of Cognitive Grammar that "grammatical structure is inherently symbolic and all valid grammatical constructs have some kind of conceptual import" (Langacker 1991b:282).

The present semantic analysis of *kkulta* and *tangkita* is organized as follows. Firstly, in order to capture the commonalities among the individual senses of the verbs *kkulta* and *tangkita*, the conceptions of the events *kkulta* and *tangkita* are discussed relative to their conceptual base (involving event participants) and conceptual dependence of their subevents. Secondly, I will examine the most central senses of *kkulta* and *tangkita* called prototype *kkulta* and prototype *tangkita*, and their semantic structures relative to several cognitive-functional attributes in the physical domain. Thirdly, I will investigate and compare the variants of *kkulta* and *tangkita* in spatial and non-spatial domains for their semantic extensions. The semantic structures of the extended senses of *kkulta* and *tangkita* are described in relation to the prototypes *kkulta* and *tangkita* (differences and similarities between the prototypes and their variants) in terms of cognitive-functional attributes. I will also discuss how the various related senses of *kkulta* and *tangkita* affect and form their semantic structures using the notions of schema, instantiation, and extension. Finally, the multiple but related senses of *kkulta* or *tangkita* are unified within a semantic network (integrating hierarchical schemas, prototypes, and extensions).

§ 3.1 The Conception of Events *kkulta* and *tangkita*

The conception of an event described by *kkulta* or *tangkita* concerns two issues: the conceptions of entities and the conceptual dependence of the events. The entities refer
to certain participants who play roles in the events of *kkulta* and *tangkita*. The events that the verbs *kkulta* and *tangkita* designate are complex. Thus, they are described as involving several component subevents. Facets of these complex events can show differences relating to autonomy and dependencies.

§ 3.1.1 The Conceptual Base of Events *kkulta* and *tangkita*

The conceptual bases of *kkulta* and *tangkita* involve two discrete participants: AGENT and MANIPULATED MOVER\(^1\). The AGENT, e.g., *ku haksayng-i* ‘the student-Nom’ in (1a-b), can be a physical or abstract participant who carries out the activity of ‘pulling’ upon another entity by means of energy transfer to it. The MANIPULATED MOVER, e.g., *uyca-lul* ‘chair-Acc’ in (1a-b), is another physical or abstract entity that receives the action of ‘pulling’ from the AGENT. It undergoes a change of its location, as a result of the energy transmission from the AGENT. In this regard, it is, to be precise, a MOVER manipulated by the AGENT’s exertion of force.

§ 3.1.2 Conceptual Dependence of Events *kkulta* and *tangkita*

Now we shift attention to the conceptually autonomous and dependent organization of the events *kkulta* and *tangkita* (cf. Langacker 1991b). The conceptual autonomy and dependence of *kkulta* and *tangkita* are considered in two respects:

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\(^1\) The participant MANIPULATED MOVER is different from Talmey’s (1985b) notion of FIGURE (i.e., an entity moving). My term MANIPULATED MOVER highlights the causee nature of the MOVER, as a result of the AGENT’s exertion of force whereas his term does not.
participant vs. event and autonomous vs. dependent subevents. The events expressed by
*kkulta* and *tangkita* are conceptually dependent on their participants. In conceptualizing
an action of *kkulta*, we always conceptually evoke a participant doing the ‘pulling’ and
another participant undergoing it as schematically salient facets of its semantic structure.
This event is thus characterized by the presence of these participants. By contrast, a
participant can be independently conceptualized as a conceptually autonomous entity
without reference to any event in which it plays a role.

The events designated by the verbs *kkulta* and *tangkita* are complex. Thus, they
are described as involving several component subevents such as the volitional causation
and exertion of energy by the AGENT, the force-dynamic interaction of the AGENT with the
MANIPULATED MOVER and the MANIPULATED MOVER’s resultant change of its location.
These are the aspects of the event (described by *kkulta* or *tangkita*) which can show some
differences relating to autonomy and dependence among subevents of this complex event.

(2)a. *mal-i swuley-lul kul-ess-ta*
    horse-Nom cart-Acc pull-Pst-Decl
    ‘The horse pulled the cart.’

b. *ku-ka pangasoy-lul tangki-ess-ta*
    he-Nom trigger-Acc pull-Pst-Decl
    ‘He pulled the trigger.’

In (2a-b), each of the events described by the verbs *kkulta* and *tangkita* is analyzed as
integrating an autonomous subevent together with some conceptually dependent
subevents. The component events in (2a-b) (i.e., ‘The cart moved’ and ‘The trigger
moved’) are conceived as the core component events of more complex events, *kkulta* and
*tangkita*. These subevents involve only one participant serving as the MANIPULATED
MOVER. These subevents can be conceptually autonomous from the other subevents (for
example, in (2a), regarding volitionality, causation by *mal* ‘the horse’, energy transfer from *mal* ‘the horse’ to *swuley* ‘the cart’, and force-dynamic interactions of ‘the horse’ and ‘the cart’), because it does not presuppose the other subevents, though it is closely connected with the other subevents of *kkulta* in our experience. This subevent can also be expressed as an independent sentence: *mal-i wunciki-ess-ta* ‘The cart moved’.

By contrast, the other component events of *kkulta* or *tangkita* are conceptually dependent upon one another because they associate with the conceptually dependent concepts of ‘causation’ and ‘external force’. Thus, the subevents in (2a-b), **‘The horse caused’ and **‘The trigger caused’, are parts of the more complex configurations of the events described by *kkulta* and *tangkita*. These are, conceptually and linguistically, dependent upon the core subevents, ‘The cart moved’ and ‘The trigger moved’, respectively. The AGENT (e.g., ‘horse’) is conceived as the source of force which induces the MANIPULATED MOVER’s (e.g., the cart) change of location.

§ 3.1.3 Directness of Causation

As lexical causatives, the Korean verbs *milla* ‘to push’, *kkulta*, and *tangkita* ‘to pull’ (as well as their corresponding English verbs *push and pull*) involve manipulative (or direct) causation in that “in a situation where the causee is involved as a nonvolitional entity, the causer must physically manipulate the causee in effecting the caused event” (Shibatani 1976:31; cf. Talmy 1976). In (2a) and (2b), the CAUSER (the AGENT, i.e., *mal-i* ‘horse-Nom’ and *he-ka* ‘he-Nom’) directly manipulates the CAUSEE (the MANIPULATED MOVER, i.e., *swuley-lul* ‘cart-Acc’ and *pangasoy-lul* ‘trigger-Acc’) by means of physical
contact. Each of the events designated by *kkulta* and *tangkiita* constitutes only a single event in a finite clause. This point enables us to make several distinctions between the events described by *kkulta* and *tangkiita*, as in (2a-b), and their corresponding indirect (or analytic) causative constructions, as exemplified in (2’a-b), though both are analyzed as having the two event components ‘causing’ and ‘moving’:

(2’) a. ?mal-i swuley-lul aph-ulo wumciki-key ha-ess-ta  
   horse-Nom cart-Acc front-Orient move-Caus do-Pst-Decl  
   ‘The horse caused the cart to move forward.’

   b. ?ku-ka pangasoy-lul caki-ccok-ulo wumciki-key ha-ess-ta  
      he-Nom trigger-Acc self-direction-Orient move-Caus do-Pst-Decl  
      ‘He caused the trigger to move toward him.’

In contrast to (2a) and (2b), sentences (2’a) and (2’b) do not describe manipulative causations. In other words, there is not necessarily any physical manipulation of the CAUSEE by the CAUSER.

A first distinction is made concerning the nature of CAUSEE (cf. Shibatani 1976). It should be noticed that with the inanimate CAUSEEs (i.e., *swuley-lul* ‘cart-Acc’ and *pangasoy-lul* ‘trigger-Acc’), these analytic causative constructions in (2’a) and (2’b) sound strange. In a prototypical case, an analytic causative construct takes an animate CAUSEE, because this animate CAUSEE has his own volitionality and resistance distinct from, or against the CAUSER’s volitionality and control such that the CAUSER affects the CAUSEE only in an indirect way. By contrast, a prototypical manipulative causative construction, as in (2a) and (2b), takes an inanimate non-volitional entity such that the CAUSER controls this inanimate CAUSEE through his own absolute volitionality, and directly affects it.
A second distinction is made regarding the profiling of the event(s). Each of the events designated by *kkul*ita and *tang*k*ita* invokes only a single event in a finite clause. For example, in (2a), within this single event designated by *kkul*ita, the component events ‘causing’ and ‘moving’ are integrated within a lexicalized verb *kkul*ita. The subevents ‘causing’ and ‘moving’ are conceived as sublexical facets of the event *kkul*ita through the conceptual analysis. In this case, the complex process *kkul*ita is profiled as the head of a finite clause. On the other hand, the analytic causative construct in (2’a) constitutes the two associated, but separate events of ‘causing’ and ‘moving’. In this case, only the event of ‘causing’ is profiled as a salient facet of the complex event ‘causing to move’ at the higher level in which the subevent ‘causing’ and the subevent ‘moving’ are both profiled at the lower level. The conceptually dependent subevents of ‘causing’ and ‘moving’ are diffused within the analytic causative construct while in the case of the single expression they are packaged within a lexicalized causative event *kkul*ita.

A third distinction is established concerning the semantics of the processes *kkul*ita and *tang*k*ita* in (2a-b) and their related analytic causative constructs in (2’a-b). In each of the processes *kkul*ita and *tang*k*ita*, the AGENT “directly” brings about the event of pulling with his directed intention. The two subevents ‘causing’ and ‘moving’ take place in the same place at the same time, referred to a “unity of place” and “unity of time” (cf. Wierzbicka 1975; Shibatani 1976; Langacker 1991a; Kemmer & Verhagen 1994). In the complex event described by *kkul*ita (or *tang*k*ita*), these two subevents are, thus, fused into one, and the process *kkul*ita ‘pull’ profiles the whole integrated event. By contrast, in (2’a), the AGENT (i.e., CAUSER) may provoke the event in an indirect way without any
intention to do it. The subevents 'causing' and 'moving' may separately take place in two different places at two different points of time. Eventually, the process *kkulta* and its related analytic causative construct bring about the same result, an entity's change of location. This linguistic phenomenon has been discussed with respect to the notion of causation in the literature with the difference between the two sentences (cf. Wierzbicka 1975; Givón 1975, Verschueren 1981, Comrie 1989; Langacker 1991a): *He killed the woman* vs. *He caused the woman to die*.

In sum, *kkulta* and *tangkita* both designate single events of direct, rather than indirect, causation. This direct lexical causative holds for all instances of *kkulta* and *tangkita* from now on.

§ 3.2 Prototype *kkulta* and Prototype *tangkita*

We turn now to specific senses of *kkulta* and *tangkita*. The most central\(^2\) meanings of the Korean verbs *kkulta* and *tangkita* are almost the same as *pull* in English. They are illustrated in the following examples:

\(^2\) In order to determine which senses are most prototypical, I rely mainly on my native speaker intuition. It is also notable that in the Korean dictionaries that I use the central meanings of the verbs *kkulta* and *mitla*, i.e., 'a concrete physical entity causes another concrete physical entity to move toward/away from the source of physical force', are listed first among all the senses. In contrast, the various extended senses of these verbs are listed differently following the prototypical ones in these dictionaries. Finally, in order to find out which senses of *kkulta* and *mitla* are most prototypical senses, I conducted an informal experiment. In this experiment, results support the physical senses as the most primary senses. In my experiment (adapting Rosch 1975), the subjects (113 Korean university students) were asked to rank the "goodness" of the senses of the verb *kkulta* and *mitla* from the best (1) to the worst (7). The examples with the central senses 'exert force upon another entity and cause it to move toward/away from the source
(3a.)

ku namca-ka son-swuley-lul kkul-ess-ta
the man-Nom hand-cart-Acc pull-Pst-Decl
'The man pulled the cart.'

b. mal-i swuley-lul kkul-ess-ta
horse-Nom cart-Acc pull-Pst-Decl
'The horse pulled the cart.'

c. kay-tul-i sselmay-lul kkul-ess-ta
dog-Pl-Nom sled-Acc pull-Pst-Decl
'The dogs pulled the sled.'

(4a.)

ku senwon-i patcwl-ul tangki-ess-ta
the crewman-Nom rope-Acc pull-Pst-Decl
'The crewman pulled the rope.'

b. ku sakyekswu-ka pangasoy-lul tangki-ess-ta
the gunman-Nom trigger-Acc pull-Pst-Decl
'The gunman pulled the trigger.'

c. ku kwungswu-ka hwalsiwi-lul tangki-ess-ta
the archer-Nom bowstring-Acc pull-Pst-Decl
'The archer pulled the bowstring.'

In this central sense, the participants are concrete and physical entities; they are bounded in time and in space (cf. Lyons 19773; K. Lee 1984 and 1996a; Langacker 1987a and 1991a). The agentive subject of kkulta, which is the source of physical force, directly and volitionally, exerts some physical forceful activity upon another external object in a spatial

of force’ obtained the lowest average points. Most of the experimental subjects marked Degree 1 of goodness on the following examples of kkulta and milta: mal-i swuley-lul kkul-ess-ta ‘The horse pulled the cart’ and Chelswu-ka chayksang-ul mil-ess-ta ‘Chelswu pushed the desk’. By contrast, the examples with the extended senses of kkulta and milta revealed much higher average point scores than that of the most central sense.

3 Lyons (1977:442) classifies nouns into three kinds in terms of concreteness and boundedness in time and space: first order entities (concrete physical entities), second order entities (events, processes, and states) and third order entities (abstract entities). The participants of the basic meaning of kkulta and tangkita belong to first order entities.
domain by grasping a part of the object. Triggered by their external physical force, the object moves toward the source of the physical force along a spatial path. The prototypical sense of *kkulta* is, thus, characterized as follows: the AGENT, volitionally and directly, causes an external object to move toward the source of physical force (the AGENT). The whole object moves in contact with the ground, resulting in a change of its location. The contact-with-the ground state of the landmark is maintained over the spatial motion path through the process *kkulta*.

The central sense of *tangkita* is that the AGENT, volitionally and directly, exerts some physical force upon a cord-line attached to an object, or upon a relatively small object in order to make it move toward the source of physical force (AGENT). This event often makes reference to a part-whole relation. Part of a larger object (the landmark) is caused to move toward the physical force, but the whole object (to which the landmark is attached) does not necessarily move, resulting in no change of its location. The trajector of this event does not have an extended path, rather only the landmark has a limited course of movement toward the source of force. The movement of the landmark is directed toward the trajector, and the trajector is thus conceived as the goal of the landmark’s movement as well as the source of force. From now on, I regard these most basic senses of *kkulta* and *tangkita* as prototype *kkulta* (*kkulta*-1) and prototype *tangkita* (*tangkita*-1). Figure 1 and Figure 2 illustrate the semantic structures of *kkulta*-1 and *tangkita*-1, respectively:
In Figure 1 and Figure 2, every component (e.g., larger circles (trajectors), smaller circles (landmarks), sizes of circles (relative strength between trajector and landmark), and double arrow (energy transfer)) is closely related to the others, representing the different aspects of the gestalt event scenes designated by the verbs *kkulta* and *tangkita*. I call these event components **cognitive-functional attributes** because they functionally contribute to the family resemblance relationships among the various senses of *kkulta* and *tangkita*. However, they do not serve as necessary and sufficient conditions of semantic categories *kkulta* and *tangkita*. Native Korean speakers are able to conceptualize each of the related senses of *kkulta* and *tangkita* by means of different, but holistic construals of
these cognitive-functional attributes (enriched by various metaphors, image schemas, cognitive models, and so on), although they are not clearly conscious of these attributes individually.

Figure 1 and Figure 2 demonstrate the profiling relation of the semantic structures of *kkulta*-1 and *tangkita*-1, as indicated by the heavy lines. Here, the prototypical sense of each verb is characterized relative to a physical space domain represented by the rectangle. The time flow, which is conceived from the initial to final temporal points of the event *kkulta*-1 or *tangkita*-1, is profiled from t₁ to t₂ at the bottom of the base. The profiling of time flow is designated by the verb with its past tense marker (-ess) in the examples of (3) and (4).

Now, each of the cognitive-functional attributes pertaining to *kkulta*-1 and *tangkita*-1 will be discussed in detail with more examples. It is worth investigating because the attributes illuminate the semantic structures of *kkulta*-1 and *tangkita*-1.

§ 3.2.1 Trajector

As introduced briefly above, the larger circles⁴ in Figure 1 and Figure 2 represent the trajectors (e.g., *namca-ka* ‘man-Nom’, *mal*-i ‘horse-Nom’, and *kaytul*-i ‘dogs-Nom’ in (3a-c), and *senwon*-i ‘crewman-Nom’, *sakyekswu-ka* ‘gunman-Nom’, and *kwungswu-ka* ‘archer-Nom’ in (4a-c)). The trajector in each example is profiled because it is linguistically designated by the subject in a transitive sentence.

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⁴ From now on, the larger circle in the figures (representing the different senses of *kkulta* and *tangkita*) indicate the trajectors of those events while the small circles are used to indicate the landmarks.
The trajectories of *kkulta*-1 and *tangkita*-1 are energetic participants, conceptualized as both AGENT and source of physical force. For example, *namca-ka* ‘man-Nom’ in (3a) and *serwon-i* ‘crewman-Nom’ in (4a) act as prototypical AGENTs in the sense that the person volitionally and directly exerts some physical force upon another concrete entity *swuley* ‘cart’ or *patcwul* ‘rope’ and carries out a force-dynamic action upon the cart or the rope. Then, the cart is caused to move its location toward the man. The AGENT’s body parts (fingers, hands, and arms) function as INSTRUMENTs (for grasping and pulling the cart, rope hand gun-trigger or bowstring) in the conceived situation of *kkulta* or *tangkita*. But they are neither profiled nor encoded because they are not a salient element, only inferable from the experience.

Two differences are noted regarding the trajectories of *kkulta*-1 and *tangkita*-1. First, in many cases the trajector as well as the landmark of *kkulta*-1 is construed as moving along a spatial path, as indicated by the short single arrow on the right side of the larger circle in Figure 1. For example, *namca-ka* ‘man-Nom’, *mal-i* ‘horse-Nom’, and *kay-tul-i* ‘dog-Pl-Nom’ in (3a-c) do move, serving as both AGENT and MANIPULATING MOVER, when they pull a cart or a sled. The extended path, or locomotion, (i.e., the short single arrow) of the trajector is unprofiled in Figure 1, because it is implied by the collocation application or from our world knowledge. In some cases, the trajector of *kkulta*-1 does not necessarily move, as in (5):

\[(5) \quad ku \text{ } haksayng-i \text{ } chayksang-ul \text{ } kkul-ess-ta\]
the student-Nom desk-Acc pull-Pst-Decl

‘The student pulled the desk (toward himself).’
It is possible that in (5) the trajector, *ku haksayng-i* ‘the student-Nom’, does not move, but only the landmark, *chayksang-ul* ‘desk-Acc’, is induced to move toward the trajector. Yet, the extended path of a trajector is an important semantic aspect of *kkulta*-1, as opposed to *tangkita*-1. This short single arrow is profiled when event *kkulta*-1 explicitly involves an extended path of the trajector, designated by a locative noun phrase or a serial verb construction (to be discussed further in Section 3.2.5).

By contrast, the trajector of *tangkita*-1 does not move, and only the landmark is manipulated to move toward the source of force. Therefore, the movement of the landmark is limited within the distance between the trajector and landmark, and the trajector also plays the role of GOAL (as well as AGENT and SOURCE OF FORCE) of which the landmark moves in the direction and which is an absolute limit on the motion. For example, *senwon* ‘crewman’, *sakyekswu* ‘gunman’, and *kwungswu-ka* ‘archer’ in (4a-c) do not have to move, serving as only AGENT, when they pull a rope, a trigger and a bowstring.

Second, from a pragmatic point of view, the trajector of *kkulta*-1 can be any animate being. As long as an entity can exert some physical force upon another entity (landmark) and cause the whole entity to move, a variety of entities are possible for the trajector of *kkulta*-1. This characteristic is closely related to the extended path of the trajector of *kkulta*-1; when the whole entity (landmark) is caused to move, the trajector does not have to stay at its initial location. For example, when dogs can pull a sled, they move along with it. Animate entities can exert force independent of external causes, and
thus fit the semantics of *kkulta* which requires direct exertion of force (cf. Comrie 1989; Kemmer & Verhagen 1994).

Like *namca-ka* ‘man-Nom’ in (3a), the trajectors *mal-i* ‘horse-Nom’ and *kaytul-i* ‘dogs-Pl’ in (3b-c) are identified as highly prototypical AGENTS as well as the source of force, because they exert the forceful actions upon ‘cart’ and ‘sled’ by means of physical energy transfer. As the trajectors, they are also maximally individuated from their landmarks in the spatial domain. These non-human trajectors’ energetic interaction with the landmarks, (*swuley-lul* ‘cart-Acc’ and *sselmay-lul* ‘sled-Acc’) in (3b-c) are still regarded as instances of *kkulta*-1.

Sentences (3b) and (3c) reveal that the conceptualization of the process *kkulta*-1 cannot entirely rely on linguistic information, but employs non-linguistic knowledge together with linguistic information. The driver’s volitionality, which is implicitly present in the scene, is understood as being prototypically transferred to the horse by whipping or to the dog by shouting. The examples in (6a-b) spell these elements out in more detail:

(6)a.  
{mapwu-ka \(\text{mapwu-ka} \) mal-i \(\text{mal-i} \) swuley-lul \(\text{swuley-lul} \) kkul-tolok \(\text{kkul-tolok} \) chayccik-ulo \(\text{chayccik-ulo} \), horsemman-Nom horse-Nom cart-Acc pull-in order to whip-Instr

\(\text{ttayly-ess-ta} \)
hit-Pst-Decl
‘The driver whipped the horse to pull the cart.’

b.  
{ku-nun \(\text{ku-nun} \) kay-ka \(\text{kay-ka} \) sslmay-lul \(\text{sselmay-lul} \) kkul-tolok \(\text{kkul-tolok} \) soli-lul \(\text{soli-lul} \) cil-ess-ta \(\text{cil-ess-ta} \), he-Top dog-Nom sled-Acc pull-in order to sound-Acc shout-Pst-Decl

‘He shouted at the dogs to pull the sled.’

The event *kkulta*-1 in (3b) and (3c) is expanded by adding an externally embedding causing clause in which another participant (‘the driver’ in (6a) or ‘he’ in (6b)) brings
about an event like that in (3a) and (3b), by providing a physical (whipping) or auditory (shouting) force.

Another reason why we identify (3b) and (3c) with non-human subjects as the instances of \textit{kkulta}-1 is associated with Fillmore's frame semantics (Fillmore 1975b, 1982, and 1984) and Lakoff's (1987a) idealized cognitive models. According to these linguists, we make this identification based on a particular frame and its associated script in which the linguistic conception is grounded. Frames and scripts are characterized as supplying rich "contextual information for a prototype representation" (Taylor 1995:73).

On looking at (3b), we immediately encounter the 'cart frame' image and its associated script. The cart frame evokes the whole cognitive construct in which a horse, a stable, a cart, a whip, and a horseman are structured as an integral gestalt in our conceptual system and closely interact with one another. The script associated with the cart frame (cf. Schank and Abelson 1977) is structured by some dynamic subsequent actions and states according to temporal and causal relations; a horseman takes his horse out of its stable; he connects the horse with a cart; the horseman whips the horse whereby the horse, in turn, pulls the cart. The horseman is left unexpressed because he is not the most salient participant in the scene, compared with the horse and the cart in the frame. The horseman, however, is easily conceivable from the scene because the components of the cart frame are tightly bound and united to be activated altogether as a cognitive unit in our mind.

In (3c), another frame which we might call the 'sled' frame is evoked. In the sled frame, dog(s), a sled, snow, a man, and the land covered with snow are structured aspects
of the conceptualization. The elements and actions of the sled frame and script are so strongly interconnected with one another in our mind as a cognitive gestalt that the whole scene immediately comes to our mind, whenever we see a small piece of it. Such experiential global knowledge as referred to in frames and scripts also plays a crucial role in conceptualizing the senses of the semantic category *kkulta*.

Now, let us consider the trajector of *tangkit*a-1. In contrast to the trajector of *kkulta*-1, the trajector of *tangkit*a-1 is limited to human beings (e.g., *senwon-i* 'crewman-Nom', *sakyekswu-ka* 'gunman-Nom', and *kwungswu-ka* 'archer-Nom' in (4a-c)). When a small entity or part of a large entity (landmark) is caused to move, the trajector of *tangkit*a-1 does not involve an extended path. But the trajector of *tangkit*a-1 needs to be more conscious of the directed movement of the landmark than that of *kkulta*-1, because the landmark's movement is directed in a certain way (i.e., toward the trajector) and is limited within the distance between the landmark's initial location and the trajector. Thus, the event *tangkit*a-1 seems to require more manipulative control or care of the trajector over the landmark than the trajector of *kkulta*-1. This is related to the nature of the landmark of the event that the verb *tangkit*a describes (to be discussed in the next section).

The examples of *tangkit*a-1 from above are presented again with the change of the trajectors from a human being to an animal in (4’a-b):

(4’a). *ku* mal-*i* patcwl-ul *tangki-ess-ta*
   the horse-Nom rope-Acc pull-Pst-Decl
   'The horse pulled the rope.'

b. *ku* kay-*ka* pangasoy-lul *tangki-ess-ta*
   the dog-Nom trigger-Acc pull-Pst-Decl
   'The dog pulled the trigger.'
(4'a) has the reading that the trajector, *ku mal-i* 'the horse-Nom', maintains his original position and draws the rope toward itself; the horse does not move along a path, but only the rope is caused to move. This scene is not likely to occur because it does not fit the semantics of *tangkita* as well as our world knowledge; the horse cannot grasp the rope and consciously achieve the activity of pulling the rope toward itself. Sentence (4'a) may be possible in the following two situations. First, suppose that a person carefully fastens the rope around the neck of the horse, and he induces the horse to pull the rope toward itself. But the horse does not move. Second, imagine that the horse is a personified entity in a fairy tale or cartoon, and can behave like a human being. Without the manipulation of a human being, (4'a) is not acceptable. In (4'b), it is difficult to believe that the trajector *ku kay-ka* 'the dog-Nom' can pull the trigger, because the delicate activity of pulling a trigger requires the attentive manipulation of a human being, especially a human hand. In general, the semantics of *tangkita* requires the delicate activity of a hand.

§ 3.2.2 Landmark

In each diagram in Figure 1 and Figure 2, there is a pair of same-sized small circles, one dotted and one solid. In each case, the pair of circles refers to a single entity of motion. In Figures 1 and 2, the small dotted circle refers to the landmark at its initial location at the time point of t1, while the small solid-lined circle indicates the landmark at its changed location (closer to the trajector) at another time point of t2, as a result of the forceful activity *kkulta*-1 or *tangkita*-1.
The landmark of the event *kkulta*-1 or *tangkita*-1 is expressed as a direct object (e.g., *son-swuley-lul* ‘hand cart-Acc’ in (3a) and *patcwul-ul* ‘rope-Acc’ in (4a). As mentioned before in the conceptual bases of the verbs *kkulta* and *tangkita*, the landmark functions as MANIPULATED MOVER\(^5\) in *kkulta*-1 and *tangkita*-1 rather than PATIENT because it undergoes a change of location over a certain period of time as a result of the processes *kkulta*-1 and *tangkita*-1. The MANIPULATED MOVER is semantically opposed to AGENT in that it undergoes the exertion of the force from the AGENT. MANIPULATED MOVER (not the speaker) is an objectively construed participant which is caused to actually move along a spatial path. In this respect, MANIPULATED MOVER is maximally differentiated from the speaker, who does not participate in the energetic interaction of the event and observes it outside the base from an external vantage point.

There are some differences between the landmark of *kkulta*-1 and that of *tangkita*-1. First, in Figure 2, the dotted larger circle containing the smaller dotted circle signifies a whole object, e.g., ‘boat’, ‘gun’, or ‘bow’ in (4a-c), whose part, e.g., ‘rope’, ‘trigger’, or ‘bowstring’, actually designates the landmark of the event *tangkita*-1 indicated by the small circles. The whole entity does not necessarily move toward the trajector, while its part is caused to move toward the trajector as the result of the process *tangkita*-1.

Small body parts are frequently used for the landmark of *tangkita*-1:

(7)a.  
\[\text{(7)a. ku-ka}_ {he-Nom} \text{ caki-wy}_ {himself-Gen} \text{ kwuy-lul}_ {ear-Acc} \text{ tangki-ess-ia}_ {pull-Pst-Decl} \]

\[\text{‘He pulled his own ear.’}\]

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\(^5\) The MANIPULATED MOVER is one specific type of PATIENT, not a prototypical one.
b. *ku-ka Swuni-uy kwuy-lul tangki-ess-ta*  
   he-Nom Swuni-Gen ear-Acc pull-Pst-Decl  
   'He pulled Swuni's ear.'

In (7a-b), the landmark of *tangki-ta*-1 is a human body part, *kwuy* ‘ear’, and only the ear moves toward the source of force. Other small body parts attached to larger body parts (e.g., *palkalak* ‘toe’, *sonkalak* ‘finger’, *kho* ‘nose’, *pol* ‘cheek’, *melikhalak* ‘hair’, and *sonmok* ‘wrist’) are frequently used as the landmark of *tangki*-1. Some relatively large body parts (e.g., *sonmok* ‘wrist’, *son* ‘hand’, and *phal* ‘arm’) can also be used as the landmark of *tangki*-1. But a person, as a whole, does not move toward the source of force. Note that the Genitive reflexive pronoun *caki-uy* ‘his own’ in (7a) as well as another Genitive noun *Swuni-uy* ‘Swuni’s’ in (7b) is used to indicate the part-and-whole relationship.

By a part-whole relationship, a string or an object attached to a larger object (e.g., fishing line, spring, climbing rope, bowstring, coatstring, curtain, knob, tree twig and so on) is selected for the landmark of *tangki*-1, corresponding to a body part. In addition, relatively light and small objects (e.g., toy car, blanket, can, cup, ashtray, and telephone) are frequently used for the landmark of *tangki*-1.

By contrast, a heavy but movable entity (e.g., a vehicle, a person, and a piece of furniture) is frequently used for the landmark of *kkulta*-1, distinct from the landmark of *tangki*-1. *Kkulta*-1 does not make reference to the part-whole relation as much as the *tangki*-1 such that there is no containing-and-contained circles in Figure 1, unlike those of *tangki*-1 in Figure 2. The whole entity is caused to move toward the source of force, as a result of *kkulta*-1. Again, the event *kkulta*-1 often involves both the trajector's
extended path and the landmark’s change of location; when the whole entity (landmark) moves, it is easy for the trajector to move along with it. The speaker’s consciousness is not limited to the landmark’s movement, but extends to the trajector’s extended path.

Unlike that of tangkita-1 in (7a-b), a small body part attached to a larger body part is not used for the landmark of kkulta-1, when the person (to whom the small body part is attached) is not caused to move toward the source of physical force:

(8)a. *ku-ka caki-uy kwuy-lul kkul-ess-ta
   he-Nom himself-Gen ear-Acc pull-Pst-Decl
   ‘He pulled his own ear.’

b. *ku-ka caki-uy ekkay-lul kkul-ess-ta
   he-Nom himself-Gen shoulder-Acc pull-Pst-Decl
   ‘He pulled his own shoulder.’

Sentences (8a) and (8b) are not acceptable because the trajector, ku ‘he’, is not likely to change his location toward the source of force, himself, by pulling his own ear and his shoulder, respectively. Sentence (8b) becomes possible with the verb tangkita instead of the verb kkulta, as in the following example:

(8’b). ku-ka caki-uy ekkay-lul tangki-ess-ta
   he-Nom self-Gen shoulder-Acc pull-Pst-Decl
   ‘He pulled his own shoulder.’

In (8’b), the trajector ku-ka ‘he-Nom’ pulls his own shoulder by holding it with his hand, and the shoulder (not himself) is caused to move toward the source of force.

(9)a. ?ku-ka Swuni-uy kwuy-lul kkul-ess-ta
   he-Nom Swuni-Gen ear-Acc pull-Pst-Decl
   ‘He pulled Swuni’s ear.’

b. ku-ka Swuni-uy ekkay-lul kkul-ess-ta
   he-Nom Swuni-Gen shoulder-Acc pull-Pst-Decl
   ‘He pulled Swuni’s shoulder.’
Sentences (9a) and (9b) involve a woman ‘Swuni’ different from the trajector ‘he’. Sentence (9a) is only marginally acceptable when the trajector causes the woman (not only her small body part Swuni-uy kwuy-lul ‘Swuni’s ear’) to move toward the trajector by pulling her ear. Yet, the following expression in (9’a) is preferred to (9a) for this restricted situation:

(9’a) ku-ka Swuni-uy kwuy-lul cap-a kkul-ess-ta
he-Nom Swuni-Gen ear-Acc grasp-Cons pull-Pst-Decl
‘He pulled Swuni’s ear by grasping it.’

Sentence (9b) is acceptable because the trajector probably causes the woman to move toward him by exerting some noticeable amount of physical force upon her large body part ekkay-lul ‘shoulder-Acc’. In this case, the trajector of kkulta-1 is presumed to exert a stronger physical force upon Swuni’s shoulder than the trajector ku-ka ‘he-Nom’ of tangkita-1 on her ear in (7b) and on his own shoulder in (8’b). In general, relatively large body parts (e.g., sonmok ‘wrist’, son ‘hand’, phal ‘arm’, iali ‘leg’, and melichay ‘a tress of hair’) are frequently used for the landmark of kkulta-1.

There is a second difference between Figure 1 and Figure 2. In Figure 1, the short horizontal lines at the bottom of the small circles indicate that the landmark (i.e., the whole entity) is in contact with the ground or some other entities which support it. For example, in pulling the ship, the water in the sea is conceived as a flat surface on which the ship is floating, and is in contact. In (3a-c), the concept of contact is not salient, and is, thus, not profiled in Figure 1, because it coincides with the presence of gravity. However, the concept of the landmark’s contact should be conceived as part of the conceptual content of the event kkulta-1 and contributes to differentiating kkulta-1 from tangkita-1 in
their respective semantic structures. In an extended sense of *kkulta*, e.g., ‘to trail’ (to be discussed in Section 3.3.1), the concept of ‘contact’ is conceived as salient. Or, the use of adverb *cilcil* ‘draggingly’ designates the profiling of the concept of ‘contact’ (to be discussed in Section 3.2.4).

By contrast, the landmark of *tangkita*-1 (i.e., a part of a whole object) in Figure 2 does not need to be in contact with the ground because it makes reference to the whole object, which is in contact with the ground, instead. So, there is no short horizontal line at the bottom of the landmark in Figure 2. In fact, the landmarks ‘rope’, ‘trigger’, and ‘bowstring’ in (4a-c) are held in the air by the AGENT’s hand. The concept of ‘contact’ is not relevant for the event *tangkita*-1.

The single rightward profiled arrows projecting from the landmark in Figure 1 and Figure 2 represent its physical subsequent movements over a spatial path. Each arrow subsumes all the different configurations of the landmark (MANIPULATED MOVER) at different points in time and space.

§ 3.2.3 Relative Strength and Energy Transfer

The two comparable but distinct event types, *kkulta*-1 and *tangkita*-1, involve an asymmetrical strength relation of force between trajector and landmark, as indicated by the different sizes of the circles. The trajectors of *kkulta*-1 and *tangkita*-1 (indicated by the larger circles in Figure 1 and Figure 2) are expected to be stronger than the landmarks (indicated by the smaller circles in Figure 1 and Figure 2). For example, the heavy weight of the landmark *snuley-hul* ‘cart-Acc’ in (3a-b) can play an obstructing role in achieving
the movement of the landmark. Despite the opposing factor, the trajector succeeds in the physical movement of the landmark because of its stronger force.

The events *kkulta*-1 and *tangkita*-1 differ in that there is much greater asymmetry of the trajector’s exertion of force and the landmark’s resistance with *tangkita*-1 than with *kkulta*-1. In Figure 2, the size discrepancy of circles for the trajector and landmark of *tangkita*-1 is much greater than *kkulta*-1, reflecting the greater asymmetry in relative strength; the landmark of *tangkita*-1 in Figure 2 is indicated by a much smaller circle compared to the much larger circle representing the trajector.

Another cognitive-functional attribute, *energy transfer*, is closely related to the relative strength of force between trajector and landmark. Given that the thickness of the double arrow in Figure 1 and Figure 2 corresponds to the quantity of energy transfer from trajector to landmark, the double arrow in Figure 2 is thinner than that in Figure 1. The landmark of *tangkita*-1 is so small compared to the trajector that only a small amount of force is necessary.

The specific expressions of relative strength relation between the trajector and landmark determine the choice of the verb *tangkita* or *kkulta*. For the event *tangkita*-1, the force relation can be observed by the conventional linguistic expressions for the trajector and landmark. One example of *tangkita*-1 from (4) is repeated in (10a) and its corresponding example of *kkulta*-1 is shown in (10b):

(10a. *ku* sakyekswu-*ka* pangasoy-*lul* tangki-*ess-ta
the *gunman-Nom* trigger-*Acc* pull-*Pst-Decl*
‘The gunman pulled the trigger.’

b. *ku* sakyekswu-*ka* pangasoy-*lul* *kkul-*ess-*ta*
the *gunman-Nom* trigger-*Acc* pull-*Pst-Decl*
‘The gunman pulled the trigger.’
According to our world knowledge, we know that 'the gunman' in (10a) is much bigger and stronger than 'trigger'. But the trajector uses only a portion of his physical power (his finger) in order to pull the trigger. So, in other words, the asymmetry in strength between trajector and landmark is very large. Given the conventionalized encoding of a human being trajector and a small and easily manipulative landmark, the verb *tangkita* is selected, as in (10a), and cannot be replaced with *kkulta*, as in (10b).

By contrast, *kkulta*-1 involves a larger and greater landmark in terms of size and resistance than *tangkita*-1. The trajector/landmark size discrepancy is much smaller for *kkulta*-1 than *tangkita*-1. There is thus smaller asymmetry in relative strength of trajector and landmark with *kkulta*-1 than with *tangkita*-1. Accordingly, the small circles in Figure 1 (representing the landmark of *kkulta*-1) are not much smaller than the large circle (representing the trajector). In Figure 1, the landmark of *kkulta*-1 is, thus, indicated by much larger circles than that of *tangkita*-1 in Figure 2.

The trajector of *kkulta*-1 generally exerts greater physical force upon the landmark than that of *tangkita*-1, because its large and heavy landmark (not part of an object) is, as a whole, is induced to move along a path against friction. So, the energy transfer of the event *kkulta*-1 is indicated by the thicker double arrow in Figure 1 than that of *tangkita*-1 in Figure 2.

Now, let us consider some instances of *kkulta*-1 which show the asymmetrical strength relation of force between trajector and landmark, as in (11a-b):

(11)a. *mosen-i casen-ul kkul-ess-ta*

mother ship-Nom son ship-Acc pull-Pst-Decl

‘The mother ship pulled the daughter ship.’
b. *khun thulek-i ku cha-lul kkul-ess-ta*
big truck-Nom the car-Acc pull-Pst-Decl

'The big truck pulled the car.'

In (11a), we superimpose the parental image of a mother and her young child onto the contrasting relative strength relation of *mosen* 'mother ship' and *casen* 'daughter ship'. The mother can physically pull or drag her child toward her through physical forceful contact (using her arms and hands), because she is greater in terms of force capacity and larger than her child. Likewise, the trajector *mosen* 'mother ship' has much greater strength than the landmark *casen* 'daughter ship' because the former is probably equipped with a more powerful engine and are bigger in size than the latter. Therefore, the actual movement of *casen* 'daughter ship' is achieved in the direction of *mosen* 'mother ship' by probably using a strong rope.

A moving or towing situation applies in (11b). A big truck can be loaded with and transport a lot of heavy things from one place to another at a time while a car is a relatively small vehicle for transporting only a few people. So, we often see in our daily life that a big U-haul truck hauls a car chained behind it for moving to another place. Or, we experience that a big truck tows a car away for illegal parking. The reverse sounds strange according to our world knowledge: ?'The daughter ship pulled its mother ship' and ?'The car pulled the big truck'. Yet, these sentences become acceptable in a non-canonical situation in which a special working engine is installed in *casen* 'daughter ship' and *cha* 'car', not in *mosen* 'mother ship' and *khun thulek* 'big truck'. Again, the particular linguistic coding of the landmark and trajector is the standard of the choice for the verb *tangkita* or *kkulta*. 
(12)a. *mosen-i casen-ul tangki-ess-ta
    mother ship-Nom son ship-Acc pull-Pst-Decl
    ‘The mother ship pulled the daughter ship.’

    big truck-Nom the car-Acc pull-Pst-Decl
    ‘The big truck pulled the car.’

In contrast to (11a) and (11b), sentences (12a) and (12b) are not acceptable because although the trajectors (i.e., ‘the mother ship-Nom’ and ‘the big truck-Nom’) are stronger than the landmarks (i.e., ‘the daughter ship-Acc’ and ‘the car’), these landmarks do not have part-whole relations or have planned and limited courses of movement directed at the trajectors. Also, the daughter ship and car are not so small and light as the prototypical landmarks of tangkita-1. The mother ship and the big truck are not possible as trajectors of tangkita-1, because they, as non-human beings, cannot perform the event tangkita-1.

The concepts of effort and resistance associate with the attributes of the relative strength relation (between trajector and landmark) and energy transfer. Though both kkulta-1 and tangkita-1 are roughly translated as ‘to pull’ into English, the event kkulta-1 associates with greater effort of the trajector and more resistance of the landmark than the event tangkita-1. And the trajector of event kkulta-1, thus, transfers greater force to the landmark in order to achieve the event kkulta-1 than that of event tangkita-1, because its landmark is bigger, and exerts more counter force (i.e., resistance induced by gravity). Let us examine some examples with a clear opposing force-dynamic relationship between the trajector (AGENT)’s overcoming effort and the landmark (MANIPULATED MOVER)’s actual resistance:

(13)a. ku-ka khun pawuy-lul himkyekeykkul-ess-ta
    he-Nom big rock-Acc laboriously pull-Pst-Decl
    ‘The man laboriously pulled the big rock.’
b. ku-ka anlak uyca-lul kanshinhi kkul-ess-ta
   he-Nom reclining chair.Acc with great effort pull-Pst-Decl
   'He dragged the reclining chair with great effort.'

In (13a-b), the adverbs himkyepkey 'laboriously' and kanshinhi 'with great effort' specify the trajector's greater exertion of force upon the inanimate landmark, because the heavy and not-easily-manipulable landmark (i.e., khun pawuy-lul 'big rock-Acc' and anlak uyca-lul 'reclining chair-Acc') also exerts counter force due to gravity and friction caused by the event kcula-1.

Now, let us consider some examples with the animate landmark. In this case, the counter force is due to the landmark's will. The landmark is conceived as playing the role of PATIENT (as well as MANIPULATED MOVER) in the sense that it is affected by the event kcula-1, as a result of the trajector's forceful exertion against the landmark's will:

(14)a. ku-ka kay-lul ekilo kkul-ess-ta
   he-Nom dog.Acc against will pull-Pst-Decl
   'He pulled the dog against its will.'
   'The man dragged the dog against its will.'

b. ku-ka phwul-ul ttut-ko iss-nun yemso-lul kkul-ess-ta
   he-Nom grass.Acc graze-Isol is-Rel goat.Acc pull-Pst-Decl
   'He pulled the goat which was grazing on the grass.'
   'He dragged the goat which was grazing on the grass.'

c. ku-ka nakaci anh-kess-ta-ko pethi-nun Swuni-lul
   he-Nom go out Neg-Fut-Decl-Quot resist-Rel Swuni-Acc
   mkmwukanaylo kkul-ko naka-ss-ta
   stubbornly pull-Isol go out-Pst-Decl
   'He went out, stubbornly pulling Swuni who resisted going out.'
   'He went out, dragging Swuni who resisted going out.'

In (14a) and (14c), the adverbs, i.e., ekilo 'against its will', and mkmwukanaylo 'stubbornly', apparently describe the force-dynamic opposing relationship between the trajector (ku-ka 'he-Nom') and the animate landmark (kay-lul 'dog-Acc' and Swuni-lul
'Swuni-Acc'). Similarly, in (14b) and (14c), the embedded relative clauses specify the landmarks' physical and mental initial states. Sentences (14a-c) express the reading of the sense 'to drag' (i.e., pulling something against friction) because of the energetic interactions between the trajector's effort and the landmark's resistance. Although the landmark has a force tendency toward rest (cf. Talmy 1985a and 1988), it ends by moving toward the source of force due to the trajector's greater energy transfer to it (i.e., the trajector's overcome against the landmark's resistance).

Now let us consider effort and resistance in connection with cases of greater asymmetry between trajector and landmark:

(15)a. ??kunye-ka panul-uy sil-lul kkul-ess-ta
    she-Nom needle-Gen thread-Acc pull-Pst-Decl
    'She pulled the thread through the needle.'

b. kunye-ka panul-uy sil-lul tangki-ess-ta
    she-Nom needle-Gen thread-Acc pull-Pst-Decl
    'She pulled the thread through the needle.'

In (15a-b), the landmark *sil* 'thread' is small enough to be easily manipulated by the trajector's hand(s). There is no need for great effort by the trajector. The landmark's resistance is so insignificant in terms of its weight and size that it can be ignored. In the absence of the trajector's considerable effort and the landmark's resistance, (15a) is strange with the verb *kkulta*, but (15b) is perfectly acceptable with the verb *tangkita*. This shows that *tangkita*-1 has as part of its conceptualization less resistance. This follows from the nature of the landmark and its relative strength in relation to the trajector.

Now, let us consider some examples in which the event *tangkita*-1 associates with a light small movement with a little physical force, but the event *kkulta*-1 involves a large movement with greater physical force:
(16)a. *Yumi-ka namphyen-uy phal-ul salccak tangki-ess-ta
    Yumi-Nom husband-Gen arm-Acc furtively and lightly pull-Pst-Decl
    ‘Yumi, furtively and lightly, pulled her husband’s arm.’

b. *Yumi-ka namphyen-uy phal-ul salccak kkul-ess-ta
    Yumi-Nom husband-Gen arm-Acc furtively and lightly pull-Pst-Decl
    ‘Yumi, furtively and lightly, pulled her husband’s arm.’

In (16a), with a small amount of physical force as designated by the adverb, salccak
‘furtively and lightly’, the trajector Yumi ‘Yumi’ succeeds in causing her husband’s arm
(the landmark) toward her, as a result of the activity tangkita-1. The person, namphyen
‘(her) husband’, to whom the landmark phal-ul ‘arm-Acc’ is attached, does not change his
location. The event tangkita-1 in (16a) is carried out without being noticed by other
observers. On the other hand, with the same small amount of physical force in (16b), the
trajector cannot achieve the event kkulta-1, or the speaker cannot categorize the event as
kkulta-1. But the event kkulta-1 is hard to perform without being noticed.

In general, the event kkulta-1 often involves a heavy, slow, and labored motion of
the landmark over a long path within a certain period of time. On the other hand, the
event tangkita-1 often associates with a quick and sudden movement of the landmark over
a short path instantaneously, as in (17a-b) and (18a-b):

(17)a. *ku sonyen-i uyca-ul hwayk kkul-ess-ta
    The boy-Nom chair-Acc quickly and suddenly pull-Pst-Decl
    ‘The boy, quickly and suddenly, pulled the chair.’

b. *ku sonyen-i uyca-ul swunkancekulo kkul-ess-ta
    The boy-Nom chair-Acc instantaneously pull-Pst-Decl
    ‘The boy instantaneously pulled the chair.’

(18)a. ku sonyen-i uyca-ul hwayk tangki-ess-ta
    The boy-Nom chair-Acc quickly and suddenly pull-Pst-Decl
    ‘The boy, quickly and suddenly, pulled the chair.’
b. ku sonyen-i uyca-ul swunkancekulo tangki-ess-ta
   The boy-Nom chair-Acc instantly pull-Pst-Decl
   ‘The boy instantly pulled the chair.’

With the adverbs, e.g., hwayk ‘very quickly and suddenly’ and swunkancekulo ‘instantaneously’, a motion must occur in an extremely short time. Sentences (17a) and (17b) are not acceptable because the quick and instant characteristics of these adverbs conflict with the characterization of kkulta-1. On the other hand, (18a-b) are completely acceptable when the verb tangkita occurs with these adverbs.

§ 3.2.4 Dimensions

The unmarked event kkulta-1 designates a horizontal dimension because of the landmark’s contact with the flat surface, as indicated by the short line at the bottom of the landmark in Figure 1.

(19)a. ku-ka sonamwu kaci-lul kkul-ess-ta
      he-Nom pine tree branch-Acc pull-Pst-Decl
      ‘He dragged the pine tree by its branch.’

b. kunye-ka kheten-ul kkul-ess-ta
   she-Nom curtain-Acc pull-Pst-Decl
   *‘She drew the curtain.’

Sentence (19a) invokes a horizontal dimension in a particular situation in which the pine tree, sonamwu, is cut down and lies on the ground. Pulling the branch of a pine tree on the ground is similar to the sense of ‘dragging the pine tree by its branch’. As a result of the activity kkulta-1, it is implied in (19a) that the trajector induces the whole tree as well as the branch to move toward the source of force. The situation in which the pine is standing vertically, is not possible with the verb kkulta in (19a). In (19b), ‘drawing the curtain’ in an unmarked situation (i.e., the curtain is hanging on the wall) involves a
vertical dimension. Therefore, (19b) is not acceptable with the verb *kkulta* in the interpretation that the curtain is drawn. However, it is acceptable, but with a different meaning ‘dragging the curtain on the ground’.

By contrast, the event *tangkita*-1 does not involve a salient dimension, but its dimension is dependent on the position of the trajector in relation to the initial location of the landmark. The notion of contact is not relevant in characterizing the event *tangkita*-1:

(20)a. *ku-ka sonamwu kaci-lul tangki-ess-ta*
    he-Nom pine tree branch-Acc pull-Pst-Decl
    ‘He pulled the branch of a pine tree.’

b. *ku *senwon-i* patcwul-ul *tangki-ess-ta*
    the crew-Nom rope-Acc pull-Pst-Decl
    ‘The crewman pulled the rope.’

c. *kunye-ka khetheyn-ul tangki-ess-ta*
    he-Nom curtain-Acc pull-Pst-Decl
    ‘He pulled the curtain (aside).’

Sentence (20a) contrasts with (19a). In (20a), the pine tree is upright and is not cut down. Depending on where the trajector, *ku* ‘he’, is in relation to the landmark, *sonamwu kaci* ‘the branch of a pine tree’, the event *tangkita*-1 allows different dimensions. Thus, the meaning of the verb *tangkita* itself seems to be neutral as to dimension. In (20b), the landmark *patcwul-ul* ‘rope-Acc’ is held by the trajector’s hand(s), and does not show any salient dimension. The event described by the verb *tangkita* can involve any kind of dimensions, e.g., vertical, horizontal, and diagonal, depending on the trajector’s position in relation to the landmark’s location. For example, in (20b), when the *senwon* ‘crewman’ stands on the deck below the mast, and pulls down on the rope tied to the mast, the event *tangkita*-1 describes a vertical motion. When he is on the deck and pulls the rope tied to the other side of the deck, *tangkita* may designate either a horizontal or diagonal
dimension. Sentence (20c) is perfectly acceptable with the verb *tangkita* in the scene of ‘pulling the curtain (aside)’ because the verb *tangkita* lacks a salient dimension. As a result of the activity *tangkita*-1, the trajector causes only the specified landmark (the rope, the curtain, and the branch) to move toward him.

Although the notion of contact is sublexical for the verb *kkulta*, the saliency of contact in the event *kkulta*-1 becomes more evident with the use of a manner adverb *cilcil* ‘draggingly’. With the presence of *cilcil* ‘draggingly’, the event *kkulta*-1 associates with a heavy, slow, and labored motion over a spatial path within a period of time. This adverb obviously specifies a horizontal movement of the landmark, which is in contact with the ground throughout the event *kkulta*-1. The speaker pays attention to the floor on which the landmark is being dragged, and the concept of contact must be profiled, as indicated by the short line at the bottom of the landmark in Figure 3 below:

![Diagram of event](image)

Figure 3. Representation of event *cilcil kkulta* ‘to pull draggingly’/ ‘to drag’

The combination of the verb *kkulta* and this adverb reminds us of the English verb *drag* as the translations in (21a-b) show:
(21)a. Chelswu-ka uyca-lul cilcil kkul-ess-ta
Chelswu-Nom chair-Acc draggingly pull-Pst-Decl
‘Chelswu dragged the chair.’

b. ku-mun phengkhunan cacenke-lul cilcil kkul-ess-ta
he-Nom flat-tired bicycle-Acc draggingly pull-Pst-Decl
‘He dragged the bicycle which had a flat tire.’

In (21a-b), the landmarks (i.e., uyca-lul ‘chair-Acc’ and cacenke-lul ‘bicycle-Acc’) maintain the contact with the ground throughout the even: k końcu-1. In (21a-b), the event k kone-1 prototypically designates a horizontal motion. This adverb occurs with the verb k kone, as in (21a-b), but never occurs with the verb tangkita, as in (22a-b):

(22)a. *Chelswu-ka pangasoy-lul cilcil tangki-ess-ta
Chelswu-Nom trigger-Acc draggingly pull-Pst-Decl
*‘Chelswu draggingly pulled the trigger.’

b. * ku kwungswu-ka hwalswi-lul cilcil tangki-ess-ta
the archer-Nom bowstring-Acc cilcil pull-Pst-Decl
*‘The archer draggingly pulled the bowstring.’

§ 3.2.5 Path

The activities k kone-1 and tangkita-1 in a physical sense can involve two kinds of path; intrinsic path and external path. Prototypically, the intrinsic path of k kone-1 or tangkita-1 is defined as the landmark’s change of location toward the source of force (the trajector) as a result of the event k kone-1 or tangkita-1. This is an essential part of the definition of the verb k kone or tangkita. The intrinsic path is thus conveyed in the verb of k kone or tangkita. Since many examples of the intrinsic path of the verbs k kone and tangkita have been dealt in the previous sections, they are not repeated here. By contrast, the external path of k kone-1 or tangkita-1 is characterized as the trajector’s or the landmark’s movement along a path explicitly designated by external linguistic expressions.
An external path is specified by a locative noun phrase, or by a serial verb construction (i.e., positional and locomotio nal serial verb constructions).

§ 3.2.5.1 External Path: Locative Noun Phrase

Let me begin with examples of *kkulita*-l and *tangkita*-l with external paths designated by some locative noun phrases. A locative noun phrase refers to a direction or a directed path in relation to a goal (i.e., orientation). One type of locative phrase contains a noun phrase of location followed by the Locative Case, -(u)lo ‘toward’ glossed as ‘Orient’ in the examples.

Here are some examples of a locative noun phrase:

(23)a. *ku-ka uyca-lul aph-ulo kkul-ess-ta*
    he-Nom chair-Acc front-Orient pull-Pst-Decl
    ‘He pulled the chair in front of himself.’
    ‘He pulled the chair toward the front (of something).’

b. *ku-ka uyca-lul aph-ulo tangki-ess-ta*
    he-Nom chair-Acc front-Orient pull-Pst-Decl
    ‘He pulled the chair in front of himself.’

The landmark *uyca-lul ‘chair-Acc’*, which can occur with both verbs *kkulita* and *tangkita* because of its relatively small size, is equally employed in both (23a) and (23b). The use of the identical trajector and landmark is meant to keep constant other contextual information.

In (23a), there are two possibilities for the interpretation of the path. One possibility is that only the landmark moves toward the source of force (the trajector), as if the third person reflexive pronoun, *caki ‘(him)self’*, were specified with the locative noun phrase, as in *caki aph-ulo ‘in front of (him)self’*. In this case, the locative noun phrase
simply elaborates the landmark's intrinsic path, which is the same as the actual path as
designated by the locative noun phrase. The other possibility is that the trajector *ku-ka*
'he-Nom' as well as the landmark *uyca-lul* 'chair-Acc', moves toward the front of any
entity with a front, e.g., the front of a computer, the front of a classroom, and the front of
a car. In (23b), with *tangkita*, only the first of these interpretations is possible because as
specified by *tangkita* the trajector does not move and only the landmark moves toward the
source of force. Thus, in (23a-b), the intrinsic path of the event *kkulta-*l or *tangkita-*l can
be coexistent with the directed path, designated by the locative noun phrase, *aph-ulo*\(^6\) 'to
the front'.

Let us consider more examples of locative noun phrases:

\[(24)a. \begin{array}{llllll}
ku-ka & uyca-lul & cip & pakk-ulo & kkul-ess-ta & \\
he-Nom & chair-Acc & house & outside-Orient & pull-Pst-Decl & \\
\end{array}
'He pulled the chair toward the outside of the house.'\]

\[b. \begin{array}{llllll}
??ku-ka & uyca-lul & cip & pakk-ulo & tangki-ess-ta & \\
he-Nom & chair-Acc & house & outside-Orient & pull-Pst-Decl & \\
\end{array}
'He pulled the chair toward the outside of the house.'\]

In (24a-b), the locative phrase, *cip pakk-ulo* 'toward the outside of the house', apparently
specifies a more extended external path of the trajector than that of (23a-b), *aph-ulo*
'front-Orient', because the noun phrase, *cip pakk* 'outside of the house', is usually beyond
the scope of the trajector's original location. In (24a), the trajector *ku-ka* 'he-Nom'
obviously changes his location while he is pulling the chair along the way. The trajector is

\(^6\) The Locative Case suffix, *-ulo* 'toward', can attach to a complex noun (phrase) of *aph-ccok* 'front-
direction', as in *aph-ccok-ulo* 'to the front'.
not a stationary entity, but continues to move to that directed place along with the
landmark, designated by the locative cip-pakk-uló ‘toward the outside of the house’.

By contrast, the general characterization of the event tangkitá-1 does not involve
the translational movement of the trajector, and the path of the landmark is rigidly limited
toward the source of force. The trajector’s original location is conceived as playing the
role of goal for the landmark’s movement. In (24b), this locative noun phrase also
invokes an extended external path of the trajector. Therefore, (24b) is not acceptable.

Now, we turn to another type of locative noun phrase (i.e., destination). The
locative noun phrase of destination is encoded by a noun phrase of place followed by the
destination Locative Case -kkaci ‘to’ (glossed as ‘Dest’). With a -kkaci locative noun
phrase, a motion verb describes the trajector’s reaching the specified destination
designated by that locative. The external path designated by a -kkaci noun phrase is
generally limited to the event kkulta-1 for two reasons. First, the Locative Case -kkaci
with a noun phrase of location requires an extended path, and this conflicts with the
specification of the event tangkitá-1. Second, in order to reach the specified location
designated by a destinational locative noun phrase, the trajector involves a locomotive
movement rather than a simple positional change. This locomotion of the trajector
conflicts with the specifications of tangkitá-1.

Like an -ulo locative noun phrase, a -kkaci locative phrase supports the idea that
an extended external path of the trajector occurs only in the event kkulta-1, not in the
event tangkitá-1:

(25)a.  
    mal-i      swuley-lul      yek-kkaci     kkul-ess-ta
horse-Nom cart-Acc    station-Dest        pull-Pst-Decl
‘The horse pulled the cart to the station.’
b. *ku-ka tamo-lo-lu yek-kkaci tangki-ess-ta
   he-Nom blanket-Acc station-Dest pull-Pst-Decl
   ‘He pulled the blanket to the station.’

(26a) *ku-ka tamo-lo-lu yek-kkaci tangki-ess-ta
   he-Nom blanket-Acc station-Dest pull-Pst-Decl
   ‘He pulled the blanket to the station.’

b. *ku-ka caytheli-lu chimsil-eysi kesil-kkaci tangki-ess-ta
   he-Nom ashtray-Acc bedroom-Loc living room-Dest pull-Pst-Decl
   ‘He pulled the ashtray from the bedroom to the living room.’

Sentence (26a) is not acceptable with the locative noun phrase yek-kkaci ‘to the station’, because the movement of the trajector goes beyond the scope of the trajector’s body position. Sentence (26b) is precluded because the locative noun phrase kesil-kkaci ‘to the living room’ associates with the extended path of the trajector from the bedroom to the living room. The landmark caytheli ‘ashtray’ cannot be moved to the destination without involving the trajector’s locomotion.

§ 3.2.5.2 External Path: Serial Verb Construction

Now let us turn to another external path, designated by a serial verb construction. A serial verb construction is defined as “the combination of two or more asyndetically juxtaposed verbs with at least one shared argument in order to express a complex, but
unitary situation” (Lehmann7 1995:34; cf. Sohn 1976; Sebba 1987:86-87; Schiller 1990: 34-45; Givón 1991:84). Here I am interested in a particular Korean serial verb construction in which the first verb is a manner (or cause) verb and the second verb is a path verb (cf. Choi & Bowerman 1992; Wienold 19958). The verbs *kkulita* and *tangkita* are considered MANNER verbs (also expressing CAUSE) in that they describe kinds of manner9 associated with the caused motions by the trajector’s using his body parts, e.g.,

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7 For the present study I prefer Lehmann’s (1995) simple, but central definition of a serial verb construction to Sebba’s (1987:86-87) elaborate criteria for serial verb constructions, as shown below:

(a) They have only one overtly expressed (syntactic) subject;
(b) They contain two or more verbs without overt markers of coordination or subordination;
(c) The actions expressed by the verbs are either simultaneous or consecutive, and all verbs are interpreted as having the same tense;
(d) Negation, whether marked once or more than once, applies to the whole string;
(e) Tense, aspect, mood and polarity (or whichever of these a particular language has) are either marked only once in the string, or else each verb in the string is marked as having the same tense, aspect, mood and polarity as V1;
(f) Either: the semantic subject of Vi is the subject of Vi +1, or: the object of Vi is the semantic subject of Vi +1.

This set of criteria does not completely fit the Korean serial verb construction with which the present study deals. For example, (d) the negation of a serial verb construction in Korean does not always apply to the whole string. In particular, the negation particle *an-* only negates the first manner verb of a serial verb construction connected by the isolating connective particle *-ko*:

(1) *ku-ka swuley-lul an-kkul-ko pin-sun-ul la wa-sas-ta*
he-Nom cart-Acc Neg-pull-Isol empty-hand-Instr come-Pst-Decl
‘He came, leaving the cart behind.’
lit. ‘He came with empty hands, without pulling the cart’.

8 Wienold (1995) classifies Korean and Japanese as path languages according to Talmy’s (1985b) lexicalization patterns of motion verbs. Manner-motion concepts in Korean are denoted by a limited set of manner verbs or a number of reduplicative ideophones.

9 In Talmy (1985b), the manner refers to the motion of the MOVER, not the AGENT. Here, the verbs *kkulita* and *tangkita* are considered, manner verbs because of the pulling manner of the AGENT’s motion exerting force upon the MOVER.
hands and arms. These verbs also involve the concept of ‘manipulation’ which is more closely related to the manner of a motion than the path of a motion.

In Korean, the sequence of a manner verb and a path verb in a serial verb construction is marked by a “connective particle”, either -e or -ko. One of these connective particles is suffixed to the manner verb, *kkulta* or *tangkita*, marking it in a non-finite form. Rhee (1996:15) distinguishes the connective particles, -ko and -e(-a), in terms of their semantic contrasts as follows: “(1) both of them imply sequentiality—strongly in -e, and weakly -ko; (2) ... -e has a strong cohesive power to make the connected verbal events a conceptual unitary event; (3) ... -ko has a strong isolating power that makes the two events separate; and (4) thus, -e is termed a ‘consolidating connective’, and -ko an ‘isolating connective’” (cf. S. Lee 1992; M. Kim 1996).

The sequence of the two associated verbs, *kkulta* and *tangkita*, establishes a serial verb construction connected by the consolidating connective particle -e (glossed as ‘Cons’), as in (27c):

(27)a. *ku-ka uyca-lul*  
    *he-Nom chair-Acc*  
    *kkul-ess-ta*  
    *pull-Pst-Decl*
    *’He pulled the chair.’*

b. *ku-ka uyca-lul*  
    *he-Nom chair-Acc*  
    *tangki-ess-ta*  
    *pull-Pst-Decl*
    *’He pulled the chair.’*

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10 The connective particle -e can also be used for connecting a primary lexical verb with a grammaticalized auxiliary verb, e.g., V-e *cwuta*, V-e *nayta*, and V-e *pelita* (to be discussed in the following chapter): “semantic analysis of *miita* ‘to push’”. For example, the verb *cwuta* ‘to give’ in the construction Verb -e *cwuta* is grammaticalized into an auxiliary verb, representing the beneficial aspect of an event.
In (27c), the consolidating connective particle -e should be used because the verb *kkulta* is conceptually tightly connected with the verb *tangkiita* by their intrinsic associations. The sequence *kkul-e tangkiita*, which is conceptualized as a simultaneously occurring and "coextensive whole", represents a conceptually single event, contrary to *?kkul-ko tangkiita* (Sohn 1976:144)\(^{11}\). It is thus translated in a single English verb ‘to pull’. Although *kkul-e tangkiita* in (27c) has the same English translation as *kkulta* in (27a) and *tangkiita* in (27b), (27c) actually differs in import from both (27a) and (27b). The first verb in the serial verb construction, *kkulta*, describes the slow and labored aspects of the event (the landmark keeping in contact with the floor on a horizontal dimension and moving toward the force) and the second verb in the construction, *tangkiita*, describes the quick and light aspects of the event (toward the source of force). This whole serial construction means something like ‘He drags and jerks the chair across the floor toward him’. The latter translation is not optimal because English requires a coordinate VP, which suggests two separate events. But the sense of the Korean sentence in (27c) really refers to a single event involving both a dragging aspect as well as tipping of the top of the chair and jerking it toward the trajector.

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\(^{11}\) Sohn (1976:143) defines a compound verb in Korean as “a sequence of two or more verbs between which only the so-called infinitive suffix (-e, -a, or -o) occurs without any pause intervening”. His compound verb is identical with the serial verb construction, connected by the consolidating connective particle -e in the present study. He points out that this compound verb functions as conceptualizing a group of actions as a coextensive whole.
Like the locative noun phrases above (i.e., orientation and destination), I classify serial verb constructions with regard to the movement of the trajector into two types: positional and locomotional serial verb constructions. The positional serial verb construction contains the manner verb *kkulta* or *tangkita* connected with a path verb which does not involve the trajector’s extended path. The positional serial verb construction takes the consolidating connective particle -e ‘Cons’ rather than the isolating connective particle -ko ‘Isol’ because of its conceptual unity, i.e., the positional motion (e.g., *ollita* ‘to raise’, *anta* ‘to embrace’, *mayta* ‘to bind’, *nehta* ‘to put in’, and *naylita* ‘to lower’) is simultaneous with, caused by, and inseparable from the pulling event in the same place (personal communication with S. Kemmer).

The conceptual unity of the sequence is indicated by several syntactic manifestations. First, no other linguistic element can go between *kkul-e* and a path verb, or between *tangki-e* and a path verb:

(28)a.  
ku-ka _ namwu-wuy-ey _ iss-mun _ ai-lul  
he-Nom tree-on-Loc be-Rel child-Acc

*tang-ulo* _ kkul-e _ nayli-ess-ta
ground-Orient pull-Cons lower-Pst-Decl

‘He pulled the child down to the ground who was on the tree.’

b.  
*ku-ka* _ namwu-wuy-ey _ iss-mun _ ai-lul _ kkul-e
he-Nom tree-on-Loc be-Rel child-Acc pull-Cons

*tang-ulo* _ nayli-ess-ta
ground-Orient lower-Pst-Decl

‘He pulled the child down to the ground who was on the tree.’

In (28b), the locative noun phrase *tang-ulo* ‘toward the ground’ cannot intervene between *kkul-e* and *nayli-ess-ta* because it cannot split the tightly integrated complex event *kkul-e nayli-ess-ta*. 
Second, the scope of the negation supports the conceptual unity of the positional serial construction connected by the consolidating connective particle -e:

(29)a. ku-ka uyca-lul an-kkul-e tangki-ess-ta
   he-Nom chair-Acc not-pull-Cons pull-Pst-Decl
   ‘He did not pull the chair.’

b. ku-ka namwu-wuy-ey iss-nun ai-lul an-kkul-e nayli-ess-ta
   he-Nom tree-on-Loc be-Rel child-Acc not-pull-Cons lower-Pst-Decl
   ‘He did not pull the child down who was on the tree.’

The scope of negation in (29a) is the whole sequence of kkul-e tangkita, not only kkul-e (cf. Sohn 1976). The scope of negation in (29b) is kkul-e nayli-ess-ta.

Let us consider more examples of the positional serial verb construction:

(30)a. kutul-i chimmolhan pay-lul kkul-e olli-ess-ta
   they-Nom sunken ship-Acc pull-Cons raise-Pst-Decl
   ‘They pulled the sunken ship up.’

b. kunye-ka chima-lul tangki-e nayli-ess-ta
   she-Nom skirt-Acc pull-Cons lower-Pst-Decl
   ‘She pulled her skirt down.’

In (30a-b), the trajector does not necessarily change its location, but may change its position in relation to the location of the landmark. The path verb (ollita ‘to raise’ or naylita ‘to lower’) designates an external path of the landmark or a part of the landmark on the vertical dimension.

In (30a-b), each sequence of a manner verb (kkulta or tangkita) and a positional path verb (ollita ‘to raise’ or naylita ‘to lower’) represents a conceptually single event in which the manner and path verbs are integrated by the consolidating connective particle -e. The components of the conceptually unitary event, e.g., kkul-e ollita ‘to pull s.t. up’, and tangki-e naylita ‘to pull s.t. down’, must occur at the same place at the same time, termed “unity of place” and “unity of time” (cf. Givón 1975; Wierzbicka 1975;
Verschueren 1981; Langacker 1991a). For example, in (30b), ‘pulling her skirt’ simultaneously occurs in the same place as ‘lowering the skirt’, and is unified into ‘pulling her skirt down’. The path verb is literally glossed as a separate verb, as in *ollita* ‘to raise’ and *nayliita* ‘to lower’. However, its conceptual consolidation with the verb *kkulta* or *tangkita*, these path verbs should be more appropriately translated into English with the verbal particles *up* and *down*. Figure 4 illustrates the serial verb construction, *kkul*-e *nayliita* ‘pull s.t. down’.
Figure 4 schematically illustrates the integration of *kkul-e* ‘pulling’ and *naylita* ‘lower’ to form the complex process *kkul-e naylita* ‘pull s.t. down’ as a whole in terms of the correspondence relationship and hierarchical integration. Correspondence relations are established to represent the shared entities across different component structures or composite structures, and a correspondence line is usually indicated by a dotted line.
However, for the simplification of Figure 4, the correspondence lines are not elaborated in Figure 4.

First, let us examine the integration process from the component structures at the bottom to the most complex composite structure at the top. Figure 4(a) and (b) represent the component structures (*kkulta* and *-e*) for the higher composite structure *kkul-e* ‘pulling’ in Figure 4(c). Figure 4(a) is identical to the schematic representation of *kkulta*-1 in Figure 1.

Figure 4(b) illustrates the component structure of *-e*. In Figure 4(b), the three smallest circles and rectangles schematically represent the same trajector and landmark at the initial, intermediate, and final stages of an event, respectively. This consolidating connective particle *-e* atemporalizes the temporally profiled process (*kkulta* ‘to pull’) into a non-finite participial relation. So, the temporal profiling is absent in Figure 4(b).

For the schematic representation of *-e*, I adapt Lee’s hypothesis (1996:85) that “the suffix *-e* functions as focusing on the final portion of a perfective process (translated into English)”. In Figure 4(b), the component structure *-e* only profiles the final state of an atemporal relation, with its initial and intermediate states or subevents unprofiled. I claim that with *-e*, profiling only the final state of the first event (i.e., *kkulta*-1) in the serial verb construction *kkul-e naylita* makes it easy to integrate this first event with the second event (i.e., *naylita* ‘lower’), establishing a conceptual unity.

The component structure *-e* in Figure 4(b) is schematic to the component structure *kkulta*-1 in Figure 4(a), which elaborates the base of *-e*. This relation of schematicity is indicated by the leftward short arrow (linking these two component structures) at the
bottom in Figure 4. In Figure 4(b), the larger rectangle is enclosed by a heavy line, which indicates that the component structure -e serves as the “profile determinant” for the next higher composite structure kkul-e ‘pulling’ in Figure 4(c) (cf. Langacker 1991a and 1991b).

At the middle level, Figure 4(c) represents the composite structure kkul-e ‘pulling’ integrated by those two component structures (i.e., kkulta-1 and -e). Because of the profiling inheritance from -e in Figure 4(b), this composite structure is a non-final atemporal relation, and selectively profiles the final stage of the event kkulta-1. On the other hand, Figure 4(d) schematically represents the event described by the positional path verb naylita ‘to lower’. The trajector’s force exertion (indicated by the double arrow) induces the landmark to move down from the temporal point of t1 to another temporal point of t2.

Finally, Figure 4(e) illustrates the overall composite event structure kkul-e naylita ‘pull s.t. down’ by integrating those component structures kkul-e ‘pulling’ and naylita ‘to lower’. This highest level integration is achieved by superimposing the specifications of these component structures onto this highest composite structure. Only the profiled final portion of the component event (designated by kkul-e ‘pulling’) is selected as the initial facet of this composite event at the initial temporal point of t1, and is integrated with the second event (i.e., naylita ‘lower’). This integration is illustrated with the downward diagonal arrow in Figure 4(e), by which the final portion of the event kkulta-1 and the other event naylita ‘to lower’ are conceptualized as establishing a complex event (or a conceptual unity). In Figure 4(e), the time flows from t1 to t2 at the bottom of the base,
which is meant to show no temporal extension for this composite structure, because the positional path described by the verb *naylita* ‘lower’ does not refer to the trajector’s locomotion.

Now, let us consider some examples of the positional serial verb construction, connected by the isolating connective particle, *-ko*:

(31)a. *ku-tul-i chimmolhan pay-lul kkul-ko olli-ess-ta*
    he-Pl-Nom sunken ship-Acc pull-Isol raise-Pst-Decl
    *‘They pulled the sunken ship (up) and raised it.’*

b. *kunye-ka chim-a-lul tangki-ko nayli-ess-ta*
    she-Nom skirt-Acc pull-Isol lower-Pst-Decl
    *‘She pulled her skirt and lowered it.’*

When the isolating connective particle *-ko* is selected, (31a-b) are not acceptable because these manner and path verbs cannot involve conceptually two separate motions. In this case, each of (31a-b) would be translated as a sequence of two distinct actions, e.g., ‘pulled and raised’ and ‘pulled and lowered’, which does not make sense for the situations above. For example, sentence (31a) is translated as ‘They pulled the sunken ship (up) and raised it’. However, the pulling up of the sunken ship intrinsically involves raising.

Now, let us turn to some locomotional serial verb constructions. I define a locomotional serial verb construction as consisting of the manner verb *kkulta* and a following locomotional (or translational) path verb, e.g., *kata* ‘to go’, *ota* ‘to come’, *tanita* ‘to go around’, *naota* ‘to come out’, and *nakata* ‘to go out’. Unlike the positional path verb, e.g., *ollita* ‘to raise’ and *naylita* ‘to lower’, these locomotional path verbs describe the locomotion of the trajector. To be more specific, the grammatical subject fills two semantic roles in this serial verb construction, i.e., AGENT for the manner verb *kkulta,*
an agentive MOVER for the path verb, e.g., *kata* ‘to go’, *ota* ‘to come’ or *tanita* ‘to go around’.

The locomotional serial verb construction usually takes the isolating connective particle *-ko* ‘Isol’ (e.g., *kkul-ko kata* ‘go, pulling’), rather than the consolidating connective particle *-e*, ‘Cons’ for the following reasons. First, with respect to the verb *kkulta*, the pulling event itself does not explicitly make reference to the locomotion of the trajector, for example, the trajector’s going, coming, or going around. For the event *kkulta-*I, the locomotion of the trajector (i.e., the extended path of the trajector) is interpretable from other collocational or contextual information (as indicated by the unprofiled short line attached on the right of the trajector, the larger circle in Figure 1 and Figure 4(a)), although it is an important semantic aspect of the event *kkulta-*I (as discussed in Section 3.2.1). The locomotion of the trajector is clearly designated by the locomotional path verb of a locomotional serial verb construction. But the locomotional serial verb construction does not establish a conceptually unitary event as much as the positional one, because it associates with conceptually two different events. Figure 5 illustrates *kkul-ko* of a locomotional serial verb construction:
Figure 5 illustrates the integration of *kkulta* and *-ko* to form the non-finite participial process *kkul-ko* 'pulling'. Thus, Figure 5(a) and (b) at the bottom represent the component structures for the composite atemporal relation *kkul-ko* represented by Figure 5(c). The event *kkulta*-1 is represented by Figure 5(a), which is identical to the representation of *kkulta*-1 in Figure 1.

Figure 5(b) represents the component structure of the isolating connective particle *-ko*. This connective particle converts a temporal process (e.g., *kkulta* ‘pull’) into an atemporal participle relation (e.g., *kkul-ko* ‘pulling’) by suppressing the temporal profiling. So, the temporal flow from t1 to t2 is not profiled in Figure 5(b). The isolating connective particle *-ko* profiles the whole sequence of the initial, intermediate, and final states of the
preceding event of a serial verb construction. I claim that with -ko, profiling the whole
sequence of a preceding event makes it difficult to integrate this preceding event with the
following event as a whole. Therefore, the preceding event (connected by the isolating
connective particle -ko) is conceived as maintaining a conceptual separation, and is
sequential with the following event, as illustrated in Figure 5.

The component structure of the connective particle -ko is schematic to the process
kkulía because it is partially compatible (with the conflict of temporal profiling) with
kkulía, but has less specificity and precision. Conversely, kkulta provides the precise
specification for -ko. This categorizing relation between the schema and its instantiation is
represented by the leftward short arrow linking these two component structures at the

The component structure of the isolating connective particle -ko in Figure 5(b)
serves as a “profile determinant” because the composite structure kkul-ko in Figure 5(c)
inherits its profile from the atemporal relation of -ko, not from the temporally-profiled
event kkulta-1 in Figure 5(a) (cf. Langacker 1991a and 1991b). So, the rectangle
representing -ko in Figure 5(b) is drawn with a heavy line. With regard to the
asymmetrical distinction of head and complement, -ko is identified as the head within the
non-final atemporal relation kkul-ko whereas kkulta is its complement, elaborating the
schematic -ko.

The composite structure kkul-ko in Figure 5(c) is established by integrating these
component structures kkulta-1 in Figure 5(a) and -ko in Figure 5(b), and by superimposing
the specifications of these component structures onto this composite structure. Because
of the profiling inheritance from the component structure -ko, this composite structure profiles the whole sequence of the component states of the event kkulta-ı, and excludes the temporal profiling. The dotted lines represent some of the correspondence lines of the elements of component and composite structures, i.e., trajector and landmark. The vertical dotted lines indicate the correspondences of the overlapping elements between the component and composite structures while the horizontal dotted lines indicate the correspondences of the elements between the component structures.

The locomotinal motion verbs (e.g., kata ‘to go’, nakata ‘go out’, itenata ‘to leave’, ota ‘to come’, naota ‘to come out’, tataluta ‘to arrive’, and tanita ‘to go around’) invoke the image schema of SOURCE, PATH, GOAL, and DIRECTION, which is based on our bodily experience of motion (cf. Fillmore 1975a; Lakoff and Johnson 1980; Lakoff 1987a; Johnson 1987; Radden 1988 and 1996). I argue that for a locomotinal motion verb, e.g., kata ‘to go’, the SOURCE-PATH-GOAL image schema is conceived independently from that of the manner verb kkulta in the locomotinal serial verb construction connected by the isolating connective particle -ko, although they are sequentially related to each other. This means that the locomotinal serial verb construction designated by the manner-and-path verbs is conceived as sequential, and describes two separable distinct actions.

This claim is supported by several syntactic manifestations. First, with the isolating particle -ko, some linguistic elements can go between the manner verb kkulta and the locomotinal path verb, which is impossible with the other connective particle -e:

(32)a. mal-i swuley-lul kkul-ko tulphan-ulo ka-ss-ta
   horse-Nom cart-Acc pull-Isol farm-Orient go-Pst-Decl
   ‘The horse went to the farm, pulling the cart.’
b. *ku-ka hwilcheye-lul kkul-ko pyengwon-ey wa-ss-ta*
   he-Nom wheelchair-Acc pull-Isol hospital-Loc come-Pst-Decl
   ‘The PATIENT came to the hospital, pulling the wheelchair.’

In (32a-b), the locative noun phrases, *tulphan-ul* ‘farm-Orient’ and *pyengwon-ey* ‘hospital-Loc’, can intervene between the manner verb *kkul-ko* and the path verb, *kata* ‘to go’, or *ota* ‘to come’. Second, the scope of negation applies to only the verb *kkulta*, and not to the whole sequence of the manner-and-path sequence, as in (33a-b):

(33)a. *ku-ka swuley-lul an-kkul-ko ka-ss-ta*
   he-Nom cart-Acc not-pull-Isol go-Pst-Decl
   ‘He went, leaving the cart behind (without pulling the cart).’
   lit. ‘He did not pull the cart and went.’

(33)b. *ku-ka hwilcheye-lul an-kkul-ko wa-ss-ta*
   he-Nom wheelchair-Acc not-pull-Isol come-Pst-Decl
   ‘He came, without pulling the wheelchair.’
   lit. ‘He did not pull the wheelchair and came.’

Therefore, the manner verb and the path verb are conceptually more loosely connected with each other than in the case of the positional serial verb construction.

Now, let us examine the schematic representation of the locomotional path verb *kata* ‘to go’ in Figure 6, based on the SOURCE-PATH-GOAL image schema, before we discuss the composite structure of a locomotional serial verb construction, e.g., *kkul-ko kata*, as in Figure 7.
Figure 6. Schematic Representation of event kata ‘to go’

In Figure 6, the locomotional verb kata describes a temporally profiled process in which the trajector changes its location over a path from the temporal point of t1 to another temporal point of t2. The trajector’s locomotion is indicated by the profiled single arrow, which represents the correspondence movement line (path) of the same trajector through time. The rightward direction of this arrow stands for the direction of the trajector’s movement. A smaller dotted rectangle in Figure 6 represents the speaker’s position, and functions as the SOURCE (or departure point) of the trajector’s movement because of the deictic nature of the verb kata ‘go’. The trajector moves away from the speaker’s location (SOURCE) to an unspecified location (GOAL).

Let us consider more examples of the locomotional serial verb construction connected by the isolating connective particle -ko:

(34)a. mal-i swuley-lul kkul-ko ka-ss-ta
    horse-Nom cart-Acc pull-Isol go-Pst-Decl
    ‘The horse went, pulling the cart.’

b. kay-tul-i sselmay-ul kkul-ko wa-ss-ta
    dog-PI-Nom sled-Acc pull-Isol come-Pst-Decl
    ‘The dogs came, pulling the sled.’
Sentences (34a-b) are completely acceptable with the connective particle -ko. With the connective particle -ko, the pulling event designated by kkul-ko ‘pulling’ in (34a-b) is carried out along with the explicit locomotion of the trajector designated by a locomotional path verb (i.e., ota ‘to come’ and kata ‘to go’), and the landmark appears together with the trajector as a result of the serial verb construction, as illustrated in Figure 7 below:

![Diagram](image)

Figure 7. Schematic Representation of event kkul-ko kata ‘go, pulling’

Figure 7 schematically illustrates the composite structure kkul-ko kata ‘go, pulling s.t.’ integrating the component structures, kkul-ko ‘pulling’ in Figure 5 and kata ‘go’ in Figure 6. In Figure 7, the representation of the serial verb construction kkul-ko kata is similar to that of kkulta-1 in Figure 1 in many respects. Both are characterized relative to a physical space domain represented by the larger rectangles. The larger circles represent the trajector (AGENT and source of force) while the smaller circles represent the landmark (MANIPULATED MOVER). The distinctive sizes of circles in Figure 7 and Figure 1 represent the relation of relative strength between trajector and landmark. The events kkul-ko kata in Figure 7 and kkulta-1 in Figure 1 designate relational processes in which
the trajector exerts some physical force upon the landmark and brings about the landmark's change of location toward the source of physical force. In these events, the landmark's change of location is indicated by the profiled single shafted arrow linking the smaller circles, which represents a correspondence movement line of the same landmark through space and time. The energy transfer from the trajector to the landmark is represented by the profiled double arrow from the larger circle to the smaller circle. The events *kkul-ko kata* in Figure 7 and *kkulta-1* in Figure 1 involve horizontal path motions along which the landmark is in contact with another flat entity, as indicated by the short line at the bottom of the smaller circles. Their landmarks' horizontal motions in contact with another entity become evident with the use of the manner adverb *cilcil* 'draggingly'. The speaker observes the processual events *kkul-ko kata* in Figure 7 and *kkulta-1* in Figure 1 from the outside of the rectangular spatial domain or base.

With regard to the external path of the event expressed by *kkulta* in a serial verb construction, the differences between Figure 7 and Figure 1 are of more importance than their similarities. In Figure 7, the event *kkul-ko* continues to be carried out along the external path designated by the locomotional path verb, *kata* 'go' until the trajector stops proceeding at a certain place and at a certain point of time (tₙ). Thereby, the trajector is conceived as being closer to the landmark at the final point of time (tₙ) as a result of this serial verb construction *kkul-ko kata*, although some actual distance between the trajector (*ku-ka 'he-Nom*') and landmark (*swuley-lul 'cart-Acc*') is maintained because of the cart.

The trajector's locomotion is indicated by the profiled single arrow connecting the larger circles, which represents another correspondence movement line of the same
trajector through time, distinct from that of the landmark (another profiled single-shafted arrow connecting the smaller circles). For this complex event designated by *kkul-ko kata* in Figure 7, the trajector is conceived as playing two semantic roles: AGENT by the participial verb *kkul-ko* 'pulling' and MANIPULATING MOVER by the path verb *kata* 'go'.

The small dotted rectangle in Figure 7 represents the speaker's position (or SOURCE) because of the "deictic" nature of the verb *kata* 'go’. It also refers to the initial location of the trajector before the trajector carries out the event *kata* 'go' at a certain point of time between *t₁* to *tn*. The trajector moves away from the speaker's location to an unspecified location. For example, in (34a) the trajector and landmark move farther away from the speaker or are conceived as psychologically distant to the speaker as a result of the event. The speaker's position (i.e., SOURCE) is not profiled, but is indicated by the dotted smaller rectangle, because it is not encoded by an explicit linguistic expression.

In Figure 7, the time flow, which is conceived from the initial to final temporal points of the process *kkul-ko kata*, is more extended from *t₁* to *tn* at the bottom of the base than that of *kkulta*1 (from *t₁* to *t₂*) in Figure 1. The path verb *kata* 'go' adds this sense of greater temporal extension. By my intuitions, the event *kkul-ko kata* is prototypically conceived as involving a longer period of time than the event *kkulta*1, although I cannot provide further evidence for this. If this intuition is borne out, it would follow from the explicit reference of *kata* 'to go' to the trajector's locomotion through space.

With the locomotional verbs *kata* 'to go' and *ttenu* 'to leave', (35a) and (35b) are not acceptable because of the presence of *-e*:

(35a) *kay-tul-i sselmay-lul kkul-e ka-ss-ta*  
dog-Pl-Nom sled-Acc pull-Cons go-Pst-Decl  
'The dogs went, pulling the sled.'
b. *ku hwanca-ka hwitcheye-lul kkul-e ttena-ss-ta
   the patient-Nom wheelchair-Acc pull-Cons leave-Pst-Decl
   ‘The patient left, pulling the wheelchair.’

Note that the locomotional verbs, kata ‘to go’ and ttenata ‘to leave’ in (35a) and (35b), focus on the source of a movement in regard to the motion image schema of SOURCE-PATH-GOAL in that the trajector is conceived as departing from the speaker’s position (cf. Lakoff 1987a, Radden 1988 and 1996). This source-focused semantics of the verbs kata ‘to go’ and ttenata ‘to leave’ does not coalesce with the goal-directed semantics of the verb kkulta (i.e., toward the source of force). This distinct semantics of the two verbs kkulta and kata (or ttenata ‘to leave’) makes it more difficult to connect the verb kkulta with the verb kata ‘to go’ (or ttenata ‘to leave’) by the consolidating connective particle -e. In nature, the events described by these verbs kata and ttenata involve the trajector’s locomotion, which is conceptually independent of the event kkulta-1. When the consolidating connective particle -e in (35a) and (35b) is replaced by the isolating connective particle -ko, (35a) and (35b) become completely acceptable, presenting the two separate conceptual units.

Now, let us consider some examples of the locomotional serial verb construction, connected by the consolidating connective particle -e, which is not common:

(35’). a. ?kay-tul-i san-eyse sselmay-ul kkul-e wa-ss-ta
dog-Pl-Nom mountain-Loc sled-Acc pull-Cons come-Pst-Decl
   ‘The dogs came, pulling the sled from the mountain.’

b. ku-ka uyca-lul kkul-e wa-ss-ta
   he-Nom chair-Acc pull-Cons come-Pst-Decl
   ‘He came, pulling the chair.’

Although the verb kkulta is connected with the locomotional verb ota ‘to come’ by -e, (35’a) sounds better than (35a), because the goal directed semantics of the verb kkulta
accords with that of the verb *ota*. But the serial verb construction *kkul-ko ota* in (34b) is better than *kkul-e ota* in (35’a) because this complex event in (35’a) involves the trajector’s obvious locomotional extended movement, as clearly specified by the locative noun phrase *san-eyse* ‘from the mountain’. By contrast, sentence (35’b) is much better than (35’a), although they have the same serial verb construction *kkul-e ota*. Sentence (35’b) has a different conceptualization from that of (35’a) as follows. The verb *ota* ‘to come’ in (35’b) is conceptualized as if it were similar to a positional path verb, e.g., *ollita* ‘to raise’ and *naylita* ‘to lower’. Before the event *kkul-e ota* the landmark *uyca-lul* ‘chair-Acc’ is already located close to the trajector *ku-ka* ‘he-Nom’ (i.e., within the reach of the trajector’s arm). Both trajector and landmark are visible to the speaker at the initial temporal point of this event, and can be also conceived as psychologically proximate to the speaker. The trajector *ku-ka* ‘he-Nom’ is thus conceived as involving a relatively very short locomotion over a very short time in a short distance. As a result of this event, the landmark is induced to move closer toward the source of force (trajector) and the speaker. Almost simultaneously, the trajector reaches the speaker’s position with the landmark, and need not move very much in order to pull the chair toward the speaker. Therefore, the event designated by the serial verb construction *kkul-e wa-ssa-ta* in (35’b) is possibly conceived as a complex conceptual whole.

In the event *tangkita*-1, the locomotion of the trajector is not relevant, because only the landmark is caused to move toward the source of force (the trajector). Thus, the trajector is conceived as the goal of the landmark’s movement as well as the source of force. This feature predicts the impossibility of the locomotional serial verb construction
with the verb *tangkita*. And, in fact, the locomotional path verbs, e.g., *kata* ‘to go’, *ota* ‘to come’, and *itenata* ‘to leave’ cannot occur with the verb *tangkita*, as in (36a-b) and (37a-b):

(36a. *ku-ka patacwul-ul tangki-e ka-ss-ta*

he-Nom rope-Acc pull-Cons go-Pst-Decl

‘He went, pulling the rope.’

b. *ku-ka pangasoy-lul tangki-e wa-ss-ta*

he-Nom trigger-Acc pull-Cons come-Pst-Decl

‘He came, pulling the trigger.’

(37a. *ku senwon-i patacwul-ul tangki-ko ka-ss-ta*

the crew-Nom rope-Acc pull-Isol go-Pst-Decl

‘The crew went, pulling the rope.’

b. *ku sakyekswu-ka pangasoy-lul tangki-ko wa-ss-ta*

the gunman-Nom trigger-Acc pull-Isol come-Pst-Decl

‘The gunman came, pulling the trigger.’

Since the event designated by *tangkita* does not involve the locomotion of the AGENT, (36a-b) are not acceptable. Sentences (37a-b) are not acceptable for the same reason.

§ 3.3 Semantic Extensions of *kkulta* and *tangkita*

The uses of the verbs *kkulta* and *tangkita* are not limited to the spatial domain. They are also used in other abstract domains, e.g., perception, cognition, function, operation, social relationship, time, emotion, and so on. In this section, I will discuss the semantic extensions of *kkulta* and *tangkita* in physical and abstract domains. I will compare how they are interrelated to *kkulta*-1 and *tangkita*-1 on the basis of the different but related conceptualizations of cognitive-functional attributes such as cognitive domains, trajector and landmark, energy transfer, path, contact, dimension, and other attributes.
§ 3. 3.1 Sense ‘to trail’

The extended sense ‘to trail’ designated by the verb *kkulta* is conceptually related to *kkulta*-1 (including the sense ‘to drag’), although it is different from *kkulta*-1 in some ways. In Korean, the trajector of the sense ‘to trail’ is generally limited to a person and its landmark is either part(s) of lengthy clothes or shoes in many instances of the sense ‘to trail’. On the other hand, the trajector and landmark of *kkulta*-1 are a much wider range of things. The schematic representation of the event ‘to trail’ is illustrated in Figure 8:

![Figure 8. Representation of event kkulta ‘to trail’](image)

(38)a. *ku-ka paci calak-ul cilcil kkul-ess-ta*
he-Nom pants end-Acc draggingly pull-Pst-Decl
‘He dragged his pants.’
lit. ‘He draggingly trailed\(^{12}\) his pants.’

b. *ku-ka sulliphe-lul cilcil kkul-ess-ta*
he-Nom slipper-Acc draggingly pull-Pst-Decl
‘He dragged his slipper.’
lit. ‘He draggingly trailed his slipper.’

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\(^{12}\) In English, the verb *trail* is intransitively used in a prototypical case, as in the sentence *Her skirt is trailing across the floor*. The same event is expressed by the verb *drag*, as in *She is dragging her skirt across the floor*. But I avoid using the verb *drag* as much as possible, because the event described by *drag* seems to involve a great amount of the trajector’s exertion of force upon the landmark. I keep using the *trail* in a transitive sentence. I hope that this English translation is not misleading.
In Figure 8, the sense ‘to trail’ occurs in a physical space domain, like *kkulta*-1. In the figure, the larger circles (representing the trajector) contain the smaller circles (representing the landmark) in order to represent a situation in which the landmark is attached to the trajector. Although the trajector and landmark are separately designated by the subject and direct object, as in (38a-b), they form an integral, undifferentiated unity in terms of their attachment. The participants of the event ‘to trail’ are not optimally discrete, unlike those of *kkulta*-1. Both the trajector and landmark are conceived as less differentiated MOVERS in that they change their locations together as a result of this event. The landmark’s movement and direction are totally dependent on, and are integrated into one by the trajector’s movement. The landmark does not move toward the source of force (the trajector), because there is no physical distance between the trajector and landmark owing to their attachment. Therefore, the sense ‘to trail’ does not have the intrinsic path of the landmark.

Like the sense ‘to drag’, the notion of contact is greatly salient for the sense ‘to trail’. The manner adverb *cilcil* ‘draggingly’ is frequently used to represent the landmark’s contact with the ground throughout the event *kkulta* ‘to trail’, as exemplified in (38a-b). In Figure 8, the short line at the bottom of the small circle (the landmark) is profiled as a salient facet of the semantic structure of the sense ‘to trail’. The event ‘to trail’ associates with a horizontal path motion.

Here are some more examples of the sense ‘to trail’:

(39)a. *ku ye-ca-ka chima calak-ul kkul-ess-ta*
the woman-Nom skirt the end-Acc pull-Pst-Decl
‘The woman trailed her skirt (wearing it).’
b. *ku yeça-ka chima-lul kkul-ess-ta*
   the woman-Nom skirt.Acc pull-Pst-Decl
   ‘The woman trailed her skirt (wearing it).’

c. *ku-ka sin-ul kkul-ess-ta*
   he-Nom shoes.Acc pull-Pst-Decl
   ‘He dragged his shoes (along the ground).’

Basically, the sense ‘to trail’ focuses on the trailing manner of a lengthy entity (landmark) on the ground, when it is attached to another moving entity (trajector). Although the landmark (e.g., *chima calak-ul ‘the ends of a skirt-Acc’, chima-lul ‘skirt-Acc’, and sin-ul ‘shoes-Acc’ in (39a-c)) is separately designated by the direct object, independently of the trajector by the subject (e.g., *ku yeça ‘the woman’ and *ku ‘he’ in (39a-c)), the former is not completely differentiated from the latter. Because the trajector is wearing the skirt or shoes (the trajector), the trajector and landmark of the sense ‘to trail’ are conceived as less differentiated entities.

Regarding the cognitive notion of active zone, the sense ‘to trail’ evokes the extremity of an entity. In (39a), *chima calak ‘the ends of her skirt’ is the extreme part of a skirt which most directly participates in the event relation between the trajector and the unprofiled ground along which the figure moves. Thus, it is directly the active zone of the event *kkulta ‘to trail’ as well as the landmark designated by the direct object. In (39a), the active zone is, therefore, coincident with the profiling of the landmark in the relational predication.

On the other hand, in (39b), the thing that the woman directly trails is only the lower ends of her lengthy skirt, not the whole entity *chima ‘skirt’. Sentence (39b) manifests a discrepancy of the profiling relationship between the landmark of the event *kkulta ‘to trail’ and its active zone. The whole entity (*chima ‘skirt’ or sin ‘shoes’) is
profiled as the landmark, while the active zone of the designated landmark (*chima calak
'the ends of a skirt' or *patak* 'the bottom part') is not profiled. In spite of the
discrepancy between the profiled whole (landmark) and its active zone, speakers are
psychologically inclined to perceive and encode a whole object, particularly an animate
one, as a gestalt rather than as its parts because of its cognitive saliency (cf. Langacker

Like those of *kkulta*-1, the instances of the sense 'to trail' frequently show some
external paths unified by the trajector and landmark altogether. The external path is
implied by the verb *kkulta* itself, or designated by a serial verb construction in (40a) and
(40b), or a locative noun phrase in (40b):

(40a). *ku-ka* *paci* *calak-ul* *kkul-ko* *ka-ssa-ta*
he-Nom pants end-Acc pull-Isol go-Pst-Decl
'He went, trailing his pants.'

b. *ku-ka* *sulliphe-lul* *kkul-ko* *pakk-ul* *naka-ssa-ta*
he-Nom slipper-Acc pull-Isol outside-Orient go out-Pst-Decl
'He went out, dragging his slipper.'

The sense 'to trail' associates with a much smaller transfer of physical force from trajector
to landmark than *kkulta*-1. Since the trajector (a person) does not consciously exert force
upon the landmark (skirt or shoes), he or she may not be conscious of the trailing of the
landmark. The energy transfer from the trajector to the landmark is not significant for this
event, and is not indicated in Figure 8. But the construer (speaker) observes the trailing
scene. The relative strength relation between the trajector and landmark is not very
important. Thus, the concepts of the trajector's effort and the landmark's resistance are
not significant, either.

The following examples in (41a-b) describe *kkulta*-1, contrast ing with (39a-c):
Contrary to the sense ‘to trail’, the prototypical sense *kkulta*-1 takes two distinct entities for trajector and landmark; they are not attached to each other. Sentences (41a) and (41b) can only be interpreted as *kkulta*-1, as in ‘He pulled the skirt on the ground’ and ‘He pulled Swuni’s shoes’, but cannot be interpreted as the sense ‘to trail’, as in *‘He trailed the skirt on the ground’ and *‘He trailed Swuni’s shoes’. The landmark of *kkulta*-1 (e.g., *Swuni-uy sin-ul* ‘Swuni-Gen shoe-Acc’ in (41b), as a whole, directly participates in the event *kkulta*-1, and the entire landmark moves toward the source of force. For *kkulta*-1 in (41a) and (41b), the trajector, *ku* ‘he’, plays a prototypical AGENT role and is the source of physical force. He, volitionally and directly, exerts some physical force on another separate landmark (*patak-ey iss-mun chima* ‘the skirt on the floor’ or *Swuni-ey sin* ‘Swuni’s shoes’). Unlike Figure 8, the energy transfer is indicated by the profiled double arrow in Figure 1. The landmark is caused to move toward the source of force (the AGENT) as a result of the event *kkulta*-1.

Let us examine an instance of the sense ‘to trail’ with a different trajector and landmark in (42):

(42) *hyeyseng-i kin kkoli-lul pam hanul-ey kkul-ess-ta*
comet-Nom long tail-Acc night sky-Loc pull-Pst-Decl
‘A comet flew in the night sky with its long tail behind it.’
lit. ‘A comet pulled its long tail in the night sky.’
In (42), the trajector and landmark are metaphorically conceptualized as a single entity with a head and a tail in a part-and-whole relation. The relevant perceptual (visual) situation is that the speaker stands on earth, looking up at a flying star in the night sky. The landmark *kin kkoli-lul* ‘long tail-Acc’ is conceptualized as a part of the trajector *hyeyseng-i* ‘comet-Nom’ in a metaphorical way, based on our experience that *kkoli* ‘tail’ is a part of an animal like a dog. In fact, the landmark is not a part of the trajector, but is only a long trace left behind the speedy movement of the trajector. Although the landmark is a perceptible entity for a limited time, it eventually disappears because it does not constantly exist as a physical and concrete entity in time and space.

Sentence (42) is not an instance of *kkultia*-1, because the trajector *hyeyseng-i* ‘comet-Nom’ is not likely to exert any physical force upon the landmark *kkoli* ‘tail’, according to our scientific knowledge. But (42) is an extended instance of the sense ‘to trail’ in that the trajector and landmark are not construed as two separate entities. Also, (42) does not have noticeable energy transfer from the trajector to the landmark. It associates with a vertical or diagonal motion, but not a horizontal one. Instead of the ground, the sky in (42) is construed as serving as the base for the landmark’s contact.

In addition, the sense ‘to trail’ can be characterized relative to an auditory and temporal domain. To be more specific, the sense ‘to trail’ is extended to the sense ‘to drawl’ or ‘to fade away auditorily’, as exemplified in (43a-c):

(43) a. *meyali-ka* yewun-ul *kkul-ess-ta*
    echo-Nom    trailing sound-Acc pull-Pst-Decl
    ‘The echo trailed away.’
    lit. ‘The echo pulled its trailing sound.’
b. ku noin-i moksoli-lul kkul-ess-ta
    the old man-Nom voice-Acc pull-Pst-Decl
    ‘The old man’s voice trailed off [sound].’

c. ku-ka mal-ul kilkey kkul-ess-ta
    he-Nom words-Acc long pull-Pst-Decl
    ‘He drawled his words out.’

The trajectors in (43a-c) are the sources of auditory energy (sound), e.g., person and echo. The landmark is expressed by a kind of sound (i.e., yewun-ul ‘trailing sound-Acc’, moksoli-lul ‘voice-Acc’, and mal-ul ‘words-Acc’), which is neither a physical and concrete entity (e.g., tol ‘stone’) nor a perceptible entity in space for a limited time (e.g., hyeseng-uy kkoli ‘the tail of a comet’). It is only bounded in time. It is conceived as a prolonged and extended entity in a similar way as the landmark chima ‘skirt’ of the event kkulta ‘to trail’ in a physical domain. When a person drawls his words, the words are conceived as stretched-out, lengthened objects. This conceptualization of the landmark in an auditory and temporal domain becomes more evident with the frequent use of the adverb kilkey ‘long’, as in (43c).

The trajector and landmark in (43a-c) are not differentiated from each other because, for example, the landmark yewun-ul ‘trailing sound-Acc’ in (43a) refers to the reflected progressively weaker sound of the trajector meyali-ka ‘echo-Nom’. The trajector meyali-ka ‘echo-Nom’ is already the resounding sound of an original sound. The landmark yewun ‘trailing sound’ cannot be conceived as separated from its source sound (the trajector), meyali ‘echo’.

The auditory and temporal nature of the sense ‘to drawl’ or ‘to fade away auditorily’ in (43b-c) precludes an extended external path of the trajector (i.e., the trajector’s locomotion) expressed by a locomotional serial verb construction, because the
trajector (e.g., noin-i ‘old man-Nom’ and ku-ka ‘he-Nom’ in (43b-c)) is not agentive and
does not cause motion. However, the speaker metaphorically construes the landmark as a
lengthened entity (i.e., temporally extended sound) moving in a trailing manner.

The verb *tangkiita* is not semantically extended to the sense ‘to trail’, as
exemplified in (44a-b):

(44)a. ku ai-ka emma-uy chima-lul tangki-ess-ta
the child-Nom mom-Gen skirt-Acc pull-Pst-Decl
'The child pulled her mother’s skirt.’

b. ku-ka sinpal-ul tangki-ess-ta
he-Nom shoes-Acc pull-Pst-Decl
'He pulled her shoes.'

Sentences (44a) and (44b) describe the events *tangkiita*-1 in a prototypical way. They
cannot be interpreted as instances of the sense ‘to trail’ because the event ‘to trail’ does
not involve a limited course of the landmark directed at the trajector, and the landmark
must be in contact with the ground along a path throughout its movement.

§ 3.3.2 Sense ‘to exert gravitational or magnetic attraction’

The extended sense ‘to exert gravitational or magnetic attraction’ of the events
*kkulta* and *tangkiita* also exhibits some considerable similarities and differences, compared
with *kkulta*-1 and *tangkiita*-1. The schematic representation of the event ‘to exert a
gravitational attraction’ is illustrated in Figure 9. This sense is exemplified in (45a-c):
(45)a. %thayyang-i cikwu-lul kku-n-ta
    sun-Nom earth-Acc pull-Pres-Decl
    ‘The sun exerts gravitational attraction on the earth.’

b. thayyang-i cikwu-lul tangki-n-ta
    sun-Nom earth-Acc pull-Pres-Decl
    ‘The sun exerts gravitational attraction on the earth.’

c. thayyang-i cikwu-lul kkul-e tangki-n-ta
    sun-Nom earth-Acc pull-Cons pull-Pres-Decl
    ‘The sun exerts gravitational attraction on the earth.’

In Figure 9, the sense ‘to exert gravitational attraction’ is also characterized relative to a physical domain, like kkulta-1 or tangkita-1. To be more specific, it associates with some gravitational force transferring from the trajector to the landmark.

In Figure 9, the trajector (e.g., thayyang-i ‘sun-Nom’ in (45a)) is indicated by the larger circle. It is conceptualized as playing the role of AGENT (as with kkulta-1 or tangkita-1) in that it exerts gravitational force upon another entity (the landmark cikwu-lul ‘earth-Acc’). Yet, the trajector is conceived as playing a less prototypical AGENT than that of kkulta-1 or tangkita-1. The trajector thayyang-i ‘sun-Nom’ is a heavenly body; it is neither a human being nor an animate entity (e.g., horse, and dogs). The sun, as an inanimate planet, is not conscious of its own gravitational force and its construed transfer
of gravitational force to the landmark (the earth). It does not reveal certain observable external force except for the presence of gravity.

The trajector of *kkulta*-1 or *tangkita*-1 manipulates an INSTRUMENT (e.g., hands and fingers) in order to transfer its physical force to the landmark; the INSTRUMENT is conceivable or evoked from the scene, although it is not always expressed. By contrast, no INSTRUMENT exists in the conceptual content of the sense ‘to exert gravitational attraction’.

In Figure 9, the landmark of the event ‘to exert gravitational attraction’ is indicated by the smaller circles. It is particularly prototypically limited to a relatively smaller planet (e.g., the earth and moon) than the trajector, although every object on the earth is subject to the force of gravity. The sense ‘to exert gravitational attraction’ connotes a relative strength differential between the trajector and landmark in terms of weight, size, and distance. Its trajector is heavier and larger than its landmark. The longer the distance between the trajector and landmark, the less the gravitational exertion of the trajector upon the landmark. The trajector exerts a stronger gravitational force overcoming the landmark’s resistance.

In (45a-c), the landmark *cikwu-lul* ‘the earth-Acc’ is conceived as playing a less prototypical MANIPULATED MOVER role than that of *kkulta*-1 or *tangkita*-1 in that the actual movement of the landmark along its intrinsic path is not observed by the speaker. Despite this difficulty of observation, the whole landmark (i.e., a planet) moves around the trajector, as a result of the exertion of gravitational force. For this sense, the landmark in (45a-c) exhibits more similarities to that of *kkulta*-1 than to that of *tangkita*-1. The
landmark *cikwu-lul* ‘earth-Acc’ is relatively smaller than the trajector (the Sun), but is nevertheless a huge individual planet. The earth-sun relation does not make reference to a part-whole relation, unlike *tangkita*-1, nor is the landmark attached to another entity, unlike in the sense ‘to trail’. These properties of the landmark *cikwu-lul* ‘earth-Acc’ are similar to those of *kkulta*-1, but contrast with those of *tangkita*-1. In spite of these resemblances, the verb *kkulta* in (45a) sounds a little strange, in contrast to the verb *tangkita* in (45b) and the serial verb construction *kkul-e tangkita* in (45c).

The different acceptability of (45a), (45b) and (45c) is explained with regard to the concepts of dimension and contact. Unlike *kkulta*-1, the sense ‘to exert gravitational attraction’ lacks a dimensional saliency (i.e., horizontality) of a physical motion. This sense does not designate a horizontal path motion. The landmark *cikwu-lul* ‘earth-Acc’ involves a circular path motion by virtue of the gravitational attraction of the sun, and the inertia of the earth. So, we say that the earth moves around the sun. Because of the absence of horizontality, the sense ‘to exert gravitational attraction’ contrasts with the event *kkulta*-1, but is more similar to the event *tangkita*-1.

Concerning the concept of contact, the representation of this sense in Figure 9 does not show the short lines at the bottoms of the smaller circles, because the landmark *cikwu-lul* ‘earth-Acc’ is not in contact with another flat entity. Correspondingly, because of the lack of contact, the sense ‘to exert gravitational attraction’ cannot occur with the manner adverb *cilcil* ‘draggingly’, as exemplified in (46a–c):

(46)a. *thayyang-i cikwu-lul cilcil kkul-ta*
   sun-Nom earth-Acc draggingly pull-Pres-Decl
   *‘The sun draggingly exerts gravitational attraction on the earth.’*
b. *thayyang-i cikwu-lul cilcil tangki-n-ta
sun-Nom earth-Acc draggingly pull-Pres-Decl
*The sun draggingly exerts gravitational attraction on the earth.’

c. *thayyang-i cikwu-lul cilcil kkul-e tangki-n-ta
sun-Nom earth-Acc draggingly pull-Cons pull-Pres-Decl
*The sun draggingly exerts gravitational attraction on the earth.’

Unlike the event kkulta-1 (as in the sentence mal-i swuley-lul kkul-ess-ta ‘the horse pulled the cart’), there is no tangible rope connecting the trajector thayyang-i ‘sun-Nom’ and the landmark cikwu-lul ‘earth-Acc’ for the sense ‘to exert gravitational attraction’. Thus, there is no physical contact between trajector and landmark in any strict sense. An imaginary line (construed by the speaker) is superimposed on the gravitational interactions of the trajector and landmark. Because of the huge scale, the speaker (external to this event) cannot observe or perceive the sun’s exertion of gravitation, the gravitational interactions of the sun and earth, and the movement of the earth toward the source of gravitational force in (45a-c). The speaker construes these from another gravitational episode within a much smaller scope, e.g., the fall of an apple on to the ground, or from our scientific knowledge.

With the absence of horizontality and contact, this extended sense is closer to the event tangkita-1. In this regard, the verb kkulta in (45a) is marginally acceptable, while the verb tangkita in (45b) is certainly better than kkulta in (45a). The serial verb construction kkul-e tangki-n-ta in (45c) is most preferred to (45a) and (45b) because the complete characterization of the scientific notion ‘gravitation’ and the complex interactions of the trajector and landmark require different semantic aspects from both verbs kkulta and tangkita. The respective semantic structures of these verbs partially
contribute to the conceptualization of the sense ‘to exert gravitational attraction’, and complement each other.

Unlike that of *kkulta*-1, the instances of the sense ‘to exert gravitational attraction’ do not involve the trajector’s (the sun’s) locomotion along an external path designated by a serial verb construction because the trajector is not agentive. Therefore, the path verb *kata* ‘to go’ or *ota* ‘to come’ cannot occur with the event *kkulta*, e.g., *kkul-ko kata* ‘go, pulling’, *kkul-ko ota* ‘come, pulling’, *kkul-* *tangki-ko kata* ‘go, pulling’, or *kkul-* *tangki-ko ota* ‘come, pulling’.

Now let us consider some instances of the sense ‘to exert magnetic attraction’, which is similar to the sense ‘to exert gravitational attraction’, as exemplified in (47a-c). Unlike the sense ‘to exert gravitational force’, the trajector of this sense attracts another magnetic pole with an opposite intrinsic orientation, and repulses the identically oriented pole.

(47)a. *casek-i chel-ul kkul-ess-ta*  
magnet-Nom iron-Acc pull-Pst-Decl  
‘The magnet exerts magnetic attraction on the iron.’

b. *casek-i chel-ul tangki-ess-ta*  
magnet-Nom iron-Acc pull-Pst-Decl  
‘The magnet exerts magnetic attraction on the iron.’

c. *casek-i chel-ul kkul-e tangki-ess-ta*  
magnet-Nom iron-Acc pull-Cons pull-Pst-Decl  
‘The magnet exerts magnetic attraction on the iron.’

The previous account of the sense ‘to exert gravitational force’ also explains the sense ‘to exert magnetic attraction’ in several respects. For the sense ‘to exert magnetic attraction’, the trajector (e.g., a magnet) in (47a-c) intrinsically has magnetic force in a physical domain, instead of gravitational force in (45a-c). The landmark of this sense is relatively
restricted to a piece of iron, or an object with the opposite magnetic charge to the trajector. In a similar way as the sense ‘to exert gravitational attraction’ in Figure 9, the trajector is expected to be stronger than the landmark. In order to represent the relative strength relation between the trajector and landmark, the trajector of the event ‘to exert magnetic attraction’ can be indicated by the larger circles and the landmark can be indicated by the smaller circles. So, the trajector casek-i ‘magnet-Nom’ induces the landmark (chel-ul ‘iron-Acc’ or panul-ul ‘needle-Acc’) to move toward the source of magnetic force (the trajector). As a result, the landmark is attached to the trajector at the final state of this event.

Sentence (47a) is possible in a restricted situation where the iron or a piece of iron continues to be in contact with a flat surface through the event kkulta ‘to exert magnetic attraction’. The speaker observes the different subevent components of (47a-c), because the scope of the event occurs within a perceptible small scope.

§ 3.3.3 Sense ‘to be supplied with’

The verb kkulta is also extended to the sense ‘to be supplied with’\textsuperscript{13}. The sense ‘to be supplied with’ is itself schematic, because it subsumes several distinct but related senses, e.g., ‘to install (electricity)’, ‘to irrigate’, ‘to quote’ (i.e., ‘draw quotations from’), and ‘to raise money’. All of these specific senses are characterized in a functional domain.

\textsuperscript{13} English has no active transitive verb corresponding to this sense of kkulta. ‘Be supplied with’ and ‘supply itself with’ are the closest translation and
Let us examine the specific variations 'to install (electricity)' and 'to irrigate' of the sense 'to be supplied with' in its representation illustrated in Figure 10:

![Diagram showing function and goal]

Figure 10. Representation of event 'to be supplied with'

(48)a. cwungtong-i samak-eyta mwul-ul kkul-ess-ta
    the Middle East-Nom desert-Loc water-Acc pull-Pst-Decl
    'The Middle East drew water to the desert.'

    b. wuli tongney-ka cenki-lul machimnay kkul-e wa-ss-ta
    we village-Nom electricity-Acc finally pull-Cons come-Pst-Decl
    'Our village was finally supplied with electricity.'

The sense 'to be supplied with' in (48a-b) is conceptually related to kkulta-1 (including the sense 'to drag') in that the slow and laboring event process of kkulta-1 is metaphorically superimposed onto the more abstract time-consuming, slow and laboring construction process of electricity installation or irrigation of water from one place to another in a functional domain.

Unlike kkulta-1, in (48a) and (48b), the trajectors (cwungtong-i 'the Middle East-Nom' and wuli tongney-ka 'our village-Nom') are conceived as less prototypical AGENTS supplying themselves with electricity and water, respectively, because they do not have direct force-dynamic interactions with the landmarks (cenki-lul 'electricity-Acc' and mwul-ul 'water-Acc'). In a strict sense, an electricity company or water service company
plays the role of AGENT by setting up electric poles or laying water pipes for the trajaxor, which also plays the role of RECIPIENT.

The sense 'to be supplied with' is differentiated from *kkulta*-1 because of the character of the landmark. The landmark (e.g., *mwul* 'water' and *cenki* 'electricity' in (48a-b)) is not a discrete movable object, and does not physically interact with the trajaxor, unlike those of *kkulta*-1. The sense 'to be supplied with' is also different from the extended sense 'to trail' for the reason that the trajaxor and landmark of the sense 'to trail' are integrated as a whole in terms of their attachment and integrated movement, as indicated by a containing-and-contained circle relation in Figure 10.

This sense is also similar to *kkulta*-1 in terms of relative strength in an abstract way; the trajaxor (indicated by the larger circles in Figure 10) is conceived as stronger than the landmark (indicated by the smaller circles in Figure 10) in terms of controlling power. The trajaxor and landmark are two separate entities, and the trajaxor exerts some kind of force upon the landmark, as indicated by the profiled double arrow from the trajaxor to the landmark in Figure 10.

The energy transferred from the trajaxor to the landmark is more abstract and indirect than the physical force-dynamics of *kkulta*-1. It is conceived as flowing (extending) to the source of energy along a conceived path for its particular function. The connected electric wires and water pipes (connecting the two different places) serve to facilitate the use of electricity and water by the trajaxor. The electrical wire and water conduit are conceived as the horizontal paths of the landmarks' movements leading to the
areas of the trajectors, corresponding to the physical horizontal path of the landmark in *kkulta*.1

Unlike that of *kkulta*, the instances of the sense ‘to be supplied with’ do not usually involve the trajector’s locomotion along a “physical” external path designated by a serial verb construction. Because the trajector (AGENT) is also a goal, the direction of motion is toward the trajector. This does not fit with the path verb *kata* ‘to go’ because ‘going’ event focuses on a source of motion away from the speaker’s position or something. The path verb *kata* ‘to go’ or *itenata* ‘to leave’ cannot occur with the event *kkulta* (e.g., *kkul-ko kata* ‘go, supplying with’ and *kkul-ko itenata* ‘leave, supplying with’).

However, in (48b), the locomotional verb *ota* ‘to come’ of the serial verb construction *kkul-e ota* ‘pull-Cons come’ is used to indicate the “psychological unity” between the trajector (i.e., *wuli tongney-ka* ‘our village-Nom’) and the speaker in a metaphorical sense, rather than in a physical locomotional sense. As a result of the serial verb construction *kkul-e ota*, the speaker and his/her group (equal to the trajector) are supplied with the landmark (*cenki-lul* ‘electricity-Acc’) such that they can finally use it.

The event designated by the serial verb construction *kkul-e wa-ss-ta* (connected by the consolidating connective particle -e) in (48b) is conceived as a complex conceptual whole. The speaker’s location functions as a reference point (GOAL) for the trajector’s movement in the deictic verb *ota* ‘to come’. This verb *ota* ‘to come’ profiles the GOAL of the motion image schema of SOURCE-PATH-GOAL in the sense that the trajector in (48b) is conceived as reaching the speaker’s position (cf. Lakoff 1987a, and Radden 1988 and
1996). In fact, the speaker’s location is already identical to that of the trajector, because it is expressed within the subject (*wuli tongney-ka ‘our village-Nom’*). The verb *kkulta* also expresses a goal-directed movement toward the source of force. This shared semantics of the goal-directed movement helps to connect the verb *kkulta* with the verb *ota* by the consolidating connective particle -*e*, establishing the serial verb construction *kkul-e ota* as a complex conceptual unity, as in (48b).

For the conceptualization of the sense ‘to be supplied with’, the location of the trajector (i.e., *cwungtong-i ‘Middle East-Nom* and *wuli tongney-ka ‘our village-Nom’* in (48a-b)) is conceived as a GOAL, as indicated by the smaller dotted rectangle in Figure 10. As a result of the event ‘to be supplied with’, the landmark is conceived as moving within the GOAL area. The GOAL in Figure 10 may be evoked from the full sentential context or its associated cognitive frame. Or, it may be explicitly expressed, as *samak-eыта ‘to the desert’* for the GOAL in (48a). In (48b), the location of the first person plural trajector *wuli tongney-ka ‘our village-Nom’* is the speaker’s location, and the landmark (*mwul-ul ‘water-Acc’*) is conceived as moving toward the speaker’s location (i.e., GOAL) along a path, as expressed by the deictic path verb *ota ‘to come’*.

In the event ‘to be supplied with’ designated by the verb *kkulta*, the trajector, physically or indirectly, causes the landmark to move toward the source of energy (the trajector), which is then supplied with the landmark. In turn, the trajector can access the resultant landmark and use it. At the initial temporal point, the landmark, which is away from the trajector, is conceived as not existing in the GOAL area of the trajector. So, the landmark is not available or non-usable to the trajector. At the final temporal point, the
landmark, which is induced to move toward the source of the energy, is conceived as being installed, or as being available (i.e., piped into) in the GOAL area of the trajector. As a result, it is usable and accessible to the whole area of the trajector.

A functional domain for the sense ‘to be supplied with’ becomes more evident with the verb *ssuta* ‘to use’, as exemplified in (49a-b). The verb *ssuta* ‘to use’ explicitly expresses the functional domain:

(49)a. *ku hoysa-ka mamun cakum-ul kkul-e ssu-ess-ta*  
the company-Nom much money-Acc pull-Cons use-Pst-Decl  
‘The company raised a lot of capital.’

(49)b. *ku-ka congcong sengkyeng kwucel-lul kkul-g ssu-n-ta*  
he-Nom often Bible passage-Acc pull-Cons use-Pres-Decl  
‘He often quotes some passages from the Bible.’

For the specific events ‘to raise money’ and ‘to quote’ of the schematic event ‘to be supplied with’, the verb *kkulta* frequently co-occurs with another verb *ssuta* ‘to use’, establishing the serial verb construction *kkul-e ssu-ta* ‘pull-Cons use’ in (49a) and (49b). The consolidating connective particle -e represents that the event ‘to raise money’ or ‘to quote’ in a functional domain is tightly integrated with the verb *ssuta*, forming a conceptually-unitary event *kkul-e ssuta* relative to a holistic functional domain.

For the specific senses ‘to raise money’ and ‘quote’, the landmarks (e.g., *ton-ul* ‘money-Acc’ and *sengkyeng kwucel-ul* ‘Bible passage-Acc’ in (49a-b)) are somewhat abstract. At the initial temporal point, the landmark (i.e., money) in (49a) is conceived as non-usable, or unavailable to the trajector. Similarly, the Bible passage in (49b) is conceived as hardly perceivable or hidden at the initial temporal point. The money and Bible passage become known, usable, and easily perceivable at the final temporal point, as
a result of the event. The path (connecting the initial and final positions of the landmark) is conceived as highly abstract.

The conceptual unity of the event designated by *kkul-e ssuta* precludes the replacement of -e with the isolating connective particle -ko, which describes two separate events:

(49')a. *ku hoysa-ka manun cakum-ul kkul-ko ssu-ess-ta*
    the company-Nom much money-Acc pull-Isol use-Pst-Decl
    'The company raised a lot of money.'

b. *ku-ka congcong sengkyeng kwucel-lul kkul-ko ssu-n-ta*
    he-Nom often Bible passage-Acc pull-Isol use-Pres-Decl
    'He often quotes some passages from the Bible.'

The extended sense 'to be supplied with' or 'to extend for use' of the verb *kkulta* in (48a-b) and (49a-b) contrasts with the extended sense 'to stretch' of the verb *tangkita* (cf. (50) below) in two respects, although both associate with the concept of 'extension'. First, the former is grounded in a functional domain, while the latter is characterized relative to a physical domain. Second, the landmark of the event 'to be supplied with' (e.g., *mwul-ul* 'water-Acc' and *cenki-lul* 'electricity-Acc' in (48a-b), and *cakum-ul* 'money-Acc' and *sengkyeng kwucel-ul* 'Bible passage-Acc' in (49a-b)) involves a long-distance or abstract intrinsic path of the landmark, which can be extended without limit for the trajector’s location or its use. By contrast, corresponding to *tangkita*-I, the landmark of the latter has a limited intrinsic path, and is restricted within the landmark’s “integrity”, i.e., structural boundaries (personal communication with M. Achard). Sentences (50a-b) are instances of the sense 'to stretch' of the verb *tangkita*:

(50)a. *ku ai-ka komwucwul-ul himkkess tangki-ess-ta*
    the child-Nom rubberband-Acc to full strength pull-Pst-Decl
    'The child stretched the rubberband using all his full strength.'
b. *ku-ka hwalsiwi-lul seykey tangki-ess-ta*
   he-Nom bowstring.Acc strongly pull-Pst-Decl
   'He stretched the bowstring.'

In (50a-b), the landmarks, i.e., *komwucwul-ul* 'rubberband.Acc' and *hwalsiwi-lul* 'bowstring.Acc', are fully stretched toward the source of physical force (the trajector), without breaching their integrity.

§ 3.3.4 Sense 'to drive'

The extended sense 'to drive' of the verb *kkulta* is conceptually related to another extended sense 'to trail' in the sense that the movement of the landmark is integrated with the trajector', and the trajector and landmark are conceived as not distinct from each other. The extended sense 'to drive' also associates with the sense 'to be supplied with' in terms of function by a metonymic relation between the landmark and its primary function.

The schematic representation of the event 'to drive' is illustrated in Figure 11, with some specific instances, as exemplified in (51a-c):

![Figure 11. Representation of event 'to drive'](image_url)

(51a. *ku-ka thulek-lul kkul-ess-ta*
   he-Nom truck.Acc pull-Pst-Decl
   ? 'He pulled the truck'
   'He drove the truck.'
b. *ku-ka* suphochukha-lul *kkul-ess-ta*
   he-Nom sports car-Acc pull-Pst-Decl
   ?‘He pulled his sports car.’
   ‘He drove his sports car.’

   c. *ku-ka* khun pay-lul *kkul-ess-ta*
   he-Nom big boat-Acc pull-Pst-Decl
   ?‘He pulled the big boat’
   ‘He drove the big boat.’

When the verb *kkulta* is used to signify the sense ‘to drive’, an operational driving domain, as a primary domain, becomes most salient and relevant. By contrast, a physical domain becomes relatively insignificant for the characterization of this sense.

The trajector *ku-ka* ‘he-Nom’ (indicated by the larger circles in Figure 11) is exclusively limited to a single human being, as in (51a-b), because only a licensed person in the driver’s seat operates a motor vehicle according to our idealized cognitive model of driving or the driving frame (cf. Lakoff 1987a; Fillmore 1975b, 1982, and 1984). And a human being (not an animal) is privileged to operate a vehicle installed with an engine, because driving demands some sophisticated knowledge and skill, which is not possibly achievable by an animal.

When the trajector is a human being, sentences (51a-c) can have two interpretations: *kkulta-1* in a physical domain, and the sense ‘to drive’ in an operational driving domain. The first interpretation is not likely to happen in our experience, unless the referred man, *ku-ka* ‘he-Nom’, is an extraordinarily strong man like Hercules. Thus, each of the first English interpretations is marginally acceptable in Korean.

By contrast, the second interpretation with the sense ‘to drive’ is definitely preferred to the first one. The semantic extension from *kkulta-1* to the sense ‘to drive’ is established in the Korean speakers’ conceptual systems by virtue of metonymical
associations between physical and operational domains, and between a car and its primary function. Furthermore, it is difficult for a person to physically pull a car or a boat along an extended path because it is much larger and heavier than the person. Therefore, the situation in which a person pulls a car immediately invokes the cognitively related image of driving in our mind.

The landmark is indicated by the smaller circles in Figure 11. The landmark (e.g., *thulek-ul* ‘truck-Acc’, *suphochukha-lul* ‘sports car-Acc’, and *khun pay-lul* ‘big boat-Acc’) in (51a-c) is a motor vehicle for which ordinary locomotion, according to our commonsense knowledge, is achieved by driving, not by pulling.

In Figure 11, the larger circles (indicating the trajector) contain the smaller circles (indicating the landmark) in order to represent the situation in which the landmark is operated by the trajector. Although the landmark (e.g., *cha-lul* ‘car-Acc’) is separately designated by the direct object, independently of the trajector (e.g., *ku-ka* ‘he-Nom’) designated by the subject, the former is conceived as not completely differentiated from the latter. In this respect, the sense ‘to drive’ is somewhat similar to the sense ‘to trail’. Accordingly, these two senses are represented in an analogous manner; their landmark (represented by the smaller circles) are contained within their trajectors (represented by the larger circles) in Figure 11 and Figure 8.

To be more specific, from the moment the person starts the car, he must stay in the car until he stops driving it and gets out of it. The physical distance between the trajector and landmark is negligible because of a container-and-contained relationship between a vehicle and its driver. The landmark is closely related to and is controlled by
the trajector in terms of operation. In the process of the event *kkulta* ‘to drive’, the landmark’s movement, direction, and path are totally controlled by the trajector’s operation. Because of the trajector’s controlling power over the landmark, the landmark is represented by the smaller circles and contrasts with the larger circles for the trajector in Figure 11, although it (a vehicle) is much bigger than its driver. The trajector and landmark are construed as moving along an identical path, as indicated by a single longer profiled arrow in Figure 11.

Both the trajector and landmark in (51a-c) are conceived as a non-prototypical AGENT and MANIPULATED MOVER in the sense that the trajector only operates and controls the landmark with a limited portion of his physical power, and that the landmark does not move along an intrinsic path (i.e., the movement of the landmark toward the source of force). Thus, in the sense ‘to drive’, the landmark does not have an intrinsic path, because of the (schematically construed) absence of the distance between the trajector and landmark, like the sense ‘to trail’, or the containment relationship between the trajector and landmark.

The sense ‘to drive’ of the event *kkulta* does not emerge, (i) when the event *kkulta* does not require the skillful operations of the trajector; (ii) its landmark is an unmotorized and/or self-powered vehicle, e.g., *swuley* ‘cart’, *liekha* ‘two-wheeled cart’, *cacenke* ‘bicycle; or (iii) the trajector is multiple:

(52)a. *ku thulek-i ku cha-lul kkul-ess-ta*
   the truck-Nom the car-Acc pull-Pst-Decl
   ‘The truck pulled his car.’
   * ‘The truck drove his car.’
b. *ku-ka liekha-lul kkul-ess-ta
   he-Nom two-wheeled cart-Acc pull-Pst-Decl
   ‘He pulled the two-wheeled cart.’
   *‘He drove the two-wheeled cart.’

In the above sentences, the verb kkulta can have only the interpretation kkulta-1 in a physical domain. The non-human trajector ku thulek-i ‘the truck-Nom’ in (52a) is believed to have a stronger power than the landmark, ku cha-lul ‘the car-Acc’. In (52b), a person exerts physical force upon the unmotorized vehicle liekha-lul ‘two-wheeled cart’ to move along a path. In (52c), as the multiple trajector, ku namcatul-i ‘the men-Nom’ can combine their physical force and are able to pull the landmark cha-lul ‘car-Acc’. The accumulative physical strength of the multiple-participant trajector enables the car to move toward the source of physical force.

The sense ‘to drive’ involves a certain amount of physical energy of the trajector to the landmark. The operational energy transfer from the trajector to the landmark is represented by the two shortest profiled arrows from the larger circles to the smaller circles at the initial and final temporal points in Figure 11. The event ‘to drive’ associates with greater physical force of the trajector and with greater (internal) power of the landmark than the event ‘to trail’ since the trajector of the event ‘to trail’ is usually unconscious of the trailing due to the trajector-landmark’s attachment. In Figure 8 (i.e., the representation of the sense ‘to trail’ discussed in Section 3.3.1), neither a profiled double arrow (corresponding to the energy transfer of kkulta-1) nor the two shortest profiled arrows from the larger circles to the smaller circles (corresponding to the energy
transfer of the event ‘to drive’) exists, because there is no significant energy transfer from the trajector to the landmark for the sense ‘to trail’. Also, the trajector of the event ‘to drive’ transfers much smaller force to the landmark than that of kkulta-1. In order to keep the landmark functioning appropriately, the trajector need only hold and turn the steering wheel with his hands, and push the brake pedal or the accelerator pedal with his foot.

For the sense ‘to drive’, the horizontal path motion and contact with the ground are taken for granted under gravitational force, and are not salient attributes. Therefore, the short line at the bottom of the smaller circles (landmark) is not profiled in Figure 11. The sense ‘to drive’ involves a smooth operational motion with a relatively high speed. It does not take the conflicting manner adverb, cilcil ‘draggingly/forcefully’, because this adverb associates with a physical heavy slow motion against friction along a path, as exemplified in (53a):

(53a. *ku-ka supochukha-lul cilcil kkul-ess-ta
he-Nom sports car-Acc draggingly pull-Pst-Decl
‘He draggingly drove the sports car.’

b. ku namca-tul-i kocangnan cha-lul cilcil kkul-ess-ta
the man-Pl-Nom broken car-Acc draggingly pull-Pst-Decl
‘The men dragged the broken car.’

Sentence (53a) is not acceptable with the adverb cilcil ‘draggingly’ for the sense ‘to drive’, while (53b) is perfectly acceptable with it for kkulta-1.

Like that of kkulta-1, the external path of the sense ‘to drive’ is designated by a serial verb construction. The instances of this sense frequently show an external path unified by the trajector and landmark moving together as a unit, as exemplified in (54a-c):

(54a. ku-ka ciphu-lul kkul-ko hakkyo-lo ka-ss-ta
he-Nom jeep-Acc pull-Isol school-Orient go-Pst-Decl
‘He drove the jeep to school.’
lit. ‘He went to school, driving the jeep.’
b. *ku-ka saylo machwun ttokttaksen-ul kkul-ko wa-ss-ta*
   he-Nom newly made motorboat-Acc pull-Isol come-Pst-Decl
   ‘He came, driving a newly made motorboat.’

c. *ku-ka ampwyulensu-lul 26 khilo-na kkul-ko nani-ess-ta*
   he-Nom ambulance-Acc 26 km-as many pull-Isol go around-Pst-Decl
   ‘He went around no less than 26 km., driving the ambulance.’

With the locomotional path verbs, e.g., *kata* ‘to go’, *ota* ‘to come’, and *tanita* ‘to go around’, sentences (54a-c) clearly describe the event ‘to drive’ in an operational (a subset of physical) domain.

Furthermore, the event *kkulta* ‘to drive’ is used to refer to the occupation of the driver by means of metonymic and metaphorical extension, as in (55a-c):

(55)a. *ku-num yengkwucha-lul kkun-ta*
   he-Top hearse-Acc pull-Pres-Decl
   ‘He is a mortician.’
   lit. ‘He drives a hearse.’

b. *ku-uy apeci-mun ihulek-ul kkun-ta*
   he-Gen father-Top truck-Acc pull-Pres-Decl
   ‘His father is a truck driver.’
   lit. ‘His father drives a truck.’

c. *ku-num pay-lul kkun-ta*
   he-Top boat-Acc pull-Pres-Decl
   ‘He is a boat driver.’
   lit. ‘He drives a (motor)boat.’

Note two grammatical forms in (55a-c): the topic marker -*mun* ‘Top’ and the present tense marker -*n* ‘Pres’. Instead of the nominative marker -*ka* or -*i*, the topic marker -*mun* is attached to the first participant, i.e., *ku* ‘he’ and *ku-uy apeci* ‘his father’, establishing the status of trajector. What is talked about in (55a-c) are the respective trajectors, answering the question, ‘What does he do?’. The trajector is not new information in the speaker’s and hearer’s minds. Instead of the past tense -*ess* (or -*ass*), the present tense -*n* is
employed to represent the habitual activity performed by the trajector. The vehicle, which a person repeatedly drives for his living, can represent his job by a metonymic relation. The operational domain for the sense ‘to drive’ is metaphorically projected on to the more abstract occupation domain.

The verb *tangkita* is not semantically extended to the sense ‘to drive’. As mentioned before in the discussion of *tangkita*-1 (see Section 3.3.2), the event *tangkita* does not take any vehicle as its landmark, except for *cangnankamcha* ‘toy car’.

§ 3.3.5 Sense ‘to lead’

Korean dictionaries specify that the verb *kkulta* is also used as a contracted form of another verb *ikkulta* ‘to lead’. However, they do not provide any account of why it is shortened into *kkulta*.

I propose the following hypotheses to explain this. First, the verb *ikkulta* has been reinterpreted as the extended sense ‘to lead’ of the verb *kkulta* since the two etymologically-different lexical items (i.e., *ikkulta* and *kkulta*) have become phonologically identical as *kkulta* due to sound change, and then the meaning relatedness between the two forms synchronically has become recognized among the speakers (cf. Lyons 1977; Lehrer 1974; Palmer 1981; Leech 1974; C. Im 1992), as illustrated in Figure 12:
[Middle Korean]  *kus(u)ta* ‘to pull’  
[Pre-Modern Korean]  
[Modern Korean]  *kkulta* ‘to pull’  
*ikkulta* ‘to lead’

(reinterpreted as an extended sense ‘lead’ of *kkulta* ‘pull’)

Figure 12. Reinterpretation of *kkulta* as ‘to lead’

Etymologically, there were two different verbs, *kus(u)ta*\(^{14}\) ‘to pull’ and *iskta* ‘to lead’ in Middle Korean; they were different in form and meaning. The Middle Korean verb *iskta* ‘to lead’ became *iskulta* due to the sound changes (i.e., insertions of the vowel (u) and the consonant (l)) in Pre-Modern Korean, and then changed into *ikkulta* due to assimilation (i.e., *sk*→*kk*, according to place of articulation) in Modern Korean. The contemporary form *ikkulta* is shortened to *kkulta* by initial vowel deletion. Both forms *kkulta* and *ikkulta* are alternatively used to mean ‘to lead’.

Now, the contracted form *kkulta* ‘to lead’ is phonologically identical with another verb *kkulta* ‘to pull’ with the same spelling. Both are, morphologically and syntactically, single morpheme verbs. Thereby, the verb *kkulta* ‘to pull’ should have a homonymic relation to the verb *kkulta* ‘to lead’ by their different historical origins. Synchronously, however the Korean speakers, who are not well aware of the distinct etymological sources, perceive the relatedness of meaning between *kkulta* ‘to pull’ and *kkulta* ‘to lead’

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and reinterpret the latter as an extended sense of *kkulta* ‘to pull’, thus as an instance of polysemy rather than homonymy. The formal identity through sound change provides a substantial support for the semantic association. I assume that the penchant of human cognition to categorize (i.e., seeking the maximal effect with minimal cognitive processing) gives us a more fundamental motivation for the reinterpretation of the homonyms as two related senses of a single linguistic form *kkulta* (cf. Lakoff 1987a; Sperber & Wilson 1986).

Another possible hypothesis is the semantic extension of the verb *kkulta* ‘to pull’, independently of another verb *ikkulta* ‘to lead’. *Kkulta*-1 ‘to pull’ in a physical domain is extended to the sense ‘to lead’ in a social relationship domain, and the extended sense ‘to lead’ of the verb *kkulta* happens to coincide with the sense ‘to lead’ of another verb *ikkulta*.

Because of the close resemblance in terms of their forms with the existing etymological information, the first explanation is more plausible than the second one. In both cases, the prototypical sense *kkulta*-1 is synchronically coherent with the sense *kkulta* ‘to lead’ by virtue of sharing the schematic semantics in which the landmarks are caused to move from one place/state (physical or abstract) to another place/state (physical or abstract), as a result of the trajector’s exertion of energy.

Let us consider some instances of this sense, together with its schematic representation:
The event *kkulta* 'to lead' is characterized relative to a social domain. The trajector and landmark interact with each other via their social relationships (e.g., person--blind person, husband--wife and children, commander--soldiers, and (political) leader--people), as indicated by the profiled double arrow in Figure 13.

The trajector (indicated by the larger circle in Figure 13), which is in front of the landmark (indicated by the smaller circles in Figure 13), is metaphorically conceived as ahead of, or superior to the landmark in terms of a social relationship or leadership. Also, the different sizes of the circles in Figure 13, can be also conceived as superior-inferior
relationship of the trajector and landmark in a similar way, as in the relative physical
strength relation between the trajector and landmark in the event *kkulta*-1 in Figure 1. In
either case, the speaker construes that the trajector leads the landmark from an original
place or state (SOURCE, as indicated by the smaller dotted rectangle to another place or
state (GOAL, as indicated by the larger dotted rectangle) at his will. The multiple
trajectors (e.g., *ku-tul-i* ‘he-Pl-Nom’ in (57b)) are conceived as a single gestalt entity, as
indicated by the single larger circle, because of their collective common role in the event
‘to lead’ (cf. Langacker 1987a; Kemmer 1993b). The multiple landmark (e.g., *checasik-ul*
‘wife and children-Acc’ in (56b) *kwuntay-lul* ‘troop-Acc’ in (57a)) also applies to this
gestalt conceptualizaton.

When the landmark is led by the trajector, the intrinsic path of the landmark (i.e.,
the landmark’s movement toward the source of abstract energy) is conceived as not
prominent, as indicated by the unprofiled single line connecting the dotted smaller circle to
the solid smaller circle. The neighboring smaller and larger circles in Figure 13 represent a
situation in which the movement of the landmark is conceived as undifferentiated from the
external path of the trajector, or follows the same path as the external path of the trajector
at a certain intermediate temporal point between t1 and t2, because the landmark’s
direction or path is guided or controlled by the trajector. This integrated external path of
the trajector and landmark is designated by the path verb of a serial verb construction
(e.g., *kkul-ko kata* ‘pull-Isol go’, and *kkul-ko naga* ‘pull-Isol come out’). This path of the
trajector and landmark is, thus, indicated by the profiled heavy line at the bottom of the
circles in Figure 13.
Due to the use of the deictic path verbs *kata* ‘to go’, *ota* ‘to come’, and *naota* ‘to come out’ in (56a-b) and (57a-b), the speaker’s position or situation serves as a reference point for the trajector’s guiding. These path verbs also focus the dominant role of the trajector in the event ‘to lead’, by specifying the trajector’s extended path.

In an abstract social domain, the concept of dimension and contact are not relevant for the sense ‘to lead’. So, the adverb *cilcil* ‘draggingly’ is not usually used with this voluntary social activity, because the event ‘to lead’ is a voluntary or intended activity at the trajector’s will.

§ 3.3.6 Sense ‘to ignite’

Now, let us the extended sense ‘to ignite’ of the verb *tankita*. This sense is characterized in an existential domain (primary domain) as well as a physical domain (as secondary domain). The semantics of this sense is explicated with regard to *tankita*-1. Some facets of the pulling frame in a physical domain are metaphorically mapped onto the igniting frame in an existential domain; ‘igniting an entity’ is abstractly conceived as ‘causing fire to move toward that entity’. Figure 14 illustrates the representation of the event ‘to ignite’ with some specific instances, as in (58a-b):
(58)a. *ku-ka sekyu nanlo-ey pwul-ul tangki-ess-ta*
   he-Nom petrol stove-Loc fire-Acc pull-Pst-Decl
   ‘He ignited the petrol stove.’

   b. *ku-ka malun kaltay-ey pwul-ul tangki-ess-ta*
   he-Nom dry reed-Loc fire-Acc pull-Pst-Decl
   ‘He set fire to the dry reeds.’

In (58a-b), the trajector *ku-ka* ‘he-Nom’ (indicated by the larger circle in Figure 14) sets fire to another entity. The trajector should be restrictively a human being, corresponding to that of *tangkita*-1, because only he can carefully handle the dangerous and delicate entity, *pwul* ‘fire’. The trajector plays the role of AGENT and source of energy in the event ‘to ignite’.

The landmark of this event should always be the same entity *pwul-ul* ‘fire-Acc’, which directly contributes to the conceptualization of this igniting event. The landmark *pwul-ul* ‘fire-Acc’ is conceived as a small movable object, corresponding to that of *tangkita*-1, as indicated by the smaller circles in Figure 14. Therefore, the event of ignition is, like *tangkita*-1, also conceived as a small, light, and quick activity, rather than a slow, heavy and labored activity. Unlike that of *tangkita*-1, the landmark *pwul-ul* ‘fire-Acc’ of the event ‘to ignite’ does not make reference to a part-whole relation so that it
does not have a contained-containing relation of *tangkita*-1 in Figure 2 (discussed in Section 3.2).

The landmark is conceived as playing a less prototypical MANIPULATED MOVER role in that its intrinsic path is an abstract process of the speaker from non-existence to existence of fire. It is the speaker's mental scanning which moves in the direction of the igniting scene (cf. Langacker 1987a and 1991a; Matsumoto 1996). The abstract movement of the landmark (subjectively construed by the speaker) is indicated by the single dotted arrow in Figure 14, contrary to the single heavy-lined arrow in Figure 2 (representing the objective physical movement of the landmark along a spatial path through time in *tangkita*-1). At the initial temporal point of t₁, *pwul* 'fire' does not exist, as indicated by the dotted small circle in Figure 14. At another point of t₂ in time, it comes into being, as indicated by the profiled small circle in the region of the LOCATION.

The LOCATION should be explicitly expressed by a noun (phrase) plus a Locative Case marker -ey (e.g., *sekyu nanlo-ey* 'petrol stove-Loc', *sekyu laymphu-ey* 'petrol lamp-Loc', *cho-ey* 'candle-Loc', *malun kaltay-ey* 'dry reeds-Loc', and *tohwasen-ey* 'fuse line (of dynamite)-Loc'). So, the LOCATION is profiled, as indicated by the smaller heavy-lined rectangle in Figure 14. Without the specified LOCATION, (58a) and (58b) sound incomplete; *?ku-ka pwul-ul tangki-ess-ta* 'He sets fire'.

The LOCATION is conceived as being located close to the source of energy (the trajector). So, the profiled smaller rectangle in Figure 14 is drawn closer to the larger circle (trajector) than the dotted smaller circle (landmark) at the initial temporal point of t₁. The LOCATION also functions as the role of GOAL to which the fire is set. As a result
of the event ‘to ignite’, the landmark *pwul* ‘fire’ is conceived as moving toward the
trajector and the LOCATION, igniting the LOCATION entity.

The LOCATION involves an entity that catches fire easily (e.g., *sekyu nanlo* ‘petrol
stove’ and *malun kaltay* ‘dry reeds’) such that the trajector needs only a small effort in
order to set it on fire. The energy transfer from the trajector to the landmark is thus
represented by the “thin” profiled double arrow in Figure 14. The event ‘to ignite’ does
not need to have much energy on the part of the trajector.

The sense ‘to ignite’ is metaphorically used in a highly abstract emotional or
mental domain, as in (59a-b):

(59)a. *ku-ka swuncinhan sonye kasum-ey pwul-ul tangki-ess-ta*
he-Nom innocent girl heart-Loc fire-Acc pull-Pst-Decl
‘He ignited the innocent girl (for passion).’
lit. ‘He set fire to the innocent girl’s heart.’

b. *tayhaksayng-tul-i mincwuhwa wuntong-ey*
university student-Pl-Nom democratization movement-Loc

*pwul-ul tangki-ess-ta*
fire-Acc pull-Pst-Decl
‘The university students ignited the democratization movement.’

Sentences (59a) and (59b) reveal that the event ‘to ignite’ is metaphorically
conceptualized as an emotional or mental process, like *arouse* or *instigate* in English. In
(59a), the primary landmark *pwul-ul* ‘fire-Acc’ is symbolized as an emotional stimulus
(passion), which was aroused by the trajector (*ku-ka* ‘he-Nom’) to the girl’s conscious
state at the final temporal point of *t*₂ out of her unconscious state at the initial temporal
point of *t₁*. Likewise, in (59b) *pwul-ul* ‘fire-Acc’ is metaphorically understood as an
instigation or starting point, of the democratization movement as it moves from a latent
state to an active state.
§ 3.3.7 Senses 'to prolong' and 'to advance'

In Korean, time is frequently conceptualized as a discrete, movable, and perceivable thing, when the physical cognitive model is metaphorically mapped onto the abstract temporal model. Many basic verbs are metaphorically used to describe time-associated events, as illustrated in Table 1:
<table>
<thead>
<tr>
<th>Physical Domain</th>
<th>Temporal Domain</th>
</tr>
</thead>
<tbody>
<tr>
<td>kyengchal-ey ccoch-ki-ta</td>
<td>sikan-ey ccoch-ki-ta</td>
</tr>
<tr>
<td>police-Obl chase-Pass-Decl</td>
<td>time-Obl chase-Pass-Decl</td>
</tr>
<tr>
<td>‘be chased by the police’</td>
<td>‘be pressed for time’</td>
</tr>
<tr>
<td></td>
<td>lit. ‘be chased by time’</td>
</tr>
<tr>
<td>mvulkoki-lul cap-a mekta</td>
<td>sikan-ul cap-a mekta</td>
</tr>
<tr>
<td>fish-Acc catch-Cons eat</td>
<td>time-Acc catch-Cons eat</td>
</tr>
<tr>
<td>‘catch fish and eat it’</td>
<td>‘consume time’</td>
</tr>
<tr>
<td></td>
<td>lit. ‘catch time and eat it’</td>
</tr>
<tr>
<td>tol-ul ccockayta</td>
<td>sikan-ul ccockayta</td>
</tr>
<tr>
<td>stone-Acc split</td>
<td>time-Acc split</td>
</tr>
<tr>
<td>‘split a stone’</td>
<td>lit. ‘split time’ ‘find time to do s.t.’</td>
</tr>
<tr>
<td>chayksang-ul pakkulo nayta</td>
<td>sikan-ul nayta</td>
</tr>
<tr>
<td>desk-Acc outside-Orient take out</td>
<td>time-Acc take out</td>
</tr>
<tr>
<td>‘take out a desk’</td>
<td>‘arrange time for’</td>
</tr>
<tr>
<td></td>
<td>lit. ‘take out time’</td>
</tr>
<tr>
<td>senmwul-ul ponayta</td>
<td>sikan-ul ponayta</td>
</tr>
<tr>
<td>present-Acc send</td>
<td>time-Acc send</td>
</tr>
<tr>
<td>‘send a present’</td>
<td>‘kill time’</td>
</tr>
<tr>
<td></td>
<td>lit. ‘send time’</td>
</tr>
<tr>
<td>swuley-lul kkulta</td>
<td>sikan-ul kkulta</td>
</tr>
<tr>
<td>cart-Acc pull</td>
<td>time-Acc pull</td>
</tr>
<tr>
<td>‘pull a cart’</td>
<td>‘prolong’</td>
</tr>
<tr>
<td></td>
<td>lit. ‘pull time’</td>
</tr>
<tr>
<td>patcwul-ul tangkita</td>
<td>sikan-ul tangkita</td>
</tr>
<tr>
<td>rope-Acc pull</td>
<td>time-Acc pull</td>
</tr>
<tr>
<td>‘pull a rope’</td>
<td>‘make s.t. earlier’</td>
</tr>
<tr>
<td></td>
<td>lit. ‘pull time’</td>
</tr>
</tbody>
</table>

Table 1. Korean verbs: Time Conceptualized like a Physical Object

As shown in the last two rows of Table 1, the two verbs *kkulta* and *tangkita* are semantically extended to the two approximately-opposite senses, ‘to prolong’ and ‘to advance’, in a temporal domain. The speaker conceives of these temporal senses related
to the semantic structures (especially their landmarks) of *kkulta*-1 and *tangkita*-1, respectively. The conceptualizations of *kkulta*-1 and *tangkita*-1 are thus the motivations for the semantic extensions of ‘to prolong’ and ‘to advance’.

First, let us examine the semantics of the extended sense ‘to prolong’, compared with *kkulta*-1. Figure 15 is the schematic representation of the event ‘to prolong’:

![Figure 15. Representation of event ‘to prolong’](image)

(60)a. *nongkwu kyengki-eyse sangtayphyen-i sikan-ul kkul-ess-ta*
basketball game-Loc opposite team-Nom time-Acc pull-Pst-Decl
‘The opposing team prolonged the basketball game (in the end).’

b. *ku saken-i phensayng-ul kkul-ess-ta*
the case-Nom lifetime-Acc pull-Pst-Decl
‘The legal case dragged on through his lifetime.’

The event ‘to prolong’ is related to *kkulta*-1 in that the former also involves the abstract interaction of the two distinct entities (trajector and landmark). The trajector *sangtayphyen-i* ‘opposing team-Nom’ in (60a), as indicated by the larger circle in Figure 15, consists of five basketball players. The individual members of the team are not profiled, but are conceived as a bounded cognitive gestalt in terms of their “cooperative activity toward a common objective” (Langacker 1991a:197). The trajector is conceived
as playing the role of a non-prototypical AGENT and the source of abstract energy in that it
does not actually exert any physical force upon another entity (time). The location of the
trajector is abstractly conceived as the GOAL of the landmark’s movement, because the
event ‘to prolong’ does not have an extended path of the trajector in this abstract temporal
domain, unlike the event *kkulta*-1. The GOAL is not specified, as indicated by the dotted
small rectangle in Figure 15, but is construed by the speaker metaphorically as the abstract
location of the trajector.

The landmark (indicated by the smaller circles in Figure 15) is another participant
designated by a time expression (e.g., *sikan-ul* ‘time-Acc and *phyengsayng-ul* ‘lifetime-
Acc’ in (60a-b)). Pertaining to the distinction between participant and setting, for
example, the time expression *sikan-ul* ‘time-Acc’ has a heavy but moveable participant
status (landmark), and abstractly interacts with the trajector *sangtayphyen-i* ‘opposite
team-Nom’. It is maximally opposed to the trajector. The clause-level adverbial
expression *nongkwu kyengki-eyse* ‘in the basketball game’ serves as a setting.

Time, as the landmark of the event ‘to prolong’, is conceived as referring to the
entire or lengthened time period, and is, thus, conceptualized as a large, heavy, and not
easily manageable object, corresponding to the landmark of *kkulta*-1. Because of this
conceptualization of the landmark (time) as a heavy and large whole object, the event ‘to
prolong’ is conceived as the trajector exerting a great amount of abstract force upon the
landmark, and involving an heavy, slow and labored movement of the landmark toward
the source of the abstract force, analogous to *kkulta*-1. The abstract movement of the
landmark toward the trajector is illustrated by a single dotted arrow in Figure 15.
The landmark's arrival at the location of the trajector (i.e., the GOAL) is metaphorically conceived as completion of an undesignated entity (e.g., work) at the appointed or scheduled time. As located outside the dotted small rectangle at the point of \( t_2 \) in time in Figure 15, the landmark does not arrive at the GOAL (i.e., the appointed time). It means that the trajector does not finish the unspecified entity (e.g., work) within the scheduled time limit, although he tries to drag the heavy large landmark (i.e., the whole time period).

On the other hand, external to this event (i.e., outside the large rectangle in Figure 15), the speaker observes/construes this whole situation from a different point of view. The external speaker conceptualizes that the trajector intentionally spends more time on an unexpressed entity (e.g., work) than the appointed or normally expected time period, and delays finishing that entity, wasting time.

The abstract movement of the landmark toward the source of abstract energy is subjectively construed by the speaker (cf. Langacker 1986, 1987a, 1988a; Talmy 1983; Matsumoto 1996). In actuality, it is the speaker’s (or conceptualizer’s) mental process (but not the real movement of landmark (time)) that moves toward the source of abstract energy (i.e., GOAL or the appointed time) in the temporal domain.

The event 'to prolong' does not associate with any physical force transfer from the trajector to the landmark, but an abstract energy transmission is metaphorically conceptualized from the trajector to the landmark, as illustrated by the dotted double arrow in Figure 15. The event 'to prolong' has the relation of abstract relative strength between the trajector and landmark. Because the entire or lengthened time is
conceptualized as a heavy and large object, the landmark is conceived as having some abstract resistance. Thus, sentences (60a) and (60b) describe the event 'to prolong' in which a non-prototypical trajector is abstractly conceived as inducing another non-prototypical participant (the landmark sikan-ul 'time-Acc') to move slowly and laboriously toward the source of abstract energy by transferring the abstract energy to the landmark.

The event 'to prolong' is conceived as metaphorically involving an abstract horizontal path motion (as indicated by the unprofiled short line at the bottom of the landmark in Figure 15), which is similar to the physical horizontal path of kkulta-1. The manner adverb, cical 'draggingly/forcefully', frequently occurs with the sense 'to prolong', as in (61a) and (61b):

(61)a. ku tayhak-i sihem palphyo-lul cical kkul-ess-ta
    the university examination announcement-Acc draggingly pull-Pst-Decl
    'The university draggingly delayed the announcement of the examination schedule.'

b. ku-mun ku il-ul kaci-ko sikan-ul cical kkul-ess-ta
    he-Top the work-Acc have-Isol time-Acc draggingly pull-Pat-Decl
    'He draggingly prolonged that work.'
    lit. 'He was draggingly pulling time with that work'

With the adverb cical 'draggingly' in (61a) and (61b), the slowness and heaviness of the abstract landmark's movement are more emphasized as focal facets of the semantic structure of the event 'to prolong'.

Although the event 'to prolong' is closely related to kkulta-1 in many respects, this abstract event rarely has an extended external path of the trajector, designated by a locative noun phrase or a serial verb construction. The trajector is conceived, unlike in kkulta-1, as not moving along an abstract extended path such that it can play the roles of
AGENT and GOAL (for the landmark’s movement) at the same time. So, Figure 15 does not have a short single arrow projected from the trajector, contrary to kkulta-1 in Figure 1. Because of the absence of an extended path of the trajector, the speaker can construe the trajector of this event as not actively participating in finishing the unspecified entity (i.e., work), and even intentionally dragging out the work for his own sake. The trajector’s inactive role for the event ‘prolong’ contrasts with the trajector’s dominant role for the event ‘to lead’, which usually requires an extended path of the trajector designated by the path verb of a serial verb construction (e.g., kata ‘to go’ and ota ‘to come’) (discussed in Section 3.2.5). Also, the event kkulta-1 often associates with the extended external path of the trajector; the trajector, volitionally and directly, takes part in the force-dynamic motion of pulling.

Now, let us consider the perfective and imperfective processes related to the event ‘to prolong’ (discussed in Section 2.3). As a perfective process, an event describes a change through time with the bounding of its initial and final component states or locations within the scope of predication. Each sentence in (60a-b) and (61a-b) designates a perfective process. Since all the subsequent component states and subevents of this event (e.g., the trajector’s exertion of abstract energy, the energy transfer from the trajector to the landmark, and the landmark’s movement along an abstract path) are not homogeneous, the event ‘to prolong’ designated by the past tense form kkul-ess-ta ‘pull-Pst-Decl’ in (61a) profiles a change through time. With respect to the intrinsic path, the event kkulta-1 also involves some change pertaining to many different abstract points of the landmark (e.g., the landmark’s initial, infinitely intermediate, and resultant locations
without involving trajector’s extended path). Therefore, the event ‘to prolong’ is conceived as bounded in time with its initial and final component states and subevents (although the English verb *prolong*, as an intrinsic part of the semantics, does not specify the initial and final points of the event). A perfective process frequently occurs in the past tense, which is differentiated from the speech event time.

On the other hand, the event ‘to prolong’ can often establish an imperfective process by means of adding a particular imperfective verb *siphta* ‘to want’ to the verb *kkulta* (connected by the isolating connective particle), as in (62a). Or, the addition of -ko *iss-ta* ‘(V)-Isol be-Decl’ to the verb stem *kkul* imperfectivizes the perfective, by forming the progressive verb construction *kkul-ko iss-ess-ta* ‘was prolonging’, as in (62b):

(62)a. *ku-mun ku il-ul kaciko hanepsi sikan-ul kkul-ko siphe-*t*-
     he-Top the work-Acc having endlessly time-Acc pull-Isol want-Pres-Decl
     ‘He wanted to prolong the work endlessly.’

b. *ku-ka uytocekulo sikan-ul kkul-ko iss-*ess-*t*-
     he-Nom intentionally time-Acc pull-Isol be-Pst-Decl
     ‘He was intentionally prolonging (it).’

In (62a), the verb *siphta* ‘to want’ expresses an imperfective meaning, which suspends some possible change through time induced by the event designated by the verb *kkulta*, and describes the continuous extension of the trajector’s desire. In (62a), the composite verb construction *kkul-ko sip-*e*-t*-
     ‘wants to prolong’ occurs in the present tense, which coincides with the speech event time. In (62b), the progressive construction *kkul-ko iss-*ess-*t*-
     ‘was prolonging’, analogous to an English progressive construction, profiles a limited intermediate portion of the perfective process *kkul-ess-ta* ‘prolonged’, because the
distinctive initial and final component states and subevents of the event designated by
\textit{kkul-ess-ta} in Figure 15 are suppressed in the base and the scope of predication:

![Diagram](image)

\textbf{Figure 16. Imperfective Process of \textit{kkul-ko iss-ess-ta}}

(cf. adapted from Langacker 1991a. 92: Figure 8)

The indefinitely intermediate states in Figure 16 of the perfective process are selected within the immediate scope of predication indicated by the smaller rectangle in Figure 16. Although the perfective \textit{kkul-ess-ta} 'prolonged' and the imperfective progressive construction \textit{kkul-ko iss-ess-ta} 'was prolonging' share the same base and scope of predication, the distinct initial and final states of the perfective process are, thus, not included in the immediate scope of predication in Figure 16. The connective particle -\textit{ko} attached to the verb stem \textit{kkul} changes the temporally profiled process into a non-finite atemporal relation, equivalent to an English participial construction, \textit{V-ing}. This composite progressive construction is construed as constant through conceived time, indicated by the upper profiled straight line within the immediate scope of predication in Figure 16. It can be contracted or extended within the boundary of the perfective process, constituting the situation as an unfinished episode.
Now, we turn to the semantics of the extended sense ‘to advance’ of the verb *tangkita*. The semantic structure of *tangkita*-1 in Figure 2 is the standard one for the metaphorical extensions from a spatial domain to a temporal domain. Figure 17 is the schematic representation of the event ‘to advance’ with some instances, as in (63a-b):

![Figure 17. Representation of event ‘to advance’](image)

(63)a. *sinlang-chuk-i kyelhon nalcca-lul ithul tangki-ess-ta*
   bridegroom-side-Nom wedding data-Acc two days pull-Pst-Decl
   ‘The party of the bridegroom moved the wedding date forward two days.’

b. *ku-ka chwulpal ilca-lul yeyceng-pota yelhul tangki-ess-ta*
   he-Nom departure day-Acc schedule-than ten days pull-Pst-Decl
   ‘He moved his departure forward ten days (earlier than on his original schedule).’

c. *ku sensayngnim-i yenge sikan-ul i-kyosi-lo tangki-ess-ta*
   the teacher-Nom English time-Acc 2-class-Orient pull-Pst-Decl
   ‘The teacher moved the English class on to the second class period early.’

The event ‘to advance’ is compared with *tangkita*-1 in many respects. Several properties are also shared between the sense ‘to advance’ and the sense ‘to prolong’. First of all, the sense ‘to advance’ is characterized relative to a temporal domain, as opposed to the physical domain of *tangkita*-1. Second, the trajector and landmark are conceived as playing non-prototypical abstract AGENT and MANIPULATED MOVER roles, respectively, because the trajector does not exert physical force upon the landmark, and the landmark
does not physically move toward the source of energy. Corresponding to that of *tangkita*-1, the landmark of the event ‘to advance’ is maximally opposed to the trajector, and is conceived as involving a part-whole relationship. As a specific time-related incident (e.g., *kyelhon nalcca-lul* ‘wedding date-Acc’, *chwulpal ilca-lul* ‘departure day-Acc’, and *yenge sikan-ul* ‘English class-Acc’ in (63a-c)), the landmark takes only a short span of time out of the entire period of time.

Third, like the event ‘to prolong’, this event associates with abstract energy metaphorically transferred from the trajector to the landmark, as illustrated by the dotted double arrow in Figure 17. This dotted double arrow, which is thin, is conceived as representing a small amount of abstract energy transfer from the trajector to the landmark, as opposed to the thick dotted arrow for the event ‘to prolong’ in Figure 15. The trajector of this event does not need to exert much abstract energy upon the landmark, because the landmark (i.e., a short-time incident) is conceived as a small and light object, corresponding to that of *tangkita*-1. Therefore, the event ‘to advance’ is similar to *tangkita*-1 in term of the quantity of (physical or abstract) energy transfer.

Fourth, like the event ‘to prolong’, this event ‘to advance’ is conceived as involving an abstract movement of the landmark (i.e., a time-related incident) subjectively construed by the speaker (cf. Talmy 1983; Langacker 1987a; Mastumoto 1996). Fifth, like the event ‘to prolong’, the event ‘to advance’ is conceived as having an abstract intrinsic path (i.e., moving toward the source of the abstract energy), as demonstrated by a single dotted arrow in Figure 17. This event is conceived as not having an extended path of the trajector, corresponding to *tangkita*-1 and the event ‘to prolong’. The trajector’s
location (indicated by the dotted smaller rectangle) is, thus, metaphorically conceived as playing the role of GOAL for the landmark’s movement.

Based on the semantics of tangkita-1, several contrastive properties are examined between the event tangkita ‘to advance’ and the event kkulta ‘to prolong’, as well. Above all, the crucial semantic difference of these time-associated events comes from the speaker’s different construals of time designated by particular time expressions (i.e., the direct objects). The landmark of the event ‘to advance’ (designated by the verb tangkita) is conceptualized as a small, mobile, and easily manipulable object, corresponding to that of tangkita-1, while the landmark of the event ‘to prolong’ (e.g., phyengsayng-ul ‘lifetime-Acc’) is conceptualized as a heavy, large and not easily manipulable object, corresponding to that of kkulta-1. As mentioned before, the event ‘to advance’ also makes reference to a part-and-whole relation, as indicated by the contained-and containing circles in Figure 17. For example, in (63a-c), the landmark (i.e., kyelhon nalcca-lul ‘the wedding date’, chwulpal ilca-lul ‘the departure date’, and yenge sikan-ul ‘the English class’) is conceived as taking a restrictively small portion of the entire time. In Figure 17, the landmark indicated by the smallest circle is, thus, contained within the larger circle (conceived as the entire time period) at the point of ti in time. Only the small portion of the entire time, as the landmark (not the whole time marked by the larger circle), is conceived as abstractly moving toward the source of abstract energy along the abstract intrinsic path (indicated by the single dotted line connecting the smallest circles in Figure 17).
Second, the physical proximity-remoteness of *tangkita*-1 is metaphorically mapped onto the temporal proximity-remoteness of the event 'to advance'. The closer to the GOAL, the more temporally approximate or imminent to the occurrence of that particular event. So, the originally scheduled time point for a particular event/work (e.g., *kyelhon* '(the) wedding', *chwulpal* '(his) departure', *yenge* 'English class') is conceived as identical to the initial location of the landmark at the initial temporal point of t1. This initial location of the landmark is conceived as temporally remote from the trajector's location (i.e., the changed time or GOAL time). The GOAL (indicated by the smaller dotted rectangle in Figure 17) is conceived as representing the advanced time or newly-planned temporal setting in which that particular event(e.g., *kyelhon* 'wedding') actually occurs.

As a result of the event 'to advance', the landmark is conceived as located inside the trajector's location (i.e., GOAL) at the temporal point of t2 in Figure 17, as opposed to that of the event *kkulta* 'to prolong' (outside the GOAL) in Figure 15. The abstract temporal distance between the trajector and landmark is reduced from the originally scheduled time at the point of t1 to the newly appointed time at the point of t2.

Unlike the event 'to prolong', the trajector of this event 'to advance' is conceived as actively participating in making the landmark (i.e., a specific time-related incident) happen earlier than at the originally scheduled time. The landmark's abstract movement (toward the source of abstract energy) is mainly induced by the trajector's exertion of abstract energy upon the landmark, because the landmark (conceptualized as a small and easily manipulable object) associates with insignificant resistance against the trajector's abstract force.
Finally, the instances of the event ‘to advance’ are characterized as describing a perfective process with definite bounding of its initial and final component states. The speaker easily perceives that there are some obvious changes within a short period of time (e.g., the trajector’s abstract energy exertion upon the abstract landmark, the landmark’s abstract movement toward the GOAL, the resultant change from the original schedule to the newly appointed time). In contrast to the event ‘to prolong’ (as discussed in the imperfective construction of (62b)), the imperfectivization (by virtue of a progressive verb construction tangki-ko iss-ta ‘be advancing’) is thus not possible with the event ‘to advance, as in (64a) and (64b):

(64a) *sinlangchuk-i kyelhon nalca-lul ithul tangki-ko iss-ess-ta
bridegroom side-Nom wedding data-Acc two days pull-Isol be-Pst-Decl
*‘The side of the bridegroom was moving the wedding date forward two
days.’

b. *ku-ka chwulpal ilca-lul yeyceng-pota yelhul tangki-ko iss-ess-ta
he-Nom departure date-Acc schedule-than ten days pull-Isol be-Pst-Decl
*‘He was moving his departure forward ten days (earlier than on his original schedule).’

§ 3.3.8 Senses of ‘to attract’ and ‘to appeal to appetite’

The sense ‘to attract’ of the verb kkulta is subdivided into three senses: ‘to attract a multiplex\(^{15}\) entity’ (or ‘to draw a multiplex entity’), ‘to win popularity’, and ‘to attract one’s attention’. First, let us investigate the semantics of the event ‘to attract a multiplex

\(^{15}\) Lakoff (1987:428) uses the term “multiplex entity” (marked by MX) in the semantic analysis of “The Case of Over”. A multiplex entity is composed of many individuals, e.g., freckles, specks, guards, and cows.
entity. Here are some instances of the event ‘to attract a multiplex entity’ with the schematic representation, as illustrated in Figure 18:

Figure 18. Representation of event ‘to attract a multiplex entity’

(65)a. tongmwulwon-uy wonswungi-ka salam-tul-ul kkul-ess-ta
    zoo-Gen monkey-Nom person-Pl-Acc pull-Pst-Decl
    ‘The monkey in the zoo attracted people’
    ‘The monkey in the zoo drew people in.’

b. ku phi-naymsay-ka mamun sange-tul-ul kkul-ess-ta
    the blood-scent-Nom many shark-Pl-Acc pull-Pst-Decl
    ‘The scent of blood attracted many sharks.’

(66)a. ku iyakikkwu-ri ai-tul-ul kkul-ess-ta
    the storyteller-Nom child-Pl-Acc pull-Pst-Decl
    ‘The storyteller attracted children’
    ‘The storyteller drew children in.’

b. wuetiukhep chwukwu kyengki-ka mamun kwancwun-ul kkul-ess-ta
    World Cup soccer game-Nom many spectator-Acc pull-Pst-Decl
    ‘The World Cup Soccer Games attracted many spectators.’

The sense ‘to attract a multiplex entity’ of the verb *kkulta* is characterized with reference to several simultaneously interconnected configuralional domains such as physical, sensory, social, and mental domains. The event ‘to attract a multiplex entity’ can be characterized relative to a physical domain in that the multiple landmark, predominantly people, actually moves toward the trajector along a physical path. This sense can also be
conceptualized with reference to a social domain owing to the social relationships of the participants of this event (e.g., zoo animal--spectators, prey--predator, storyteller--audience, doctor--patients, and sports game--spectators). Despite other possible domains, I argue that a mental domain is most primary for this event, because of the abstract and mental contact of the participants (i.e., the trajector and landmark). This event does not necessarily have physical contact between the trajector and landmark, although it involves or is conceived as involving some mental or emotional contact between them.

The trajector of this event (e.g., wonswungi-ka ‘monkey-Nom’, and ku phonaymsay-ka ‘the scent of blood’ in (65a-b) and ku iyakikkwun ‘the storyteller-Nom’, and wueltukhep chwukkwu kyengki-ka ‘the World Cup Soccer Games’ in (66a-b)) can be different kinds of entities such as a person, animal, and event, corresponding to that of kkulta-1. The crucial difference of the trajectors between the event ‘to attract a multiplex entity’ and kkulta-1 is that the former in a mental domain does not exert any physical force upon the landmark to move. In any strict sense, the trajector does not make any effort to attract the landmark, nor does it actively act upon the landmark. But it is conceived as playing the role of a non-prototypical AGENT in that its physical or abstract characters (e.g., the monkey’s appearance and behavior, the scent of blood, and doctor’s medical knowledge and treatment) are construed as providing the source of abstract energy (i.e., attraction) with the landmark. The transmission of this abstract energy is indicated by the dotted double arrow from the trajector to the landmark in Figure 18.

The landmark of the sense ‘to attract multiple entities’ is exclusively limited to a multiplex entity composed of numerous individual entities, predominantly people (e.g.,
salamtul-ul ‘people-Acc’, aitul-ul ‘children-Acc’, and kwancwung-ul ‘spectators-Acc’ in (65a-b) and (66a-b)). These entities are not individually profiled, as represented by many dotted smallest circles contained within the profiled larger circles (the landmark) in Figure 18. Many individual entities are not likely to gather in a place at a time, and move toward the source of abstract energy at the same time along an identical physical path. However, these multiple entities from many different sources in different points of time are conceptualized as establishing a cognitively single gestalt or as a packaged assembly within a collective noun (e.g., salaam ‘people’) in that they are cognitively bound in an abstract region in terms of their mental, emotional, and/or behavioral commonality (cf. Langacker 1987a and Kemmer 1993b). With respect to different temporal points and places, the individual differences of the multiple entities are insignificant. The multiple individuals are conceptualized as homogeneous. All individual entities are interested in the trajector or the trajector’s characteristics, are attracted by them, and physically move toward the trajector. As a result of the event kkulita, the trajector actually has a multiple landmark around it (e.g., the spectators in the zoo, sharks in the sea, and the spectators on the stadium). Likewise, the actually different intrinsic paths (along which the multiple entities move toward the source of abstract energy) are schematically construed as a single identical path because of their shared behavior. These different paths are cognitively indistinguishable and unimportant in that they are, physically and mentally, all directed toward the same source of energy (the trajector). The physical movement of the landmark is represented by the solid profiled arrow in Figure 18.
The landmark of the event ‘to attract a multiplex entity’ is conceived as playing the two semantic roles of abstract MANIPULATED MOVER and EXPERIENCER. The multiple landmark plays the role of MANIPULATED MOVER, because it physically changes its location toward the trajector along a schematically conceived physical path for its own benefit, as result of the event kkul'ta. At the same time, the landmark is also construed as playing an EXPERIENCER role, because it experiences some mental contact with the trajector by means of its mental attraction.

The abstract conceptualization of this extended sense precludes the trajector’s physical extended path, especially designated by a serial verb construction, as in (65’a) and (66’a):

(65’a) *tongmweu'won-uy wonswungi-ka salam-tul-ul kkul-ko ka-ss-ta
    zoo-Gen monkey-Nom person-Pl.Acc pull-Isol go-Pst-Decl
    *‘The monkey in the zoo went, attracting people.’

(66’a) *ku iyakikkwun-i ai-tul-ul kkul-ko wa-ss-ta
    the storyteller-Nom child-Pl.Acc pull-Isol come-Pst-Decl
    *‘The storyteller came, pulling children.’
    *‘The storyteller came, attracted children.’

The trajector of this event does not have to move along an extended path in order to attract the multiple landmark. So, it is conceived as the GOAL of the landmark’s movement as well as the SOURCE of abstract energy (i.e., non-prototypical AGENT), because the multiple landmark moves toward the trajector. The absence of an extended path of the trajector implies that the trajector does not actively make a lot of effort in attracting the multiple landmark. Rather, the landmark is attracted to the trajector. Thus, the notions of the trajector’s effort and the landmark’s resistance are not relevant for this event. Like the event ‘to prolong’ in Figure 15, the event ‘to attract a multiplex entity’ in
Figure 18 does not have a short single arrow attached to the trajectory, which is specified in *kkulta*-1 in Figure 1 and the event 'to lead' in Figure 13 for representing the extended path of the trajectory.

The relative strength between the trajectory and landmark is abstractly construed; the trajectory or its characteristics are conceived as exerting an abstract magnetic power upon the landmark. Finally, the physical concepts of horizontal dimension and contact are not relevant for this abstract sense. Thus, the manner adverb of motion *cilcil* 'draggingly' is not used for this sense because the landmark does involve friction against a flat surface.

Now, we turn to the sense of *kkulta* 'to win popularity', which is conceptually related to the sense 'to attract a multiplex entity':

(67)a.  
\begin{align*}
  & ku \\ & tongmwiulwon-uy \\ & wonswungi-ka \\ & salaam-tul-eykey 
\end{align*}
the zoo-Gen monkey-Nom person-Pl-Obl

\begin{align*}
  & inki-lul \\ & kkul-ess-ta 
\end{align*}
popularity-Acc pull-Pst-Decl

'The monkey in the zoo won popularity among people.'

b.  
\begin{align*}
  & ku \\ & uysa-ka \\ & hwanca-tul-eykey \\ & inki-lul \\ & kkul-ess-ta 
\end{align*}
the doctor-Nom patient-Pl-Obl popularity-Acc pull-Pst-Decl

'The doctor won popularity among patients.'

The event 'to win popularity' in (67a-b) differs from the event 'to attract a multiplex entity' in (65a-b) and (66a-c) in several respects. First, this event is more abstractly extended in a metaphorical way than the sense 'to attract multiplex entity' in that the landmark *inki-lul* 'popularity-Acc' does not physically move at all. The mental domain of this event is more saliently invoked than that of the event 'to attract a multiplex entity'. The aspects of *kkulta*-1 (e.g., exertion of physical force, physical energy transmission, change of locations) are metaphorically projected onto the emotional involvement and mental
attraction at a highly abstract level. Second, the landmark, *inki* ‘popularity’, is an abstract concept, and is metaphorically conceived as a movable, but not easily achievable object. The intrinsic path motion of the landmark *inki* ‘popularity’ toward the source of abstract energy is abstractly conceivable only by means of the speaker’s construal. Third, the landmark of the sense ‘to attract a multiplex entity’ is defocused into the oblique (e.g., *hwancatul-eykey* ‘patients-Obl’). As a result of the event ‘to win popularity’, the trajector’s having a multiplex entity (e.g., *salamtul* ‘people’ and *hwancatul* ‘patients’ in (67a-b)) is implied from the predication that the trajector, (e.g., *wonswungi-ka* ‘monkey-Nom’ and *uyşa-ka* ‘doctor-Nom’) is popular with the multiple landmark.

Now, let us discuss the sense ‘to attract one’s attention’. Korean speakers metaphorically understand this sense in terms of pulling, when a more concrete domain is mapped onto a more abstract mental domain. When pulling a concrete, heavy but movable object, the trajector exerts its almost entire physical power upon the object. Analogously, when an entity attracts a person’s attention, all his conscious awareness (mental alertness) is conceived as being focused on that entity. Figure 19 illustrates the schematic representation of the event ‘to attract one’s attention’:

![Diagram of mental domain](image)

*Figure 19. Representation of the event *kkulta* ‘attract one’s attention’*
(68)a. i chayk-i Chelswu-uy kwansim-ul kkul-ess-ia
    this book-Nom Chelswu-Gen attention.Acc pull-Pst-Decl
    ‘This book attracted Chelswu’s attention.’

b. annay mwunkwu-ka na-uy maum-ul kkul-ess-ia
    instruction passage-Nom I-Gen mind.Acc pull-Pst-Decl
    ‘The instructions attracted my attention.’

c. changcoseng-i ku-uy kwansim-ul kkul-ess-ia
    creativity-Nom he-Gen attention.Acc pull-Pst-Decl
    ‘Creativity attracted his attention.’

The event ‘to attract one’s attention’ is similar to the event ‘to win popularity’ in that it
does not involve any physical movement of the landmark.

The trajector of the event ‘to attract one’s attention’ can be various, for example,
i chayk-i ‘this book-Nom’, annay mwunkwu-ka ‘instruction passage-Nom’, and
changcoseng-i ‘creativity-Nom’, as in (69a-c). But this trajector (indicated by the larger
circle in Figure 19) does not have to be an animate object, unlike that of kku1ta-1, because
it does not exert any physical force upon the landmark.

Unlike that of kku1ta-1, the landmark (na-uy kwansim ‘my attention’) of this event
involves a human possessor (na-uy ‘I-Gen’), because such abstract concepts as kwansim
‘attention’ and maum ‘mind’ pertain to a person. The landmark (indicated by the small
circles in Figure 19) of the event ‘to attract one’s attention’ is much more abstract than the
multiple landmark (e.g., people and patients) of the event ‘to attract an multiplex entity’ in
terms of their movement. Although this abstract landmark (e.g., kwansim ‘attention’, and
maum ‘mind’ in (68a-b)) does not physically move toward the source of energy (the
trajector), it is conceptualized as a large concrete object. And it is, as a whole, conceived
as moving toward the trajector. This conceptualization of the landmark for this sense is
similar to that of sikan ‘time’ for the sense ‘to prolong’.
The abstract intrinsic path of the landmark (toward the source of abstract energy) is also metaphorically conceived as being directed toward the trajector, or the trajector's characteristics, represented by the single dotted arrow in Figure 19. The possessor of the landmark experiences mental contact with the trajector. His mental or emotional attraction is conceived as abstractly moving toward the source of abstract energy.

Before the event 'to attract one's attention' takes place, the trajector and the possessor of the landmark maintain some distance in terms of mentality. As a result of this event, the landmark can appreciate the physical or abstract characteristics of the trajector. As in Figure 19, the landmark shortens the abstract distance from the trajector by means of the landmark's mental experience of the trajector from an invisible, imperceivable, and distant state to a visible, proximate, and perceivable state. For example, the trajector annay mwunkwu-ka 'instruction passage-Nom' in (68b) is not known to the possessor of the landmark (wuli-uy 'we-Gen') before this event, and is paid attention to by the controller in the process of this event. As a result of this event, the trajector comes within the controller's conscious awareness.

Sentence (68c) is a further abstract instance of the event 'to attract one's attention', because it has the most abstract trajector and landmark, changcoseng 'creativity' and na-uy kwansim 'my attention'. The trajector and landmark are conceived as the least prototypical AGENT and MANIPULATED MOVER. The possessor (na-uy 'my') of the landmark (na-uy kwansim 'my attention') is conceived as playing the role of EXPERIENCER, because it undergoes the emotional and mental experience through the event. The trajector changcoseng 'creativity' causes a person's entire consciousness (i.e.,
attention) to be attracted to the source of the abstract force (the trajector) through a certain period of time.

Now, we turn to the extended sense ‘to appeal to appetite’ of the verb tangkita. The sense ‘to appeal to appetite’ associates with the sense kkulta ‘to attract’ in that both are characterized relative to a mental domain. The sense ‘to appeal to appetite’ is also conceptually related to the sense ‘to attract’. In a way, the sense ‘to appeal to appetite’ is a specific case of the sense ‘to attract’ occurring in a meal (or eating) situation.

(69)a. ku ccikay-ka ku-uy kwumi-lul tangki-ess-ta
    the pot stew-Nom he-Gen appetite-Acc pull-Pst-Decl
    ‘The pot stew appealed to his appetite.’

    b. canchi-ey nao-n umsik-i ipmas-ul tangki-ess-ta
    banquet-Loc come out-Rel food-Nom appetite-Acc pull-Pst-Decl
    ‘All the dishes at the banquet appealed to (our) appetite.’

In (69a) and (69b), the trajector, i.e., ku ccikay-ka ‘the pot stew-Nom’ and umsik-i ‘food-Nom’, is an enticing and delicious dish so that the possessive controller of the appetite (designated by ku-uy ‘his’ in (69a) or unexpressed in (69b)) is attracted by it. Thus, sentences (69a) and (69b) are paraphrased in English as follows, respectively: ‘The pot stew attracted him’ and ‘All the dishes at the banquet attracted people (presented in the banquet) or the speaker’. However, these paraphrases in Korean are not possible with the verb tangkita because the landmark of the event tangkita ‘to appeal to appetite’ should be kwumi-lul ‘appetite-Acc’ and ipmas-ul ‘appetite-Acc’, not the possessive controller of the appetite ku-uy ‘his’. These are not acceptable with the verb kkulta, as in *ku ccikay-ka ku-uy kwumi-lul kkul-ess-ta, because the particular situation of a dish is always described with the verb tangkita, not the verb kkulta.
Like that of tangkita-1, the specified landmark (i.e., kwumi-lul ‘appetite-Acc’ and ipmas-ul ‘appetite-Acc’ of the event ‘to appeal to appetite’) is conceptualized like a limited portion of a whole object in contrast to that of kkulta-1. A person’s appetite is conceived as not affecting the whole mentality and emotion of that person, rather as restricted to only his tongue or mouth in the Korean speakers’ minds. In fact, the word ipmas ‘appetite’ is analyzed as ip ‘mouth’ and mas ‘taste’. The Chinese-Korean word kwumi consists of exactly the same subcomponents, kwu ‘mouth’ and mi ‘taste’.

By contrast, the event kkulta ‘to attract’(i.e., ‘to attract a multiplex entity’ and ‘to attract one’s attraction’) is conceived as influencing the person’s entire mentality by inducing the multiple landmark to actually move toward the trajector, or by drawing the total consciousness (alertness) toward the source of abstract energy.

§ 3.4 Schematic Representations of kkulta and tangkita

In this section, in order to capture the commonalities among the individual senses of the verbs kkulta and tangkita (including transitive and intransitive cases), two highly schematic representations are given in Figures 20 and 21. Figures 20 and 21 do not convey any specific meanings or profiling, because they cover a full range of the different, but related senses of kkulta and tangkita, but are not designated by a single specific sentence. Therefore, Figures 20 and 21 are abstract and neutral with respect to the differences of individually instantiated senses of kkulta or tangkita.
Figures 20 and 21 generally represent the relational processes of *kkulta* and *tangkita* in which the AGENT, which is the trajector, directly causes the landmark (which is the MANIPULATED MOVER) is to move toward the source of energy.

Figures 20 and 21 show that these events are similar in several respects. Each rectangle represents a relevant cognitive domain for the characterization of the event designated by *kkulta* or *tangkita*; it can be spatial, temporal, functional, social, emotional, mental, and so on. In each figure, the larger circle (marked tr) represents the trajector, and the smaller circle (marked lm) represents the landmark. The different sizes of the
circles in each figure represent their relative strength of energy; the traiector (indicated by the larger circle) is stronger than the landmark (indicated by the smaller circles).

The traiector initiates the action of *kkulta* or *tangkita* by directly exerting some energy onto another entity from the initial temporal point of *t*₁ to the later temporal point of *t*₂. The traiector is also conceived as playing the role of "energy source" (Langacker 1991a:215) because the energy for the process *kkulta* or *tangkita* originates from the traiector. In each figure, the double shafted arrow, which is projected from the traiector to the landmark, represents the asymmetrical energy flow from the traiector to the landmark.

The landmark in each event is manipulated to move along a physical or abstract path from the first small dotted circle to the second solid-lined one, which represents the initial and final stages of the process *kkulta* or *tangkita*, respectively. These two different representations of the landmark schematically designate its sequential process of motion toward the traiector, suppressing all indefinitely intermediate states of the process *kkulta* or *tangkita*. Therefore, the landmark sequentially occupies all the points on a path marked from the first small dotted circle to the second small solid-lined one. The single rightward arrow through the smaller circles in each figure represents a correspondence movement line of the same landmark toward the traiector through time and its direction of motion toward the traiector. Finally, the speaker observes these events from the outside of the rectangle in Figures 20 and 21.

The schematic representations of *kkulta* and *tangkita* also reveal some differences. In Figure 21, the landmark of the event *tangkita* is much smaller than that of the event
kkulta in Figure 20, because it involves a relatively smaller landmark than that of the event kkulta. The double shafted arrow in Figure 20 is represented as thicker than that of tangkita, because the event kkulta involves greater energy transmission (in order to pull a larger or heavier entity than that of tangkita). The trajector of kkulta is construed as moving along a path, as indicated by the short single arrow on the right side of the larger circle in Figure 20.

In the previous sections 3.2 and 3.3, I discussed the instances of kkulta and tangkita in which both trajector and landmark are designated by the subject and direct object in transitive active sentences. Both the trajector and landmark of a specific event are profiled, as indicated by the heavy-lined small and large circles of the representations of the respective events in Sections 3.2. and 3.3. A transitive sentence saliently profiles (physical or abstract) force-dynamic interactions of the trajector and landmark.

Korean speakers frequently omit the trajector (the subject) or the landmark (the direct object) when it is previously mentioned, or possibly inferable from the context:

(70)  Inswu-ka  kk-mun  kos-ulo  ttal-a  ka-ss-ita
      Inswu-Nom pull-Rel place-Orient follow-Cons go-Pst-Decl
     ‘(I) followed where Inswu pulled (me).’

For example, the landmark (i.e., the speaker) of the event kkulta-1 is not specified, and is thus not profiled, because he is possibly understood from the conversational context.

A passive sentence is also used to describe a situation where the AGENT’s exertion of energy is not focused on as most prominent, although the basic conceptual base of the event remains unchanged:

(71a)  kunye-uy  chima-ka  cilcil  kkul-li-ess-ita
       she-Gen   skirt-Nom  draggingly pull-Pass-Pst-Decl
     ‘Her skirt was trailed.’
In this different syntactic structure (i.e., passive sentence), the MANIPULATED MOVER becomes the trajector, as the most prominent element designated by the subject, while the AGENT is not specified and is not profiled, as in (71a), or is backrounded in the Oblique noun phrase iyaki-ey ‘story-Obl’. In (71a-b), the energy transfer of the AGENT to the MANIPULATED MOVER is not focused on, but what is salient instead is the resultant state of the MANIPULATED MOVER.

§ 3.5 Semantic Networks of kkulta and tangkita

The various senses of each of the verbs kkulta and tangkita are unified within respective semantic networks in terms of family resemblance relationships, and form a complex semantic category. The semantic network for the verbs kkulta and tangkita is illustrated in Figure 22 and Figure 23. In these semantic networks, the individual senses of each verb are represented by the nodes, which are linked to one another by categorizing relations (i.e., extension, elaboration and bi-directional extension by mutual resemblance). The semantic network, as a whole, allows us to represent our understanding of how Korean speakers, linguistically and cognitively, organize and categorize the distinct, but related, senses of kkulta or tangkita in the mind:
Figure 22. Semantic Network of *kkulta*

Figure 23. Semantic network of the verb *tangkita*
As discussed in Sections 3.2 and 3.3, the verbs *kkulta* and *tangkita* are polysemous lexical units. A variety of the related senses of each verb are generally grouped into concrete and physical force-dynamic movement, temporal movement, and abstract movement in Figure 22 and Figure 23.

The heavy-lined nodes in Figure 22 and Figure 23 represent the global prototypical senses, *kkulta*-1 and *tangkita*-1. These prototypes are the central instances of the semantic categories *kkulta* and *tangkita*. This analysis of *kkulta*-1 and *tangkita*-1 as prototypes makes the predictions that these senses will be those that are learned first, most quickly recognized as instances of *kkulta* and *tangkita*, and remembered most easily, and most likely to be activated in a neutral context, because they are strongly entrenched as cognitive units by the speaker’s frequent experience (cf. Langacker 1991a). I have not been able to test these predictions, but there is evidence for the last; when Korean speakers are asked to give some instances of the verbs *kkulta* and *tangkita* in a neutral context, they usually provide the instances of *kkulta*-1 and *tangkita*-1 (also discussed in Footnote 2 in Section 3.2). *Kkulta*-1 and *tangkita*-1 are characterized related to a concrete and physical domain (i.e., one of most basic domains of experience, space). These prototypical senses are also listed first in current Korean dictionaries.

In Figure 22 and Figure 23, we recognize many semantic extensions from *kkulta*-1 and *tangkita*-1 with discernible differences between them. The extended senses of each verb indicated by the dotted arrows are not fully compatible with *kkulta*-1 or *tangkita*-1; the former are assimilated to the semantic category *kkulta* or *tangkita* to the extent that
they can be construed as related to *kkulta*-1 or *tangkita*-1. For example, the sense ‘to drive’ in Figure 22 is identified as a peripheral sense of the verb *kkulta* by a metonymic relationship between a vehicle and its function. As another example, the sense of the verb *tangkita* ‘to advance’ in Figure 23 is characterized relative to a temporal domain, unlike the physical space domain of *kkulta*-1. Schemas in Figure 22 and Figure 23 are extended to other schemas. For example, the subschema of force-dynamic physical movement toward the source of energy in Figure 22, is extended to cases of temporal movement (e.g., ‘to prolong’), which further extends to an abstract movement (e.g., ‘to attract’).

In Figure 22 and Figure 23, we find a set of schematic relations between schemas and their subschemas and between schemas and their specific instances and, as represented by the solid arrows. Speakers extract schemas by perceiving the common factor of the specific instances or of the subschemas. For example, the force-dynamic physical movement sense in Figure 22 is schematic to two more specific subschemas: a physical movement involving two entities and a physical movement involving an integrated entity. The sense of physical movement involving two entities is schematic to more specific senses (i.e., *kkulta*-1, ‘to drag’, and ‘to exert a gravitational pull’). The sense of physical movement involving an integrated entity is schematic to the specific senses (i.e., ‘to trail’ and ‘to drive’. The abstract movement sense is schematic to the senses (i.e., ‘to attract’ and ‘to lead’). In Figure 22 and Figure 23, the hierarchical schematic structures are created by speakers based on the similarities through generalization/abstraction from the lower-ordered specific senses and subschemas. The three main schemas (i.e., force-dynamic physical movement, temporal movement, and abstract movement) in each
network are subsumed under a superschema at the top (i.e., a movement toward the source of energy in Figure 22 and a movement toward the source of energy in Figure 23).

In Figure 22, the senses of *kkulta* 'to be supplied with' and 'to drive' are bi-directionally extended from each other, based on mutual similarity of their functional domains. This bi-directional extension is indicated by the dotted two-way arrow. As another example, the senses of *kkulta* 'to drive' and 'to lead' are mutually extended to each other by means of similar path properties. Each evokes a path that is unitary for the trajector and landmark in at least part of the conceptualization (See Sections in 3.3.4 and 3.3.5) Yet, the event 'to drive' involves an integrated entity while the event 'to lead ' involves two separate entities.

The meaning of the verb *kkulta or tangkita* is not reduced to a single prototypical sense, a single schema, or a single extended sense from the prototype, but includes all the specific senses, all the categorizing relations, and their interrelationships. All relevant information is unified in the entire semantic network where the closely related, but distinct prototype and schema models are synthesized (cf. Langacker 1987a and 1991a). Furthermore, with structural modifications, the semantic network of the verb *kkulta* can continually expand. In this respect, the semantic network of this complex category *kkulta* is "dynamic and continually evolving" in nature (Langacker 1987:376). The expansion and modification of the semantic network rely on the speaker's linguistic knowledge and his cognitive capacity to (a) conceptually connect the novel uses of the expression that he encounters with its established conventional uses, based on their similarities (cf. Langacker 1991a); (b) and from the production side, his capacity to create novel instances via
conceptual connection with existing senses. There is no definite restriction how far "upward" or "downward" a speaker extends the semantic network through the characterization of abstraction or of extension into more specific senses.

§ 3.6 Conclusion

This chapter has examined the semantics of the two polysemous Korean verbs \textit{kkulta} and \textit{tangkita}. These two verbs are conceptually closely-related within the same semantic field of force-dynamic motion, and both are roughly translated as 'to pull' in English. The two verbs \textit{kkulta} and \textit{tangkita} have, however, different conceptual imports.

The body of this chapter has discussed the prototypical events \textit{kkulta-1} and \textit{tangkita-1} and their respective semantic structures in a physical spatial domain. The event \textit{kkulta-1} generally involves a heavy, slow, and labored motion of a large landmark (direct object) over an extended path through space and time. The trajector (subject) as well as the landmark moves along an extended external path, which can be designated by a path verb in a serial verb construction. The trajector of \textit{kkulta-1} transfers more physical energy to the landmark than that of \textit{tangkita-1}, because the whole object (not part of it) is induced to move along a path against friction. The event \textit{kkulta-1} includes a horizontal dimension because of the landmark's contact with the flat surface throughout this motion event.

By contrast, the prototypical event \textit{tangkita-1} generally associates with a light and sudden movement of a relatively small landmark along a short path. This event often makes reference to a part-whole relation. Part of a larger object is caused to move toward
the force, but the whole object (to which the landmark is attached) does not move. The trajector of this event does not have an extended path, and only the landmark is manipulated to move toward the source of force. The movement of the landmark is directed toward the trajector, and the trajector is thus conceived as the goal of the landmark’s movement as well as the source of force. This event seems to require more manipulative control or handling over the landmark on the part of the trajector than in the case of *kkulta-*1. The event *tangkita-*1 does not involve a salient dimension, but its dimension is dependent on the position of the trajector in relation to the initial location of the landmark.

These prototypical events *kkulta-*1 and *tangkita-*1 motivate their respective semantic extensions in a coherent way. The semantic extensions of these verbs are established via the different, yet related conceptualizations of the cognitive-functional semantic attributes of each verb. The multiple senses of these two verbs and their semantic structures are not limited to the physical domain, but rather also occur in different abstract domains (i.e., function, social relationship, time, and mental/emotional domains) via metaphor. They have been described with reference to *kkulta-*1 and *tangkita-*1, and are related to one another in terms of family resemblance relationships, establishing complex semantic categories. For example, Korean speakers metaphorically understand the sense 'to attract one's attention' in terms of the act of pulling; when pulling a heavy object, the trajector exerts almost all of his physical force upon that object. Similarly, when an entity attracts a person's attention, all his mental alertness is focused on that entity, and the entity affects the whole mentality of the person. By contrast, one extended sense 'to appeal to one's appetite' of *tangkita* is conceived as restricted to a
person's tongue, not to his entire mentality or emotion in the Korean speakers' minds. Finally, the distinct, but related senses of *kkulta* or *tangkita* are unified within a semantic network linked through categorizing relations.
Chapter 4
Seminar Analysis of milta

§ 4.0 Introduction

The Korean verb milta ‘push’ belongs to a force-dynamic semantic field, like the verbs kkulta and tangkita ‘pull’. Like the verbs kkulta and tangkita, it has a wide range of distinct but associated senses:

(1) a. ku-ka thakca-lul mil-ess-ta
    he-Nom table-Acc push-Pst-Decl
    ‘He pushed the table.’

b. ku namca-ka khosswuyem-ul mil-ess-ta
   the man-Nom mustache-Acc push-Pst-Decl
   ‘The man shaved his mustache.’

c. emeni-ka mil-pancwuk-ul mil-ess-ta
   mother-Nom flour-dough-Nom push-Pst-Decl
   ‘Mother rolled the flour dough.’

d. ku-ka caki sayngkak-ul mil-ko ka-n-ta
   he-Nom self thought-Acc push-Isol go-Pres-Decl
   ‘He pushes his thought forward.’

e. noin-tul-i ku-lul mil-ess-ta
   old man-Pl-Nom he-Acc push-Pst-Decl
   ‘The old men supported him.’

f. ku-ka tongchang-hoy piyong-ul nay-key mil-ess-ta
   he-Nom alumni-reunion expense-Acc I-Dat push-Pst-Decl
   ‘He pushed off the expense of the alumni reunion onto me.’

These various senses of the verb milta involve spatial, physical, and abstract motions in spatial and non-spatial domains. My claim remains constant: apparently distinct senses of this verb are related to one another in terms of a family resemblance relationship, establishing a complex semantic category.
The organization of the semantic analysis *milta* is quite analogous to that of *kkultä* and *tangkita*. First, I will investigate the most central sense of *milta* called prototype *milta* (milta-1), and its semantic structure in regard to some cognitive-functional attributes in a physical domain. Second, the variants of *milta* are examined in several spatial and non-spatial domains for their metonymic or metaphoric extensions. The semantic structures of the extended senses *milta* are characterized in relation to the prototype *milta* (differences and similarities between milta-1 and its variants). Third, in order to capture the commonalities among the individual senses of the verb *milta*, a highly schematic representation is briefly discussed. Finally, the hierarchical schema organization is characterized within a semantic network, explaining the relationships among multiple but related senses of *milta*.

§ 4.1 Prototype *milta*

First of all, the event designated by the verb *milta* involves two participants within its conceptual base: a pushing entity (AGENT) and another pushed entity (MANIPULATED MOVER or PATIENT). In this section, we will examine a specific sense of *milta*. The most central meaning of the Korean verb *milta* is translated as ‘push’ in English, and is opposed to the English verb *pull*. The event *milta* is characterized as a temporally profiled relational process in which the trajector, volitionally and directly, causes the landmark to move away from the source of physical force along a physical path through a period of time by means of asymmetrical unidirectional energy transfer of the trajector to the
landmark. From now on, I regard this sense of milta as prototype milta (milta-1). Figure 1 illustrates the semantic structure of milta-1:

![Figure 1. Representation of the event milta-1]

The event milta-1 is more general than kkulta-1 and tangkita-1 in that it can represent the opposite situations of both kkulta-1 and tangkita-1:

(2)a. ku-ka thakca-lul mil-ess-ta  
   he-Nom table-Acc push-Pst-Decl  
   'He pushed the desk.'

b. khokkili-ka ku cha-lul mil-ess-ta  
   elephant-Nom the car-Acc push-Pst-Decl  
   'The elephant pushed the car.'

c. elini-tul-i swuley-lul mil-ess-ta  
   child-Pl-Nom cart-Acc push-Pst-Decl  
   'The children pushed the cart.'

(3)a. ku ai-ka cangnankam catongcha-lul mil-ess-ta  
   the child-Nom toy car-Acc push-Pst-Decl  
   'The child pushed the toy car.'

b. ku-ka mwun-ul mil-ess-ta  
   he-Nom door-Acc push-Pst-Decl  
   'He pushed the door.'

b. ku-ka caki-uy phal-ul aph-u lo mil-ess-ta  
   he-Nom self-Gen arm-Acc front-Orient push-Pst-Decl  
   'He pushed his own arm forward.'
The event *mila*-1 in Figure 1 is specifically characterized with reference to a physical space domain represented by the rectangle. It also demonstrates the profiling relations of the semantic structure of *mila*-1 in bold lines. Now, let us examine several cognitive functional attributes of the semantic structures of the event *mila*-1, which are closely related to one another, and represent the different aspects of the event *mila*-1.

§ 4.1.1 Trajector

In Figure 1, the larger circle represents the trajector. The trajector in (2a-c) and (3a-c) occurs in the subject position, and is profiled as the primary prominent element of the interactional event *mila* in Figure 1. The trajectors of *mila*-1 in (2a-c) and (3a-c), i.e., *ku-ka* ‘he-Nom’, *khokkili-ka* ‘elephant-Nom’, *elinitul-i* ‘children-Nom’, and *ku ai-ka* ‘the child-Nom’, are human beings or animals. Each is a very concrete and physical entity, and remains constant in space and time. It plays the role of a prototypical AGENT in the sense that it volitionally exerts some physical force upon another physical concrete object (landmark), and induces the movement of the landmark away from the source of the physical force (trajector).

The event *mila*-1 is neutral with respect to an extended path of the trajector, unlike *kkulta*-1 and *tangkita*-1. The trajector of *mila*-1 may or may not be construed as moving along an extended spatial path. For example, in (2a-c), the trajector of *mila*-1 (e.g., *ku-ka* ‘he-Nom’, *khokkili-ka* ‘elephant-Nom’, and *elinitul-i* ‘children-Nom’) is likely to involve some change of its location along with the landmark’s movement (e.g., *thakcalul* ‘table-Acc’, *cha-lul* ‘car-Acc’, and *swuley-lul* ‘cart-Acc’). On the other hand, in (3a-
c), the trajector of *milda*-1 (e.g., *ku ai-ka* ‘the child-Nom’ and *ku-ka* ‘he-Nom’) does not necessarily translocationally move, because the landmark in (3a), *cangnankam catongcha-lul* ‘toy car-Acc’, is relatively a small object, because *mwun-ul* ‘door-Acc’ in (3b) is part of another larger object (a room), and because *phal-ul* ‘arm-Acc’ in (3c) is attached to the trajector himself as a body part.

Like those of *kkuulta*-1 and *tangkita*-1, the trajector’s (AGENT’s) body parts, e.g., arms and hands, function as INSTRUMENTs (also active zones) in the event *milda*-1. They are not explicitly expressed, because they are considered to be not highly prominent discrete participants in the event *milda*-1, and are less cognitively salient to the speaker than the whole entities (the trajector). But they are, nevertheless, conceivable from the scene. For example, in (2b), the elephant’s trunk and tusks are conceived as the INSTRUMENTs as well as active zones for pushing the car, but are left unexpressed.

The trajector of *milda*-1 is prototypically located behind the landmark, with both the trajector and landmark facing in the same direction, as in (4a-b). Or, the trajector faces the landmark, as in (5), if the landmark has a certain orientation, e.g., front, face, and back, like a human being. In both cases, the landmark moves away from the source of energy (the trajector):

(4)a. *ku-ka anay-uy tung-ul eyllipeyithe an-ulo mil-ess-ta*
   he-Nom wife-Gen back-Acc inside-Orient push-Pst-Decl
   ‘He pushed on his wife’s back and she went into the elevator.’
   lit. ‘He pushed the back of his wife’s into the elevator.’

b. *apeci-ka liekha-lul aph-eyse kkul-ko ai-ka tuy-eyse mil-ess-ta*
   father-Nom cart-Acc front-Loc pull-and child-Nom back-Loc push-Pst-Decl
   ‘Father pulled the cart from the front, and his child pushed behind.’

(5) *ku-ka sangtaypang-uy ekkay-lul aph-eyse mil-ess-ta*
   he-Nom partner-Gen shoulder-Acc front-Loc push-Pst-Decl
   ‘Facing his partner, he pushed him on the shoulder.’
In (4a), the trajector, *ku-ka* ‘he-Nom’ stands behind his wife, facing her back. In (4b), the trajector, *ai-ka* ‘child-Nom’, is in back of the landmark (*liekha-lul* ‘cart-Acc’), pushing from behind. Both the child and cart move forward in the same direction of his father’s pulling. By contrast, the trajector in (5), *ku-ka* ‘he-Nom’, looks at his partner in the front and pushes him. In some extended senses of *milda*, e.g., ‘to push ahead on’, ‘to support’, and ‘to propose as’, the first conception is selected. In other extended senses of *milda*, e.g., ‘to smooth the surface’, ‘put off’, and ‘to push off’, the second conception is applied.

§ 4.1.2 Landmark

The smaller circles in Figure 1 schematically represent an identical entity, the landmark, moving along a spatial path. The small dotted circle indicates the initial location of the landmark at the initial temporal point of t₁, while the small solid-lined circle represents the changed location of the same landmark at another temporal point of t₂. The landmark becomes more distant from the trajector, as a result of the event *milda*-1.

The landmark is profiled as the second prominent element of the event *milda* in Figure 1. It is designated by the direct object, e.g., *thakca-lul* ‘table-Acc’, *ku cha-lul* ‘the car-Acc’, and *swuley-lul* ‘cart-Acc’ in (2a-c), and *cangnankam catongcha-lul* ‘toy car-Acc’, *mwun-ul* ‘door-Acc’, and *phal-ul* ‘arm-Acc’ in (3a-c). All these concrete and physical objects are movable, regardless of their sizes and weights. They play the role of MANIPULATED MOVER in the event *milda*-1, because each of them changes its location along a spatial path over a certain period of time. This MANIPULATED MOVER is semantically opposed to the AGENT (the trajector) in that it undergoes the exertion of the
force from the AGENT, and absorbs the physical energy. In Figure 1, the single profiled arrow (linking the two smaller circles) represents the landmark’s physical sequential movement over a path. It encompasses all the different continuous points of the landmark through space and time.

The event milta-1 is more inclusive and flexible than kkulta-1 and tangkita-1 in terms of its landmark, because there is no lexical distinction corresponding to kkulta and tangkita. In (2a-c) and (3a-c), the verb milta is invariably used, regardless of the kinds of landmark. Like kkulta-1, a heavy but movable entity can be used for the landmark of milta-1 (e.g., a vehicle, a person, an animal, a piece of furniture). Like tangkita-1, the landmark of milta-1 can be a relatively light and small discrete entity (e.g., cangnankam catongcha ‘toy car’, pamul ‘needle’, yelsoy ‘key’, and ankyeng ‘a pair of glasses’). In both cases, the whole entity is caused to move away from the source of the physical force (trajector). On the other hand, the landmark of milta-1 can also be an entity attached to another larger entity concerning a part-and-whole relationship (e.g., mwun ‘door’, changmwun ‘window’, khetheyn ‘curtain’, and tali ‘leg’). The whole entity (e.g., person and room) does not move away from the trajector, while its part (landmark) is induced to move away from the trajector.

§ 4.1.3 Irretrievability and Perfectivity

However, there is one restriction on the landmark of the event milta-1; the movement of the landmark should be irretrievable, involving a definite change of the landmark’s location:
(6a) ??ku wucheypwu-ka choincong-ul mil-ess-ta
the mailman-Nom doorbell.Acc push-Pst-Decl
'The mailman pushed the doorbell.'

b. ??ku-ka caphanki tanchwu-lul mil-ess-ta
he-Nom vending machine button.Acc push-Pst-Decl
'He pushed the button of the vending machine.'

c. ku-ka chayksang wuy-uy tanchwu-lul mil-ess-ta
he-Nom desk on-Gen button.Acc push-Pst-Decl
'He pushed the button (separated from a coat) on the desk.'

Sentences (6a) and (6b) are very strange with the verb milta when the landmarks automatically return to their initial position right after the event. In (6a) and (6b), the landmarks, choincong-ul 'doorbell-Acc' and caphanki tanchwu-lul 'vending machine button-Acc', are fastened to the external wall of the house and the vending machine, respectively. Although the trajector in (6a) and (6b) exerts some physical force upon the landmark, it fails to induce the obvious irrevocable change of the landmark’s location away from the source of the physical force. The movement of the landmark is so small that the speaker can hardly notice it. The landmark goes back to its original position shortly after the event, because the iron spring is installed inside the chime bell or button.

By contrast, sentence (6c) is completely acceptable, because the landmark, tanchwu-lul 'button-Acc', is caused to change its location from its initial place on the desk to another place on the desk, as a result of milta-1, and does not return to its first location without any exertion of additional force.

The notion of irretrievability is conceptually related to perfectivity in the event kkulta-1 and tangkita-1. The event milta-1 designates a perfective process in which a situation changes through time and is bounded in time within the scope of predication, as illustrated in Figure 15 of Section 3.3.7. Since all the subsequent component states and
subevents of the event milta-1 (e.g., the trajector’s exertion of physical force, the force transfer from the trajector to the landmark, and the landmark’s change of its location away from the source of energy) are not homogeneous, the event milta-1 profiles a change through time, as indicated by the profiled zigzag line in Figure 15 of Section 3.3.7. With respect to the path, the event milta-1 also involves a change pertaining to many different points of the landmark (e.g., the landmark’s initial, infinitely intermediate, and resultant locations).

In the event milta-1, ‘pushing a physical object’ is a telic and momentary action. When the verb milta is used with continuative time span adverbial (e.g., sey-sikan tongan ‘for three hours’ and pangrik-tongan ‘during the vacation’), the event involves a repetitive pushing activity.

§ 4.1.4 Energy Transfer and Relative Strength

The profiled double arrow in Figure 1 (directed from the trajector to the landmark) indicates the transfer of physical force from the trajector to the landmark. Like that of kkulita-1 and tangkita-1, the energy force of the event milta-1 is first transferred from the trajector to an unexpressed but conceivable INSTRUMENT, by which the force is, then, transmitted to the landmark. In the event milta-1, some steady or repetitive physical force from the trajector is exerted upon some portion of the surface of the landmark. This property is related to the semantics of the extended sense of milta (‘to smooth the surface’).
The event *mila*-1 requires a difference in the relative physical strengths of the trajector and landmark. Like *kkulta*-1 and *tangkita*-1, the trajector is expected to have a greater physical strength than the landmark. For example, in (2c), the total strength of the multiple trajector, *elinitul*-i ‘children-Acc’, is stronger than that of the landmark, *swuleylul* ‘cart-Acc’, and overcomes the opposing strength (the weight) of the landmark to bring about the movement of the landmark away from the trajector, by the forceful activity of ‘pushing’. In (3c), the trajector *ku-ka* ‘he-Nom’ is stronger than the landmark *caki-ny phal-ul* ‘his own arm-Acc’, and uses only a limited portion of his physical power in order to push his arm forward.

§ 4.1.5 Dimensions

The most canonical performances, as for example in (2a) and (3a), involve a forward horizontal motion of the landmark. Yet, many instances of *mila*-1 do not specify a salient dimension. In (3c), instead of the locative noun phrase, *aph-ulo* ‘forward (front-Orient)’, the event *mila*-1 can involve a vertical or diagonal movement of the landmark *phal-ul* ‘arm-Acc’ with the use of a different locative noun phrase or adverb (e.g., *wuy-lo* ‘upside-Orient (upward)’, *alay-lo* ‘down-Orient (downward)’, and *pisutumhakey* ‘diagonally’).

The addition of a path verb to the verb *mila* can determine the dimension of the event *mila*-1:

(7)a.  

\[ \text{ku-ka} \quad \text{kong-ul} \quad \text{mil-e} \quad \text{nayli-ess-ta} \]

\[ \text{he-Nom} \quad \text{ball-Acc} \quad \text{push-Cons} \quad \text{lower-Pst-Decl} \]

\[ \text{‘He pushed the ball down.’} \]
b. sensayngnim-i ankyeng-ul mil-e olli-ess-ta
   teacher-Nom eye glasses-Acc push-Cons raise-Pst-Decl
   ‘The teacher pushed his eye glasses up.’

Sentences (7a) and (7b) involve the vertical dimension, explicitly specified by the
downward and upward path verbs (naylita ‘to lower’ and ollita ‘to raise’) of the serial
verb constructions. Since the event milta-1 can take the landmarks of both kkulta-1 and
tangkita-1 (which implies that the landmark is not necessarily in contact with a flat surface
through the event milta-1), it is not restricted to a horizontal motion, unlike kkulta-1.

§ 4.1.6 Path

The event milta-1 in a physical domain, by definition, involves the intrinsic path of
the landmark, i.e., the landmark’s change of location away from the source of physical
force. The trajector’s extended path may be implied by the contextual information, as in
(2a-c). Analogous to kkulta-1 and tangkita-1, the external extended path of the trajector
is specified by a locative noun phrase:

(8)a. ku-ka chinkwu-lul pakkath-ulo mil-ess-ta
    he-Nom friend-Acc outside-Orient push-Pst-Decl
    ‘He pushed his friend toward the outside.’

   b. ku yeca-ka sengnyang-ul sonnim ccok-ulo mil-ess-ta
      the woman-Nom match-Acc guest direction-Orient push-Pst-Decl
      ‘The woman pushed the match toward the guest.’

In (8a) and (8b), the external paths of the landmarks are specified by the locative noun
phrases of direction, pakkath-ulo ‘toward the outside’ and sonnim ccok-ulo ‘toward the
guest’, along which the trajectors do not necessarily move.

(9)a. ku-ka hwilcheye-lul pyengwon ipkwu-kkaci mil-ess-ta
    he-Nom wheelchair-Acc hospital entrance-Dest push-Pst-Decl
    ‘He pushed the wheelchair to the entrance of the hospital.’
b. *eli-nil-i* liekha-lul *kolmok* kkuth-kkaci *mil-ess-ta*
  child-Pl-Nom two-wheeled cart-Acc lane end-Dest push-Pst-Decl
  ‘The children pushed the two-wheeled cart to the end of the lane.’

On the other hand, sentences (9a) and (9b) show that the human trajectors involve
locotive activities along the extended external paths expressed by the locative noun
phrases (*pyengwon ipkwu-kkaci* ‘to the entrance of the hospital’ and *kolmok kkuth-kkaci*
‘to the end of the lane’).

The verb *mila* can occur with another verb combined by a connective particle -e
or -ko, establishing a serial verb construction. In the serial verb construction, the verb
*mila* is regarded as a manner verb, because it characterizes the fashion of a force-
dynamic motion as one in which the trajector directly causes an entity to move away from
the source of physical energy by exerting some force upon that entity. Connected by the
consolidating connective particle -e, each sentence in (10a-c) describes a tightly integrated
composite activity in close relation to simultaneity in a unified place as a whole
(extensively discussed in Section 3.2.5.2):

(10)a. *ku-ka tongcen-ul mil-e neh-ess-ta*
  he-Nom coin-Acc push-Cons put in-Pst-Decl
  ‘He pushed the coin in.’

b. *ku-ka kong-ul mil-e nayli-ess-ta*
  he-Nom ball-Acc push-Cons lower-Pst-Decl
  ‘He pushed the ball down.’

c. *sengsaygnim-i ankyng-ul mil-e olli-ess-ta*
  teacher-Nom eye glasses-Acc push-Cons raise-Pst-Decl
  ‘The teacher pushed his eye glasses up.’

In (10a-c), the path verbs (e.g., *ollita* ‘to raise’, *naylitita* ‘to lower’, and *nehta* ‘to put in’) are positional without the trajector’s extended path. Each sequence of a manner verb
(*mila*) and a path verb, which represents a conceptually single event (e.g., *mil-e nehta* ‘to
push s.t. in’, *mil-e ollita* ‘to push s.t. up’, and *mil-e nayliita* ‘to push s.t. down’), must simultaneously take place in the same place. For example, in (10c), pushing his eye glasses up is simultaneous with raising them in the same place (i.e., on one’s face), and is inseparable from the latter. The path verb is literally translated as a separate verb, as in *nehta* ‘to put s.t. in’, *ollita* ‘to raise’ and *nayliita* ‘to lower’, but is more appropriately rendered in English using the verbal particles *in, up, and down.*

(11)a. *ku-ka tongcen-ul mil-ko neh-ess-ta*
    he-Nom coin-Acc push-Isol put in-Pst-Decl
    *‘He pushed the coin and put it in (something).’*

b. *ku-ka kong-ul mil-ko nayli-ess-ta*
    he-Nom ball-Acc push-Isol lower-Pst-Decl
    *‘He pushed the ball and lowered it.’*

c. *sengsayngnim-i ankyeng-ul mil-ko olli-ess-ta*
    teacher-Nom eye glasses-Acc push-Isol raise-Pst-Decl
    *‘The teacher pushed his eye glasses and raised it.’*

Sentences (11a-c), which respectively describe two distinct actions (e.g., ‘push and put s.t. in’, ‘push and lower’ and ‘push and raise’), are not acceptable when the two verbs are connected by the isolating connective particle *-ko*, because, for example, ‘pushing his eye glasses’ in (11c) intrinsically involves simultaneously raising it as a “coextensive whole” (Sohn 1976:144).

Now, let us consider some locomotional serial verb constructions. It has been shown in Section 3.2.5.2 that a locomotional serial verb construction is composed of the sequence of a manner verb and a locomotional path verb (e.g., *kata* ‘to go’, *ota* ‘to come’, *tanita* ‘to go around’, *naota* ‘to come out’, and *nakata* ‘go out’). Unlike the positional path verb (e.g., *ollita* ‘to raise’ and *nayliita* ‘to lower’), these path verbs involve the trajector’s locomotion, because the trajector moves along a physical path from one place
to another with regard to some reference point (cf. Lakoff 1987a; K. Lee 1977 and 1996b; Radden 1988 and 1996). These locomotional path verbs must be connected with the manner verb *mita* by the isolating connective particle -ko; the event designated by this locomotional path verb is conceived as separable from the event *mita*-1:

(12)a. *ku-ka hwilcheye-ul mil-ko ka-ss-ta*
he-Nom wheel chair-Acc push-Isol go-Pst-Decl
‘He went, pushing the wheel chair.’

b. *Insu-ka mwun-ul mil-ko na-wa-ss-ta*
Insu-Nom door-Acc push-Isol out-come out-Pst-Decl
‘Insu pushed the door and came out.’

c. *yes-cangswu-ka liekha-lul mil-ko tani-n-ta*
taffy seller-Nom two wheeled cart-Acc push-Isol go around-Pres-Decl
‘The taffy seller goes around, pushing the two-wheeled cart.’

In (12a-c), the trajector’s locomotion designated by the path verb (e.g., *kata* ‘to go’, *naota* ‘to come out’ and *tani* ‘to go around’) is conceived as differentiated from the landmark’s movement away from the source of force. The path verb, as in (13a) and (13b), are conceptually diffused with the manner verb *mita* in terms of time and place:

(13)a. *ku-ka hwilcheye-ul mil-ko pyengwon-ev ka-ss-ta*
he-Nom wheel chair-Acc push-Isol hospital-Loc go-Pst-Decl
‘He went to the hospital, pushing the wheel chair.’

b. *ku-ka yumocha-lul ohwu-naynay mil-ko tani-ess-ta*
he-Nom baby carriage-Acc afternoon-all push-Isol go around-Pst-Decl
‘He went around all afternoon, pushing the two-wheeled cart.’

Looking at the semantic characteristics of the verb *mita* and the locomotional path verb, we realize that it is difficult to put the sequence of manner-and-locomotional path verbs into a single complex action, because they describe two distinct events. In the most canonical cases, the pushing motion is a momentary one-time activity, while the locomotional motion is inherently a continuative activity, involving the trajector’s
extended path. Because of the semantic incoherence of the manner verb *mila* and the locomotional verb (e.g., *kata* ‘to go’, *ota* ‘to come’, and *tanita* ‘to go around’), the isolating connective particle -ko is selected, and the locomotional serial verb construction (e.g., *mil-ko kata* ‘to go, pushing’) does not establish a conceptually unitary event.

\[(12')a. \quad *ku-ka \quad hwilcheye-ul \quad mil-e \quad ka-ss-ta\]
\[\text{he-Nom wheel chair-Acc push-Cons go-Pst-Decl}\]
\[\text{‘He pushed the wheel chair and went.’}\]

\[b. \quad *Inswu-ka \quad mwun-ul \quad mil-e \quad na-wa-ss-ta\]
\[\text{Inswu-Nom door-Acc push-Cons out-come out-Pst-Decl}\]
\[\text{‘Inswu pushed the door and came out.’}\]

\[c. \quad *yes-cangswu-ka \quad liekha-lul \quad mil-e \quad ka-n-ta\]
\[\text{taffy seller-Nom two wheeled cart-Acc push-Cons go-Pres-Decl}\]
\[\text{‘The taffy seller goes, pushing the two-wheeled cart.’}\]

When the isolating connective particle -ko is replaced by the consolidating connective particle -e, (12’a-c) are not acceptable.

§ 4.1.7 Semantics of *mila* with Auxiliary Verbs

As discussed in the previous section, the verb *mila* can be connected with another path verb, establishing the serial verb construction of a manner-and-path sequence. In this section, I will discuss the semantics of the verb *mila* related to an auxiliary verb\(^1\). The

---

\(^1\) In Korean, an auxiliary verb must be connected by -e or -ko with a primary verb. Korean has a limited number of auxiliaries, which represent aspectual meanings rather than lexical ones (cf. Choi 1971; S. Lee 1992; M. Kim 1996). By contrast, two verbs in a serial verb construction have lexical meanings. But the present study does not provide the specific similarities and differences between auxiliary verb construction and serial verb construction, since they are not the main issues of this study. It is claimed in M. Kim (1996) that a serial verb construction is the intermediate stage between clause chaining construction and auxiliary verb construction from the viewpoint of grammaticalization.
semantics of a particular auxiliary verb (connected with the verb milta) will help us to understand the semantic extension of milta-1.

First, the verb cwuta or its honorific form tulita means ‘to give’, as exemplified in (14a-b):

(14a) emma-ka ai-eykey sathang-ul cwu-ess-ta
carried verb-Nom child-Dat candy-Acc give-Pst-Decl
‘Mother gave the child a candy.’

(14b) ai-ka halapeci-kkey moca-lul tuli-ess-ta
carried verb-Nom grandfather-Dat hat-Acc give(Hon)-Pst-Decl
‘The child gave its grandfather the hat.’

In (14a-b), the ownership of the direct objects (sathang-ul ‘candy-Acc’ and moca-lul ‘hat-Acc’) was transferred from the subjects (emma-ka ‘mother-Nom’ and ai-ka ‘child-Nom’) to the Dative object (ai-eykey ‘child-Dat’ and halapeci-kkey ‘grandfather-Dat’). Simply, the candy in (14a) physically moved from one place (in the mother’s hand) to another place (in the child’s hand or mouth), as a result of the simple event cwuta ‘to give’.

The verb cwuta or tulita can be connected with the verb milta, linked by the consolidating connective particle -e. The sequence of milta and cwuta thus establishes a serial verb construction, mil-e cwuta, as in (15a-c):

(15a) cwuin-i sonnim-eykey pwulkoki cepsi-lul mil-e cwu-ess-ta
host-Nom guest-Dat bulgogi plate-Acc push-Cons give-Pst-Decl
‘The host proffered the plate of bulgogi (thin sliced barbecued beef) to the guest.’

(15b) ku-ka son-ul lulo sakwa-lul apeci aph-ulo mil-e tuli-ess-ta
he-Nom hand-Instr apple-Acc father front-Orient push-Cons give-Pst-Decl
‘He proffered the apple to (the front of) his father with his hand.’

---

2 The Korean verb tulita is the honorific verb of the verb cwuta ‘to give’ in the situation where a younger person give something to a much older person to show some respect.
c. ku-ka caki aph-ey iss-nun uyca-lul nay-key mil-e cvu-ess-ta
he-Nom self front-Loc be-Rel chair-Acc I-Dat push-Cons give-Pst-Decl
‘He pushed the chair in front of him to me.’

Similarly, in (15a-c), the physical object (i.e., pwulkoki ceps-i-lul ‘the plate of bulgogi’,
sakwa-lul ‘apple-Acc’, and uyca-lul ‘chair-Acc’), which was originally under the control of the trajector (cwuin-i ‘host-Nom’ and ku-ka ‘he-Nom’), was induced to move to another person (the RECIPIENT’s location designated by a Dative noun phrase) in a physical space domain. The control of the landmark is offered from the trajector to the RECIPIENT.

In these serial verb constructions, the trajector should always be an “intentional and conscious AGENT” (K. Lee 1979:22). The composite activity mil-e cvuta is performed in a shoving manner. The resulting fact that the landmark moved away from the source of the physical force (the AGENT) evolves partially from the semantics of the verb milta. It also associates with the semantics of the verb cvuta, because of the transfer of the control over an object. However, note that the RECIPIENT is a crucial part of the semantics of the verb cvuta ‘to give’ rather than that of the verb milta. The RECIPIENT is indicated by the Dative Case (e.g., -eykey and -key, as in sonnim-eykey ‘guest-Dat’ and nay-key ‘I-Dat’), or the locative noun phrase (e.g., apeci aph-u1o ‘to the front of (his) father’). As an epiphenomenon of the composite verb event mil-e cvu-ess-ta, the RECIPIENT can have some benefit3 (e.g., the guest’s enjoying the dish of bulgogi in (15a), the father’s eating the apple in (15b), and my sitting on the chair in (15c)).

---

3 The serial verb construction mil-e cvuta cannot be used when the event describes a disadvantageous damaging situation to the Recipient:
Connected with the verb *milda* by the connective particle *-e*, the verb *cwuta* ‘to give’ or its honorific form *tulita* ‘to give’ is metaphorically used as a benefactive auxiliary verb without any actual shift of the control over an object from AGENT to RECIPIENT. In this sense, the AGENT intends to provide some active service for someone. Just as giving an object to another person is beneficial to the person, performing an action for another person is also beneficial for the person (the Beneficiary). Therefore, the semantic effect of connecting *cwuta* ‘to give’ with *milda* ‘to push’ adds a “benefactive” sense to the RECIPIENT (cf. K. Lee 1979; H. Im 1993; Rhee 1996). In this case, the verb *milda* of the serial verb construction *mild-e cwuta* is considered its primary verb (cf. Choi 1971⁴), because it supplies the major lexical content of the serial verb construction for the sentence. By contrast, the verb *cwuta* of this serial verb construction is considered its secondary verb, because it becomes grammaticalized as an auxiliary verb, representing aspectual, i.e. benefactive marker⁵ along with temporal information (added by a tense marker):

(16)a. *Swuni-ka hwilcheaye-lul mil-e cwu-ess-ta*
*Swuni-Nom wheelchair-Acc push-Cons Benf-Pst-Decl*
‘Swuni pushed the wheelchair (for the person who was sitting on the chair).’

(1) *kyengchalkwan-i ku-eykey sokto-waya-pan thikheys-ul mil-e cwu-ess-ta*
*policeman-Nom he-Dat speed-violation ticket-Acc pull-Cons Benf-Pst-Decl*
‘A policeman presented him with a speeding ticket.’

In (1), the Dative pronoun phrase *ku-eykey ‘he-Dat’* is not a Beneficiary because he should pay fine for the speed ticket. It is obvious that *mil-e cwuta* has a positive connotation.

⁴ Choi (1971) distinguishes *pontongs* ‘primary verb’ from *cotongs* ‘auxiliary verb’ in the sense that the former functions as a main predicate with its full lexical content while the latter does not have fully independent lexical content.

⁵ Choi (1971) classifies Korean auxiliary verbs into 13 categories, in which the verbs, *cwuta* ‘to give’ and *tulita* ‘to give (Hon)’ are characterized as *semkim towum wumeikssi* ‘serving auxiliary verb’.
b. **Inswu-ka** kolmok kkuth-kkaci apeci-uy
   Inswu-Nom lane end-Dest father-Gen

   liekha-lul mil-e tuli-ess-ta
   two-wheeled cart-Acc push-Cons Benf-Pst-Decl

   ‘Inswu pushed the two-wheeled cart for his father to the end of the lane.’
lit. ‘Inswu pushed his father’s two-wheeled cart to the end of the lane.’

In (16a) and (16b), the physical activity of *milt-1* itself is conceived, as if it were a
concrete and physical object (e.g., *sathang* ‘candy’, *moca* ‘hat’, as in (14a-b)) given from
the trajector to the unspecified person (the person sitting at the wheelchair) in (16a), or
Inswu’s father in (16b). Before the activity *mil-e cwuta* in (16a), the unspecified person
(the wheelchair sitter) owns and controls the wheelchair (the landmark). After the
composite activity *mil-e cwu-ess-ta*, the owner and controller of the landmark remains
unchanged.

The trajector (i.e., *Swuni-ka* ‘Swuni-Nom’ and *Inswu-ka* ‘Inswu-Nom’) performs
the beneficial activity *milt* for the respective controller of the landmark (Beneficiary). In
(16a) and (16b), the landmarks (i.e., *hwilcheye-lul* ‘wheelchair-Acc’ and *liekha-lul* ‘two-
wheeled chair-Acc’) were pushed along the paths for the unspecified wheelchair controller
and Inswu’s father. In (16a), the extended path of the trajector is not specified, but is
possibly inferred from the context, for example, from the PATIENT’s house at the initial
point of time to his hospital at the final temporal point. The external path of the trajector
in (16b) is explicitly expressed with their final location, *kolmok kkuth-kkaci* ‘lane end-Dest
‘to the end of the lane’, without specifying their initial location. The Beneficiary is not
expressed in (16a), because it can be adequately understood from the given linguistic
information, i.e. *hwilcheye* ‘wheelchair’ by means of a metonymic relation between the
wheelchair and wheelchair controller in a wheelchair frame.
Second, we turn now to another serial verb construction, that of *mil-e pelita*. As a full lexical verb, the polysemous verb *pelita* means ‘to throw away’, ‘to abandon’, ‘to stop’, and ‘to spoil’, involving some metaphorical extension from a physical motion in a physical domain to a non-physical motion in an abstract domain (cf. K. Lee 1976; H. Im 1993; Rhee 1996):

\[(17)a. \ ku \ namca-ka \ tampay \ kkongcho-lul \ kil-ey \ peli-ess-ta \]
the man-Nom cigarette butt-Acc street-Loc throw away-Pst-Decl
‘The man *threw away* the cigarette butt on the street.’

\[b. \ yengkwuk-uiy \ wangseyca-ka \ wangwui-lul \ peli-ess-ta \]
England-Gen Crown Prince-Nom throne-Acc throw away-Pst-Decl
‘The Crown Prince of England *abandoned* his throne.’

\[c. \ ku-ka \ aysse \ pwulkilhan \ sayngkak-ul \ peli-ess-ta \]
he-Nom with efforts ominous idea-Acc throw away-Pst-Decl
‘He *stopped* thinking of the ominous idea with effort.’

\[d. \ pwumo-ka \ may-lul \ akki-myen \ ai-lul \ peli-n-ta \]
parents-Nom rod-Acc spare-Cond child-Acc throw away-Pres-Decl
‘If parents spare the rod, they *spoil* their child.’

Rhee (1996:50-53) claims from a diachronic point of view that this metaphorical extension of the verb *pelita* results in the general and inclusive meaning of “removal” through the “semantic generalization of *pelita*”\(^6\). When the verb *pelita* is used with another verb *mitla*

---

\(^6\) Rhee (1996: 52) progressively describes the semantic generalization of *pelita* as follows:

<table>
<thead>
<tr>
<th>Stage I</th>
<th>Stage II</th>
<th>Stage III</th>
<th>Stage IV</th>
</tr>
</thead>
<tbody>
<tr>
<td>lexical</td>
<td>metaphorical</td>
<td>metaphorical</td>
<td>metaphorical</td>
</tr>
<tr>
<td>throw away</td>
<td>leave/abandon</td>
<td>=&gt; quit/stop</td>
<td>=&gt; disappear/spoil</td>
</tr>
<tr>
<td>animate agent</td>
<td>animate agent</td>
<td>animate agent</td>
<td>animate agent</td>
</tr>
<tr>
<td>physical removal</td>
<td>physical removal</td>
<td>removal</td>
<td>removal</td>
</tr>
<tr>
<td>from Location 1</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
connected by the connective particle \(-e\), it functions as a perfective\(^7\) auxiliary verb. Lee (1976:47) argues that in addition to the perfective or completive semantics, the auxiliary

\[^7\] I argue that the concept "perfectivity" in Korean is diffused from the most apparent to the least perfective, e.g., from the grammaticalized perfective auxiliary verb, e.g., *pelita* (especially connected by the consolidating connective particle \(-e\)) via the past tense marker \(-ess\) and the grammatical imperfective auxiliary verb \(-ko issta\) (connected by the isolating connective particle) through the imperfective lexical verb *siphta* 'to want':

\[
(1a) \begin{array}{llll}
\text{Inswu-ka} & \text{satali-lul} & \text{mil-e} & \text{pele-ess-ta} \\
\text{Inswu-Nom} & \text{ladder-Acc} & \text{push-Cons} & \text{Perf-Pst-Decl} \\
\text{"Inswu pushed the ladder."}
\end{array}
\]

\[
(1b) \begin{array}{llll}
\text{Inswu-ka} & \text{satali-lul} & \text{mil-ess-ta} \\
\text{Inswu-Nom} & \text{ladder-Acc} & \text{push-Pst-Decl} \\
\text{"Inswu pushed the ladder."}
\end{array}
\]

\[
(1c) \begin{array}{llll}
\text{Inswu-ka} & \text{satali-lul} & \text{mil-ko} & \text{iss-ta} \\
\text{Inswu-Nom} & \text{ladder-Acc} & \text{push-Isol} & \text{be-Decl} \\
\text{"Inswu is pushing the ladder."}
\end{array}
\]

\[
(1d) \begin{array}{llll}
\text{Inswu-ka} & \text{satali-lul} & \text{mil-ko} & \text{siphta} \\
\text{Inswu-Nom} & \text{ladder-Acc} & \text{push-Isol} & \text{want-Decl} \\
\text{"Inswu wants to push the ladder."}
\end{array}
\]

Rhee (1996) claims that the past tense marker \(-ess\) does not reveal the perfectivity of a verb. This enables him to make a distinction between *mek-ess-ta* 'ate' and *mek-e peli-ess-ta* 'ate'. Although these two are identically interpreted, only the latter is claimed to establish the process as a perfective. However, I argue that since Korean does not have grammatical mechanisms (distinct from tense markers) such as "present perfect" and "past perfect", unlike English (e.g., *have eaten* and *had eaten*), the past tense marker *-ess* (cf. Nam 1972) often evokes some degree of perfectivity, although it is less obvious than the grammaticalized perfective auxiliary verb of a serial verb construction, e.g., *pelita*. Therefore, sentence (1a) establishes the process as the most apparent perfective while sentence (1d) establishes the process as the least perfective (that is to say, an imperfective process). Sentence (1b) and (1c) are considered intermediate between (1a) and (1d). Contrary to its perfective use (in addition to the past tense) in (1b), *-ess* can function as only a past tense marker, as in *Inswu-ka satali-lul mil-ko iss-ess-ta* 'Inswu was pushing the ladder'. In (1c), the progressive construction converts the perfective in (1b) into an imperfective by profiling a limited intermediate portion of the perfective. In (1c), there is no noticeable change through time without the distinctive initial and final states of the event. The concept "perfective" is a matter of degree, not a yes-or-no matter in Korean.
verb *pelita* also presents “the speaker’s evaluation or attitude toward an event or situation”, to be more specific, “spoiling the speaker’s expectation” or “removing psychological hindrance” (cf. Sohn 1976). This semantic characteristic of *pelita* (as an auxiliary verb) is claimed in Lee (1976) to be more important than its perfective meaning. Rhee (1996) approaches the perfective aspect and the speaker’s eva- luation viewpoint of -e *pelita* in terms of a diachronic multifunctional development, and pragmatic or inferential acquisition. Let us observe some instances of *mil-e pelita*:

(18)a. **Inswu-ka satali-lul mil-e peli-ess-ta**
    Inswu-ka ladder-Acc push-Cons Perf-Pst-Decl
    ‘Inswu pushed the ladder.’

b. **ku-ka noin-lul hwak mil-e peli-ess-ta**
    he-Nom old man-Acc suddenly push-Cons Perf-Pst-Decl
    ‘He suddenly pushed the old man.’

c. **ku-ka phal-ul pelli-ko takao-nun sangtaypeng-uy**
    he-Nom arm-Acc open-Isol come near-Rel the other man-Gen
    **kasumphyak-lul himkses mil-e peli-ess-ta**
    chest-Acc to full strength push-Cons Perf-Pst-Decl
    ‘He pushed with his full strength the other man who was approaching him with his arms open.’

The physical activity *mil-e pelita* establishes the process as a perfective within its definite initial and final boundaries of time. There must be some observable change of the location and state of the landmark. In (18a), the event (the ladder was pushed away from its initial location to another) has been completed with the change of the landmark’s location. Simultaneously, (18a) can be interpreted according to the speaker’s evaluation. Although the speaker did not want Inswu to push the ladder, he pushed the ladder from its initial
location to another; to the speaker's regret and disappointment, the ladder was pushed away; the activity was irretrievable, once it was already performed. The speaker's evaluative viewpoint, "irretrievability", of the auxiliary verb -e pelita is compatible with the resultant irretrievability of the main verb milta. Sentence (18b) is analyzed in the following way; 'suddenly pushing the old man' is evaluated by the speaker as an irretrievable and undesirable behavior.

§ 4.2 Semantic Extensions of milta

The uses of the verb milta are not restricted to milta-1 in a physical space domain. The verb milta is also used to represent several different senses in a non-physical domain as well as in a physical domain. In this section, I will investigate the semantic extension of milta. I will examine how the various senses of milta are related to one another in terms of family resemblance relationships on the basis of the different but related conceptualizations of the cognitive-functional attributes, viz. cognitive domain, trajector and landmark, path, energy transfer, dimension, and the semantics of a serial verb construction.

§ 4.2.1 Sense 'to smooth the surface'

Like milta-1, this extended sense 'to smooth the surface' is characterized relative to a physical space domain. The sense 'to smooth the surface' involves a physical activity of a human or personified trajector, who exerts some physical force upon the surface of a concrete and physical object by means of a discrete physical INSTRUMENT.
The extended sense ‘to smooth the surface’ of the verb *mila* is itself schematic to several specific senses such as ‘to plane’, ‘to level’, ‘to shave’, ‘to rub off (human bodily dirt)’, and ‘to roll out dough’:

(19)a.  

\[ ku\-ka \ tayphy\-lo \ song\-phan\-ul \ mil\-ess\-ta \]

he-Nom  plane-Instr  pinetree-board-Acc  push-Pst-Decl

‘He planed the pine tree board with a plane.’

b.  

\[ ku\-tul\-i \ pwuldoce\-lo \ entek\-ul \ mil\-ess\-ta \]

he-Pl-Nom  bulldozer-Instr  hill-Acc  push-Pst-Decl

‘They leveled the hill with a bulldozer.’

c.  

\[ ku\ namca\-ka \ khosswuyem\-ul \ pakpak \ mil\-ess\-ta \]

the man-Nom  mustache-Acc  close  push-Pst-Decl

‘The man shaved his mustache’

‘The man had his mustache shaved.’

d.  

\[ emeni\-ka \ mil\-pancwuk\-ul \ mil\-ess\-ta \]

mother-Nom  flour dough-Acc  push-Pst-Decl

‘Mother rolled out the flour dough.’

All of these specific senses in (19a-d) share the semantics that the rough part on the
surface of the landmark or the bumpy landmark itself ends up being smoothed by pushing
the respective appropriate INSTRUMENT (e.g., planing tool, bulldozer, tractor, towel,
razor, or rolling pin) across the surface.

As for the sense ‘to smooth the surface’, the verb *mila* is extended to identify the
results of the pushing activities. With respect to the polysemy of a verb, Fillmore
(1971:385-386) explains the semantic extension of a verb in terms of “functional shift”;
“Where one kind of activity is a possible way of carrying out another activity, the verb
which identifies the former activity has superimposed onto it certain syntactic and
semantic properties of the verb which identifies the second or completing activity” (cf.
Goldberg 1995):

(20)a.  

*He loaded bricks onto the truck.*
b. *He loaded the truck with bricks.*

c. *He filled the truck with bricks.*

The English verb *load* refers to the activity of putting a load onto or into a container, e.g., *truck*, as in (20a). This activity of transferring objects into a container can have the result of filling that container, as we see in sentence (20b). The syntactic and semantic properties of *fill* have been superimposed onto the verb *load*. The feature that identifies the second use of *load* can be replaced by another verb *fill*, as in (20c).

Now, let us consider the examples of the sense ‘to smooth the surface’ of the verb *mita*:

\[(21a)\]

\[
\begin{array}{llllll}
\text{ku-ka} & \text{song-phan} & \text{wuy-ey} & \text{iss-nun} & \text{tayphay-lul} & \text{mil-ess-ta} \\
\text{he-Nom} & \text{pinetree-board} & \text{on-Loc} & \text{be-Rel} & \text{plane-Acc} & \text{push-Pst-Decl} \\
\end{array}
\]

‘He pushed the plane on the pine tree board.’

b. \[
\begin{array}{llllll}
\text{ku-ka} & \text{tayphay-lo} & \text{songphan-ul} & \text{mil-ess-ta} \\
\text{he-Nom} & \text{plane-Instr} & \text{pinetree board-Acc} & \text{push-Pst-Decl} \\
\end{array}
\]

‘He planed the pine tree board with a plane.’

In (21a), the verb *mita* describes the event *mita*-1 (‘the trajector causes the landmark to move away from the source of the physical force’). By contrast, the event designated by the verb *mita* in (21b) can have the result of ‘smoothing the rough surface’ by performing the pushing acts. To be more specific, the act of pushing the INSTRUMENT (*tayphay-lo* ‘planing tool-Instr’) on an entity (*songphan-ul* ‘pine tree board-Acc’) can lead to removing the rough surface of that entity and smoothing it. The syntactic and semantic functions of the verb *smooth* (precisely *plane*) are superimposed onto the verb *mita* and the sense ‘to smooth the surface’ (‘to plane’) has emerged. Figure 2 is the representation of the sense ‘to plane’ in (21b):
Like milta-1, the trajector, which is represented by the larger circle in Figure 2, is profiled as the most prominent participant in the planing event. In (21b), the trajector (ku-ka ‘he-Nom’) functions as the prototypical AGENT and the sources of physical force because he volitionally initiates and carries out the event ‘to plane’ upon the landmark. So do the trajectors (ku-ka ‘he-Nom’, kutul-i ‘they-Nom’, ku namca-ka ‘the man-Nom’, and emeni-ka ‘mother-Nom’) in (19a-d).

The landmark (songphan-ul ‘pine tree plane-Acc’) in (21b) is represented by the smaller circles in Figure 2. The landmark plays the role of PATIENT, because it does not move toward the source of force, but undergoes a change of state by absorbing the physical force (pressure) from the trajector. So do the landmarks (songphan-ul ‘pine tree-Acc’, entek-ul ‘hill-Acc’, swayem-ul ‘beard-Acc’, and milpancwuk-ul ‘flour dough-Acc’) in (19a-d). For the event milta ‘to plane’, the semantic role of the landmark as PATIENT contrasts with that of the landmark as MANIPULATED MOVER for the event milta-1. In Figure 2, the dotted zigzag line within the smaller dotted circle represents the rough surface of the landmark (indicated by the dotted smaller circle) at the initial temporal point of t₁. At the final temporal point of t₂, the contour is removed. So, the
resultant smooth surface of the landmark is indicated by the straight line within the smaller solid-lined profiled circle. This final even state is explicitly expressed by an adverb, *phyengphyenghakey* 'evenly', or *maykkulepkey* ‘smoothly’, as in (21'b):

\[(21'b) \text{ ku-ka tayphay-lo songphan-ul maykkulepkey mil-ess-ta} \]

he-Nom plane-Instr pinetree board-Acc smoothly push-Pst-Decl

‘He smoothly planed the pine tree board with a plane.’

The sense ‘to plane’ takes as its landmark the location (e.g., *songphan-ul* ‘pinetree board-Acc’ in (21b) and (21'b)) for the whole bumpy surface rather than the bumpy portion itself. This bumpy portion has a partitive relation to the locative landmark (e.g., the whole pine tree board). The landmarks can be the reference points for the unexpressed surface contours (active zones), e.g., chamfers and grooves of the pinetree board. In Figure 2, the bumpy portion is indicated by the dotted zigzag line within the smaller circle and is unprofiled within the smaller circle, in contrast with the profiled landmark (the smaller circle) in terms of cognitive saliency. Although this rough portion on the top of the landmark, as active zone, directly interacts with the event *mila* and ends up being cut off the board, it is not selected as the landmark, because the whole locative entity (*songphan-ul* ‘pine tree board-Acc’) is cognitively more salient and is more easily perceived than its limited portion (cf. Langacker 1991a). Therefore, we can find that a profiling discrepancy exists between the landmark and its active zone (e.g., the pinetree board and its grooves in (21b)), which also occurs in the following examples of the sense ‘to level’ or ‘to bulldoze’:
Figure 3. Representation of the event milta ‘to level’

(22)a. ku salam-tul-i san-ul mil-ess-ta
    the person-Pl-Nom mountain-Acc push-Pst-Decl
    ‘The people flattened the mountain (for example, for building a new
    apartment complex).’

b. ku pwultoce-ka phyengphyenghakey kil-ul mil-ess-ta
    the bulldozer-Nom evenly road-Acc push-Pst-Decl
    ‘The bulldozer evenly leveled the road.’

In (22a-b), the locative landmarks (san-ul ‘mountain-Acc’ and kil-ul ‘road-Acc’) are
selected as the direct objects, as illustrated by the profiled middle-sized circles in Figure 3,
while the rocky portion (e.g., trees and stones) of the mountain and road, as active zone,
is not explicitly encoded, as indicated by many smallest unprofiled circles within the larger
circles in Figure 3. The landmarks serve as the locations or the reference points for their
bumpy parts, as in (21b) and (21’b). Schlesinger (1995:63-66) claims that the locative
direct object within the verb phrase, as a whole, implies “completion” or “feat”\(^8\) in that
despite the presence of difficulty, the event has been successfully completed (cf. Quirk et

\(^8\) Schlesinger (1995:65) explains the property of “feat” by the following examples:
(1) a. John swam the lake.        (2)a. Jack climbed the mountain/ the pyramids.
    b. ?? John swam the pond.       b. *Jack climbed the bed.
The verb swim or climb is used with a direct object when some challenge and difficulty are overcome in
performing the activity.
al. 1985\textsuperscript{9}; Dowty 1979\textsuperscript{10}, Levin 1993). For example, in (19b) \textit{He loaded the truck with bricks}, the truck ends up being fully laid with bricks. By contrast, in (19b) \textit{He loaded bricks onto the truck}, it is not certain whether or not the truck is completely filled with bricks because of the absence of completion. This explanation is relevant for the locative landmarks in (21b) and (22a-b), because these events (‘to plane’, ‘to level’ and ‘to bulldoze’) profile their resultant states of the ordered series of the event states with their initial and intermediate states relatively less highlighted. For example, the initial state of the event ‘to level’ (in which the trajector initiates the physical pushing activity by exerting the force upon the INSTRUMENT (bulldozer)) is conceived as not important.

With regard to the notion of \textbf{relative saliency} among the event participants, let us consider the trajector (AGENT), the landmark (PATIENT), and the INSTRUMENT. Sentences (21b) and (21’b) designate the three main participants, i.e. AGENT (\textit{ku-ka ‘he-Nom’}), PATIENT (\textit{songphan-ul ‘pine tree board-Acc’}), and INSTRUMENT (\textit{tayphay-lo ‘plane-Instr’}), of the “action chain” within the scope of predication of a finite clause (Langacker 1991a and 1991b). All of them are profiled. The trajector in (24a), repetitively or continuously, induces the specified INSTRUMENT (\textit{tayphay-lo ‘plane-Instr’})

\textsuperscript{9} According to Quirk et al. (1985:685), “the reader will note that the direct object implies that the activity has been successful and has been brought to its completion, whereas the corresponding sentence with a prepositional object does not have this implication”. For example, \textit{pushing the desk} in English means that one apparently achieves the activity of moving the desk away from the Agent. By contrast, \textit{pushing at the desk} describes that one does not quite succeed in the activity of moving the desk.

\textsuperscript{10} Dowty (1979) says that a direct object has the implication of \textit{accomplishment}, which is absent in a prepositional object.
to move across the surface of the pine tree plane by directly transferring the physical force to the INSTRUMENT first and then to the PATIENT.

Sentence (22a) selectively profiles the AGENT (kutul-i ‘they-Nom’) and the PATIENT (san-ul ‘mountain-Acc’). The INSTRUMENT (e.g., pwultoce-lo ‘bulldozer-Instr’) is not expressed, but can be adequately conceived from its associated frame, e.g., construction frame, according to our common sense knowledge.

Sentence (22b) selects the INSTRUMENT (pwuldoce-ka ‘bulldozer-Nom’) and the PATIENT (kil-ul ‘road-Acc’) as its profiled participants of the event, and portrays the force-dynamic interaction between the INSTRUMENT and the PATIENT (landmark), without profiling the AGENT in the subject position. The INSTRUMENT is chosen as the most salient participant in the subject position, ku pwultoce-ka ‘the bulldozer-Nom’, and is profiled as the primary figure (the trajector) of the event ‘to bulldoze’. The speaker selects the bulldozer as a more salient entity than its driver in terms of its function and size; when leveling a road, the large bulldozer first attracts the speaker’s attention. By a metonymic relation within a given cognitive frame, e.g., road construction, the bulldozer can refer to its driver, because the bulldozer and its driver are considered a unified entity. The bulldozer is, thus, conceived as playing the roles of the AGENT (its operator) and the INSTRUMENT simultaneously. And the bulldozer’s exertion of physical force upon the landmark is analogously conceptualized as that of the driver, because the driver operates the movement and direction of the bulldozer (discussed in the sense ‘to drive’ of the verb kkulta in Section 3.3.4).
For the activities (‘to plane’ and ‘to level’) in (21b), (21’b), and (22a-b), let us compare the locative landmark with the INSTRUMENT. The locative landmarks (songphan-ul ‘pine tree board-Acc’, san-ul ‘mountain-Acc’, and kil-ul ‘road-Acc’) are relatively more salient and more important than the instrumental tools (e.g., tayphay-lo ‘plane-Instr’ and pwuldoce-lo ‘bulldozer-Instr’). They occur in the positions of the direct objects, and are profiled as the second most prominent element next to the subject. These landmarks are more affected than the INSTRUMENTs as a result of the force-dynamic interactions of the participants in the sense that they change their states from uneven to even. For example, the rough portion on the surface of the pine tree plank (the landmark) in (21b) was cut off by the planing tool. The surface of the pine tree board ends by being flat and smooth.

By contrast, the INSTRUMENTs function as Oblique (-ulo ‘Instr’), and are often unexpressed, as in (22a). They play the semantic role of MANIPULATED MOVER, because they are immediately pushed by the trajectors, and are caused to pass across the uneven surfaces of the entities. In Figure 2, the physical movement of the INSTRUMENT is not described. Unlike milta-1 in Figure 1, the single shafted rightward arrow (linking the two smaller circles) in Figure 3 schematically refers to the correspondence line of the landmark’s states, which undergo the surface change from its initial uneven state to its final even state. Note that it does not represent the movement of the landmark, because this landmark in Figure 3 does not change its location, and does not play the role of MOVER. This discussion of relative saliency between the landmark (PATIENT) and the
INSTRUMENT (MANIPULATED MOVER) also applies to the other specific events of shaving, rubbing off, and rolling out dough.

The intrinsic and external paths of the landmark (PATIENT) are, thus, not relevant for the event ‘to smooth the surface’. This becomes evident by the fact that this event is often not compatible with the external path of the landmark:

(23)a. *ku-ka _tayphay-lo_ songphan-ul mil-e neh-ess-ta
   he-Nom plane-Instr pinetree board-Acc push-Cons put in-Pst-Decl
   *‘He _planed_ the pinetree board and put _in_ with a plane.’
   ‘He pushed the pinetree board in with a plane.’

b. *ku _salam-tul-i_ san-ul aph-ulo mil-ess-ta
   the person-Pl-Nom mountain-Acc front-Orient push-Pst-Decl
   *‘The people flattened the mountain _forward_.’

Sentence (23a) is unacceptable when the verb _mila_ is understood as ‘to plane’, connected with another path verb _neh-ta_ ‘to put in’. In the prototypical action of planing a pinetree board, the board is motionless. The only possible gloss of (23a) is ‘He pushed the pinetree board into (a container) with a plane’ in which the verb _mila_ is used to mean _mila_-1. Combined with the locative noun phrase, _aph-ulo_ ‘forward (front-Orient)’, (23b) is not possible for the event ‘to flatten’ of _mila_, because the landmark _san-ul_ ‘mountain-Acc’ does not move from its original place.

During the event ‘to smooth the surface’, the trajector does not generally change its spatial location through time:

(24)a. *ku _mokswu-ka_ songphan-ul mil-e ka-ss-ta
   the carpenter-Nom pinetree board-Acc push-Cons go-Pst-Decl
   *‘The carpenter _planed_ the pinetree board, (simultaneously) _going_.’

b. _ku_ mokswu-ka _songphan-ul_ mil-ko _cip-ulo_ ka-ss-ta
   the carpenter-Nom pinetree board-Acc push-Isol home-Orient go-Pst-Decl
   ?‘The carpenter _planed_ the pinetree board _and then_ _went home_.’
Sentence (24a) is not acceptable because the event ‘to plane’ (designated by the verb *miltä*) cannot simultaneously occur with another path event ‘to go’ involving the trajector’s extended path (designated by the verb *kata*), connected by the consolidating connective particle -e. During the smoothing event, the trajector must not locomotionally move through time, although he may change his position in the same location. The two events (designated by the serial verb construction *mil-e ka-ss-ta*) cannot be integrated into one conceptual unity. By contrast, sentence (24b) is perfectly possible when the verb *miltä* is connected with the verb *kata* ‘to go’, connected by the isolating connective particle. The first event ‘to plane’ is completely finished, and then another path event ‘to go’ occurs, establishing the two separate conceptual events. The addition of the adverbial phrase *machimnay cip-ey* ‘finally home-Loc’ in (24b) supports the explanation above.

In contrast to the trajector (AGENT) and landmark (PATIENT), the INSTRUMENT plays the role of MANIPULATED MOVER, and is caused to move across on the top of the landmark because some physical force is immediately transferred from the AGENT to it by the physical contact. Since the trajector’s one-time exertion of force upon the INSTRUMENT and the INSTRUMENT’s single movement on the surface of the landmark do not bring about smoothing the surface, the event ‘to smooth the surface’ refers to a repetitive or continuous activity against the surface of the landmark for a certain period of time, as we see (25a) and (25b):

(25a. *ku-ka tayphay-lo songphan-ul sey sikan-tongan mil-ess-ta*
   he-Nom plane-Instr pinetree board-Acc three hour-for push-Pst-Decl
   ‘He planed the pine tree board with a plane for three hours.’

   b. *ku salam-tul-i san-ul ecey-kkaci mil-ess-ta*
      the person-Pl-Nom mountain-Acc yesterday-Dest push-Pst-Decl
      ‘The people flattened the mountain until yesterday.’
The physically different infinite movements of the INSTRUMENT (passing across the surface of the landmark) are conceived as an indistinguishably repetitive or continuous whole, and as less salient than the resultant change of smoothness.

Now, we turn to other instances of the event milta ‘to p’ane’ and ‘to level’. The verb milta frequently occurs with the perfective auxiliary verb pelita, establishing the serial verb construction mil-e pelita. From a vantage point, the speaker observes the composite event mil-e peli-ess-ta of (26a-b) from the outside, and subjectively evaluates it as an irretrievable activity:

(26)a. ku nongpwu-ka paychwu-lul thuleyktha-lo mil-e peli-ess-ta
    the farmer-Nom cabbage-Acc tractor-Instr push-Cons Perf-Pst-Decl
    ‘The farmer removed the planted cabbages with the tractor (without taking them out from the farm because the market price of cabbages is too low), and made the farm flat and empty (for another planting).’

b. ku-tul-i cosang-uy yumwul-ul pwulcoce-lo mil-e peli-ess-ta
    he-Pl-Nom ancestor-Gen relic-Acc bulldozer-Instr push-Cons Perf-Pst-Decl
    ‘They bulldozed all the relics of their ancestors with a bulldozer.’

In (26a-b), the schematic sense milta ‘to smooth the surface’ with the verb pelita invokes a clearly completive perfective image with a discernible change in a temporally bounded event. The trajectors (ku nongpwu-ka ‘the farmer-Nom’ and ku-tul-i ‘he-Pl-Nom’) operated the INSTRUMENTS (thuleyktha-lo ‘tractor-Acc’ and pwulcoce-lo ‘bulldozer-Instr’), and made them pass across the cabbage farm and the site of the relics. The tractor in (26a) completely removed the cabbages (the landmark) on the farm. In (26b), the bulldozer destroyed the ancestor’s relics where they were buried. The original states of the landmarks are not recoverable, as a result of the event. The groundings of the landmarks are reshaped to be flat.
Regarding the notion of active zone, the landmarks (*paychwu-lul* ‘cabbage-Acc’ and *yumwul-ul* ‘relic-Acc’) in (26a) and (26b) are different from those (*songphan-ul* ‘pine tree plane-Acc’, *san-ul* ‘mountain-Acc’ and *kil-ul* ‘road-Acc’) in (21b) and (22a-b). The landmarks in (26a) and (26b) represent the small entities constituting the bumpy and rough surface of the farm and the relics’ location, as illustrated by the small profiled sticks within the first unprofiled circle in Figure 4 below. The cabbages and relics are selected as active zones, which directly interact with the event ‘to remove’ or ‘to bulldoze’ in (26a) and (26b). They are immediately removed, as a result of this event. Neither the farm or the relics’ location is not encoded, but possibly both are conceived as reference points for the landmarks themselves; the cabbages and relics are grounded with reference to them. On the other hand, *songphan-ul* ‘pine tree board-Acc’, *san-ul* ‘mountain-Acc’ and *kil-ul* ‘road-Acc’ in (21b) and (22a-b) are profiled as the landmarks, but the respective active zones (i.e., chamfers and grooves of the pinetree board, trees on the mountain, and stones on the road) of the event (‘to plane’, ‘to bulldoze’, and ‘to level’) are not linguistically selected.

Now, let us move on to another specific sense ‘to shave’ of the schematic sense *mila* ‘to smooth the surface’ relative to human body parts, particularly mustache, beard, and hair. This sense also presents the semantics of ‘completion’/‘perfectivity’ as well as ‘smoothing’:
(27a. ku namca-ka khosswuyem-ul pakkak mil-ess-ta
the man-Nom mustache-Acc close push-Pst-Decl
‘The man shaved his mustache.’
‘The man had his mustache shaved.’

b. haalepeci-kkses swuyem-ul myento-lo mi-si-ess-ta
grandfather-Nom(Hon) beard-Acc razor-Instr push-Hon-Pst-Decl
‘The grandfather shaved his beard with a razor.’
?‘The grandfather had his beard shaved with a razor.’

c. ku chengnyen-i cwung-chelem meli-lul mil-ess-ta
the youth-Nom Buddhist monk-like hair-Acc push-Pst-Decl
?‘The youth shaved his hair bald like a Buddhist monk.’
‘The youth had his hair shaved bald like a Buddhist monk.’

In (27a), (27b), and (27c), the trajector and the implicit possessor of the landmark refer to
the same person. Note that the conceivable INSTRUMENT, myento-lo ‘razor-Instr’, in
(27a) is not expressed. In (27a), the trajector, ku namca-ka ‘the man-Nom’ is glossed as
playing either the AGENT (the source of physical force) or the PATIENT. In actuality, it is
very common for a Korean speaker to understand (27a) in the two different ways. The
interpretations depend not only on the sentence structure but also on the speaker’s
(conceptualizer’s) construal of the speech situation, related to the speech time and event
time. If the speaker saw the man finish shaving his own beard with a razor in front of the
mirror, only the first gloss of (27a) is possible. The trajector, as AGENT, did the shaving to himself, and affected himself in a middle voice way (cf. Kemmer 1993a). The speaker directly describes the shaving scene at the event place, which was already completed at the speech time. Therefore, when the past tense is replaced by the present tense, as in (28), the first gloss of (27a) is greatly preferred to its second gloss:

(28) ku namca-ka khosswuyem-ul mi-n-ta
    the man-Nom mustache-Acc push-Pres-Decl
    ‘The man shaves (or is shaving) his mustache.’
    ??‘The man is having his mustache shaved.’

In (28), the event time is almost identical to the speech time because the speaker sees the man’s shaving himself on the spot, and describes it at the same time by saying (28).

Although sentence (27a) syntactically shows a transitive sentence structure, the second gloss is possible. Suppose the trajector (in the sense that it is the most prominent element in the clause, despite its semantic role), as PATIENT, had received the activity of shaving by an unexpressed AGENT (i.e., a barber) and the speaker saw the shaven person (the subject) on the street. In this case, for the event mility ‘to shave’, Korean speakers do not employ any particular grammatical mechanism, e.g., passive marker and a change of word order, in order to express the second gloss of (27a). The speaker focuses on the changed appearance of the landmark; he is not interested in who shaved the trajector’s beard.

On the other hand, the first gloss of (27b) is highly preferred to its second interpretation. The specification of the INSTRUMENT, myento-lo ‘ razor-Instr’, makes (27b) descriptive of the trajector’s shaving. The first gloss is, thus, more appropriate than the second gloss (the simple discovery of the grandfather’s changed facial appearance).
By contrast, the first gloss of (27c) is marginally acceptable when the trajector (*ku chengnyen-i* ‘the youth-Nom’) saw himself in the mirror, and completely shaved his own hair bald like a Buddhist monk. This is not likely to happen according to our pragmatic world knowledge and inference, because it is very difficult for a person to shave his own head. The second gloss of (27c) is perfectly acceptable. In this gloss, the trajector does not exert any physical force upon his own hair. The trajector plays the role of PATIENT, undergoing the event *milia* ‘to shave’ by another person (AGENT).

Despite the strong preference for the second gloss (the trajector playing the role of PATIENT), (27c) exhibits the structure of a transitive sentence where *ku chengnyen-i* ‘the youth-Nom’ is selected as the trajector, and *meli-lul* ‘hair-Acc’ is selected as the landmark. This discrepancy between the syntactic structure and its interpretation is explained in the following ways. First, the speaker assumes that the trajector intended to and decided to change his appearance by shaving, regardless of whether he shaved his own hair bald, or he had his hair shaved by a barber. I argue that the trajector’s intention can be reflected in the sentence structure by its occurrence in the subject position regardless of its semantic role (AGENT or PATIENT). Second, as mentioned before, it is not an important matter to the speaker who performed the past event *milia* ‘to shave’ at the speech time in the second glosses of (27a-c). However, the speaker appreciates the noticeable and irretrievable change of the trajector’s appearance. It is observed at the speech time that no hair is left on his scalp or chin. Therefore, the final state of the successive process ‘to shave’ is more salient than its initial and intermediate states.

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11 Lindner (1983:169-170) regards the profiling of a process predicate as a matter of degree:
Third, world knowledge makes it possible for the speaker (conceptualizer) to make a
different construal from the active sentence structure.

Now, let us consider the landmark of the event ‘to shave’. Like the events ‘to
plane’ and ‘to level’, the primary landmarks (*khoswuyem-ul* ‘mustache-Acc’, *swuyem-ul*
‘beard-Acc’ and *meli-lul* ‘hair-Acc’) in (27a-c), are conceived as playing the role of
PATIENT, because they are thoroughly cut down closely to the skin (clean-shaven) with
the INSTRUMENT, *myento-lo* ‘razor-Instr’. The changing state of the landmark is indicated
by the single profiled rightward arrow (connecting the two smaller circles) in Figure 4. In
contrast to the PATIENT role of the landmark, the INSTRUMENT is also conceived as
playing the role of MANIPULATED MOVER. It is, continuously and repetitively, caused to
move across the chin or scalp due to the AGENT’s exertion of force, until the hairs have all
been thoroughly removed. The movement of the INSTRUMENT is not illustrated as a
prominent facet of the event ‘to shave’ in Figure 4, because it can be understood.

“Another way of characterizing profiling is to consider it. That is, we might recognize degrees of
foregrounding so that some portions of a profile might be foregrounded more (stand out more)
than others. A predicate may have a focal area that is profiled in virtually all versions, usually
to maximal degree; as portions of the profile “fade off” in degree, they will be present in fewer
versions of the predicate”:

(1)a. *Number 52 is jumping now.*
b. *The cow jumped over the moon.*

The process *jump* profiles a series of processual configurations consisting of a preparatory phase,
departure phase from the ground, motion through the air, and some resolution phase. These various
phases of the process *jump* can be differently profiled with different images. (1a) profiles more the
preparatory phase than the take-off and resolution phase. By contrast, (1b) foregrounds more the take-off
and upward motion than the initial preparatory phase.
In Figure 4, these landmarks (mustache, beard, and hair) in (27a-c) are represented by the short profiled sticks within the first unprofiled smaller circle. These landmarks are similar to the landmarks of (26a-b), e.g., paychwu-lul ‘cabbage-Acc’ and yumwul-ul ‘relics-Acc’, in the sense that both the hairs in (27a-c) and cabbages and relics in (25a-b) represent the unsmooth states of the person’s chin and head, of the farm, and of the location of the relics before the events. These landmarks in (27a-c) also directly interact with the events milta ‘to shave’ as active zones, and are removed by shaving. The thorough removal of the hair for the sense ‘to shave’ is metonymically related to the even and smooth resultant states of the previous senses, ‘to plane’, ‘to level’, and ‘to bulldoze’. In order to make one’s face or head smooth and neat, his beard, mustache, or hairs should be completely shaved. The complete hairlessness is illustrated by the literary simile cwung-chelem ‘like a Buddhist monk’ in (27c), or the adverb pakpak or ppakppak expressing cutting one’s hair extremely close. In (27a-c), the person’s chin and scalp are similarly conceived as the reference points for the landmarks, like the farm and the location of the relics in (26a-b). The chin or scalp is indicated by the smaller circles, but are not profiled in Figure 4.

Now, let us observe some instances of the sense ‘shave’ where the verb milta is connected with a path verb, establishing a serial verb construction, or has a locative noun phrase:

(29)a. ku namca-ka khosswuyem-ul mil-e nayli-ess-ta
the man-Nom mustache-Acc push-Cons lower-Pst-Decl
* ‘The man shaved his own mustache down.’
* ‘The man had his mustache shaved down.’
‘The man pushed his mustache down.’
b. *halpeci-kkey myento-lo swuyem-lul alay-lo mi-si-ess-ta*
grandfather-Dat razor-Instr beard-Acc.down-Orient push-Hon-Pst-Decl
*‘Grandfather shaved his beard with a razor downward.’*

In (29a) and (29b), the event ‘to shave’ does not involve an external path, because its landmark (i.e., mustache and beard) does not move away from the source of physical force. Sentence (29a) no longer has the extended sense ‘to shave’ of the verb *mila*, when it is connected with the path verb *nayliia* ‘to lower’. Thus, the first and second glosses are not possible. Sentence (29a) is acceptable when the verb *mila* is interpreted as *mila*-l in a physical domain; ‘The man pushed his mustache down’. In (29b), the locative noun phrase, *alay-lo* ‘down-Orient’ does not denote the landmark’s movement. The INSTRUMENT *myento-lo* ‘razor-Instr’ is induced to move downward on the chin. Sentence (29b) sounds strange and redundant with this locative noun phrase while (27b) is fully acceptable without this phrase.

The verb *mila* ‘to shave’ can occur with the benefactive auxiliary verb *cwuta* ‘to give’ or its honorific form *tulita* ‘to give’, forming the serial verb construction *mil-e cwuta* or *mil-e tulita*. The event *mila* ‘to shave’ is understood as a beneficial service:

(30a). *ku-ka halpeci-kkey swuyem-ul mil-e tul-ti-ess-ta*
   he-Nom grandfather-Dat beard-Acc push-Cons Benf-Pst-Decl
   *‘He shaved grandfather’s beard.’*

b. *ipalsa-ka ai-uy meli-lul paykkwu-chelem mil-e cwu-ess-ta*
   barber-Nom child-Gen hair-Acc white ball-like push-Cons Benf-Pst-Decl
   *‘The barber shaved the child as bald as a cue ball.’*

In (30a) and (30b), the trajectors (*ku-ka* ‘he-Nom’ and *ku ipalsa-ka* ‘the barber-Nom’) should have the intention to do the activity *mila* ‘to shave’, and be conscious of it (cf. K. Lee 1979). The trajectors only play the role of AGENT, and render the beneficial activity *mila* ‘to shave’ for the possessor of the hair. They cannot be interpreted as PATIENT,
unlike PATIENT in the second glosses of (27a-c). It is also noticed that the trajector and the possessor of the landmark refer to two different persons. The possessor of the landmark plays the role of BENEFICIARY (or RECIPIENT). In (30a), the BENEFICIARY is indicated by the Dative noun phrase, *halapeci-kkey* ‘grandfather-Dat’. In (30b), the beneficial service ‘to shave’ was given to the possessor of the landmark, *ai-uy* ‘child-Gen’ by the AGENT *ipalsa-ka* ‘barber-Nom’.

Because of the semantics of perfectivity and irretrievability, the verb *mïlta* can frequently occur with the grammaticalized perfective auxiliary verb *pelïta*. As discussed earlier, the verb *pelïta* also has the comparable semantics of perfectivity and irretrievability. This coherent semantics of *mïlta* and *pelïta* establishes a conceptually unitary event, designated by the serial verb construction *mîl-e pelïta* connected by consolidating connective particle -e:

(31a) *ku-ka napi kathun khomith swuyem-ul mil-e pelï-ess-ta*
he-Nom butterfly same nose bottom beard-Acc push-Cons Perf-Pst-Decl
‘He shaved his butterfly-shaped mustache.’

b. *ku yeca kaswu-ka meli-lul mil-e pelï-ess-ta*
the woman singer-Nom hair-Acc push-Cons Perf-Pst-Decl
‘The female singer shaved her head bald.’

Once the landmarks (*khomith swuyem-ul* ‘mustache-Acc’ and *meli-lul* ‘hair-Acc’) in (31a-b), are cleanly shaven, they are not retrievable at the final temporal point of the event ‘to shave’. Although mustaches and hair grow again in a few days or months, they are not considered to be identical with the previously shaven ones. The speaker did not expect the trajectors (*ku-ka* ‘he-Nom’ and *ku yeca kaswu-ka* ‘the female singer’) to shave their hair, but they did it.
Now, let us move onto another specific sense of the schematic sense ‘to smooth the surface’, that of ‘to rub off’. Like the other specific senses, e.g., ‘to plane’, ‘to level’, ‘to bulldoze’, and ‘to shave’ of the sense *mila* ‘to smooth the surface’, the central and schematic semantics ‘smoothing the rough surface’ is maintained in the sense ‘to rub off’:

(32)a. *Inswu-ka tung-uy ttay-lul mil-ess-ta*

Inswu-Nom back-Gen dirt-Acc push-Pst-Decl

‘Inswu rubbed off the dirt on his (someone else’s) back.’

b. *Inswu-ka swuken-ulo ttay-lul mil-ess-ta*

Inswu-Nom had towel-Instr dirt-Acc push-Pst-Decl

‘Inswu rubbed off the dirt with a towel.’

c. *ku-ka thawuel-lo son-tung-ul mil-ess-ta*

he-Nom towel-Instr hand-back-Acc push-Pst-Decl

‘He rubbed off the dirt on the back of his hand with a towel.’

In (32a-c), the trajectors (*Inswu-ka* ‘Inswu-Nom’ and *he-ka* ‘Inswu-Nom’) intentionally and consciously exert physical force upon their body parts (*tung* ‘one’s back’ and *sontung* ‘the back of one’s hand’) by rubbing those body parts with the distinct INSTRUMENT (*swuken-ulo* ‘towel-Instr’ and *tawuel-lo* ‘towel-Instr’). Before the activity of rubbing, the landmark, *ttay-lul* ‘dirt-Acc’ in (32a-b), was tightly attached to the trajector’s back, and appeared to be unified with it. As a result of the event ‘to rub off’, the landmark (the dirt) is removed so that it is conceived as PATIENT, equivalent to the rough surfaces in the other specific senses of the sense ‘to smooth the surface’. The skin of the human body is conceived as a reference point for the landmark, analogous to the top of the plane and the road. In (32c), the body part itself (*sontung-ul* ‘the back of one’s hand-Acc’) is profiled as the landmark, corresponding to the locative landmarks (*songphan-ul* ‘pinetree board-Acc’ in (21b), *san-ul* ‘mountain-Acc’, and *kil-ul* ‘road-Acc’ in (22a-b)).
The towel, as INSTRUMENT, is conceived as playing the role of MANIPULATED MOVER, and is functionally similar to the plane, bulldozer, and razor of the other senses. Again, the INSTRUMENT is not a necessary element for the sense ‘to rub off’. So, it is left unexpressed in (32a).

The event ‘to rub off” takes only a human body part, as in (32c), or else the dirt on the human body part, as in (32a-b), as its landmark. Sentences (33a), (33b), and (33c) are not acceptable because the event ‘to rub off” cannot take landmarks such as *chilphan-ul ‘blackboard-Acc’, *menci-lul ‘dust-Acc’, and *mahwu-lul ‘floor-Acc’ for their various cleaning manners (erasing, sweeping, mopping, and wiping) with the optional INSTRUMENTs (*chilphan ciwukay ‘chalk eraser’, *pi ‘broom’, and *kelley ‘dust mop’).

(33)a. *ku-ka chilphan-ul (chilphan ciwukay-lo) mile-ess-ta
   he-Nom blackboard-Acc (blackboard eraser-Instr) push-Pst-Decl
   ‘He pushed the blackboard (with a blackboard eraser).’
   ‘He wiped off the dirt from the blackboard (with a blackboard eraser).’

  b. *kunye-ka patak-uy menci-lul (pi-lo) mil-ess-ta
    she-Nom floor-Gen dust-Acc (broom-Instr) push-Pst-Decl
    ‘He swept the dust on the floor (with a broom).’

  c. *Inswu-ka mahwu-lul (kelley-lo) mil-ess-ta
    Inswu-Nom floor-Acc (dust mop-Instr) wipe-Pst-Decl
    ‘Inswu mopped the dust on the floor (with a dust mop).’

(34)a. ku-ka chilphan-ul (chilphan ciwukay-lo) ciwu-ess-ta
   he-Nom blackboard-Acc (blackboard eraser-Instr) erase-Pst-Decl
   ‘He wiped off the blackboard (with a blackboard eraser).’

  b. kunye-ka patak-uy menci-lul (pi-lo) ssul-ess-ta
    she-Nom floor-Gen dust-Acc (broom-Instr) sweep-Pst-Decl
    ‘He swept the dust on the floor (with a broom).’

  c. Inswu-ka mahwu-lul (kelley-lo) takk-ass-ta
    Inswu-Nom floor-Acc (dust mop-Instr) wipe-Pst-Decl
    ‘Inswu mopped the dust on the floor with (a dust mop).’
By contrast, (34a), (34b), and (34c) are perfectly acceptable. The separate verbs, i.e. *civuta* 'to erase', *ssulita* 'to sweep', and *takkta* 'to wipe', already exist, as separate lexical items, for describing their corresponding events. Therefore, possibly for this reason there has been no motivation for the semantic extension to characterizing these cleaning scenes with the verb *milda*.

With the verb *cwuta* 'to give', the event *milda* 'to rub off' is provided as a beneficial service to the possessor of the human body, as we see in (35):

(35) *emma-ka kaykwucangi-uy tay-lul mil-e cwu-ess-ta*
    mother-Nom naughty boy-Gen dirt-Acc push-Cons Benf-Pst-Decl
    'The mother rubbed off the dirt for her naughty boy.'

In the sense 'to rub off', the removal of the dirt from a body part becomes evident with the frequent use of the path verb *nayta* 'to take out':

(36) *ku-ka caki tung-uy tay-lul mil-e nay-ss-ta*
    he-Nom self back-Gen dirt-Acc push-Cons take out-Pst-Decl
    'He rubbed away the dirt on his own back.'

In (36), the Genitive noun phrase *tung-uy* 'back-Gen' is conceived of as a non-prototypical container or dust location in which the dirt is contained. The dirt is detached from (taken out from) the back by some conscious rubbing action of the trajector. Furthermore, as an auxiliary verb, the verb *nayta* 'to take out' (connected by the connective particle *-e*) presents the semantics of perfectivity, completion, and achievement through difficulty in performing the event *milda* 'to rub off'.

Finally, the specific sense 'to roll out dough' of the schematic sense 'to smooth the surface' of the verb *milda* also occurs in a physical domain in which some physical pressure is repetitively exerted against flour dough with an INSTRUMENT (*mil-pangmangi-*
lo ‘rolling pin-Instr’). Let us examine some instances of the sense ‘to roll out dough’ with its representation, as illustrated in Figure 5:

(37)a. emeni-ka mil-pancwuk-ul mil-ess-ta
    mother-Nom flour-dough.Acc push-Pst-Decl
    ‘Mother rolled out the flour dough.’

b. yolisa-ka pangmangi-lo pancwuk-ul mil-ess-ta
    cook-Nom rolling pin-Instr dough-Acc push-Pst-Decl
    ‘The cook rolled out the dough with the rolling pin.’

c. kunye-ka khal-kwukswu-lul mil-ess-ta
    she-Nom knife-noodle-Acc push-Pst-Decl
    ‘She rolled out the dough and made the noodle.’
    lit. ‘She rolled out the knife noodle (cut out with a kitchen knife).’

Figure 5. Representation of milta ‘to roll out dough’

In Figure 5, the trajector is indicated by the largest circle on the left. The trajectors (e.g., emeni-ka ‘mother-Nom’ and yolisa-ka ‘cook-Nom’) in (37a) and (37b) play the roles of AGENT by pressing and rolling the INSTRUMENT pangmangi ‘rolling pin’ upon the landmark (e.g., milpancwuk ‘flour dough’ and pancwuk ‘dough’). The physical force is initiated by the trajector (the AGENT), is transferred to the INSTRUMENT, and is finally exerted upon the landmark (the PATIENT).
Like the other events (‘to plane’, ‘to level’, ‘to rub off’, and ‘to shave’), the landmark of the event ‘to roll out dough’ plays the role of the PATIENT because of the internal change of its state and size. In Figure 5, at the initial temporal point of \( t_1 \), the landmark is indicated by the dotted smallest circle in which the dotted zigzag line represents the thick and rough shape of the dough. This state is analogous to the bumpy surfaces in the other specific senses of the sense ‘to smooth the surface’. At the final temporal point of \( t_2 \), the middle-sized profiled circle in Figure 5 represents the identical landmark, which has undergone the change of its state. The landmarks (\( mil\text{-}pancwuk \) ‘flour dough’ and \( pancwuk \) ‘dough’) in (37a) and (37b) are caused to spread out thinly by means of the transfer of the repetitive and continuous physical pressure from the trajector via the INSTRUMENT to the landmark, and occupy a much larger space than those at the initial temporal point of \( t_1 \). However, the crucial and coherent point is that the dough is flat and even, as indicated by an unprofiled straight line within the largest circle in Figure 5. In (37a) and (37b), the whole landmarks, as active zones, directly interact with the event ‘to roll out dough’, and are profiled in Figure 5.

Like the other specific senses of the sense ‘to smooth the surface’, the sense ‘to roll out (dough)’ does not result in the physical movement of the landmark away from the source of the physical force. This absence of the intrinsic path of the landmark becomes clear by the fact that the event \( milta \) ‘to roll out’ does not occur with a locative noun phrase or a path verb for the external path of the landmark:

\[(38) a. \quad emen-i\text{-}ka \quad mil\text{-}pancwuk-u\text{-}l \quad mil-e \quad olli\text{-}ess-ta\]

mother-Nom flour-dough-Acc push-Cons raise-Pst-Decl

**‘Mother rolled the flour dough up.’**
‘Mother pushed the flour dough up.’
b. yolisa-ka pancwuk-ul yeph-ulo mil-ess-ta
  cook-Nom dough-Acc side-Orient push-Pst-Decl
  ?'The cook rolled the dough (with the rolling pin) to the side.'
  'The cook pushed the dough to the side.'

Sentence (38a) is unacceptable when the verb milta is understood as 'to roll out'. The possible gloss of (38a) is 'He pushed the flour dough up' where the verb milta is used to mean milta-1. Sentence (38b) is interpreted in two ways. First, the cook caused the unexpressed INSTRUMENT milpangmangi-lo 'rolling pin-Instr' to pass across the dough from one side to another side and rolled the dough. The landmark pancwuk-ul 'dough-Acc' remains in the same location. Second, the cook pushed the dough aside (on the table). In this gloss, the verb milta is interpreted as milta-1. The second one is preferred to the first one in an unmarked situation.

In (37c), the landmark, khal-kwukswu-lul 'knife-noodle-Acc' refers to the slices of noodle cut out with a knife (not with an advanced machine), and does not immediately interact with the event milta 'to roll out dough'. The lexical item khal-kwukswu 'knife-noodle' comes into existence as an ultimate form of dough after the undesignated word, mil-pancwuk 'flour-dough', undergoes three ordered processes, milta 'to roll out dough', cepta 'to fold (the rolled dough)' and sselta 'to slice (the rolled and folded dough)', according to the action script of 'making noodles'. The initial and intermediate objects, mil-pancwuk 'flour dough' and phyecin pancwuk 'rolled dough' can be omitted thanks to the relevant script. This event 'to roll out' designated by the verb milta is selectively encoded among various sequential processes, and is combined with the ultimate object khal-kwukswu 'knife-noodle'. I call this phenomenon linguistic abridgment. Despite
this linguistic abridgment, the whole processes are inclusively evoked from (37c), because of the well known script of ‘making noodles’.

The linguistic abridgment seen in (37c) is further extended to serving a dish (of noodles) with the use of the verb cwuta ‘to give’:

(39) emma-ka khal-kwukswu-lul mil-e cwu-si-ess-ta
mother-Nom knife-noodle-Acc push-Cons give-Hon-Pst-Decl
‘She rolled the dough, made the noodles, cooked it and served it on the table (for her child or the speaker).’
lit. ‘She rolled the knife noodles (for her child or the speaker).’

Sentence (39) entails all the noodle cooking processes as well as the processes of making noodles. In (39), the landmark khal-kwukswu-lul ‘knife-noodle-Acc’ refers to a dish of noodles served for someone, after its previous dough was already rolled, the flattened dough was cut off into sliced noodles, and the noodles were cooked. The BENEFICIARY (e.g., the child of the subject or the speaker) is not expressed, but is conceived from the contextual information. This linguistic abridgment in (37c) and (39) is possible due to human inferential ability from the related cognitive script.

Now, let us consider some instances of the event milta ‘to roll out dough’ connected with the perfective auxiliary verb pelita:

(40)a. emeni-ka mil-pancwuk-ul mil-e peli-ess-ta
mother-Nom flour-dough-Acc push-Cons Perf-Pst-Decl
‘Mother rolled the flour dough.’

b. yolisa-ka pangmangi-lo pancwuk-ul mil-e peli-ess-ta
cook-Nom rolling pin-Instr dough-Acc push-Cons Perf-Pst-Decl
‘The cook rolled the dough with the rolling pin.’

With the verb pelita, (40a) and (40b) express the speaker’s subjective and evaluative attitude as well as the removal of the psychological burden, toward the event milta ‘to roll out dough’ (cf. K. Lee. 1976). Sentence (40a) can be interpreted in two different ways,
depending on the contextual situation in which it is used. First, suppose that the speaker (as a child) wanted to play with the flour dough; the mother rolled the dough; the speaker could not play with it any more, and expresses his regret at the irretrievable enlarged state of dough. Second, suppose that the flour dough bothered the speaker who did not know what to do with it; the mother solved the problem by rolling the dough; thanks to the mother's activity, the speaker felt relieved from the worry.

In short, the schematic extended sense 'to smooth the surface' vis-à-vis can be summarized as follows. First, both milta-1 and the sense 'to smooth the surface' are characterized relative to a physical space domain. These events associate with the alert consciousness of the trajector, involving the transfer of a noticeable amount of physical force. The sense 'to smooth the surface' involves a physical activity of an animate trajector, particularly a human being, who exerts some physical force (pressure) upon the surface of another physical object (landmark) by means of a concrete INSTRUMENT. Second, both milta-1 and 'to smooth the surface' involve the manner of 'pushing' in some way, although the landmark of the event 'to smooth the surface' does not move away from the source of physical force. For the event 'to smooth the surface', however, the INSTRUMENT is induced to move away from the source of physical force, although this movement is not highlighted as much as the landmark's change of state. The trajector uses an appropriate INSTRUMENT by making it pass across the surface of the landmark. Finally, the concepts of perfectivity and irretrievability of milta-1 are also maintained in the sense 'to smooth the surface'. This semantic characteristic is supported by the serial verb construction, mil-e pelita.
We can also find some crucial differences between *milia*-1 and the sense ‘to smooth the surface’. The sense ‘to smooth the surface’ does not result in the physical movement of the landmark. When the verb *milia* is used to mean ‘to smooth the surface’, it cannot occur with a locative noun phrase or a serial verb construction, which represent an external path of the landmark. The trajector causes the INSTRUMENT to move away from the source of physical force in a prototypical way (*milia*-1) by directly transferring some physical force to it. The INSTRUMENT, thus, plays the role of MANIPULATED MOVER. However, the INSTRUMENT is not encoded as the landmark. It is backgrounded in an Oblique noun phrase with the instrumental Case -ulo or -lo, or is not explicitly expressed. The speaker does not focus on the movement of the INSTRUMENT during the initial and intermediate stages of the event, but focuses on the resultant change of the landmark’s state from uneven to even. The entity or its bumpy portion, which undergoes the change of the uneven state to the even state, is selected as the landmark with the Accusative Case -ul or -ulull. It is conceived as a more salient participant than the INSTRUMENT. Some bumpy portion of the landmark’s surface, or the bumpy landmark itself, which is planed, leveled, rubbed off, shaved, or rolled, all ends by being smoothed, as a result of the event ‘to smooth the surface’. Thus, ‘smoothing the surface’ constitutes a schema from a variety of the smoothing modes (planing, leveling, shaving, rubbing off, and rolling) in terms of an overlapping family resemblance, as illustrated in Figure 6:
Figure 6. Schematic relation of smoothing the surface

At the initial states of the events, the different kinds of bumpy surfaces of the entities (represented by the different shapes in the first circle in each diagram) are smoothed at the final states of the events (represented by the horizontal straight line in the second circle in each diagram), and are thus categorized as 'to smooth the surface' by virtue of the schematization in diagram (f). The distinct sizes and internal forms of the real-world entities (wooden board, mountain, road, hair, and dough) vary, but are neutrally represented by the identical circles containing small rectangles in diagram (f). In diagram (a), an uneven wooden board is planed by pushing a planing tool. In diagram (b), hair, mustache, or beard is shaved by pressing and pushing a razor across one's chin and face. The specific senses of milta 'to plane' in diagram (a) and 'to shave/to rub off' in diagram (b) are bi-directionally extended from each other, based on mutual similarity of removal, as indicated by the two headed arrow. Diagram (c) (representing the sense 'to remove the
surface') is schematic to diagrams (a) and (b) such that it does not show profiling relation, like diagram (f).

The schematic sense ‘to remove the surface’ in diagram (c) is extended to the sense ‘to level/bulldoze’, which further extends to another sense ‘to roll out’. These semantic extensions are indicated by the dotted arrows. In diagram (d), a bumpy hill, road, or mountain is leveled or bulldozed. In diagram (e), dough is rolled out by passing a rolling pin across the top of the dough. In the events of ‘to level’ and ‘to roll out’, the landmarks are not removed and are reshaped to be smooth. But as a result of the event ‘to roll out’, the landmark (i.e., dough) turns into bigger, thin and flat one, as indicated by the horizontal line inside the bigger circle in diagram (e).

The different profiled portions in diagrams (a), (b), (d), and (e) represent the landmarks of the events. In diagrams (a), (d), and (e), the whole entity (e.g., wooden board, mountain, road, and dough) is profiled as the landmark, and does not coincide with its directly active bumpy portion (active zone). On the other hand, in diagram (b) the active zone is profiled as the landmark. For example, in the specific sense ‘to shave’, the entities, e.g., ‘beard’, ‘mustache’, ‘hair’, and ‘dirt’, are profiled as the focal facets of the event as well its landmarks. But it is the ‘chin’, ‘head’, ‘back’, and ‘hand’ that are changed from uneven to even.

The INSTRUMENT of the sense ‘to smooth the surface’ is a discrete object (e.g., *tayphay* ‘plane’, *swuken* ‘towel’, *milpangmangi* ‘rolling pin’ and *pwuloce* ‘bulldozer’, *myentokhal* ‘razor’), distinct from the trajector and landmark. By contrast, the INSTRUMENT of *mila*-1 is not necessarily a distinct entity from the trajector. The
INSTRUMENT of milta-1 is often inseparable from the human trajector, because the trajector uses his own body part (e.g., hand, shoulder, and foot) in order to push an object (the landmark).

§ 4.2.2 Sense ‘to push ahead’

This section will discuss the extended sense ‘to push ahead’ or ‘to push forward’ of the verb milta. The most significant way that this sense differs from milta-1 is that the event milta ‘to push ahead’ is grounded in an abstract or mental domain, because there is neither the trajector’s exertion of physical force, nor the landmark’s physical movement along a spatial path. In other words, the concrete force-dynamic action in a physical domain expressed by milta-1 is here metaphorically projected onto an abstract activity in an abstract domain. Let us consider some examples of the event ‘to push ahead’:

(41)a. ku-ka caki kyeyhoyk-ul mil-ko ka-ss-ta
    he-Nom self plan-Acc push-Isol go-Pst-Decl
    ‘He pushed his thoughts forward.’

    b. tungsohyeng-i hyentayhwa-lul mil-ko ka-ss-ta
    Deng Xiaoping-Nom modernization-Acc push-Isol go-Pst-Decl
    ‘Deng Xiaoping pushed modernization.’

(42)a. ku-ka ku phuloceythu-lul kkuth-kkaci mil-ko naka-ss-ta
    he-Nom the project-Acc end-Dest push-Isol go out-Pst-Decl
    ‘He pushed the project through to the end.’

    b. cengpwu-ka kinchwuk cengchayk-ul mil-ko naka-ss-ta
    government-Nom retrenchment policy-Acc push-Isol go out-Pst-Decl
    ‘The government pushed ahead on the retrenchment policy.’

In order to signify ‘to push ahead’ in an abstract way, the verb milta must occur with another path verb, kata ‘to go’ or nakata ‘to go out’. These verbs milta and kata ‘to go’ must be connected by the isolating connective particle -ko, establishing the serial verb
construction (*mil-ko kata* or *mil-ko nakata*). As discussed in Section 3.2.5.2, the semantic effect of this particle -ko is that the verbs *milda* and *kata* (or *nakata*) are conceptualized as two separate sequential actions. The motion event of manner *milda* occurs first, followed by the path motion event. The motion event of path *kata* ‘to go’ involves the trajector’s extended path. This event of path is conceived as separable from the event of manner *milda*, although they are, conceptually and sequentially, related to each other.

This path verb (e.g., *kata* ‘to go’ and *nakata* ‘to go out’\(^{12}\)) of the serial verb construction (e.g., *mil-ko kata* and *mil-ko nakata*), as a full lexical item, abstractly describes a change of state, meaning ‘to progress’ or ‘to develop’. This is clear by the fact that the native Korean verb *mil-ko nakata* is interchangeable with the corresponding Chinese verb *chwu-cin-hata* for the same meaning ‘to push ahead’ or ‘to push forward’. This Chinese verb is analyzed into the first two Chinese characters *chwu* ‘to push’ and *cin* ‘to go forward’, and the native Korean verb *hata* ‘to do’ (making the noun *chwu-cin* a verb). It is only used in an abstract domain, as in (43a). Sentence (43b) is not acceptable because the verb *chwu-cin-hata* ‘push ahead on’ is used in a physical domain:

\[
\begin{align*}
(43)a. \quad & ku-ka ku kyeyhoyk-ul chwu-cin-hay-ss-ta \\
& \text{he-Nom the plan-Acc push-go ahead-do-Pst-Decl} \\
& \text{‘He pushed ahead on the plan.’} \\
& b. *ku-ka ku thakca-lul chwu-cin-hay-ss-ta \\
& \text{he-Nom the table-Acc push-go ahead-do-Pst-Decl} \\
& \text{‘He pushed the table ahead.’}
\end{align*}
\]

\(^{12}\) Related to the pervasive image schema SOURCE-PATH-GOAL, the physical motion designated by verb *kata* ‘to go’ is extended to mean temporal flow and change of states (from tasty to tasteless, from life to death, from light on to out and so on) by metaphorical mapping of various cognitive domains (cf. K. Lee 1977; Lakoff 1987a; Radden 1996).
In (41a-b) and (42a-b), the trajectors, e.g., ku-ka ‘he-Nom’, tungosophyeng-i ‘Deng Xiaoping-Nom’, and cengpwu-ka ‘government-Nom’, exert some abstract force (e.g., effort, time, authority, and money) upon another abstract landmark (e.g., thought, plan, project, and policy), and play the role of the non-prototypical AGENT. Despite situational difficulties, the trajector strives to induce the landmark to be carried out (or developed) along the conceived abstract path of phases through time in a determined way.

The sense ‘to push ahead’ in an abstract domain mainly arises from the abstract landmark (e.g., kyey hoyk-ul ‘plan-Acc’, sayngkak-ul ‘thought-Acc’, and hyentayhwa-lul ‘modernization-Acc’ in (41a-b) and (42a-b)). The abstract landmark is conceived as if it were a concrete and movable object, and were located in front of the trajector. It is conceived as moving forward away along an abstract path from the source of abstract energy by means of the transfer of abstract energy. It plays the role of MANIPULATED MOVER. Both the trajector and landmark moving toward the same direction (by the path verb kata).

Figure 7 illustrates the representation of the event ‘to push ahead’ designated by the serial verb construction mil-ko kata:
Figure 7. Representation of *mil-ko kata* ‘push ahead (on)’

Figure 7 illustrates the integration of the two component structures *mil-ko* ‘pushing’ in diagram (c) and *kata* in diagram (d) to form the most complex composite structure *mil-ko kata* in diagram (e). In turn, the component structure *mil-ko* (for *mil-ko kata*) in diagram (c) is the composite non-finite participial relation *mil-ko*, because it is established by the
two component structures (i.e., the finite verb milta in diagram (a) and the connective particle -ko in diagram (b) at the bottom).

The event designated by milta in diagram (a) is almost identical to milta-1 in Figure 1, except for the abstract domain. With regard to the relation of relative strength, the larger circles represent the trajector (tr), while the smaller circles represent the landmark. The trajector is conceived as playing the role of AGENT in that it exerts abstract energy upon the landmark. Since there is not actual exertion of physical force, the energy transfer from the trajector to the landmark is abstractly construed, and is, thus, represented by the dotted double arrow. The abstract movement line of the landmark is indicated by the dotted rightward single arrow.

Diagram (b) represents the component structure of the isolating connective particle -ko. As discussed before in Section 3.2.5.2, this connective particle changes a finite temporal process (e.g., milta 'push') into an atemporal relation (e.g., mil-ko 'pushing'). So, the temporal flow from t1 to t2 is not profiled in diagram (b). This particle -ko profiles the whole sequence of the initial, intermediate, and final states of a preceding event. The preceding event (connected by -ko) is conceived as maintaining its own separate conceptual unit, but is sequential with the following event kata in diagram (d).

The component structure of the connective particle -ko is schematic to the event 'push' in diagram (a), because the former is compatible with the latter with less specificity, and the latter conversely provides the specification for the former. This categorizing relation between the schema and its instantiation is represented by the leftward short
arrow linking these two component structures (diagrams (a) and (b)) (cf. Langacker 1987a, 1991a, and 1991b).

The connective particle -ko serves as a "profile determinant" for the composite structure mil-ko because mil-ko in diagram (c) takes the atemporal profiling from -ko in diagram (b), not from the component structure of milta in diagram (a) (cf. Langacker 1991a and 1991b). In order to demonstrate the profile determinant, the outer rectangle in diagram (b) is enclosed by a heavy line. Because of the profiling inheritance from the component structure -ko, the next composite structure mil-ko profiles the whole sequence of the component states of the event milta, and excludes the temporal profiling.

The vertical dotted lines (connecting the participants of the event) indicate the correspondences of the overlapping participants (i.e., trajector and landmark) between the component and composite structures. On the other hand, the horizontal dotted lines indicate the correspondences of the elements between the component structures.

Diagram (d) illustrates the structure of the path event kata 'to go' in an abstract domain. The trajector's physical locomotion from one place to another is metaphorically extended to the trajector's abstract path, subjectively construed by the speaker. The trajector's abstract movement is indicated by the dotted single line in diagram (d).

The verb kata invokes the image schema of SOURCE-PATH-GOAL (cf. Lakoff 1987a; Radden 1988 and 1996). The smaller dotted rectangle in diagram (d) represents the speaker's position, and is conceived as a departure point (SOURCE) for the trajector's abstract movement. The trajector moves away from the speaker's location to an unspecified location (goal) in a physical domain. In an abstract domain, the trajector's
forward movement toward an abstract place (designated by the verb *kata* ‘to go’) is metaphorically conceptualized as the abstract movement such as progress, improvement, or development over an abstract path toward an abstract goal through time.

The profiling of an event is a matter of degree such that some subportions of a series of a process are more foregrounded than others (cf. Lindner 1981; Langacker 1991a). The verb *kata* ‘to go’ conceptually highlights the SOURCE of a movement with respect to the motion image schema of SOURCE-PATH-GOAL in that the trajector is conceived as departing from the speaker’s position (cf. Lakoff 1987a; Radden 1988 and 1996). The motion event designated by the verb *milda* ‘to push’ is also conceived as the landmark’s departure from the source of energy (trajector). This coherent conceptualization (i.e., the departure from the SOURCE) facilitates the connection of the verb *milda* ‘to push’ with the verb *kata* (or *nakata*), establishing the abstract composite verb construction *mil-ko kata* (or *mil-ko nakata*) ‘to push ahead’ in diagram (e).

The opposite path verb *ota* ‘to come’ (or *naota* ‘to come out’) cannot occur with the verb *milda* for the abstract sense ‘to push ahead on’. In contrast to the verb *kata* ‘to go’, the verb *ota* ‘to come’ does not usually describe a forward motion. It conceptually profiles the GOAL of the trajector’s movement with respect to the motion image schema of SOURCE-PATH-GOAL in that the trajector is conceived as reaching the speaker’s location. The speaker’s location, as the trajector’s goal in the event *ota* ‘to come’, semantically conflicts with the departure from the source of energy in the event *milda* ‘to push’ in some way. The serial verb construction *mil-ko ota* (or *mil-ko naota*) ‘to come (out), pushing’ does not occur in an abstract domain for the extended sense ‘to push ahead
on’, but occurs only in a physical domain for mitla-1. For mitla-1, the verb mitla can occur with different path verbs (e.g., kata ‘to go’, nakata ‘to go out’, ota ‘to come’, naota ‘to come out’, and tanita ‘to go about’, tul-e ota ‘come in’, tul-e kata ‘go in’, and nayli-e ota ‘come down’). For mitla-1, the verb mitla is connected with either consolidating (-e) or isolating connective particle (-ko).

In diagram (e), the dotted single arrow (connecting the larger circles) represents an abstract path of the same trajector. The dotted single arrow which connect the smaller circles represents an abstract movement of the same primary landmark. The event mitla (mil-ko) continues to be carried out along the abstract external path designated by the path verb kata ‘go’ until the trajector stops proceeding at a certain place at a certain point of time (tn). In this sense, the trajector is also conceived as playing the role of MOVER by the path verb kata ‘go’ as well as AGENT by the verb mitla. Like diagram (d), the smaller dotted rectangle in diagram (e) represents the speaker’s location. In the same way, the speaker’s position in diagram (e) functions as the departure point of the trajector’s abstract movement at the initial temporal point of ti. It is not profiled, because the speaker’s position is assumed, but is not designated by a linguistic expression. The speaker observes the event mil-ko kata from the outside of the rectangle abstract domain.

§ 4.2.3 Sense ‘to support’

The verb mitla can also have the sense ‘to support’ in an abstract domain. The pushing activity is abstractly conceptualized as a beneficial activity (i.e., ‘to support’) for
someone or something. Let us consider the instances of this sense with its representation in Figure 8:

(44)a. ku-ka ku senke-eyse Inswu-lul mil-ess-ta
he-Nom the election-Loc Inswu-Acc push-Pst-Decl
'He supported Inswu in the election.'

b. cikakissmum Noin-tul-i ku-uy tuy-lul mil-ess-ta
sensible old man-Pl-Nom he-Gen back-Acc push-Pst-Decl
'Some sensible old men supported him.'
'Some sensible old men looked after his needs.'

c. cengpwwu-ka ku phuloceykah-ul mil-ess-ta
government-Nom the project-Acc push-Pst-Decl
'The government supported the project.'

The semantic facets of milta-l that the trajector causes the landmark to move away from the source of the physical force to an unspecified goal are superimposed onto the event milta 'to support' in Figure 8. In the sense 'to support', the trajector (indicated by the larger circle in Figure 8) plays the role of AGENT as a supporter. Suppose that the trajector ku-ka 'he-Nom' in (44a) agrees with the primary landmark Inswu-lul 'Inswu-Acc', supports his plan, idea, and political party, and pursues the same political goal as Inswu's. The trajector's transfer of physical force to the landmark in milta-l is metaphorically equated with the trajector's providing mental or financial support for the
landmark in the election situation in the event *mita* ‘to support’. The initial temporal point corresponds to the trajector’s starting point of support. This abstract energy transfer is indicated by the dotted rightward double arrow in Figure 8.

The landmark (e.g., *Inswu-lul* ‘Inswu-Acc’, *ku-uy tuy-lul* ‘his needs-Acc’, and *ku phuloceykth-lul* ‘the project-Acc’ in (44a-c)) is indicated by the smaller circles in Figure 8. It plays the roles of BENEFICIARY and abstract MANIPULATED MOVER, because it receives the beneficial service, and is conceived as abstractly moving, as indicated by the dotted single arrow. The dotted smaller circle (closer to the larger circle (trajector) in Figure 8) represents the initial point of the landmark’s abstract movement at the initial temporal point of t1. The dotted smaller rectangle represents an unspecified ultimate goal of the landmark’s abstract movement (e.g., the victory of the election in (44a)). This functions as the reference point toward which the landmark is abstractly directed. At the final temporal point of t2, the landmark, who/which is conceived as being supported by the trajector, is conceived in its approach to the goal (the triumph of the election). In contrast to the event ‘to smooth the surface’, the final portion of the event ‘to support’ is relatively less profiled and foregrounded than its initial and intermediate phases. At this final point, the landmark does not reach the GOAL (the small dotted rectangle), because the event ‘to support’ does not announce the consequence of the election.

In (44b), the noun *tuy* ‘back’ (the opposite of *aph* ‘front’) has been extended to many abstract senses such as ‘one’s achievement’, ‘latter’, ‘future’, ‘the next’, ‘after one’s death’, ‘in secret’, ‘tenacity’, ‘descendant’, and ‘needs’. In (44b), the extended sense ‘needs’ of *tuy* ‘back’ is selected for the event ‘to support’ of *mita*. The exertion of the
trajector's abstract energy upon the landmark is conceived as old men's supplying the possessor of the landmark (*ku-uy ‘he-Gen’) with his needs (e.g., education and money) in order to make him succeed. Thus, (44b) can be glossed as ‘The sensible old men looked after him’. In (44c), the personified institution, *cengpwu-ka ‘government-Nom’, supports the realization of the project. At the final temporal point, the landmark *phuloceykth-ul ‘project-Acc’ is not yet known as being actually put into practice, as illustrated by not reaching the GOAL.

Another way to conceptualize (44b) is to consider it to be a metaphorical projection from a physical to an abstract situation as follows. Imagine a concrete physical situation where a truck falls into a ditch and many people push the truck from behind in order to get it out of the ditch. Now, in (44b) the multiple trajector *noin-tul-i ‘old man-Pl-Nom’ is conceived as being located behind the troubled possessor of the landmark (*ku-uy ‘he-Gen’), facing his back. Pushing behind him on his back is metaphorically conceptualized as doing him good and as supporting him from behind. When the landmark *tuy-lul ‘back-Acc’ is changed into its opposite lexical item *aph-ul ‘front-Acc’, (44b) is not acceptable, and the verb *milla is not extended to the sense ‘to support’, as in (45):

(45)  *cikakissmun  *noin-tul-i  *ku-uy  *aph-lul  *mil-ess-ta
   sensible  old man-Pl-Nom  he-Gen  front-Acc  push-Pst-Decl
   ‘Some sensible old men pushed his front.’

Unlike the sense ‘push ahead’ in the previous section, for the sense ‘to support’ the verb *milla does not occur with either of the path verbs *kata ‘to go’ or *nakata ‘to go out’.
    he-Nom the election-Loc Inswu.Acc push-Isol go out-Pst-Decl
    *‘He pushed Inswu in the election and went out.’

    b. *cikakissmun noin-tul-i ku-uuy tuy-lul mil-ko ka-ss-ta
        sensible old man-Pl-Nom he-Gen back.Acc push-Isol go-Pst-Decl
        *‘Some sensible old men pushed his back and went.’

    c. cengpwu-ka ku phuloeukth-ul mil-ko naka-ss-ta
        government-Nom the project.Acc push-Isol go out-Pst-Decl
        ‘The government push ahead on the project.’

The co-occurrence of one of these path verbs with mila implies that the event ‘to support’ does not involve the trajector’s (abstract) movement, and only the landmark is conceived as moving away from the source of abstract energy (the trajector). The presence of the path verb kata ‘to go’ makes sentences (46a-b) unacceptable. The presence of the path verb nakata ‘to go out’ in (46c) yields the sense ‘to push ahead’, closely related to the sense of development or progression (not the sense ‘to support’). Unlike mila-1, for the sense ‘to support’ the verb mila does not occur with the other path verbs (e.g., ota ‘to come’, tanita ‘to go around’, and ttenata ‘leave’), which means no (physical or abstract) movement of the trajector at all.

The abstract characteristic of the event ‘to support’ precludes the physical external path expressed by a locative noun phrase or by a positional serial verb construction:

(47)a. *ku-ka Inswu-lul aph-ulo mil-ess-ta
    he-Nom Inswu.Acc front-Orient push-Pst-Decl
    ‘He pushed Inswu forward.’
    * ‘He supported Inswu forward.’

    b. *cengpwu-ka ku phuloeukth-ul mil-e olli-ess-ta
        government-Nom the project.Acc push-Cons raise-Pst-Decl
        *‘The government supported the project up.’
Sentences (47a) and (47b) are not acceptable with the physical external path, *aph-ulo* ‘front-Orient’ and *oll-ess-ta* ‘raise-Pst-Decl’ for the sense ‘to support’.

For the extended sense ‘to support’, the verb *milta* is hardly compatible with the perfective auxiliary verb *pelita* connected by the particle *-e*, because this extended sense does not emphasize the completed result as its salient semantic facet. Moreover, the beneficial activity of the event ‘to support’ is semantically incoherent with the speaker’s evaluative viewpoint (especially, undesirable attitude toward the event or situation), as in (48a) and (48b):

(48a. ?kukka ku senke-eeye linswul mil-e peli-ess-ta  
he-Nom the election-Loc linswu-Acc push-cons Perf-Pst-Decl  
‘He supported Inswu in the election.’

b. ?cikakissmun nointul-i ku-uy tuy-lul mil-e peli-ess-ta  
sensible old man-Pl-Nom he-gen back-Acc push-cons Perf-Pst-Decl  
‘Some sensible old men supported him.’

Contrary to the incompatibility with the perfective auxiliary verb *pelita*, the event ‘to support’ often establishes an imperfective process:

(49a. Ceng-sensayng-i Kim-sensayng-ul milko issø-ta  
Ceng-Mr.-Nom Kim-Mr.-Acc push-isol be-pres-decl  
‘Mr. Ceng is supporting Mr. Kim.’

b. kukka caki chinkwu phyen-ul milko siph-ess-ta  
he-Nom self friend party-Acc push-isol want-Pst-Decl  
‘He wanted to support his friend’s party.’

In (49a), the composite progressive construction *milko issita* ‘is supporting’ profiles only a limited portion of the perfective process *mil-ess-ta* ‘supported’, and establishes the event as an imperfective process. The profiled intermediate phases are homogeneous without change through time, because the distinctive initial and final component subevents of the event *mil-ess-ta* ‘supported’ (e.g., the trajector’s initial exertion of abstract energy and the
landmark's resultant change of its abstract location) are suppressed. In (49b), the composite verb construction *mil-ko siph-ess-ta* 'wanted to support' also describes an imperfective process.

Now, let us move on to another extended sense 'to propose' of the verb *milda*, as exemplified in (50a-c):

(50)a. *ku-ka Chelswu-lul hoycang-ulo mil-ess-ta*
    he-Nom Chelswu-Acc chair-Orient push-Pst-Decl
    'He proposed Chelswu for the chair.'

b. *ku-ka chinkwu-lul sacang-ulo mil-ess-ta*
    he-Nom friend-Acc company president-Orient push-Pst-Decl
    'He proposed his friend for the president of the company.'

c. *ku moksa-ka ku-uy emeni-lul hoywon-ulo mil-ess-ta*
    the pastor-Nom he-Gen mother-Acc member-Orient push-Pst-Decl
    'The pastor proposed his mother for membership (in the club).'

![Diagram](image)

Figure 9. Representation of *milda* 'to propose s.b. to'

The sense 'to propose' is conceptually closely related to the sense 'to support', because proposing someone to a certain position entails supporting that person in a way, and the event 'to propose' is also beneficial for the landmark (BENEFICIARY).
Unlike the sense 'to support', the GOAL must be explicitly designated by an orientational noun phrase (e.g., hoycang-ulō 'president-Orient' sacang-ulō 'company president-Orient' and hoywon-ulō 'member-Orient' in (50a-c)). The GOAL is indicated by the small profiled rectangle in Figure 9. The event 'to propose' is different from the event 'to support' in the sense that the landmark of the former must be restricted to a person while the landmark of the latter can be various, e.g., person, work, and idea.

Table 1 shows that some spatial orientations in the left column are metaphorically extended to the abstract orientations in the right column. Both spatial and metaphorical orientations are specified by the same Locative Case -ulō (or -lo), which is translated as the orientation prepositions toward and to in English:

<table>
<thead>
<tr>
<th>Spatial Orientation</th>
<th>Metaphorical Orientation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. ku-lul aph-ulō milta he-Acc front-Orient push 'push him forward'</td>
<td>ku-lul taythonglyeng-ulō milta he-Acc president-Orient push 'propose him to the president'</td>
</tr>
<tr>
<td>2. kapang-ul l pang an-ulō milta bag-Acc room-in-Orient push 'push the bag into the room'</td>
<td>chinkwu-lul hoycang-ulō milta friend-Acc chair-Orient push 'propose the friend for the chair'</td>
</tr>
<tr>
<td>3. cepsi-lul sonnim cok-ulō milta dish-Acc guest direction-Orient push 'push the dish toward the guest'</td>
<td>emeni-lul hoywon-ulō milta mother-Acc member-Orient push 'propose mother for membership'</td>
</tr>
</tbody>
</table>

Table 1. Metaphorical Extension of Spatial Orientation

In the left column of Table 1, the spatial orientation toward a physical place is described in a physical domain, as a result of the transfer of physical force from the trajector. The landmark in a spatial domain can be a person (ku-lul 'he-Acc') or a concrete physical
object (kapang-ul ‘bag-Acc’ and cepsi-lul ‘dish-Acc’), and moves over a physical path toward the spatial orientation (aph-ul ‘front-Orient’ and pang an-ul ‘into the room’). The orientational Locative Case -ulo ‘Orient’ denotes “approach” or “proximity”, but the landmark ends by not yet reaching the destination.

Correspondingly, the right column of Table 1 shows that abstract orientation is metaphorically conceptualized in terms of physical orientation. The orientation toward a particular social position is metaphorical in an abstract domain because of the conceptual similarity of approach to a physical or abstract location. By means of the trajector’s exertion of abstract energy (recommendation), the human landmark in an abstract domain (e.g., ku-lul ‘he-Acc’, chinkwu-lul ‘friend-Acc’, and emeni-lul ‘mother-Acc’) is conceived as metaphorically moving over an abstract path away from the source of the abstract energy toward the specified (higher and better) social status (e.g., hoycang-ul ‘chair-Orient’, sacang-ul ‘company president-Acc’). Because of the semantic character of this orientation, it is not known whether or not the landmark actually achieves the social position (GOAL). Therefore, the landmark of the event ‘to propose’ in Figure 9 does not reach the GOAL indicated by the smaller profiled rectangle.

The common beneficial semantics of the events milta ‘to support’ and ‘to propose’ is coherent with the benefactive auxiliary verb cwuta ‘to give’. So, for the sense ‘to support’ in (51a-b) and the sense ‘to propose’ in (52a-b), the verb milta frequently occurs with the verb cwuta:

(51)a. ku-ka  kanye-uy  tuy-lul  mil-e  cwu-ess-ta
    he-Nom  she-Gen  back-Acc  push-Cons  Benf-Pst-Decl
    ‘He supported her.’
b. manun yukwuena-tul-i ku-lul mil-e cwu-ess-ta
   many voter-Pl-Nom he-Acc push-Cons Benf-Pst-Decl
   ‘Many voters supported him.’

(52)a. yatang-i ku yeseng citoca-lul sicang
   opposite party-Nom the woman leader-Acc mayor

   hwup-o lo mil-e cwu-ess-ta
   candidate-Orient push-Cons Benf-Pst-Decl
   ‘The opposite party proposed the woman leader as a mayoral candidate.’

b. caytan-i ku-lul chongcang-ulo mil-e cwu-ess-ta
   foundation-Nom he-Acc president-Orient push-Cons Benf-Pst-Decl
   ‘The (university) foundation proposed him to the president of the university.’

In (51a-b) and (52a-b), the verb construction mil-e cwuta represents an integrated composite event as a whole, connected by the consolidating connective particle -e. By virtue of the benefactive auxiliary verb cwuta, each of the events mila ‘to support’ and ‘to propose’ is an obviously beneficial service for the landmark (e.g., ku-lul ‘he-Acc’ in (51b) and (52b), or the possessor of the landmark, e.g., kunye-u ‘she-Gen’ in (51a). The landmark or the possessor of the landmark plays the role of BENEFICIARY.

§ 4.2.4 Senses ‘put off’ and ‘push off’

As kkulta as a contracted form of ikkulta (discussed in Section 3.3.5), mila is used as a contracted form of another verb miwuta ‘put off’ through vowel deletion. Both forms mila and miwuta are alternatively used to mean ‘put off’, as in (53-b):

(53)a. ku-ka onul il-ul nayil-lo miwu-ess-ta
   he-Nom today work-Acc tomorrow-Orient postpone-Pst-Decl
   ‘He postponed today’s work to tomorrow.’

b. ku-ka onul il-ul nayil-lo mil-ess-ta
   he-Nom today work-Acc tomorrow-Orient push-Pst-Decl
   ‘He postponed today’s work to tomorrow.’
Accordingly, this contracted form *molta* is phonologically the same as another verb *molta* 'to push'. Both are, morphologically and syntactically, single morpheme verbs. The contracted form *molta* of the verb *milwuta* and the verb *molta* are homonyms.

The phonological identity through sound change provides a motivation for the semantic association with the verb *molta*. The contracted verb *molta* 'put off' is reinterpreted as an extended sense of the verb *molta* 'to push', when the Korean speakers observe meaning relatedness between these two identical forms. In terms of their meanings, the sense of the verb *molta* 'to postpone is congruous with *molta*-1 by sharing the abstract causative semantics that the landmark of the former is conceived as becoming distant from the trajector's abstract location, as a result of the event. Figure 10 illustrates the representation of the event 'put off':

(54)  
ku-ka yuhak-ul taum kihoy-lo mil-ess-ta  
he-Nom study abroad-Acc next opportunity-Orient push-Pst-Decl  
'He put off his study abroad to next opportunity.'

![Diagram](image)

**Figure 10. Representation of *molta* 'put off'**

In Figure 10, the event *molta* 'put off' is characterized relative to a temporal domain. The trajector *ku-ka* 'he-Nom' is indicated by the larger circles, and is conceived as playing the
role of abstract AGENT because he exerts some abstract energy upon the landmark and causes it to be postponed. The abstract energy transfer is indicated by the dotted double arrow in Figure 10.

In (53b), the landmark *il- ul* ‘work-Acc’ (indicated by the smaller circles in Figure 10) was supposed to be performed today, which is conceived as a scheduled time or appointed time. At the initial temporal point the landmark *il- ul* ‘work-Acc’ is temporally located in the present day *onul* ‘today’, which is abstractly conceived as close to the trajector’s original position. At this temporal point, the trajector *ku- ka* ‘he-Nom’ is expected to do the landmark, *il- ul* ‘work-Acc’, but he abstractly pushes it to a more distant time, *nayil- lo* ‘tomorrow-Orient’. Today is deictically proximate to the speaker’s consciousness, which is also conceptualized as the trajector’s and landmark’s initial abstract location. Then, the landmark is conceived as being caused to temporally move toward another time *nayil- lo* ‘tomorrow-Orient’ by the trajector’s exertion of the abstract force. Tomorrow is understood as time more distant in the speaker’s consciousness (also the trajector’s abstract location) than today. The landmark’s abstract movement in a temporal domain is indicated by the dotted single arrow in Figure 10.

Similarly, at the initial temporal point of *t₁*, the landmark *yuhak- ul* ‘study abroad-Acc’ in (54) is conceived as abstractly closer to the trajector *ku- ka* ‘he-Nom’ than that at the final temporal point of *t₂*, because of the deictically proximate unspecified expression *i- pen kihoy* ‘this-time opportunity’. The noun phrase *taum kihoy- lo* ‘next opportunity-Orient’ in (54) is conceived as remote from the trajector’s immediate consciousness, and is conceived as being located at the final temporal point of *t₂*. 
The verb *milwuta* ‘put off’ is contracted as *milda*, when it is extended to mean the sense ‘to push off’ in a social relationship domain (to be more specific, a responsibility domain):

(55)a. *ku-ka caki-uy silswu-lul nam-eykey milwu-ess-ta*
    he-Nom self-Gen mistake-Acc someone else-Dat postpone-Pst-Decl
    ‘He pushed off his own mistake onto someone else.’

b. *ku-ka caki-uy silswu-lul nam-eykey mil-ess-ta*
    he-Nom self-Gen mistake-Acc someone else-Dat postpone-Pst-Decl
    ‘He pushed off his own mistake onto someone else.’

In (55), the Korean speakers perceive the sense of the contracted form *milda* ‘to push off’ as an extended sense of the verb *milda*. Like the sense of the verb ‘to postpone, the extended sense ‘to push off’ shares with *milda*-1 the schematic semantics that the landmark is caused to become distant from the trajector’s abstract location. In (55b), the landmark *silswu-lul* ‘mistake-Acc’ was made by the trajector (we can see it from the reflexive Genitive pronoun, *caki-uy* ‘self-Gen’) so that it conceived as being close to the trajector’s abstract position at the initial temporal point. Then, the trajector exerts some abstract energy upon the landmark, and the landmark is conceived as abstractly moving away from the source of abstract energy (the trajector) at the final temporal point, i.e., *nam-eykey* ‘someone else-Dat’. More examples of the sense *milda* ‘to push off’ are found in the corpus:

(56) a. *ku-ka tongchang-hoy piyong-ul chinkwu-eykey mil-ess-ta*
    he-Nom alumni-reunion expense-Acc friend-Dat push-Pst-Decl
    ‘He pushed off the expense of the alumni reunion onto me.’

b. *cengpwu-ka motun kyoyukcek chaykim-ul*
    government-Nom all educational responsibility-Acc
Hakkyo-na kyosa-eykey-man mi-n-tamyen
school-or teacher-Dat-only push-Pres-Cond
‘If the government pushes off all the educational responsibility onto
schools or teachers,...’

However, when an extended sense of the verb milwuta, for example, ‘to guess’ is
not semantically related to the verb milta ‘to push’ in an abstract way, the verb milwuta
cannot be contracted as milta, as in (57a-b):

(57)a. ku-uy oschalim-ulo milwu-e po-a ku-nun keci-(i)-ta
he-Gen clothes-from guess-Cons Aux-Cons he-Top beggar-(be)-Decl
‘Judging (guessing) from his clothes, he is a beggar.’

b. *ku-uy oschalim-ulo mil-e po-a ku-nun keci-(i)-ta
he-Gen clothes-from guess-Cons Aux-Cons he-Top beggar-(be)-Decl
‘Judging (guessing) from his clothes, he is a beggar.’

Since the intrinsic semantics of the verb milwuta is not positive, i.e., ‘put off’ and ‘to push
off’, the verb milta is not likely to occur with the benefactive auxiliary verb cwuta.

§ 4.3 Schematic Representation of milta

The conceptual base of the event milta in a transitive sentence involves two
discrete participants: a pushing entity and a pushed entity. Like Figure 21 and Figure 22
of Section 3.4 (i.e., schematic representations of kkulta and tangkita), Figure 11 provides
a highly schematic representation of the event described by the verb milta, and grasps the
commonalities among the individual senses of the verb milta. It is abstract with respect to
the differences of individually instantiated senses of milta. Figure 11 does not reveal any
profiling relations because this schematic event is not designated by a specific instance:
Figure 11 schematically describes a relational process of *mila* in which the trajector causes the landmark to move away from the source of physical or abstract energy by means of the transfer of energy. The trajector (indicated by the larger circle) initiates the action of *mila* by volitionally exerting energy onto another entity at the temporal point of t₁, and plays the role of AGENT and "energy source" (Langacker 1991a:215).

The landmark (indicated by the smaller circles) is another entity distinct from the trajector, and plays the role of MANIPULATED MOVER or PATIENT. The landmark is induced to change from its original place/state at the temporal point of t₁ (indicated by the dotted smaller circle) to another resultant place/state at the temporal point of t₂ (indicated by the solid-lined smaller circle in Figure 11), as a result of the event. The single arrow connecting the smaller circles represents a movement line/change process of state of the same landmark away from the trajector through time. This single arrow schematically encompasses all the infinitely intermediate locations/states between its initial and resultant locations/states. The different sizes of the circles represent the relative strength of trajector and landmark; the trajector's energy is stronger than that of the landmark, and asymmetrically flows to the landmark.
The double arrow indicates the energy transfer from the \textit{trajectory} to the landmark. Time flow is ordered from $t_1$ to $t_2$ at the bottom of the rectangle according to the process of the event. The rectangle represents a cognitive domain relevant for the characterization of a sense of \textit{mil\text{\-}a}; it can be a spatial, temporal, or mental domain. Finally, the speaker observes the processual event of \textit{mil\text{\-}a} from the outside of the rectangle domain or base.

In the sections 4.1 and 4.2, the transitive instances of \textit{mil\text{\-}a} were examined. Like \textit{kkulta} and \textit{tangkita}, the verb \textit{mil\text{\-}a} is also used intransitively. In an intransitive sentence, only one of the participants (i.e., AGENT or MANIPULATED MOVER) is profiled:

(58)a. \textit{yuli-mwun-i an-ulo mil-liess-ta}
\begin{tabular}{l}
\text{glass-door-Nom in-Orient push-Pass-Pst-Decl} \\
\text{‘The glass door was pushed inward.’} \\
\end{tabular}

b. \textit{pay-ka phokphwungwu-ey mil-liess-ta}
\begin{tabular}{l}
\text{boat-Nom storm-Obl push-Pass-Pst-Decl} \\
\text{‘The boat was pushed by the storm.’} \\
\end{tabular}

In the passive sentences of (58a-b), the non-human MANIPULATED MOVERS (\textit{yuli-mwun-i ‘glass-door-Nom’} and \textit{pay-ka ‘boat-Nom’}) are the most prominent profiled element (\textit{trajectory}) in the subject position. The AGENT is unknown in (58a), or is backgrounded in the Oblique noun phrase \textit{phokphwungwu-ey ‘storm-Obl’}.

(59)a. \textit{cemsim hwu-ey colum-i mil-li-e wa-ss-ta}
\begin{tabular}{l}
\text{lunch after-Loc drowsiness-Nom push-Pass-Cons come-Pst-Decl} \\
\text{‘After lunch drowsiness grew (upon the speaker).’} \\
\end{tabular}

b. \textit{ku ttau-ey sulphum-i mil-li-e wa-ss-up-ita}
\begin{tabular}{l}
\text{the time-Loc sadness-Nom push-Pass-Cons come-Pst-Hon-Decl} \\
\text{‘At that time sadness grew (upon the speaker).’} \\
\end{tabular}

In (59a-b), when the speaker feels a specific emotion and is influenced by that emotion, he conceptualizes that emotion as being pushed on and approaching him. The AGENT is unknown or unimportant such that it is not profiled. The emotion, as \textit{trajectory}, is
conceived as playing the role of MANIPULATED MOVER, as if it were like a concrete physical entity, and were coming toward the speaker.

As in the case of *kkulta* and *tangkita*, Korean speakers often omit the subject or and the direct object with *milta* when it is not important, or if it is possibly recoverable from the collocational and contextual information:

(60)a. **sayngsan** keychung-uy *ilpwu-ka* cipaychung-ul
    production status-Gen part-Nom governing status-Orient

    *mil-ko* *ol-a* wa-ss-ta
    push-Isol rise-Cons come-Pst-Decl
    'Some of the production status people pushed toward and came up to the governing status.'

b. **Oykwan-man** cemlyengha-n-tamyen Taykwu-kkaci kunyang
    Oykwan-only occupy-Pres-Cond Taegu-Dest easily

    *mil-ko* *ka-n-ta*
    push-Isol go-Pres-Decl
    'If (the army) occupies only Oykwan, it (can) easily push to Taegu.'

In (60a), the verb *milta* is intransitively used; the trajector (AGENT) is conceived as exerting some kind of energy upon an unspecified landmark. In (60b), both trajector and landmark are not expressed, but the trajector ('the army') is inferable from the word *cemlyenghata* 'to occupy'.

§ 4.4 Semantic Network of *milta*

Like *kkulta* and *tangkita*, the different senses of the verb *milta* are united within a semantic network by similarity (not by identity), and establish a complex semantic category, as given in Figure 12:
In this semantic network, the senses of the verb *mīltā* are represented by the nodes, which are connected with one another by extension, elaboration and bi-directional extension. The related senses of the verb *mīltā* are generally classified into two: ‘concrete and physical force-dynamic movement away from the source of energy’ and ‘abstract movement away from the source of force’. The heavy-lined node represents the prototypical *mīltā*-1 in a physical domain. The prototype is the central instance of the semantic category *mīltā*.

Figure 12 shows many semantic extensions from *mīltā*-1, as indicated by the dotted arrows. *Mīltā*-1 is not completely congruent with the extended senses, although the extended senses are construed as related to *mīltā*-1. For example, *mīltā*-1 is extended to the sense ‘to smooth the surface’ in the same physical domain by a metonymic
relationship between the pushing act and its resultant even state. Both *milla*-1 and ‘to smooth the surface’ involve the manner of ‘pushing’ in some way, although the landmark of the event ‘to smooth the surface’ does not move away from the source of physical force. As another example, *milla*-1 is extended to several senses (e.g., ‘to push ahead on’, ‘to support’, and ‘to propose’) in an abstract domain. In the abstract domain (to be more specific, in the temporal domain), the extended sense ‘to put off’ is further extended to the sense ‘to push off’ in a social relationship domain. A schema can also extend to another schema. The subschema (i.e., force-dynamic physical movement away from the source of energy) is extended to another subschema (i.e., abstract movement away from the source of energy), which subsumes several specific senses such as ‘to put off’, ‘to push off’, ‘to push ahead on’, ‘to support’, and ‘to propose’.

In Figure 12, we find many schematic relations between schemas and their specific instances, as represented by the solid arrows. A schema is extracted based on the common factor(s) of specific senses. For example, the sense ‘smoothing the surface’ constitutes a schema from a variety of the smoothing modes (planing, leveling, shaving, rubbing off, and rolling out) in terms of an overlapping family resemblance. All of these specific senses (i.e., ‘to plane’, ‘to level’, ‘to rub off’, ‘to shave’, and ‘to roll out dough’) focus on the resultant flat state of the landmark, and involve some physical force exertion of the trajector upon the surface of another physical object (landmark) by means of a concrete INSTRUMENT (e.g., plane, bulldozer, towel, razor, and rolling pin).

The specific senses (e.g., ‘to push ahead on’, ‘to support’, and ‘to propose’) of the schema ‘abstract movement away from the source of energy’ are characterized relative to
an abstract mental domain. Especially, ‘to support’ and ‘to propose’ present positive meanings; the benefactive auxiliary verb cwuta frequently occurs with the verb milta for these senses. The hierarchical schematic structures are observed, based on the similarities through the generalization from the lower-ordered specific senses and subschemas. The subschemas (i.e., concrete and physical force-dynamic movement and abstract movement, away from the source of energy) are subsumed under the superschema at the top (i.e., a movement away from the source of energy).

In Figure 12, some senses of the verb milta show bi-directional extensions based on mutual similarity, as indicated by the two-way dotted arrows. For example, the sense ‘to plane’ shares the semantics of ‘smoothing the surface’ with the sense ‘to level’. But it is not known that the sense ‘to plane’ is more central than ‘to level’, or the other way around. As another example, the sense ‘to push off’, which is extended from the sense ‘to put off’ in a temporal domain, has bi-directional extension with ‘to push ahead’.

§ 4.5 Conclusion

This chapter has examined the semantics of the polysemous Korean verb milta. The various senses of this verb are related to one another in terms of similarity, and are coherently unified within a semantic network.

The body of this chapter has investigated the prototypical event milta-1 (i.e., the trajector exerts physical force upon the landmark and then the landmark is caused to move away from the source of force) in a physical domain. The event milta-1 is more general
than *kkulta*-1 and *tangkita*-1 in that it can describe the opposite scenes of both *kkulta*-1 and *tangkita*-1.

The trajector and landmark of *mila*-1 are, thus, more inclusive than those of *kkulta*-1 or *tangkita*-1. Since *mila*-1 can take the landmarks of both *kkulta*-1 and *tangkita*-1, it does not profile a specific dimension. Like *kkulta*-1 and *tangkita*-1, *mila*-1 has relative physical strength of the trajector and landmark; the trajector of *mila*-1 is stronger than the landmark. The event *mila*-1 has the landmark’s intrinsic path, i.e., the landmark’s change of location away from the source of physical force, and results in the landmark’s irrevocable movement along a spatial path. This event is neutral with respect to an extended path of the trajector, unlike *kkulta*-1 and *tangkita*-1. Because *mila*-1 is a perfective event, the verb *mila* can occur with *pelita* (i.e., the perfective auxiliary verb), forming the complex verb construction *mila*-e *pelita*. The verb *mila* can also occur with another verb *cwuta* (i.e., the benefactive auxiliary verb), because *mila*-1 is conceived as a beneficial activity for someone. The co-occurrence of *cwuta* with *mila* provides a motivation for the semantic extensions of the senses ‘support’ and ‘to propose’ in an abstract mental domain.

The prototypical event *mila*-1 motivates its semantic extensions in a coherent way. The senses of the verb *mila* (e.g., ‘to smooth the surface’, ‘to push ahead’, ‘to support’, ‘to propose’, ‘to put off’, and ‘push off’) involve physical and abstract motions in spatial and non-spatial domains. They are described with regard to *mila*-1, and are related to one another in terms of family resemblance relationships, forming a complex semantic category.
In a physical domain *mila*-1 is opposed to *kkulta*-1 and *tangkita*-1. The three verbs (i.e., *kkulta, tangkita,* and *mila*) are metaphorically extended in the temporal domain. The extended sense of the verb *mila* ‘put off’ is not opposed to the extended sense of the verb *kkulta* ‘to prolong’, rather is somewhat similar to it in terms of the results of these events. However, this sense of *mila* is in an opposite relation with the sense of the verb *tangkita* ‘to advance’ or ‘to make something earlier’ in a temporal domain. The antonymic relation of the prototypical cases (i.e., *mila*-1 vs. *kkulta*-1 and *tangkita*-1) in a physical domain is not maintained in some extended cases, because the speaker differently construes their respective event scenes in an abstract temporal domain. In her article “What goes up doesn’t necessarily come down”, Lindner (1982:322) redefines the notion of antonym regarding the locative particles *in* and *out* in the following way:

Not all pairs of versions of IN and OUT or UP and DOWN are fully comparable as opposites since it is not always clear that they schematically specify the same kinds of landmarks and trajectories....We also found that the same path can have two metaphorical senses which oppose each other, and that opposing paths may both be used to code the same or comparable scenes.

This implies that the speaker’s conceptualization of the event image plays a crucial role in defining semantic relations of associated lexical units. So, the semantic structures of the senses of *mila, kkulta,* and *tangkita* (‘put off’, ‘prolong’, and ‘advance’) are differently construed from those of *mila*-1, *kkulta*-1, and *tangkita*-1, because of how the speaker conceptualizes TIME as well other aspects of the events.
Chapter 5

Contrastive Analysis of Pull and Push

§ 5.0 Introduction

The purpose of this chapter is to investigate the contrastive semantic aspects of the English motion verbs *pull* and *push*, compared with the corresponding Korean verbs *kkulta*, *tangkita*, and *mila*. It also aims to examine a language-specific strategy and a general direction of semantic extension.

Like the Korean verbs *kkulta*, *tangkita*, and *mila*, *pull* and *push* have a wide range of distinct but associated senses, respectively, forming complex categories. The events described by the verbs *pull* and *push* in their prototypical cases are similar to the events *kkulta*-1, *tangkita*-1, and *mila*-1 in many respects. First, the English verbs *pull* and *push* including their related verbs (i.e., *drag, draw, jerk, yank, tow*, and *tug*, related to *pull*; and *thrust* and *shove* related to *push*) belong to the same semantic field, i.e., force-dynamic motion. Second, these events also involve two distinct participants, AGENT and MANIPULATED MOVER within their conceptual bases. The respective central meanings of *pull* and *push* are that the AGENT, volitionally and directly, causes an external entity to move toward/away from a source of physical force through space and time, as illustrated in Figures 1 and 2 in Chapter 3, and Figure 1 in Chapter 4 (i.e., the diagrams for *kkulta*-1, *tangkita*-1 and *mila*-1). Third, the events described by *pull* and *push* also require difference of relative physical strength between the trajector and landmark. As a result of an asymmetrical energy transfer, the MANIPULATED MOVER is caused to move along a path. Fourth, closely related to profiling, the particular selections of participants and
settings within these event frames are reflected in different sentence structures, for example, the transitive sentences in (1a-b) and the intransitive sentences in (2a-b):

(1)a. The father pulled his son by the ear.

b. The rescuers pulled the car from the mud.

(2)a. He pulled back from the brink of the table.

b. The car pulls or swerves to the left.

Despite these similarities, the events described by the verbs pull and push in the prototypical instances differ from their corresponding Korean events kkulta-1, tangkita-1, and milta-1 in important ways. The differences to be discussed motivate language-specific semantic extensions of pull and push, distinct from the semantic extensions of kkulta, tangkita, and milta in Korean.

§ 5.1 Formal Differences

Before the specific semantic differences of pull and push from their Korean counterparts are examined with regard to cognitive-functional attributes, several interesting formal differences between the English and Korean verbs will be discussed in this section, which pertain to the following: lexicalization of motion events, some particular usages in transitive and intransitive sentences, the reflexive, and the distinction between noun and verb. Through investigating the formal differences between pull and push on the one side and kkulta, tangkita, and milta on the other, we can gain an insight into the semantic differences between them.

§ 5.1.1 Lexicalization
Korean and English have different lexicalization patterns for motion events. According to Talmy (1985b), a motion event involves several essential semantic components, i.e., MOTION, FIGURE (the entity moving or located), GROUND (reference point/object), MANNER/CAUSE, and PATH (path and site in a broad sense).

Let us begin with the lexicalization of a motion event with regard to manner of motion. In English, manner of motion is usually conflated with motion in a motion verb (except for the motion verbs borrowed from Latin\(^1\), e.g., *enter, exit, descend, ascend, cross, and circle*) such that the motion verb expresses both motion and specific manner/cause (cf. Talmy 1985b). For example, in the sentence *The bottle floated into the cave*, the verb *floated* simultaneously expresses the motion and floating manner, and the path is lexicalized separately by the prepositional phrase *into the cave*. Naturally, English has many motion verbs constituting particular manner elaborations.

The verb *pull* is schematic to several related verbs, i.e., *drag, haul, tow, tug, draw\(^2\), yank, and jerk*, subsuming them under the common meaning of ‘the AGENT’s causing another entity to move in the direction of physical force’. Miller & Fellbaum (1992:216) call this manner relation between the superordinate schematic verb and its specific manner verbs “troponymy” (from the Greek *tropos* ‘manner’) with the formula

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\(^1\) Spanish maintains a pattern in which a path of motion is conflated in a motion verb; manner of motion is denoted by a separate lexical unit or phrase (cf. Talmy 1995b).

\(^2\) The verb *draw* is interchangeable with the verb *pull* in many situations. However, it is used here in a narrow sense to mean a lighter pulling action with smooth continuity and greater deftness than the verb *pull* (cf. OED). It now is most frequently used for metaphorical nature than spatial actions, however (personal communication with S. Kemmer).
"To \( V1 \) is to \( V2 \) in some manner". Within the semantic field of pulling force-dynamics, the specific manner verbs (drag, tug, tow, yank, and jerk) are the troonyms of the general verb pull:

(3a). \( \text{They pulled their over-turned car off the road.} \)

b. \( \text{They pulled the coal from the mine.} \)

c. \( \text{The truck pulled his wrecked car away.} \)

d. \( \text{He pulled the rope with his hand.} \)

e. \( \text{He pulled the criminal into court.} \)

(4a). \( \text{They dragged their over-turned car off the road.} \)

b. \( \text{They hauled the coal from the mine.} \)

c. \( \text{The truck towed his wrecked car away.} \)

d. \( \text{He jerked the rope with his hand.} \)

e. \( \text{He hauled the criminal into court.} \)

Each of the verbs in (4a-e) elaborates a distinctive manner of the pulling motion.

By contrast, Korean does not have many motion verbs that also specify the particular manner of execution. The two verbs \( kkulta \) and \( tangkita \) are semantically much less elaborate than the English motion verbs, i.e., drag, haul, tow, tug, draw, yank, and jerk, in terms of manner of motion. The particular manner of a motion event in Korean is not conflated in the semantics of a motion verb. Rather, it is separately expressed by a particular manner adverbial, which functions as modifier of a co-occurring motion verb, as illustrated in Table 1:
<table>
<thead>
<tr>
<th>general term</th>
<th>pull in English</th>
<th>kkulta/ tangkita in Korean</th>
</tr>
</thead>
<tbody>
<tr>
<td>specific manner</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>drag</strong></td>
<td><em>cilcil</em></td>
<td><em>kkulta</em></td>
</tr>
<tr>
<td></td>
<td>draggingly</td>
<td>pull</td>
</tr>
<tr>
<td><strong>haul</strong></td>
<td><em>seykey</em></td>
<td><em>kyeysok</em></td>
</tr>
<tr>
<td></td>
<td><em>cap-a</em></td>
<td><em>kkulta</em></td>
</tr>
<tr>
<td></td>
<td>forcefully</td>
<td>continuously</td>
</tr>
<tr>
<td></td>
<td>grasp-Cons</td>
<td>pull</td>
</tr>
<tr>
<td><strong>tow</strong></td>
<td><em>sasul-lo</em></td>
<td><em>(cha-lul)</em></td>
</tr>
<tr>
<td></td>
<td>chain-Instr</td>
<td><em>(car-Acc)</em></td>
</tr>
<tr>
<td></td>
<td>pull</td>
<td></td>
</tr>
<tr>
<td><strong>tug</strong></td>
<td><em>tolpalcekulo</em></td>
<td><em>cayppaluke</em></td>
</tr>
<tr>
<td></td>
<td>spasmodically</td>
<td><em>tangkita</em></td>
</tr>
<tr>
<td></td>
<td>quickly</td>
<td>pull</td>
</tr>
<tr>
<td><strong>draw</strong></td>
<td><em>hankylekathi</em></td>
<td><em>pwutuleypkey</em></td>
</tr>
<tr>
<td></td>
<td>steadily</td>
<td><em>tangkita</em></td>
</tr>
<tr>
<td></td>
<td>smoothly</td>
<td>pull</td>
</tr>
<tr>
<td><strong>yank</strong></td>
<td><em>hwayk</em></td>
<td><em>cap-a</em></td>
</tr>
<tr>
<td></td>
<td>suddenly and</td>
<td><em>tangkita</em></td>
</tr>
<tr>
<td></td>
<td>quickly</td>
<td>grasp-Cons</td>
</tr>
<tr>
<td></td>
<td>pull</td>
<td></td>
</tr>
<tr>
<td><strong>jerk</strong></td>
<td><em>kapcaki</em></td>
<td><em>tangkita</em></td>
</tr>
<tr>
<td></td>
<td>suddenly</td>
<td>pull</td>
</tr>
</tbody>
</table>

Table 1. Lexicalization of manner of motion in English and Korean

In (5a-b), the specific pulling manners corresponding to the English verbs *(drag and jerk)* are described by the manner adverbs *(cilcil ‘draggingly’ and kapcaki ‘suddenly’)*, which modify the general manner verbs *kkulta* and *tangkita*, respectively:

(5)a. *ku-tul-i*    *pwusecin*    *cha-lul*    *kil-eys*    *cilcil*  
he-Pl-Nom    wrecked    car-Acc    road-from    draggingly

*kkula*    *nay-ess-ta*  
pull-Cons    take out-Pst-Decl
‘They dragged their over-turned car off the road.’

b. *ku-ka*    *patcwul-ul*    *son-ulo*    *kaçaki*    *tangki-ess-ta*  
he-Nom    rope-Acc    hand-Instr    suddenly    pull-Pst-Decl
‘He jerked the rope with his hand.’
Table 2. Lexicalization of the conception PULL in Korean and English

Table 2 shows that the conception PULL is differently lexicalized in Korean and English, constituting language-specific lexical structures. In Korean, the conception PULL is expressed by the two distinct, but related verbs, *kkulta* and *tangkita*, with regard to continuity--intermittence, amount of force, and contrast with landmark. The English verb *pull* generally corresponds to both *kkulta* and *tangkita*, and is schematic to the manner of motion verbs (i.e., *drag, haul, tow, tug, draw, yank*, and *jerk*). Considering the characteristics of *kkulta* and *tangkita* discussed in Chapter 3, the English verbs on the left side in the third row in Table 2 (i.e., *drag, haul, and tow*) approximately accord with the Korean verb *kkulta*, while the English verbs on the right side (*yank* and *jerk*) correspond to the Korean verb *tangkita*. Thus, the leftward and rightward arrows in the first row represent the degree of approximation to the prototype of *kkulta* and *tangkita*, i.e., an approximate correspondence between the Korean verbs (*kkulta* and *tangkita*) and the specific English verbs in the third row. Although these English verbs in the third row are put in separate boxes, their semantics (especially, *tug, tow*, and *draw* located in the middle of the third row in Table 2) is connected with one another in an overlapping and clustering meaning chain, as indicated by the dots in the first row.
In a similar way, Table 3 demonstrates the different lexicalization of the conception PUSH in Korean and English. The Korean verb milta generally corresponds to the English verb push in an unmarked case. The verbs in the third row of Table 3 (i.e., thrust, shove, jostle, elbow, and butt), as the troonyms of the superordinate verb push, detail the particular manner or fashion of a pushing event:

<table>
<thead>
<tr>
<th>milta</th>
<th>push</th>
</tr>
</thead>
<tbody>
<tr>
<td>thrust</td>
<td>shove</td>
</tr>
</tbody>
</table>

Table 3. Lexicalization of the conception PUSH in Korean and English

Now, let us move on to how a resultant state and a path (including direction and goal) are lexicalized in English and Korean. In English, when a motion event accompanies a resultant state or path, the latter is expressed by different kinds of syntactic structures, i.e., adjectives\(^3\), as in (6a-b), prepositional phrases, as in (7a-b), adverbs, as in (8a-b), and infinitival clauses, as in (9a-b). Especially, a path of motion in connection with the verb pull or push is frequently expressed by a variety of verbal particles, i.e., up and down, out (of) and in(to), under and above, and back and forth.

(6)a. He pulled the door shut.
   
   b. He pushed the door open.

(7)a. The puppy pulled my shoe to pieces.

   b. The intruder pushed her to the ground.

\(^3\) These adjectives are called “small clauses” in the Government and Binding Framework (cf. Chomsky 1988).
(8a. He pulled his cap down.

b. He pushed the shopping cart forward.

(9)a. The crowd pushed us to bump against the wall.

b. The dealer will push a button to send the order direct to a car plant.

In (6-9), in unmarked situations the resultant states or goals described by the different syntactic structures have stronger sentence accents, as indicated by the underlines, than the motions themselves described by the finite verbs pull and push.

In Korean, manner and motion event described by the verb kkulta, tangkita, or milta can bring about a following result, like English. Instead of the adjectives expressing resultant states in English in (6a-b), the finite verbs in (10a-b) express resultant motion events:

(10)a. ku-ka mwun-ul kkul-e tangki-e tat-ass-ta
   he-Nom door-Acc pull-Cons pull-Cons close-Pst-Decl
   'He closed the door by pulling it.'

b. ku-ka mwun-ul mil-eše yel-ess-ta
   he-Nom door-Acc push-Conn open-Pst-Decl
   'He opened the door by pushing it.'

It seems that the speaker usually pays more attention to the resultant outcome described by the motion subevent expressed by the finite verb (e.g., tat-ass-ta ‘close-Pst-Decl’) within a serial verb construction (e.g., kkul-e tangki-e tat-ass-ta ‘closed (the door) by pulling’) than to the accompanying manner-motion subevent (e.g., kkul-e tangki-e ‘pull-Cons pull-Cons’). In (10a-b), the resultant-motion subevents, i.e., tat-ass-ta ‘close-Pst-Decl’ and yel-ess-ta ‘open-Pst-Decl’, are semantically more prominent than the preceding manner of motion events kkulta-1 and milta-1, which are translated into English as ‘by pulling it’ and ‘by pushing it’. 
Similar to a resultant motion subevent, a motion path in Korean is described by a finite path verb within a serial verb construction consisting of a sequence of a manner verb and a path verb, as discussed in Section 3.2.5.2:

(11)a. kunye-ka chima-lul tangki-e nayli-ess-ta
      she-Nom skirt-Acc pull-Cons lower-Pst-Decl
      ‘She pulled her skirt down.’

      b. mal-i swuley-lul kkul-ko ka-ss-ta
         horse-Nom cart-Acc pull-Isol go-Pst-Decr
      ‘The horse went, pulling the cart.’

In brief, although the resultant state and path, as a result of the event (designated by milta, kkulta, tangkita, push or pull), are expressed by different syntactic structures in Korean (i.e., by a finite verb) and English (i.e., small clause, verb particle, and prepositional phrase), they are semantically similar in that they are more focused in terms of the importance of information than the pulling or pushing activity.

§ 5.1.2 Transitive or Intransitive

In this section, I want to limit the contrast of transitive and intransitive to one event conception PULL A MUSCLE in Korean and English. In English, the expression pull a muscle is idiomatic, and the verb pull is usually used in the active voice, as exemplified in (12a-b):

(12)a. The runner pulled a calf muscle during the competition.

b. In his first service game, Von Cramm pulled a muscle in his right thigh.

c. A calf muscle was pulled by the runner during the competition.

When a person over-stretches his muscle by excessive exertion and he hurts himself in a middle voice way (cf. Kemmer 1993a), we say that he pulls a muscle. In (12a), the
trajector (the runner) and landmark (calf muscle) represent a part-whole relation, and refer to the same person. So, the trajector’s energy transmission comes back to himself. On the other hand, the passivized sentence (12c) is less idiomatic.

Contrary to the transitive English sentences in (12a-b), the corresponding situation in Korean is most normally expressed in a passive sentence, as exemplified in (13a-b):

(13)a. kyengki tocwung-ey ku-uy intay-ka tangki-i-ess-ta
    game middle-Loc he-Gen ligament-Nom pull-Pass-Pst-Decl
    ‘He pulled a ligament in the middle of the game.’
    lit. ‘His ligament was pulled in the middle of the game.’

b. sam-wuel-ey kyengki-lul peli-l yeyceng-i-ess-una ku-uy
    three-month-Loc game-Acc open-Rel schedule-be-Pst-but he-Gen
    tali hwimcwul-i tangki-i-ese chwuyso-toy-ess-ta
    leg muscle-Nom pull-Pass-Conn cancel-become-Pst-Decl
    ‘The game was scheduled to open in March, but it was canceled because he pulled a muscle in his leg.’
    lit. ‘The game was scheduled to open in March, but it was canceled because his muscle in the leg was pulled.’

In a passive intransitive sentence, the body part (i.e., muscle) is the most prominent element as the trajector, and is expressed in the subject position. In (13a-b), the part-whole relationships are described by the possessive noun phrases, i.e., ku-uy intay-ka ‘he-Gen ligament-Nom’ and ku-uy tali hwimcwul-i ‘he-Gen leg muscle-Nom’. On the other hand, the corresponding transitive sentences in (14a-b) are not acceptable because transitive clauses in Korean are only possible in highly transitive (differentiated) cases.

(14)a. *ku-ka kyengki tocwung-ey intay-lul tangki-ess-ta
    he-Nom game middle-Loc ligament-Acc pull-Pst-Decl
    ‘He pulled a ligament in the middle of the game.’

b. *sam-wuel-ey kyengki-lul peli-l yeyceng-i-ess-una ku-ka
    three-month-Loc game-Acc open-Rel schedule-be-Pst-but he-Nom
The unacceptability of sentences (14a) and (14b) follows from the fact that when the trajectory and landmark of the event designated by the verb *tangkita* are not completely distinct entities the transitive fails in Korean (personal communication with P. Davis). This also explains the impossibility of the reflexive constructions with these force-dynamic verbs *kkulta*, *tangkita*, and *mila* in the following section.

§ 5.1.3 Reflexive

In English, the verb (i.e., *pull* or *push*) can take a reflexive pronoun as the direct object of a transitive sentence, because the reflexive pronoun is conceptualized as an entity separate from the subject (the AGENT), as exemplified in (15a-b):

(15a) *He pulled himself up from the swimming pool.*

b. *He pushed himself forward.*

In (15a-b), the verbs *pull* and *push* with the reflexive pronoun *himself* describe prototypical meanings, respectively. In (15a), *pull himself up* means ‘to exert some force upon himself and cause himself to manage to move up from the swimming pool. In (15b), despite some difficulty, he exerts force upon himself and causes himself to move forward.

In many cases, the verb *pull* with the reflexive pronoun metaphorically describes in a emotional or mental domain the sense ‘to recover one’s self-control’ or ‘to free oneself from distraction (in a concentrated manner)’ in (16a), and ‘recover integrity or solidarity/unity’ in (16b):

(16a) *Last month I pulled myself together.*
b. They pulled themselves together.

The verb *push* is also metaphorically used ‘to make an excessive effort by forcing oneself’ in (17a-b):

(17)a. Please do not push yourself too hard, if you have not tried this before.

b. We are going to have to push ourselves to get as precise as we can be.

By contrast, in the Korean events *kkulta*-l, *tangkita*-l, and *mila*-l, the conceptualization (i.e., a reflexive pronoun conceptualized as a discrete entity, differentiated from the subject) is not possible. A person cannot cause himself to move toward himself, as a result of force exertion upon himself. So, the Korean reflexive pronoun *caki* or *casin* ‘(one) self’ cannot occur as the direct object with the verb *kkulta*, *tangkita*, or *mila*, as in (18a-c):

(18)a. *ku-ka caki-lul wuy-lo kkul-ess-ta*
   he-Nom himself-Acc up-Orient pull-Pst-Decl
   ‘He pulled himself up.’

b. *ku-ka casin-lul tangki-ess-ta*
   he-Nom himself-Acc pull-Pst-Decl
   ‘He drew himself.’

c. *ku-ka caki-lul aph-ulo mil-ess-ta*
   he-Nom himself-Acc up-Orient push-Pst-Decl
   ‘He pushed himself forward.’

In Korean and English, the use of a reflexive pronoun as the direct object depends on the speaker’s conceptualization of it as an entity differentiated from the trajector in the pulling or pushing event.

Here are some examples of *kkulta*, which have higher transitive differentiation of the trajector and landmark than (18a-c):
(19)a. ku-ka cichin mom-ul kkul-ko cip-ulo ka-ss-ta
    he-Nom exhausted body-Acc pull-Isol home-Orient go-Pst-Decl
    'He went home, dragging his exhausted body.'

    b. ku-ka kipwusuhan tali-lul kkul-ko hakkyo-ey ka-ss-ta
    he-Nom casted leg-Acc pull-Isol school-Loc go-Pst-Decl
    'He went to school, dragging his leg with a cast on it.'

In (19a) and (19b), the trajector and landmark represent a part-whole-relation (a person and his body part). However, the landmark (i.e., cichin mom ‘(his) exhausted body’ or kipwusuhan tali ‘(his) leg with a cast on it’) is conceptualized as an independent heavy entity, differentiated from the trajector ku-ka ‘he-Nom’ (cf. Rice 1987). The trajector loses control of his body in terms of its function because of his physical exhaustion in (19a), or because of the cast on his leg in (19b). The particular adjectives collocated with the landmark, mom ‘body’ or tali ‘leg’, (e.g., cichin ‘exhausted’, pyengtun ‘diseased’, tachin ‘wounded’, or celin ‘paralyzed’) all express the malfunctional states of his body. They function as important semantic facets of the conceptualization of the sense ‘to drag’ (i.e., heaviness, slowness, difficulty, and effort). These adjectives reveal the trajector’s mental or emotional state or attitude about the event kkulta ‘to drag’. They also contribute to the differentiation of the landmark from the trajector.

Without the presence of this kind of relevant adjective, (20a) is not acceptable, because the landmark mom-ul ‘(his) body’ cannot, by itself, be conceptualized as a separate entity, differentiated from the trajector, ku ‘he’. The use of the reflexive pronoun, caki ‘himself’, is not possible, as in (20b):

(20)a. *ku-ka mom-ul kkul-ko cip-ulo ka-ss-ta
    he-Nom body-Acc pull-Isol home-Orient go-Pst-Decl
    'He dragged his own body home.'
§ 5.1.4 Time as Direct Object

The different conceptualizations of the conception TIME in Korean and English can produce language-specific syntactic structures pertaining to the cognitive event concepts of participant and setting (cf. Langacker 1987b and 1991a). In Korean, the word sikan ‘time’ can be used as the direct object in a transitive sentence, because it is conceptualized as a concrete and physical object separate from the subject. In the event ‘to prolong’ (designated by the verb kkulta), sikan ‘time’ is conceived as a heavy, or lengthened entity, and as involving a heavy, slow and laboring abstract movement (discussed in Section 3.3.7):

(21)a. nongkwu kyengki-eyse sangtayphyen-i sikan-ul kkul-ess-ta
    basketball game-Loc opposite team-Nom time-Acc pull-Pst-Decl
    ‘The opposing team prolonged the basketball game (in the end).’

b. ku saken-i phyengsayng-ul kkul-ess-ta
    the case-Nom lifetime-Acc pull-Pst-Decl
    ‘The legal case dragged on through his lifetime.’

In (21a) and (21b), the direct objects sikan-ul ‘time-Acc’ and phyengsayng-ul ‘lifetime-Acc’ obtain the status of participant (the landmark), and are maximally opposed to the subjects (the trajector) sangtayphyen-i ‘opposing team-Nom’ and ku saken-i ‘the case-Nom’. In (21a), the locational adverbial phrase nongkwu kyengkieyse ‘in the basketball game’ functions as setting for the event.
Now, let us consider the corresponding English sentences that describe the equivalent situations. In these sentences, the abstract conception TIME is not conceptualized as a concrete and physical object, unlike that in (21a-b):

(22)a. The opposing team prolonged the basketball game.

b. The legal case dragged on through his lifetime.

In (22a-b), the conception TIME in English is, however, specified by a temporal adverbial expression through his lifetime in (22b). This adverbial serves as a temporal setting for the event designated by the verb prolong. Or, the conception TIME is conflated as a part of the semantics of the English verb prolong or drag on. In contrast to the Korean adverbial nongkwu kyengki-eyse ‘in the basketball game’ (i.e., setting), the English noun phrase the baseball game is used as the direct object, and obtains the status of participant (the landmark). Related to the conceptualization of the conception TIME, the participant-setting relationship in Korean and English is differently illustrated in Figure 1(a) and (b):

![Diagram](image)

Figure 1. Participant and Setting in Korean and English

In Figure 1, the small circles indicate the discrete mobile participants (the trajector and landmark), and are profiled as the most prominent entities in these Korean and English events. On the other hand, the rectangles indicate the setting for the characterization of these events. The setting is not profiled, because it is rather conceived as more diffuse and
inclusive than the participants. The profiled arrow represents the transmission of the abstract energy from the trajector to the landmark.

§ 5.1.5 Distinction between Noun and Verb

In English, the verbs *pull* and *push* are also used as nouns by means of zero derivation. They can occur in nominal positions, i.e., subject, direct object, and oblique:

(23)a. *A two-way pull has developed in shares of SG Warburg.*

b. *Popular theater has less academic pull.*

c. *He was tired because of fighting against the pull on the door.*

(24)a. *Push for competition will create winners and losers.*

b. *He gave the desk another push.*

c. *In the initial push, Russian tanks have reached the square in the center of the city.*

In (23a-b) and (24b-c), the adjectives (*two-way, less academic, another, and initial*) are taken to modify the following nouns *pull* and *push*. In (23a), (23c), and (24c), the determiners (i.e., *the* and *a*) manifest the typical noun status of *pull* and *push*. In particular, the noun *pull* with the indefinite article *a* in (23a) and the noun *push* with the adjective *another* in (24b) are conceptualized as countable entities.

In Korean, the verbs *kkulta, tangkita, and milta* are nominalized (i.e., *kkul-ki, tangki-ki, and mil-ki*) by the addition of the nominalizer suffix *-ki* to the respective verbal stems (*kkul, tangki, and mil*):

(25)a. *kipon tongcak-ey-run ket-ki talli-ki maytalli-ki*

*basic motion-Loc-Top walk-Nomzl run-Nomzl hang-Nomzl*
tenci-ki  tul-ki  mil-ki  tangki-ki-ka  iss-ta
throw-Nomzl  lift-Nomzl  push-Nomzl  pull-Nomzl-Nom  be-Decl
‘As for basic motions, there are walking, running, hanging, throwing, lifting, pushing, and pulling.’

b.  sangtay-uy  ekkay-lul  cap-ko  mil-ki-wa
partner-Gen  shoulder-Acc  grasp-Isol  push-Nomzl-and

tangki-ki-lul  hay-e  po-p-si-ta
pull-Nomzl-Acc  do-Cons  try-Sugg-Hon-Decl
‘Please let’s try pushing and pulling, grasping your partner’s shoulder.’

Despite their occurrences in the subject and direct object positions in (25a-b), the nominalized verbs (kkul-ki, tangki-ki, and mil-ki) behave rather like verbs. As evidence, they take adverbs (e.g., cicil ‘draggingly/ with effort’ and pwutulepkey ‘tenderly’) to modify them, not adjectives:

(26)a.  kay-tul-i  sselmay-ul  cicil  kkul-ki  sicak-hay-ss-ta
dog-Pl-Nom  sled-Acc  draggingly  pull-Nomzl  begin-do-Pst-Decl
‘The dogs began draggingly pulling the sled.’

b.  nakksis-cwul-ul  pwutulepkey  tangki-ki-ka  swuyp-ci  anh-ta
fishing-string-Acc  tenderly  pull-Nomzl-Nom  easy-Conn  Neg-Decl
‘Tenderly pulling a fishing string is not easy.’

Contrary to the English noun phrase another push in (24b), the nominalized Korean verb mil-ki takes an adverbial expression (e.g., *ttot hanpen ‘twice’ (lit. ‘again once’)) in order to count the repetition of an event. The nominalized verbs (kkul-ki, tangki-ki, and mil-ki) are not pluralized (e.g., *kkul-ki-tul ‘pull-Nomzl-Pl’) in contrast with the English pluralized nouns pulls and pushes. In the verb phrase kkul-ki sicak-hay-ss-ta ‘pull-Nomzl begin-do-Pst-Decl’ in (26a), the nominalized verb kkul-ki is often incorporated into the finite verb without Accusative marking (-ul). In short, these Korean nominalized verbs function as the corresponding English gerunds pulling and pushing.
§ 5.2 Contrastive Semantic Analysis

This section provides a contrastive semantic analysis of the English verbs pull and push, compared with the corresponding Korean verbs kkulta, tangkita ‘pull’ and milta ‘push’. Let us begin with the prototypical cases of pull and push in a physical and spatial domain with regard to the functional and cognitive attributes we have dealt with in Chapter 3 and Chapter 4. The events described by the verbs pull and push are defined as ‘the trajector causing another entity to move either toward or away from the source of force in a physical domain, respectively’.

§ 5.2.1 Trajector

The trajectors of the events described by the verbs pull and push play the role of AGENT and are the source of force. It is shown in Chapter 3 that the trajector of the event tangkita-1 is somewhat limited to a human being, because the event requires some sort of manipulative control of a human being over a relatively small entity or part of a larger entity.

For the events described by the verbs pull and push, no special constraint is required for the trajector, since there is no lexical distinction in English analogous to the Korean verbs kkulta and tangkita. As long as a trajector exerts or is construed as exerting some physical force upon another entity, any kind of an agentive entity is possible for the trajector of the event (e.g., a person, goat, and earthquake).
The extended movement of the trajector is neutral, and is not important in the semantic characterization of the verbs *pull* and *push*. It depends on the collocational, contextual information or the world knowledge of the speaker and hearer:

(27)a. *The dogs pulled the sled up the hill.*

    b. *John pulled the trigger.*

(28)a. *Tom pushed the cart to the farm.*

    b. *She pushed the door open.*

In (27a) and (28a), the extended paths of the trajectors (i.e., *the dogs* and *Tom*) are explicitly expressed by the prepositional phrases (i.e., *up the hill* and *to the farm*). On the other hand, the trajector *John* in (27b) did not necessarily move while he was pulling the trigger.

§ 5.2.2 Landmark

Like the landmarks of the events *kkult-a-1*, *tangkita-1*, and *milta-1*, the landmarks of the events described by the verbs *pull* and *push* play the role of MANIPULATED MOVER. However, they are more inclusive than the landmarks of the events *kkult-a-1*, *tangkita-1*, and *milta-1*.

First, let us consider the landmark of the event designated by the verb *pull*. Chapter 3 has shown that in Korean the choice for the verb *kkulta* or *tangkita* is determined to a large degree by the nature of landmark. The landmark of the event *kkult-a-1* is a larger, heavier entity than that of the event *tangkita-1*, and the entity as a whole is caused to move toward the source of force (the trajector), as a result of the
event. The landmark of "tangkita-1" is relatively a small entity or part of another larger entity.

By contrast, the landmark for the event described by the English verb "pull" is neutral with regard to part-whole relationship, size, weight, contact, and dimension. The physical and concrete landmarks of both events "kkulta-1" and "tangkita-1" are used for the landmarks of the event "pull." In (27a) and (27b), the "sled" and the "trigger" are thus the landmarks of the event "pull."

Now, let us move on to the landmark of the event described by the verb "push." Section 4.1.3 has shown that the conception of irretrievability is important for the characterization of the Korean verb "milia" 'push'. The event described by the verb "milia" results in the irretrievable movement of the landmark, as a result of the trajector's exertion of force upon the landmark:

(29)a. "ku wucheypwu-ka choincong-ul mil-ess-ta
the mailman-Nom doorbell-Acc push-Pst-Decl
'The mailman pushed the doorbell.'

b. "ku-ka caphanki tanchwu-lul mil-ess-ta
he-Nom vending machine button-Acc push-Pst-Decl
'He pushed the button of the vending machine.'

Sentences (29a) and (29b) are very strange with the verb "milia" because in the real world, the landmarks automatically return to their first positions after the events. The landmark "choincong-ul" 'door bell-Acc' in (29a) goes back to its original position shortly after the event, because an iron spring is installed inside the door bell. Furthermore, the event "milia-1" seems to impose an irrerevocable movement of the landmark.
This situation (in which some physical force is exerted upon the landmark, but the landmark returns to its initial location) is expressed by another verb *nwuluta* ‘to press’, as in (30a-b):

(30)a. *ku wucheypwu-ka choincong-ul nwul-ess-ta*
    the mailman-Nom doorbell-Acc press-Pst-Decl
    ‘The mailman pressed the doorbell.’

    b. *ku-ka caphanki tanchwu-lul nwul-ess-ta*
    he-Nom vending machine button-Acc press-Pst-Decl
    ‘He pressed the button of the vending machine.’

The event described by the verb *nwuluta* ‘to press’ does not involve the movement of the landmark as a result of the exertion of force. Rather, the act of exerting force upon the landmark is central and focal facet within the semantic structure of the verb *nwuluta* ‘to press’ (cf. H. Im 1993). Thus, the landmark of the event designated by *nwuluta* ‘press’ undergoes physical pressure without the change of its location. In (30a-b), the small movements of the landmarks (*choincong-ul* ‘doorbell-Acc’ and *caphanki tanchwu-lul* ‘vending machine button-Acc’) are insignificant such that the speaker cannot notice it.

By contrast, the conception of irretrievability is not relevant for the landmark of the event described by the English verb *push*. The verb *push* can, thus, be thought of as synonymous with the verb *press*, as in (31a-c) and (32a-c):

(31)a. *The mailman pushed the doorbell.*

    b. *He pushed the button of the vending machine.*

    c. *If anyone pushes the doorbell, the police will arrive in minutes.*

(32)a. *The mailman pressed the doorbell.*

    b. *He pressed the button of the vending machine.*

    c. *If anyone pressed the doorbell, the police will arrive in minutes.*
To be precise, sentences (31a-c) sound a little better, and are more frequently used in our daily experience than (32a-c). The verb push seems to describe the horizontal movement of the landmark (ignoring the matter of irretrievability of the landmark’s movement) when the landmark is vertically attached to another object, e.g., wall and vending machine.

§ 5.2.3 Relative Strength and Energy Transfer

Like the events kkulta-1, tangkita-1, and milta-1, the events described by the verbs pull and push involve the relative strength relation of force between trajector and landmark. The trajectors are expected to be stronger than the landmarks.

In Korean, the events kkulta-1, tangkita-1 and milta-1 imply the movement of the landmark (not noting the matter of the trajector’s extended path). Although the heavy weight of the landmark can play an obstructing role in achieving the movement of the trajector, the trajector succeeds in the physical movement of the landmark. But with the addition of connective particle, -ciman ‘Adv’, we can negate or cancel the motion:

(33)a. mosen-i casen-ul kkul-ess-ciman
mother ship-Nom son boat-Acc pull-Pst-Adv
amcho-ey kellyese wumcikici an-ass-ta
reef-Loc stuck move Neg-Pst-Decl
‘Although the mother ship pulled the daughter ship, it did not move because it was stuck to the reefs.’

b. ku-nun soncapi-lul tangki-ess-ciman machankaci-i-ess-ta
he-Top knob-Acc pull-Pst-Adv the same-be-Pst-Decl
‘He pulled the knob (of the door), but it remained in place.’

c. ai-ka thakca-lul mil-ess-ciman kkomccak-to ha-ci anh-ass-ta
child-Nom table-Acc push-Pst-Adv budge-even do-Conn Neg-Pst-Decl
‘The child pushed at the table, but it wouldn’t budge at all.’
The connective particle -ciman ‘-Adv’ designates the “adversative relation” of two adjoined clauses against expectation, and is, thus, translated as ‘but’ or ‘although’ into English (Halliday and Hasan 1976:250). With the use of -ciman, the Korean speaker is prepared to see in the second clause a situation contrasting with that of the first clause. In (33a-c), where the adversative connective particle -ciman is attached to the verb stem (i.e., kkul, tangki, and mil) after the tense marker (i.e., kkul-ess-ciman, tangki-ess-ciman, and mil-ess-ciman), the scope of the negation extends to the whole of the previous clause. In (33a), the speaker makes the adversative situation explicit by providing a specific reason for it in the second clause. The landmark, casen-ul ‘daughter ship-Acc’, does not move because it was stuck between the reefs. The huge weight of the reefs added to the resistance of the small boat exceeds the pulling capacity of the large ship. As a result, the large ship fails to pull the small boat. In (33b), the speaker states that there is no change at all, implying that the door, to which the knob is attached, is locked. In (33c), the adversative situation is described with the use of the graphic word kkomccak ‘budge’ in the second clause. The verb phrase kkomccak-to ‘budge-even’ implies that the table is too heavy for the child to push, although he attempted to push it. The expected movement of the landmark is not accomplished when the expected strength relation of the trajector and landmark is reversed. The landmark’s opposing strength overcomes the forceful exertion of the trajector, and thereby the landmark does not move.

In English, the verbs pull and push also strongly implicate the movement of the landmark, as exemplified in (34a-b):

(34)a. Two horses pulled the wagon.

b. I pushed the table.
In transitive sentences (34a-b), the direct objects (*the wagon* and *the table*) are actually caused to move, as a result of the acts of pulling and pushing. But with aspectual modification, i.e., ‘pull at’ and ‘push on’, then we can negate or cancel the motion (cf. Quirk et al. 1985; Levin 1993:42; Schlesinger 1995):

(35)a. *Somebody is pulling again and again at the rusty knob.*

b. *I pushed on the table.*

Intransitive sentence (35a) implies that the object *the rusty knob* of the preposition (i.e., *at*) is not necessarily moved, although the subject *somebody* attempted to pull it; pulling at the knob does not entail the actual movement of it. Similarly, in (35b), pushing on the table does not specify the movement of the table; the act of pushing is only attempted, and ends up being unsuccessful or incomplete.

§ 5.2.4 Dimensions

The semantic analysis of *kkulta* ‘pull’ in Chapter 3 has shown that a physical motion along a horizontal path through space and time is central within the semantic structure of the event *kkulta*-1. Closely related to the notion of horizontality, the concept of contact (i.e., the landmark in contact with the surface of another entity) becomes salient with the explicit use of the adverb *cilcil* ‘draggingly’. The event *tangkita*-1 does not involve a salient dimension. Rather, a dimension is dependent on the position of the trajector in relation to the initial location of the landmark. In the most canonical performances, the event *mila*-1 designates a forward horizontal motion of the landmark.
In English, the events described by *pull* and *push* involve a horizontal movement of the landmark in the most canonical cases; the orientation of the trajectory may follow from the orientation of the landmark (personal communication with P. Davis):

(36)a. *He pulled the plug.*

b. *Mother pushed the shopping cart.*

Sentences (37a-b), which are less prototypical than (36a-c), rather specify vertical movements of the landmarks in accordance with the vertical orientations of those landmarks:

(37)a. *He pulled the cork.*

b. *She pulled the light cord.*

c. *Mother pushed the ceiling tile.*

Or, a particular dimension, related to a motion path, is expressed by the specification of the directional verbal particles, e.g., *up, down, aside, back* and *forth*:

(38)a. *He pulled up the collar of his coat.*

b. *He pushed his foot down on the throttle.*

(39)a. *She pulled the curtain aside.*

b. *He pushed the chair back and forth.*

§ 5.3 Semantic Extensions

Like the Korean verbs *kkultta, tangkita* and *miltta*, the English verbs *pull* and *push* are not limited to prototypical senses 'to cause an entity to move toward/away from the source of force' in a spatial domain. They are also used in other domains, e.g., perception, temperature, cognition, advertisement, social relationship, emotion, and so on. In this
section, I will briefly discuss the semantic extensions of *pull* and *push* in physical and metaphorical domains. I will examine how the extended senses of each verb are related to one another on the basis of the different, but related conceptualizations with regard to metonymic and metaphorical relations, image schemas, and cognitive models or frames associated with the events. The semantic extensions of *pull* and *push* in this section is not exhaustive. Rather, some contrastive aspects of the semantics of *pull* and *push* (compared with that of the Korean verbs *kkulta*, *tangkita*, and *mila*) are selectively examined.

Because of the intrinsic similarity of semantics between *kkulta* and *tangkita* on the one side and *pull* on the other, some extended senses such as ‘to pull magnetic/electronic/gravitational attraction’ and ‘to attract one’s attention’ are common in Korean and English:

(40)a. The magnet pulls iron.

b. Brooks Benton can still regularly pull standing-room-audiences for his live gigs.

Likewise, the Korean verb *mila* and its corresponding English verb *push* share some extended senses such as ‘to push ahead (on)’ and ‘to push off’:

(41)a. He pushed ahead on his plan.

b. He pushed off his own mistake onto someone else.

§ 5.3.1 Semantic Extensions of *Pull*

The prototypical sense ‘to exert force upon an entity and cause it to move toward the source of force’ is extended to several related senses in a physical domain by a metonymic relation, or in different metaphorical settings. First, the excessive exertion of
concrete or abstract force by pulling can bring about a change in the state or condition of a physical or abstract entity:

(42)a. *He pulled the skirts to pieces.*

b. *He pulled his opponent's arguments to bits.*

In (42a), *pull* means 'to tear off' or 'to render' in a physical domain. In (42b), *pull* is characterized relative to a mental domain or in a conversational domain. The verb *pull* can be extended to the sense 'to stretch' candy or taffy by force exertion:

(43) *The child pulled the candy with happiness.*

This extended sense 'to stretch' is further extended to the sense 'to strain a muscle' when a person exerts excessive force upon his muscle or tendon, while he is doing some physical work, e.g., exercising, digging, and rowing:

(44) *She pulled a muscle in her arm during the volleyball game.*

Now, let us turn to some extended cases involving specific cognitive models in our life. In the cognitive model of the sport, *boxing*, the expression *pull one's punches* means an act of holding back one's blows to decrease the force on purpose in a physical domain. The physical concrete activity *punches* (with a fist for thrusting at somebody) metaphorically stands for blame, criticism, or harshness in an abstract domain:

(45) *The two sides are actually pulling their punches. The strikes are limited.*

Sentence (45) implies that *the two sides* deliberately lessen their criticism against each other (in order not to attack each other with full force) such that the strikes are not as serious or aggressive as they can be.

Let us consider the expression *pull the rug under from someone.*

(46) *She pulled the rug from under him a few months later.*
Sentence (46) literally means that the rug (on which a man was standing) was intentionally pulled out from under him by the woman. So, he probably ends up stumbling on the floor. Metaphorically, the rug can stand for support and trust in a social interaction domain. The man trusted the woman for supporting him, but she later did something unexpected in a bad way by withdrawing the support. As a result of this event, he is betrayed, and falls into a trouble. Carpet and rug are not common in the traditional Korean culture. Neither kkultsa nor tangkita has a metaphorical expression in Korean similar to pull the rug under from someone in English.

Let us consider another cultural specific cognitive model, i.e., PUPPET cognitive model, connected with the expression pull strings or wires. In a puppet show, all the movements of puppets are controlled by a person, who usually hides behind the curtain. In many cases, this expression pull strings is metaphorically used to mean the extended sense ‘to manipulate’ a person, thing or situation in a secret way. In Korean, the corresponding expression, cwul-ul tangkita ‘pull strings (string-Acc pull)’, is a case of tangkita-1, but is not semantically extended to the sense ‘to manipulate’.

(47)a. He had his uncle pull strings to get him a promotion.

In (47), his uncle furtively uses his authority in order to gain his nephew’s promotion by means of influencing his friends and colleagues.

§ 5.3.1.1 Sense ‘to extract’

First, let us consider the sense of the verb pull ‘to extract’, which is schematic to several specific senses ‘to pluck’, ‘to uproot’, ‘to pick’ and ‘to gather’. According to the
Oxford English Dictionary (OED), the sense of the verb *pull* 'to extract' etymologically precedes the sense 'to exert force upon another entity and cause it to move toward the source of force'. But the etymological priority of the sense 'to extract' does not mean that this sense is synchronically most prototypical. Despite the etymologically later occurrence, the sense of *pull* 'to exert force upon another entity and cause it to move toward the force' is thought to be most prototypical and central, and to be the opposite of the sense of *push* 'to exert force upon another entity and cause it to move away from the force'.

Then, a question arises why this sense 'to exert force upon another entity and cause it to move toward the force' is more prototypical and central than the sense 'to extract'. This prototypical meaning of *pull* is frequently understood in relation to the prototypical sense of *push* 'to exert force upon another entity and cause it to move away from the source of force'. These verbs *pull* and *push* are semantically closely-associated with each other, and share many semantic aspects. In fact, they belong to the same semantic field, i.e., force-dynamics, and are similar to each other in terms of force exertion in a physical domain. The events described by these two verbs bring about the movement of the landmarks through space and time. *Pull* and *push* occur in the same level of conceptual structure, not in hierarchically different levels of conceptual structure, as in the manner relationship between the troponyms (e.g., *drag*, *haul*, *tow*, *tug*, *yank*, and *jerk*) and the superordinate verb *pull* (discussed in Section 5.1.1).

Within the same motion event frame *pull* and *push* are conceptually organized together in terms of opposition. The events described by *pull* and *push*, as a result of
force exertion, involve two opposing directions of the movement of the landmarks (i.e., toward force vs. away from force). Miller & Fellbaum (1992:222) assert that "opposition relations are psychologically salient" among verbs as well as among adjectives. Their claim is supported by language learners' point of view; antonymic words, which frequently co-occur, are easily learned together, as exemplified in the expression *push-me-pull-you*. However, there is no a particular sense of *push* semantically directly-opposing to the sense of *pull* 'to extract'.

This prototypical sense of *pull* 'to exert force upon an entity and cause it to move toward the source of force' is semantically associated with the sense of *pull* 'to extract' in the sense that both involve a laborious forceful process in a physical domain. The etymological information of the verb *pull* to be discussed (i.e., 'to shell') says that some physical force is exerted upon the landmark in the event 'to extract' of *pull*. The crucial difference is that the sense of the verb *pull* 'to extract' is related to the CONTAINER image schema, i.e., image schema defined as simple and basic cognitive structure embedded in our daily experience. In Old English, the verb *pullian* is, according to OED, akin to the Frisian verb *pulje* 'to shell' or Middle Low German *pulen* 'to shell'. The verb *shell* directly reminds us of the noun *shell*, which can be conceived as a fairly prototypical container consisting of three essential parts, i.e., INTERIOR, EXTERIOR, and BOUNDARY. Another relevant schema is the OUT schema, as illustrated in Lindner (1981). These CONTAINER and OUT schemas are highly schematic in that they apply to the full range of various kinds of entities and relations (including peripheral cases which do not completely accord with those schemas). For example, the different objects (e.g., *human body,*
animal, ground, mouth, scalp, skin, and tree) can be conceived as sorts of containers, assimilated to a prototypical container (e.g., shell and box).

Let us consider some instances with a specific sense ‘to pluck’ of the schematic sense ‘to extract’:

(48)a. He pulls out his hair when stressed.

b. The birds pull out their own feathers.

In (48a-b), the sense of the verb pull ‘to pluck’ means to draw feathers or hair out from the skin or scalp. The skin and scalp are construed as non-prototypical containers containing only the small lower parts of feathers or hair. In (48a), the trajector he of the event exerts a certain amount of physical force upon the landmark his hair because he is likely to extract a bundle of feathers or hair altogether (not a single feather or a hair). Unlike the sense of the verb pull ‘to pluck’, the English verb pluck is not necessarily a "laborious" forceful process, as in (48’a):

(48’a)a. He plucked a hair from his shirt.

In (49a-b), the ground (where the plants are growing) is also conceived as a non-prototypical container; it is conceived as containing the roots of the radishes or of the trees. Because these CONTAINER and OUT image schemas are dynamic and flexible, they can be modified in relation to our knowledge of the world and various human experiences. So, the sense ‘to pluck’ is metaphorically extended to mean ‘to uproot’ from an animate domain, as in (48a-b), to an inanimate domain, as in (49a-b):

(49)a. The farmer pulled up the radishes.

b. Elephants have pulled up many trees by the roots.
Based on the integration of the CONTAINER and OUT schemas, (50a) is an instance of the sense of *pull* 'to extract', and (50b) is an instance of the sense of *pull* 'to pick':

(50)a. *The dentist pulled out his decaying teeth.*

b. *He pulled the apples from the tree.*

In (50a), a human mouth (to be more specific, gums) is conceived as a container. The upright tree, as a non-prototypical container, in (50b) is thought of as containing or bearing fruits. Picking the apples from the tree is conceived as taking out the fruits from this non-prototypical container (i.e., the tree). In all the sentences (48-50), we can see that those different senses ('to pluck', 'to uproot', 'to extract', and 'to pick') are systematically related to one another with regard to the CONTAINER and OUT image schemas associated with the lexical unit *pull*.

These distinct senses ('to pluck', 'to uproot', and 'to pick') can be also generalized to mean 'to remove', 'to extract', or 'to take out' something from a container:

(51)a. *The child pulled the toys out of the box.*

b. *He pulled the gun out of his pocket.*

(52)a. *He pulled things from the context.*

b. *I pulled the clues out of the discussion.*

In (51a-b), the landmarks *the toys* and *the gun* are taken out from the concrete prototypical containers *the box* and *his pocket*. In (52a-b), *the context* and *the discussion* are construed as more abstract containers from which *things* and *the clues* are conceptualized as being removed or taken out. Many abstract concepts such as country, situation, social relationship, and knowledge can be metaphorically conceptualized as containers. A concrete or abstract entity removed from a container (e.g., *the gun* in (51b)
and the clues in (52b)) is ready to be used, as result of the event. The sense ‘to remove’ is metaphorically extended to ‘plunder a person of his property’.

Depending on what part of an event (i.e., removing something from a container) is focused, we can construe different senses. For example, the sense ‘to pluck’ relatively highlights the initial part of the event, while the sense ‘to gather’ focuses on the final part of the entire event, as a result of the continuity and repetition of the event, i.e., plucking feathers, picking fruits, or uprooting plants. The sense ‘to gather’ is a more extended sense from the sense ‘to pluck’ than those senses ‘to uproot’, ‘to extract’ and ‘to pick’. The entities, which were removed from a conceived container and were gathered, are possibly put in a different container and are brought up for use. The sense ‘to gather’ of the verb pull is frequently used in an abstract domain:

(53)a. He pulled the various comments together

b. She pulled everything together to figure out the problem.

In Korean, the verbs kkulta and tangkita ‘to pull’ do not involve a CONTAINER image schema or OUT schema such that neither kkulta nor tangkita means ‘to pluck’, ‘to uproot’, ‘to extract’, ‘to pick’, ‘remove’ and ‘to gather’. The extended senses ‘to pluck’, ‘to uproot’, ‘to extract (a tooth)’ of pull (involving CONTAINER image schema) are expressed by the verb ppopota ‘to take out’:

(54)a. kunye-ka halmeni-uy huyn meli-lul ppop-ass-ta
    she-Nom grandmother-Gen white hair-Acc take out-Past-Decl
    ‘She plucked her grandmother’s white hair.’

b. chikwa-uyasa-ka ku-uy ssekun i-lul ppop-ass-ta
    dentistry-doctor-Nom he-Gen decayed tooth-Acc take out-Pst-Decl
    ‘The dentist extracted his decayed tooth.’
c. *khokkili-tul-i namwu-lul ppop-ass-ta*
   elephant-Pl-Nom tree-Acc take out-Past-Decl
   ‘The elephants pulled up the trees from the roots.’

d. *ku-ka khal-ul ppop-ass-ta*
   he-Nom knife.Acc take out-Past-Decl
   ‘He took out his knife (from the sheath).’

The extended sense ‘to pick’ of the English verb *pull* is expressed by another verb *ttata* ‘to pick’ in Korean:

(55) *ku-ka namwu-eyse sakwa-lul tta-ss-ta*
   he-Nom tree-Loc apple.Acc pick-Pst-Decl
   ‘He picked apples from the tree.’

In (55), the apples, which were attached to the tree (by stems or stalks), become detached, as a result of the event described by the verb *ttata* ‘to pick’. This Korean verb associates with more attachment-to-detachment rather than containment.

§ 5.3.1.2 The DRIVING Frame and Script

Related to the extended sense ‘to drive’ of the Korean verb *kkulta* discussed in Section 3.3.4, the English verb *pull* also metonymically associates with a DRIVING frame and script by virtue of a close relationship between a vehicle and its function or between a driver and a vehicle; it is very difficult for a person to physically pull a car through space and time. The extended sense ‘to drive’ of the Korean verb *kkulta* represents the act of driving in general. On the other hand, the English verb *pull* frequently occurs with a verbal particle (e.g., *up, over, in(to), off* and *on(to)*), and describes various specific situations associated with the DRIVING frame and script such as changing lanes, entering a main road, parking, stopping, and so on.
Since the AGENT, driver, is conceived as not completely differentiated from his vehicle within this DRIVING frame and script in terms of the function of a car (i.e., driving), and is inferable from the collocation or context, he is often not specified. Or, a vehicle is not necessarily encoded because of the understanding from the driver. When the verb *pull* is intransitively used, it has the implication of stopping the car, or planning to stop the car, as exemplified in (56a-b):

(56)a. *Within minutes four more RVs had pulled up near the park.*

b. *Pull over to the side of the road and turn on the hazard lights.*

c. *He pulled around the corner.*

In (56b), the verb phrase *pull over* also occurs in a conventional situation in which a policeman asks a driver to stop his car from the road to the side for checking or giving a speed ticket to the driver, e.g., *I was driving along quite happily when the police pulled me over.*

Within the DRIVING frame and script, the verb phrases *pull in(to)* and *pull out* associate with the CONTAINER image schema (discussed in Section 5.3.1.1). The verb phrase *pull in(to)* describes a specific driving situation where a person is driving his car into a container such as parking space, driveway and garage, as in (57a). By contrast, *pull out* portrays an opposing driving event; the driver takes out his car from a parking area onto a road, as exemplified in (57b):

(57)a. *Our train pulled into the station.*

b. *The truck pulled out onto the road from a parallel parking space.*
In (58a), the verb phrase *pull off* usually involves a particular driving situation of getting out of a bigger road onto a smaller road, while in (58b) *pull onto* describes a movement from a smaller road to a bigger road:

(58)a. The driver pulls off the M20 and finds an alternative route.

b. He quickly pulled the car onto the highway.

Yet, the opposite conceptualization is also possible because of the different collocational or contextual information, as in (59a-b):

(59)a. He pulled off from the curb.

b. He pulled onto the shoulder.

§ 5.3.2 Semantic Extensions of *Push*

The uses of the verb *push* are not limited to the prototypical sense ‘to exert force upon an entity and cause it to move away from the force’ in a spatial domain. The verb *push* is also used to represent some distinct, but related senses in a non-physical domain as well as in a physical domain.

First, this prototypical sense of *push* is extended to the sense ‘to force an entity to go’ in a spatial domain. The immediate physical contact and steady pressure of trajector and landmark are absent in this extended sense, unlike the prototypical sense, as exemplified in (60a-b):

(60)a. My crew will push your cattle across the creek tomorrow.

b. Henry pushed his scouts along the road toward Windsor.

In (60a), the trajector *my crew* force the landmark *your cattle* to advance against the opposition or difficulty (*the creek*) by driving or guiding. Physical force in the
prototypical sense is extended to driving or urging force for the sense ‘to force to go’, which induces the actual forward movement of the landmark through space and time. The multiplex entities in (60a) (i.e., multiplex trajector and landmark) are conceived as single gestalts due to their common behaviors and objectives despite their internal complexity.

This extended sense ‘to force an entity to go’ is further extended to the sense ‘to press a person to do something’, when the driving force is understood as mental or emotional pressure in an abstract domain:

(61)a. Mary pushed her daughter to finish her homework before she goes out with her friends.

b. We are constantly pushing students to use multiple sources.

In (61a-b), the events do not involve any actual movement of the landmark (i.e., her daughter and students) along spatial paths. Rather, her daughter, for example, in (61a) are urged to finish her homework.

In a certain commercial situation, the verb push is used to mean ‘to advertise’ by vigorously forcing customers to buy products:

(62) The company pushed inferior merchandise on the customers.

The exertion of abstract force or pressure can bring about a change in the state or condition of the landmark:

(63)a. The absence of the distracter pushes me into thinking.

b. South Africa pushed New Zealand into a tight corner yesterday.

In (63a), the highly abstract trajector the absence of the distracter is conceived as playing the role of exerting abstract pressure upon the speaker (me) such that the speaker felt
impelled to think. Or, the lack of a necessary entity is conceived as serving as mental pressure:

(64)a. *He was pushed for money.*

b. *He was pushed for time.*

The trajector *he* in (64a-b) is put in a difficult situation because of the lack of money and time. Sentences (64a) and (64b) are quite similar to *He was pressed for money* and *He was pressed for time*, respectively. In these situations, the verbs *push* are *press* are approximate synonyms.

The prototypical sense of *push* is also extended in different metaphorical domains such as monetary value, as in (65a-b), temperature, as in (66a-b), and degree and quantity, as in (67a-b):

(65)a. *The strong mark pushed the peseta to a record low.*

b. *The third short-term event helped push the dollar up.*

(66)a. *The summer temperatures push the thermometer to the breaking point.*

b. *Blizzards had pushed temperatures below freezing.*

(67)a. *The resold seats can push the box office income up to the value of 30.*

b. *A prudent tightening of fiscal policy pushes inflation up.*

Each of the sentences in (65-67) with a verbal particle (i.e., *up* and *down*) or with an adverbial expression associates with Lakoff and Johnson’s (cf. 1980) orientational metaphor: MORE IS UP AND LESS IS DOWN.

In short, the semantic extensions of the Korean verb *milda* generally associate with positive implication, as in the extended senses such as ‘to support’, ‘to propose’, and ‘push ahead on (a plan)’. In many examples of these extended senses of the verb *milda,*
positive implication is manifested by the explicit use of a beneficial auxiliary verb *cwuta*. The reanalysis of *milwuta* ‘to postpone’ as *mila*, as discussed in Section 4.3.4, is an exceptional case expressing a negative implication, because the sense ‘to postpone’ or ‘push off (responsibility)’ is inherited from the semantic structure of the verb *milwuta*.

On the other hand, the semantic extensions of the English verb *push* consistently involve the concept of pressure and force in an abnormal or unpleasant way, and frequently carry a negative or neutral nuance, as exemplified in (68a-b) and (69a-b):

(68)a. *His mother is pushing 90.*

b. *The boy is pushing 10.*

(69)a. *The temperature in Houston is pushing 35°C.*

b. *The temperature in Houston is pushing 20°C.*

The verb *push* is used when a person or an entity is approaching a certain age, temperature or speed. Sentence (68a) sounds perfect while (68b) is strange, because this *push* expression is usually used to describe an old person’s age (not a young person’s). Getting older in the Western World is not a pleasant experience to the person himself or from the speaker’s evaluative point of view. In a similar way, (69a) is perfectly acceptable in an unmarked situation, and carries a negative connotation because approaching 35°C is not a good condition for human living. In many examples, the verb *push* have the collocation with the words expressing negative connotation, e.g., *too hard, too far ahead, to the edge, to the limit, to breaking point*, and so on.

§ 5.4 Conclusion
I have provided a brief, but unified semantic analysis of the different senses of the English verbs *pull* and *push*, compared with the corresponding Korean verbs *kkulta*, *tangkita*, and *milda*. We have seen several formal differences between these English verbs and the Korean verbs, reflecting some semantic differences. Several cognitive and functional attributes are discussed, based on the prototypical senses of *pull* and *push* and their semantic structures in physical and spatial domains. Full understanding of the physical acts of pulling and pushing is the basis for our conceptualizing the other extended senses.

The different meanings of the English motion verbs *pull* and *push* are related in terms of a family resemblance relationship, like the corresponding Korean motion verbs *kkulta*, *tangkita*, and *milda*. These polysemous motion verbs establish complex categories, encompassing various distinguishable, yet related senses of the same lexical forms. In particular, the sense ‘to pluck’ of *pull* is extended to various clustered senses, i.e., ‘to uproot’, ‘to extract’, ‘to pick’, ‘to remove’, and ‘to gather’, based on the CONTAINER and OUT image schemas.

The semantic extensions of *pull* and *push* are language-specific and distinct from those of *kkulta*, *tangkita*, and *milda* in Korean. For example, a noticeable difference of semantic extensions between *pull* and *push* on the one side and *kkulta*, *tangkita*, and *milda* on the other is that the former do not have specific semantic extensions in a temporal domain while the latter are extended to three related, but distinct senses, i.e., ‘to prolong’, ‘to make something earlier’, and ‘to postpone’, respectively. The English verbs *pull* and *push* are conventionalized differently from the corresponding Korean verbs *kkulta*, *tangkita*, and *milda* because of several important reasons: speaker’s different construals of
semantic structures and concepts, different metonymy/metaphor, image schemas, and
cognitive models associated with pull and push, different etymological information, and
different psychological, cultural, social, and experiential factors.
Chapter 6

Conclusion

This thesis has provided a unified and cognitive account of a cluster of related senses of some force-dynamic motion verbs (i.e., the Korean verbs *kkult*a and *tangkita* ‘pull’ and *milta* ‘push’, and their corresponding English verbs *pull* and *push*), based on the framework of Cognitive Grammar developed by Langacker (1987a, 1991a and 1991b). It has demonstrated that the different senses of each of these polysemous motion verbs are related to one another in terms of family resemblance relationships. These motion verbs, thus, are complex semantic categories, encompassing their distinguishable, yet related senses within the same lexical forms.

Although the Korean verbs *kkulta* and *tangkita* are conceptually related to each other within the semantic field of force-dynamic motion, and are translated as ‘to pull’ in English, they have different conceptual imports with regard to distinct prototypical semantic structures. The semantic differences of the prototypical events *kkulta*-1 and *tangkita*-1 have been described in terms of their cognitive-functional attributes in Chapter 3. The event *kkulta*-1 generally involves a heavy, slow, and labored motion of the large landmark over a long path through space and time. The trajector as well as the landmark moves along an extended path. The event *kkulta*-1 designates a horizontal dimension because of the landmark’s contact with the flat surface throughout this motion event. On the other hand, the prototypical event *tangkita*-1 generally associates with a light and sudden movement of the relatively small landmark along a short path. This event often makes reference to a part-whole relation. Part of a larger object is caused to move toward
the force, but the whole object (to which the landmark is attached) does not move. The
trajector of this event does not have an extended path, and only the landmark is
manipulated to move toward the source of force. The movement of the landmark is
directed toward the trajector, and the trajector is, thus, conceived as the goal of the
landmark's movement as well as the source of force. This event seems to require more
manipulative control of the trajector over the landmark than the trajector of kkulta-1.

In an analogous way, the semantics of the polysemous Korean verb milta 'to push'
has been examined in Chapter 4. The prototypical event milta-1 is more general than
kkulta-1 and tangkita-1 in that it can describe the opposite scenes of both kkulta-1 and
tangkita-1. The trajector and landmark of milta-1 are, thus, more inclusive than those of
kkulta-1 or tangkita-1. The event milta-1 involves the landmark's intrinsic path (i.e., the
landmark's change of location away from the source of physical force), and results in the
landmark's irretrievable movement. The semantics of a particular auxiliary verb connected
with the verb milta (i.e., pelita 'perfective auxiliary verb' and cwuta 'benefactive auxiliary
verb') reflects the semantics of milta-1.

These prototypical events kkulta-1, tangkita-1, and milta-1 motivate their
respective semantic extensions in a coherent way. The semantic extensions of these three
verbs are established via the different, yet related conceptualizations of the cognitive-
functional semantic attributes of kkulta-1. The multiple senses of these verbs and their
semantic structures are not limited to a physical domain, rather are also characterized
relative to different abstract domains (i.e., function, social relationship, time, and
mental/emotional domains) via metaphor. They have been described with reference to
kkulta-1, tangkita-1, and milta-1, and are related to one another in terms of similarity.

The multiple senses of kkulta, tangkita, and milta are unified within their respective semantic networks linked through three categorizing relations (i.e., elaboration, extension, and bi-directional extension). In each semantic network, many semantic extensions are found to have some sort of deviance from the prototype of each verb with regard to their specifications. The semantic extensions of a lexical item are cognitively motivated in close relation to human perception, cognitive processing and capacities, bodily experience, social and cultural knowledge, and so on. We also find a set of schematic relations between abstract schemas and their specific instances in the semantic network.

The semantics of the English verbs pull and push has been discussed in Chapter 5, focusing on some contrastive aspects of the corresponding Korean verbs kkulta, tangkita, and milta. We have seen several formal differences between these English verbs and the Korean verbs, which reflect some semantic differences. Several cognitive-functional attributes are discussed, based on the prototypical senses of pull and push and their semantic structures in the physical domain. Full understanding of the prototypical acts of pulling and pushing in English is the basis for conceptualizing the other extended senses of pull and push.

The different senses of pull and push are related to one another through family resemblance relationships, like their corresponding Korean verbs kkulta, tangkita, and milta. But the semantic extensions of pull and push are language-specific, and are distinct from those of kkulta, tangkita, and milta. For example, one difference of the semantic
extension between pull and push on the one side and kkulta, iungkita, and milta on the other is that the former do not have specific semantic extensions in a temporal domain, while the latter are extended to three related, but distinct senses, i.e., ‘to prolong’, ‘to advance’ and ‘to postpone’, respectively, because time is conceptualized as a concrete and physical entity in Korean. As another example, the sense of pull ‘to extract’ is based on the CONTAINER and OUT image schemas. By contrast, the Korean verbs kkulta and tangkita do not involve these image schemas, and thus does not have the extended sense ‘to extract’. The English verbs pull and push are conventionalized differently from the corresponding Korean verbs kkulta, tangkita, and milta because of several important reasons: speaker’s different construals of semantic structures and concepts, different metonymy/metaphor, image schemas, and cognitive models associated with pull and push, different etymological information, and different psychological, cultural, social, and experiential factors.

From a pedagogical point of view, this comparative lexical semantics of the Korean and English motion verbs enhances the language learner’s understanding of similarities and differences of Korean and English. On the other hand, from the teacher’s point of view, this comparative study can provide a model for teaching vocabulary. This comparative semantic analysis of these motion verbs in Korean and English promotes other contrastive studies of different morphological and grammatical categories such as nouns, prepositions, adjectives, and tense-aspect within the framework of Cognitive Grammar.
Bibliography


