

A Comparative Analysis of Grammaticalization of English and Korean Adpositions*

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Seongha Rhee. 2004. A Comparative Analysis of Grammaticalization of English and Korean Adpositions. *Studies in Modern Grammar* 40, 195-214. The objective of this paper is twofold: examining the adpositional systems in English and Korean from a grammaticalization perspective, and comparing the two systems to show commonalities and differences. Based on the description of these adpositional systems, we attempt to identify theoretical implications of the findings and offer explanations. Focusing on such theoretical issues as frequency, source characteristics, form-meaning isomorphism, conceptual division, and semantic change patterns, it is argued here that the two languages show differences not only in recruiting source lexemes but also in the patterns of grammaticalization processes. These differences are attributable to the different syntagmatic environments in these two typologically dissimilar languages. In particular, some of the differences are attributable to the idiosyncrasy of the two languages, such as heavy reliance on verb serialization and preposition-adverb intercategory fluidity. It is also shown that certain morphosyntactic change mechanisms as well as some semantic change mechanisms are commonly operative in the two languages.

Key word: grammaticalization, preposition, postposition, adposition, comparative analysis, semantic change, morphosyntactic change

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1. Introduction

Adpositions grammaticalize from diverse sources through a variety of enabling mechanisms. English, an SVO language, has the prepositional system, whereas Korean, an SOV language, has the postpositional system, which is an expected state of affairs from a cross-linguistic perspective (cf. Greenberg 1963). These two adpositional systems show commonalities since the adpositions carry grammatical functions that are similar across languages. In addition, they show differences since the two systems are of the two typologically different languages, and the ways of encoding grammatical concepts exhibit variations across languages. Comparing a system in different languages often yields meaningful generalizations that shed light on the nature of the particular linguistic system from a more universal viewpoint. However, comparative analyses of grammaticalization of the adpositional systems in English and Korean are largely under-represented, and this paper intends to fill the gap. The objective of this paper is twofold: (i) to examine the adpositions in Korean and English from the grammaticalization perspective; and (ii) to compare and contrast the two adpositional systems to show the commonalities and differences and their theoretical implications. In order to pursue these goals, we will overview grammaticalization of adpositions in general, with special emphasis on the source characteristics, diverse grammatical functions, and concomitant changes in morpho-syntax, semantics and elsewhere (in §2). We will also address certain differences in the two systems and explore their theoretical implications (in §3).

2. Grammaticalization of Adpositions

Adpositions as a grammatical category constitute an important element of grammar. This is well illustrated in the fact that among the top 20 frequency items in English, 8 of them are prepositions. There are about 20 prepositions among the top 100 items. In Korean there are 14 postpositions among the top

100 frequency items.¹⁾ The total number of prepositions in English listed in the Oxford English Dictionary (1991, 2nd edition, OED hereafter) is 404. About 40 of them are actively in use, top 20 of which accounting for 94 % of the entire prepositional uses (Rhee 2004a). There are 70 to 150 postpositions (postpositionoids) in Korean, about 50 of which are in active use.

As to grammaticalization of adpositions in general there are three interesting facts: (i) adpositions are subject to relatively frequent renewal as evidenced by the sheer number of prepositions attested in the history of English and that of prepositions in active use in the contemporary English; (ii) some adpositions show a high level of 'specialization' (Hopper 1991) as is shown in that an identical or similar grammatical function is marked by multiple adpositions, among which one has supremacy over others and they carry different grammatical sub-functions within the functional domain; and (iii) some adpositions are very old grams, maintaining the grammatical status very steadily for an extended period of time, as is well illustrated by the fact that some adpositions have had the adpositional functions (sometimes with the same semantics) from their first occurrence in the extant data.

2.1 Scope

The present research focuses on the top 20 high frequency adpositions in English and Korean, even though other adpositions are also discussed whenever appropriate in the course of addressing issues with these top 20 items. For the selection of the prepositions for analysis, the part of speech classification is based on OED but the frequency is based on Johansson and Hofland (1989).²⁾ For Korean, the frequency literature by Institute for Language and Information

1) Since there has been a long drawn-out controversy on the scope of 'postposition' among different research frameworks, the numbers may vary depending on the frameworks and perspectives assumed.

2) Among the notable discrepancies between these two sources is that OED lists no prepositional use for *as* in its 404 prepositional entries, which ranks the 10th in Johansson and Hofland's (1989) classification.

Studies, Yonsei University (1997) is used for data sampling.³⁾

From a methodological point of view, selecting the research sample based on the frequency is following an assumption inherent in the recent research tradition that frequency reveals the relative salience and cognitive dominance in the mental lexicon, as has been strongly advanced by Bybee (1985) and many studies thereafter in the functional and usage-based approaches.

<Table 1> Top 20 Adpositions in English and Korean

Freq. Ranking	English	Korean	
1	<i>of</i>	-uy	'of'
2	<i>in</i>	-ey	'at/to'
3	<i>to</i>	-lo	'to/with'
4	<i>for</i>	-wa	'with'
5	<i>with</i>	-to	'also'
6	<i>on</i>	-eyse	'at/from'
7	<i>by</i>	-eykey	'to'
8	<i>at</i>	-man	'only'
9	<i>from</i>	-kkaci	'to'
10	<i>into</i>	-chelem	'like'
11	<i>about</i>	-pwuthe	'from'
12	<i>than</i>	-na	'or'
13	<i>after</i>	-ya	EMPH
14	<i>like</i>	-se	'from'
15	<i>between</i>	-kkey	'to'
16	<i>over</i>	-lose	'as'
17	<i>through</i>	-pota	'than'
18	<i>without</i>	-hako	'with'
19	<i>under</i>	-lako	COMP
20	<i>against</i>	-ta(ka)	'into/onto'

3) Some of the top frequency particles in Korean, e.g. *-lul/ul*, *-ka/i*, and *-nun/un*, are excluded from the sample, because these are largely structural case markers or their allomorphic variations, the English counterparts of which are realized in the form of word order. These excluded particles, like most other top frequency items, are opaque in their source lexemes and meanings.

2.2 Source Characteristics

It has been generally agreed upon that the grammaticalization of linguistic forms are closely related to the meaning of the source lexemes or the constructions. Bybee et al. (1994) proposed the hypothesis that the source semantics is crucial in determining the grammaticalization paths and eventually the resulting grammatical function ('Source Determination Hypothesis'). The selected adpositions have the following source characteristics in their semantics.

<Table 2> Meanings of Source Lexemes in English

	Preposition [Source Meaning] (Frequency Ranking)
No identifiable lexical source (13 items)	<i>of</i> (1), <i>in</i> (2), <i>to</i> (3), <i>with</i> (5), <i>on</i> (6), <i>by</i> (7), <i>at</i> (8), <i>from</i> (9), <i>into</i> (10), <i>than</i> (12), <i>over</i> (16), <i>through</i> (17), <i>under</i> (19)
Spatial Nouns (4 items)	<i>for</i> [front] (4), <i>about</i> [exterior] (11), <i>after</i> [posterior] (13), <i>without</i> [exterior] (18)
Others (3 items)	<i>like</i> [body] (14), <i>between</i> [two] (15), <i>against</i> [direct/straight] (20)

<Table 3> Meanings of Source Lexemes in Korean

	Postposition [Source Meaning] (Frequency Ranking)
No identifiable lexical source (7 items)	<i>-uy</i> 'of' (1), <i>-ey⁴⁾</i> 'at' (2), <i>-lo</i> 'to/with' (3), <i>-wa</i> 'with' (4), <i>-to</i> 'also' (5), <i>-na</i> 'or' (12), <i>-ya</i> EMPH (13)
Spatial Nouns (3 items)	<i>-eykey</i> 'to' [that place] (7), <i>-kkey</i> 'to' [that place] (15), <i>-kkaci</i> 'to' [edge] (9)
Verbs (8 items)	<i>-eyse</i> 'at/from' [exist](6), <i>-se</i> 'from' [exist](14), <i>-lose</i> 'as' [exist] (16), <i>-hako</i> 'with' [do] (18), <i>-lako</i> COMP [do] (19), <i>-pwuthe</i> 'from' [attach](11), <i>-ta(ka)</i> 'into/onto' [approach] (20), <i>-pota</i> 'than' [see] (17)
Others (2 items)	<i>-man</i> 'only' [amount] (8), <i>-chelem</i> 'like' [body] (10)

4) There is no consensus with the source meaning of *-ey*, but Kim (1995, 2004) claims that it was derived from Old Korean noun *auy* 'middle/center', which we follow in the present research.

In English, as is shown in <Table 2>, there are as many as 13 out of 20 prepositions, an absolute majority, that have no identifiable lexical sources, and they had the prepositional usage even in the earliest extant data. Four items are developed from nouns that signified space. The other 3 items are from other various sources that do not form any single conceptual category by themselves.

In Korean, as shown in <Table 3>, 7 out of 20 have no identifiable lexical sources. Similar to the English situation, 3 are from spatial nouns, and there are 2 cases that came from other sources. A notable difference from the English system is the fact that, by the semantic category, the majority of these 20 postpositions has verbal sources. This difference merits a further discussion and we shall return to this issue in §3.2.

We now turn to a discussion of source constructions. A look into the history of individual prepositions in English reveals that, as briefly mentioned earlier, the majority was already in prepositional use in the earliest data, where the source construction is opaque in terms of its morphosyntactic make-up. Some known cases are very complex since they underwent diverse morphosyntactic changes en route, mostly as part of general changes that occurred in the history of the English language, rather than the changes specific to these constructions. Many of them have close connection with adverbial uses.

In cases where the source constructions are identified, and in the cases involving the secondary prepositions, though these do not surface in the current sample of analysis due to their relatively low token frequency, the source constructions are largely in the following scheme:

(1) PREPOSITION-NP1-GENITIVE-NP2

In the configuration the original focal element is NP1 (in the prepositional phrase), which is modified by another prepositional phrase headed by a genitive-case-marking preposition, i.e. *of*. With frequent collocations and phonological change, and, perhaps more importantly, with the pragmatic shift of focus from NP1 to NP2, the part preceding NP2, underscored in (1), becomes

reanalyzed as a prepositional phrase. Many prepositions emerged from this configuration as e.g. *beside, before, in back of, in front of, instead of, because of*, etc.

On the other hand, the source constructions of the Korean postpositions, where known, are in the following configurations:⁵⁾

- (2) (i) NP-GENITIVE-LOCATION.NP-PARTICLE
- (ii) NP-PARTICLE-VERB-NONFINITE.MARKER

In the above, (2i) applies to those that have nominal sources, such as *-eykey, -kkaci, -kkey, -mata*, etc. and many of those secondary postpositions involving relation nouns in contemporary Korean, as e.g. *-(uy) wiew* 'on, on top of', *-(uy) alayey* 'below, under', *-(uy) aphey* 'in front of', *-(uy) twiey* 'behind, in back of', etc. from the native Korean group, and *-(uy) sangey* 'on', *-(uy) haey* 'under', *-(uy) ceney* 'before, in front of', *-(uy) hwuey* 'after', etc. from the Sino-Korean group. The configuration (2ii), on the other hand, applies to those that have verbal sources, such as *-eyse, -pwuthe, -se, -lose, -pota, -hako, -lako, -ta, -taka*, etc. The Korean language extensively recruits verbal concepts in grammaticalization of diverse grammatical concepts, and the configuration in (2ii) is in fact one of the most frequently exploited schemata.

2.3 Grammatical Functions

Now we turn to a discussion of the grammatical functions carried by the adpositions in the two languages after grammaticalization from diverse, and for some, unidentified, lexical sources. For ease of exposition we reclassify them according to two parameters: grammatical functions they carry and occurrence patterns with respect to the other language, as in <Table 4>.

5) The source constructions in Korean are very diverse and they elude characterization in any simple way. This issue in itself should constitute a separate in-depth research. We shall, however, limit our discussion to these two source constructions that surface most frequently.

<Table 4> Adpositions by Occurrence Patterns

		Function	English Preposition	Korean Postposition	
A		Genitive	<i>of</i>	<i>-uy</i>	'of'
		Comitative	<i>with</i>	<i>-wa</i> <i>-hako</i>	'with' 'with'
		Instrumental	<i>with</i>	<i>-lo</i>	'with'
		Ablative	<i>from</i>	<i>-pwuthe</i> <i>-eyse</i> <i>-se</i>	'from' 'from' 'from'
		Adessive	<i>at</i> <i>by</i> <i>about</i> <i>between</i>	<i>-ey</i> <i>-eyse</i>	'at' 'at'
		Dative	<i>for</i> <i>to</i>	<i>-eykey</i> <i>-kkey</i>	'to' 'to'
		Allative	<i>to</i>	<i>-lo</i>	'to'
		Terminative	<i>to</i>	<i>-kkaci</i>	'to'
		Illative	<i>into</i>	<i>-ta</i>	'into/onto'
		Similiative	<i>like</i>	<i>-chelem</i>	'like'
	Comparative	<i>than</i>	<i>-pota</i>	'than'	
B	B1	Inessive	<i>in</i>		
		Subessive	<i>under</i>		
		Superessive	<i>on, over</i>		
		Sequential	<i>after</i>		
	B2	Benefactive	<i>for</i>		
		Prolative	<i>through</i>		
		Oppositive	<i>against</i>		
	Abessive	<i>without</i>			
C		Essive		<i>-lose</i>	'as'
		Exclusive		<i>-man</i>	'only'
		Inclusive		<i>-to</i>	'also, too'
		Disjunctive		<i>-na</i>	'or'
		Emphatic		<i>-ya</i>	EMPH
	Complementizer		<i>-lako</i>	COMP	

As shown in <Table 4> the top 20 adpositional inventories in the two languages can be divided into three major groups according to the occurrence patterns: Group A items are found in English and Korean; Group B items are found in English but not in Korean, and Group C items are found in Korean but

not in English. We shall return to this issue in the subsequent discussion (§3.4).

2.4 Syntagmatic Change

In the course of grammaticalization, the source constructions typically undergo reanalysis on the morphosyntactic level, whereby the internal constituent bracketing changes even though the surface structure remains intact. The English prepositional constructions underwent the reanalysis largely representable as follows:

- (3) (i) PREP-[[NP]-[GENITIVE-NP]] >>> [PREP-NP-GENITIVE]-[NP]
(ii) on-[[the.top]-[of-the.table]] >>> [on-the.top-of]-[the.table]

On the other hand, the Korean postpositional constructions underwent the reanalysis of the following kinds:

- (4) (i) [NP-GENITIVE-[LOCATION.NP]]-PARTICLE >>>
NP-[GENITIVE-LOCATION.NP-PARTICLE]
(ii) *[hyeng-uy-[ku.ngekuy]]-ey >>>
[brother-Gen-[the.place]]-Loc
hyeng-[uy-ku.ngekuy-ey]
brother-[Gen-the.place-Loc]
(further changes to: "brother-[To]")

- (5) (i) [[NP-PARTICLE]-[VERB]]-NF >>>
NP-[PARTICLE-VERB-NF]
(ii) *[[cip-ey-[isi]]-e >>>
[[house-Loc-[exist]]-NF
cip-[ey-isi-e]
house-[Loc-exist-NF]
(further changes to: "house-[From]")

Another notable change on the syntagma is the phonological erosion, whereby the amount of the phonetic substance is reduced. The following schema shows the reduction of the prepositional construction by the loss of the definite article, thus reducing the noun phrase into a noun.

- (6) (i) Prep-NP-Genitive-NP >>> Prep-N-Genitive-NP
 (ii) in the back of the house >>> in back of the house
 by the side of >>> beside

Likewise, the Korean counterparts have undergone phonological loss in which the constructions lost the genitive case particles. The two schemata in (7) can be exemplified by the changes of the postpositional constructions in (8).

- (7) (i) NP-Gen-LOCATION.NP-Particle >>> NP-LOCATION.NP-Particle
 (ii) NP-(Particle)-VERB-NF >>> NP-VERB-NF

- (8) (i) apeci-s kuy-ey >>> apeci-kkey
 father-Gen that.place-Particle father-to
 'at/to father's that place' >>> 'to the father'
- (ii) cip-ul puth-e >>> cip-pwuthe
 house-Acc attach-NF house-from
 'attach to house and' >>> 'from the house'

2.5 Semantic Change

Now we turn to a discussion of semantic change. In <Table 5> we have a comparison of the original meaning, where the source meaning is attested, or the earliest meaning otherwise, and the current primary meaning of each preposition. By comparing the two meanings we can determine the semantic change mechanisms that were operative in the process.

<Table 5> Semantic Change Patterns of English Prepositions

	Prep.	Original/Early Meaning	Current Primary Meaning	Characteristics
1	<i>of</i>	separation	association	Antonymy
2	<i>in</i>	interior location	NO CHANGE	NO CHANGE
3	<i>to</i>	reaching	direction	Metonymy
4	<i>for</i>	front	benefit	Subjectification
5	<i>with</i>	opposition	collaboration	Antonymy
6	<i>on</i>	contact	superior point in contact	Narrowing
7	<i>by</i>	side	agency	Subjectification
8	<i>at</i>	contact	NO CHANGE	NO CHANGE
9	<i>from</i>	forward	departure point	Metonymy
10	<i>into</i>	to interior location	NO CHANGE	NO CHANGE
11	<i>about</i>	vicinity of outer surface	vicinity	Metonymy
12	<i>than</i>	posterior sequence	suppression	Subjectification
13	<i>after</i>	posterior location	later time	Metaphor
14	<i>like</i>	body	similarity	Generalization
15	<i>between</i>	next to two	at intervening space of two	Narrowing
16	<i>over</i>	superior location	NO CHANGE	NO CHANGE
17	<i>through</i>	moving within and passing	NO CHANGE	NO CHANGE
18	<i>without</i>	opposition at exterior	absence	Subjectification
19	<i>under</i>	inferior location	NO CHANGE	NO CHANGE
20	<i>against</i>	straight/direct	opposition	Subjectification

From <Table 5> we see that 6 out of 20 do not show substantial semantic change. Subjectification and metonymy are found as mechanisms of change, and there is one instance of metaphor which involved the conceptual shift from spatial to temporal domains. Of special interest is the fact that there are instances of conceptual shift of antonymization, i.e. with *of* and *with*, which involved the conceptual shift from [separation > association] and [opposition > collaboration], respectively.

<Table 6> Semantic Change Patterns of Korean Postpositions

	Postposition	Original/Early Meaning	Current Primary Meaning	Mechanism
1	-uy 'of'	possessive	NO CHANGE	NO CHANGE
2	-ey 'at'	location	NO CHANGE	NO CHANGE
3	-lo 'to'	direction	NO CHANGE	NO CHANGE
4	-wa 'with'	accompaniment	NO CHANGE	NO CHANGE
5	-to 'also'	inclusion	NO CHANGE	NO CHANGE
6	-eyse 'from'	being at X and	location / departure point	Metonymy
7	-eykey 'to'	at X's location	direction / end-point	Metonymy
8	-man 'only'	amount	only	Subjectification
9	-kkaci 'to'	edge	end-point	Metaphor
10	-chelem 'like'	body	like / similar	Generalization
11	-pwuthe 'from'	attach to ⁶⁾	departure point	Antonymy
12	-na 'or'	disjunction	NO CHANGE	NO CHANGE
13	-ya EMPH	vocative	emphatic	Metaphor
14	-se 'from'	exist and	location / departure point	Metonymy
15	-kkey 'to'	at X's location	direction / end-point	Metonymy
16	-lose 'as'	being as	status	NO CHANGE
17	-pota 'than'	see and then	suppression	Subjectification
18	-hako 'with'	say/do and	accompaniment	Metaphor
19	-lako COMP	say/do and	COMP	Subjectification
20	-ta 'into/onto'	draw near	end-point	Metonymy

In <Table 6> we can see that 7 out of 20 do not show substantial semantic change. Subjectification, metaphor and metonymy are found as mechanisms that enabled the semantic change. As was the case with the English prepositions, there is an instance of conceptual shift of antonymization, i.e. *pwuthe* 'from' which underwent the semantic change of [attach to > depart from].

6) Because of the apparent anomaly of antonymous change, Kim (1992: 309ff, 2004: 357ff) postulates that the source meaning of *pwuthe* is *put-* 'come from', and specifically repudiates the claim that it was originated from *put-* 'attach to'. However, this change is well motivated from a conceptual viewpoint, which is well captured by the frame-of-focus variation model (cf. Rhee 2000).

3. Discussion

We have made so far a general description of English and Korean adpositions, focusing on the source characteristics in terms of their meaning and structural make-up and the grammatical functions they carry. We have also seen the states of affairs with respect to their changes in syntagma and semantics, with the mechanisms involved, albeit without much elaboration, in each domain. Now we turn to a detailed discussion of the aspects discovered in the general survey in the preceding exposition.

3.1 Issues on Frequency

As has been briefly touched on in the preceding overview, frequency and grammaticalization proceed hand in hand. This parallelism is well captured by the Parallel Reduction Hypothesis (Bybee et al. 1994). The mutual relevance of the reduction in form and meaning has been observed even as early as Meillet (1912: 135-139) and Zipf (1935). With the emphasis on the discourse as the scene of active meaning negotiation, thus as the locus of grammaticalization, the frequency has been considered an important parameter of grammaticalization processes (cf. Bybee 1985, Hopper & Traugott 2003[1993], Barlow & Kemmer 2000 and the papers therein, Bybee & Hopper 2001 and the papers therein, among numerous others), and the combination of this form-meaning relationship with use frequency gave birth to the Hypothesis.

From the data based on use frequency, we see that the high frequency items in the Korean and English systems have opaque sources, suggesting that they have undergone extensive semantic bleaching processes. Their meanings are general; and their phonological contents are minimal. As a matter of fact, this aspect has been validated in a research with a larger sample of English prepositions in Rhee (2003). As was shown in <Table 1> indicating the frequency ranking and adpositions in the two languages, we can see that there are roughly three groups characterizable with the frequency ranking and semantic complexity.

First of all, the adposition of the OF-concept, which is semantically very general, is the most frequent adposition in English and Korean, as shown in <Table 1>. This is in consonance with many studies that addressed the correlation of generality of meaning, phonological size, and use frequency (cf. Lehmann 1995[1982], Pagliuca 1976, Bybee et al. 1994, inter alia). The close relationship among these parameters of linguistic change led Bybee et al. (1994) to proposing the Parallel Reduction Hypothesis (cf. its validation in Rhee 2003).

Secondly, the adpositions denoting IN/AT/ON/FROM/TO/BY, which encode general relations, constitute the next most frequent group in English and Korean. These adpositions are conceptually more complex than the general association-relation, i.e. OF, but still their complexity is not too high.⁷⁾

Finally, the last group, i.e. INTO/BETWEEN/THAN/LIKE, which encode relatively complex relations, constitute the next most frequent group (the least frequent group in the list) in English and Korean. Again, this is in harmony with the generalizations advanced by frequency-based research.

3.2 Issues on Source Characteristics

Despite the myth that semantic change is random (unlike phonological changes, claimed to be systematic and without exception), and thus does not deserve scholastic attention, recent studies brought forth overwhelming amount of evidence otherwise. The regularity of semantic change in grammaticalization is proposed in the Source Determination Hypothesis (Bybee et al. 1994), and the issue in a more extended scope, i.e. beyond the domain of the grammaticalized forms, is discussed extensively in Traugott and Dasher (2002) with numerous instantiations across languages. In fact, a look into grammaticalization lexicons, as e.g. Heine et al. (1993) and Heine and Kuteva (2002), reveals that there is a compelling reason to believe that there exists a close relationship between the

7) For example, Levinson (2003) proposes the concept of markedness based on the number of dimensions involved and the complexity of ground-marking. According to this markedness calculation, these adpositions are either the simplest ground-marking, i.e. Location, or the first dimensional, thus of low markedness.

source and target meanings. The Source Determination Hypothesis further posits that the source semantics determines the grammaticalization paths, a validation of which is not our immediate concern here.

As shown in <Tables 2 &3>, there are certain commonalities and differences between the two systems in terms of their historical sources. Among those with recognizable source lexemes, the spatial nouns are the primary source in English prepositions, whereas the Korean postpositions are derived predominantly from verbs and, albeit less frequently, from spatial nominals. Furthermore, unlike the English prepositional system, where the source lexemes of spatial meanings are largely those encoding relational concepts, the Korean postpositional system typically recruits the non-relational or deictic spatial concepts, and the relational concepts have not (yet) developed into postpositions.

The reasons why these forms encoding relational concepts have failed to be fully grammaticalized in Korean are unclear. However, there are clear indications that these forms are currently in the process of grammaticalization, considering the fact that some of the constituents are becoming increasingly weaker in suprasegmental properties even to a point of total loss, a defining characteristic of phonological and morphosyntactic changes concomitant to grammaticalization. Another aspect as to the failure or weak level of grammaticalization of these relational nouns is that nouns are typically referring expressions for entities, contra verbs for events, and thus have more static, stabilized, semantics, thus rendering themselves more resistant to changes. From a more syntagmatic point of view, nouns are more visible according to the Korean idiosyncrasy that nouns do not inflect, and the nominal origin in the construction is often transparent. This is in stark contrast with verbs and adjectives, which inflect and frequently occur with diverse grammatical trappings. These categories not only inflect according to the required grammatical agreements, but also change their forms purely for syntagmatic reasons. All things considered, the weak level of grammaticalization seems attributable to semantic and syntagmatic transparency.

Further, though this phenomenon is not pronounced in the samples here,

unlike the English system, the Korean system encodes more dynamic concepts beyond designating simple topographic or relational contours, which is attributable to the fact that it recruits the verbal sources containing diverse manner components, such as *pwuth-* 'attach', *tak-* 'draw near', *nem-* 'cross', *tay-* 'touch', *coch-* 'chase', *ttalu-* 'follow', etc.; whereas nominal source lexemes tend to keep their semantics relatively stable, as has been discussed. This phenomenon is even more pronounced with the adpositions with relatively lower frequency, not covered in the current research.

What these differences suggest is that what we can predict as to grammaticalization of concepts and the linguistic forms representing them is by no means deterministic. Languages show diversity at various levels. With this regard, we direct our attention to the following two language-specific aspects.

Korean is a serial verb language actively utilizing verbs in grammaticalizing diverse grammatical concepts, such as auxiliaries and postpositions. The serial verb construction is so susceptible to conceptual change that it is often regarded as the seed of grammaticalization (DeLancey 1991: 15). In the serial verb construction, the first verb (following its argument NP) has a strong possibility to develop into a postposition, whereas the second verb (following the first verb) is more likely to develop into a tense, aspect, or modality marker. The likelihood of the development of postpositions is increased by the Korean idiosyncrasy that the case-markers on the noun (therefore in the intervening space between the noun and the first verb) may be relatively freely deleted.

In the case of English, prepositions often have cross-categorial status, often as an adverb. Historically the two grammatical categories were very flexible, and very often, the nomenclature was simply based on the presence/absence of an argument NP, i.e. a preposition if there is an NP, an adverb if there is not. An adverb has a closer relationship to a verb than to a noun since they are typically modifiers of verbs. When a noun appears on the surface it tends to follow an "adverb" due to the preference of the adverb to occur close to the verb. In this syntagmatic layout, i.e. the "adverb" preceding the noun, the "adverb" has the prepositional function, and it is classified as such.

Brief as it may be, this discussion points to the fact that grammaticalization is not deterministic and is subject to many language-specific, morphosyntactic constraints.

3.3 Issues on Form-Meaning Isomorphism

Beginning from as early as the traditions of the Prague School, who introduced the concept of "markedness", a large number of linguists and grammarians subscribed to the Transparency Principle, which effectively claims the existence of one-form-one-meaning correspondence in natural language. Though useful as a guiding principle for research, this alleged Principle is by no means viable in view of the natural language data. For instance, there exists a phenomenal non-isomorphism between form and meaning, with a division of labor among these (near-)synonyms based on a fine-grained semantic and pragmatic distinctions in the Korean system, unlike the English counterparts (cf. 'specialization', Hopper 1991; Hopper & Traugott 2003[1993]). Though it is true that the isomorphism should be deemed observed as long as there exist differences of any kind, as minute as they might be, the state of affairs is that, frequently, even the finest distinctions of criteria are not capable of teasing apart the semantic differences between two or more forms.

Even though an in-depth treatment of these fine-grained semantics of each of the individual forms and semantico-pragmatic differences among these forms is beyond the scope of the present research, a brief look at the single-meaning-multiple-forms or multiple-meanings-single-form situations should make the general situation clear. There are three major grammatical categories under our discussion: Comitative, Ablative, and Allative/Dative, as we see in the following:

(9) a. Comitative

- wa*: Formal
- hako*: Informal

b. Ablative

- eyse*: Formal; Mere designation of starting point
- pwuthe*: Formal/Informal; Attention to starting point
- se*: (variant of *-eyse*) Informal

c. Allative/Dative

- kkaci*: Culmination point focus
- lo*: Direction/Option focus
- ey*: End-point focus [-animate]
- eykey*: [+animate] Goal entity
- kkey*: [+animate, +honorific] Goal entity
- (cf. *-hanthey*: [+human] Goal entity)⁸⁾

The examples of the Korean postpositions in (9) are merely a list of simplistic semantic and functional distinctions. Frequently the distinctions are not rigid enough to set them apart and therefore they are functionally equal to an extreme in particular grammatical domains. For example, the following four expressions of ablative are synonymous to such an extent that their distinctions cannot be easily formulated.

- (10)a. *sewul-eyse* *pwusan-kkaci*
b. *sewul-se* *pwusan-kkaci*
c. *sewul-pwuthe* *pwusan-kkaci*
d. *sewul-eysepwuthe* *pwusan-kkaci*
 Seoul-from *Busan-to*
 "from Seoul to Busan"

Furthermore, needless to say, a single form may be used for multiple functions. For example, one of the top frequency morphemes in Korean, *-ey*, has

8) The allative/dative *-hanthey* is not addressed in the current research because it does not belong to the target frequency range. However, it is a very frequently used form especially in the colloquial register. Its source meaning is "one place".

multiple functions of a locative marker like English 'at' (for 1-dimensional location, Levinson 2003; non-axial locative, Rhee 2005), a superessive marker like English 'on', and an allative marker like English 'to' (see above).

The foregoing discussion leads to a conclusion that in natural language, the form-meaning isomorphism, despite the evident tendency of conformity to a certain extent, is not strictly observed. Even though some of the semantic properties (as e.g. [\pm animate]), pragmatic features (as e.g. [\pm formal]), and semantico-pragmatic considerations (as e.g. focus) are invoked for, and useful in, distinguishing the functions carried by these (near-)synonyms, there still exist cases and situations in which the forms defy any distinctions.

3.4 Issues on Conceptual Division

It is a truism that languages have commonalities and universalities. In dividing a conceptual domain, languages show a great deal of variations. For example, even though it has been agreed upon that 'space' is a basic category of human thinking, and a basic metaphor of conceptualization (Heine et al. 1991, Heine 1997, Brugman 1983, Svorou 1994, Levinson 1992, 1997, 2003, *inter alia*), it is also widely known that the perception of space depends on the relative position of the observer (cf. 'perspective'); that different languages have different frames of spatial reference (Levinson 2003, Haviland 1992, Brown 1994); and that different languages may develop spatial grams from different models (as e.g. anthropomorphic, zoomorphic, landmark, relational concepts models, cf. Heine et al. 1991, Svorou 1994). The present study shows that English and Korean show differences in dividing the conceptual domain, which is largely represented by adpositions across languages. Following are some of the observations pursuant to the differing ways of conceptual division.

English has a high level of specialization for encoding the adessive notion as *at*, *by*, *about*, and *between* (cf. <Table 4> in §2.3), the counterparts of which, except for *-ey* 'at' and its closely related *-eyse* 'at', are not (yet) fully grammaticalized in Korean. The counterparts, not addressed here, as e.g. *-uy*

yephey 'by, beside', *-uy kyethey* 'at the side of', *-uy cwupyenyey* 'at the vicinity of', *-uy saiey* 'at the intervening space of', etc., are still in periphrastic stages with no significant sign of grammaticalization and thus may be viewed as complex postpositions at best, involving relational nouns.

As shown by Group B1 in <Table 4>, English inessive (*in*), subessive (*under*), superessive (*on, over*), and sequential (*after*) have no counterparts in Korean within the frequency range. In fact, there are no monolexemic postpositional counterparts in Korean--these concepts are also expressed in the forms of periphrastic structures involving relational nouns, as e.g. *-uy aphey* 'in front of', *-uy twiey* 'in the back of', *-uy wiey* 'on top of', etc., and they are still in periphrastic stages (complex postpositions) involving relational nouns (see Rhee 2005, Baik 2005 for a fuller discussion on this issue).

Similarly, as shown by Group B2 in <Table 4>, English benefactive (*for*), prolative (*through*), oppositive (*against*), and abessive (*without*) do not have counterpart postpositions in Korean within the same frequency range. These counterparts are formed with verbs, such as *wiha-* 'support', *thongha-* 'pass', *tayhangha-* 'oppose', *kesulu-* 'go against', and *eps-* 'not exist', etc. and belong to very low frequency postpositionoids. Since these Korean forms are largely derived from highly dynamic verbs, the resulting semantics of the periphrastic forms is also highly dynamic in nature.

Finally, as shown by Group C in <Table 4>, the Korean postpositional system has the items that are normally expressed by adverbs in English, such as *as, only, also, too, or*, and a form represented either in a periphrastic way, or by means of suprasegmental features, i.e. Emphatic. The concepts in this category are largely logical connectors or quantifiers, and they are among the high frequency items.⁹⁾ The fact that these concepts surface among the high frequency items in both languages shows that these concepts are indeed very

9) In English, according to Johansson & Hofland's (1989) list, all of these items are of higher frequency than the 20th most frequent preposition *against*, whose token frequency is 578. The individual frequencies are: *as* (7,339), *or* (3,783), *only* (1,815), *also* (995), and *too* (925), and, in fact, *as* is listed as the 10th most frequent preposition contra OED (cf. f.n. 2).

salient ones in human cognition. According to a widely-held tenet in grammaticalization, the high frequency makes it possible that the forms concerned are grammaticalized. However, why the identical concepts are represented as adpositions in one language while they are represented as adverbs in another is beyond our understanding at the present level.

Some of these differences, a full discussion of which being far beyond the scope of this research, suggest that languages may have different ways of dividing a conceptual domain, and each of the subdivided categories may occur with different frequency largely because of the intricate interplay among the grammatical forms in the same or adjacent paradigms. As was briefly discussed (see §3.3), three different ways of dividing a space, like locative, allative, and superessive, may conflate at a certain conceptual level and may be represented as a single form *-ey* 'at'.

It is also noteworthy that, if we consider the comparisons of the Korean counterparts outside the target frequency range, the Korean system, unlike the English system, encodes more dynamic concepts beyond designating simple topographic or relational contours, which is attributable to the fact that it recruits the verbal sources containing diverse manner components; whereas nominal source lexemes tend to keep their semantics relatively stable.

3.5 Issues on Semantic Change Patterns

In the preceding exposition we saw, without elaboration, that there are numerous mechanisms involved in the emergence of adpositional meanings in the two languages, even though some of the target adpositions are opaque in lexical origins and some others did not exhibit any significant meaning change.

In literature addressing semantic change, diverse mechanisms have been proposed, and metaphor, metonymy, subjectification, inferences, and frame-of-focus variation are among them (see Matisoff 1991, Sweetser 1990, Heine et al. 1991, Bybee & Pagliuca 1985, Hopper & Traugott 2003[1993], among numerous others). What comes to our attention with respect to semantic

change (and its mechanism) is the antonymization, whereby a meaning is changed into its (apparent) antonym. This phenomenon is well addressed in a series of semantic change research (Rhee 2000, 2004b, *inter alia*) by means of the frame-of-focus variation. A basic claim in this explanatory semantic change mechanism is that humans conceive a schema with variable focus, such as microscopic close-up focus-frame or telescopic zoom-out focus-frame. The antonymization is attested, as claimed here, in English and Korean (*of, with, -pwuthe*), but it is by no means a local phenomenon limited to these two languages, and it is widely attested across languages (see Rhee 2000).

4. Conclusion

A comparison of the two systems and their respective grammaticalization processes produces following observations: (i) the high frequency items in both systems have opaque sources, suggesting that they have undergone extensive semantic bleaching processes; (ii) among those with recognizable source lexemes, the spatial nouns are the primary source in English prepositions, whereas the Korean postpositions are derived predominantly from verbs and, albeit less frequently, spatial nominals; (iii) unlike the English prepositional system, where the source lexemes of spatial meanings are largely those encoding relational concepts, the Korean postpositional system typically recruits the non-relational or deictic spatial concepts, and the relational concepts have not (yet) developed into postpositions; (iv) in the Korean system, unlike the English counterparts, there exists a phenomenal non-isomorphism between form and meaning, with a division of labor among these (near-)synonyms based on fine-grained semantic and pragmatic distinctions; and (v) unlike the English system, the Korean system encodes more dynamic concepts beyond designating simple topographic or relational contours, which is attributable to the fact that it recruits the verbal sources containing diverse manner components; whereas nominal source lexemes tend to keep their semantics relatively stable.

We further explored the roles played by syntagmatic environments in these

typologically dissimilar languages and the semantic change mechanisms that operated. Some of the differences are attributable to the idiosyncrasy of the two languages compared, such as heavy reliance on verb serialization in Korean; while certain morphosyntactic change mechanisms are commonly used in both languages. Some differences may be attributable to the different ways of dividing a conceptual domain and linguistically representing the sub-domains. The two languages display commonalities and differences in various aspects of grammaticalization of adpositions, a general picture of which this paper intended to present. Further details involving individual cases should await further research for elaboration.

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