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Where to go at the end: Polylexicalization and polygrammaticalization of *KAZ* ‘edge’ in Korean

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Abstract

Nominal lexemes undergo in history extensive development in the lexical as well as grammatical domains. Their semantic change involves diverse threads of conceptualization which shows significant aspects of language development. Despite the series of intriguing changes in form and meaning that the Late Middle Korean lexeme *kAZ* ‘edge’ has undergone, encompassing polylexicalization and polygrammaticalization that merit an in-depth analysis, it has not yet received earnest attention to date. Thus, this paper aims to fill the research gap by analyzing the lexeme’s development from Late Middle Korean to Modern Korean from the grammaticalization perspective, drawing upon data from a historical corpus and dictionaries. An extensive diachronic data analysis based on concordance and lexical searches shows that new meanings or functions are so diverse that some of them even form an antonymic relation. Such a wide-ranging semantic and functional diversity is attributable in part to the role of the participating forms in word formation processes such as derivation and compounding but, more importantly, to differential conceptualizations of the source meaning ‘edge’ e.g., entity-internal and entity-external conceptualizations; mapping the ‘edge’ onto different continua, e.g., degree, path, likelihood; and involvement of subjectification, e.g., evaluative-epistemic judgment such as counter-expectation. The innovated meanings resulting from such cognitive operations form a conceptual network. The developmental processes of the lexeme *kAZ* ‘edge’, in general, can be explained with reference to grammaticalization mechanisms, such as desemantization, extension, decategorialization, and erosion, and some mechanisms are also operative in lexicalization as well. However, erosion, or the reduction of phonetic volume, is not prominent in these changes, suggesting that the principles should be interpreted as tendencies rather than deterministic diagnostics. These findings contribute to a better understanding of the complex relationship between lexicalization and grammaticalization.

Keywords: *grammaticalization, polylexicalization, polygrammaticalization, Korean, conceptual motivation, subjectification*

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Полилексикализация и полиграмматикализация корейской лексики *Kaz* ‘край’

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Аннотация

Лексемы номинального типа переживают период интенсивного развития как в сфере лексики, так и грамматики. Их семантические изменения связаны с различными тенденциями концептуализации, указывающими на развитие существенных аспектов языка. Несмотря на ряд любопытных изменений в форме и значении лексики *kaz* ‘край’ в корейском языке позднесреднего периода, охватывающих полилексикализацию и полиграмматикализацию, которые заслуживают углубленного анализа, они до сих пор не получили достаточного внимания. Цель статьи – заполнить пробел в анализе развития лексики *kaz* в корейском языке от позднесреднего до современного периода с позиций грамматикализации на основе данных из исторического корпуса и словарей. Расширенный диахронический анализ, основанный на сочетаемости и лексическом поиске, показывает, что новые значения и их функции настолько разнообразны, что некоторые из них иногда даже вступают в антонимические отношения. Столь широкомасштабное семантическое и функциональное разнообразие обусловлено отчасти ролью используемых форм в словообразовательных процессах, таких как деривация и словосложение, но, что еще более важно, дифференциальной концептуализацией исходного значения «край», то есть концептуализацией, направленной на внутреннюю или внешнюю сущность понятия «край» в разных континуумах, таких как степень, способ, сходство; и субъективизацией, например, оценочно-эпистемическими суждениями, такими как обманутые ожидания. Новые значения, возникающие в результате таких когнитивных операций, формируют концептуальную сеть. В целом процессы развития лексики *kaz* ‘край’ могут быть объяснены с учетом механизмов грамматикализации, таких как десемантизация, расширение, декатегоризация и эрозия; некоторые механизмы также задействованы в процессе лексикализации. Однако эрозия, или редукция фонетического объема, не играет существенной роли в этих изменениях, в связи с чем данные принципы следует интерпретировать как тенденции, а не предопределяющие факторы. Результаты исследования позволяют лучше понять сложные взаимоотношения между лексикализацией и грамматикализацией.

Ключевые слова: грамматикализация, полилексикализация, полиграмматикализация, корейский язык, концептуальная мотивация, субъективизация

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1. Introduction

It is an aphorism that linguistic form and meaning are in constant change, though unnoticeable unless seen from a historical perspective. The change may create new meanings resulting in polysemy (of a single word) or ‘heteronymy’

(of multiple, related words across word classes; Lichtenberk 1991), or new grammatical functions, a process known as grammaticalization. A single word may display multiple lines of such changes over time. It is well known in grammaticalization studies that a single lexeme may develop into diverse grammatical markers across multiple functional domains ('polygrammaticalization' Craig 1991, Rhee 2019). Similarly, at the lexical level, individual languages have different strategies for word-formation, often closely related to their typological features (Rhee & Khammee 2022), e.g., using a single lexeme for diverse extended meanings ('the polysemy strategy'), coining entirely new words ('the monosemy strategy'), systematically modifying an existing word, such as derivation ('the derivation strategy'), or creating multi-word expressions ('the phraseology strategy' or 'the compounding strategy'). Languages may use different combinations of these strategies to different degrees. All these processes, by virtue of their end results being the creation of new lexical items, are subsumed under the lexicalization strategies. When a word is subjected to multiple lexicalization processes, this may, by analogy with polygrammaticalization, be referred to as 'polylexicalization' (cf. Kou 2018).

The Korean nominal lexeme *kAZ* 'edge' has undergone change across diverse lexical and functional domains.¹ The extent of change is so wide-ranging that it showcases a number of theoretically significant aspects in lexicalization and grammaticalization and, more generally, conceptual change. Despite such merits, the change of *kAZ* 'edge' has not received much attention to date and this paper intends to fill this research gap.

Thus, the objectives of this paper are twofold; to describe the lexicalization and grammaticalization paths of *kAZ* 'edge', focusing on the extension patterns and conceptual networks, and to discuss select issues that carry significance in grammaticalization theory, and more generally, language change. In particular, it intends to show that changes branching out of a source form are the results of divergent conceptual extension motivated by different conceptualizations of an 'edge', and that subsequent changes, being contiguous to the previous stage, form a conceptual network.

This paper is organized in the following way. In section 2, we will briefly describe the Korean language with a focus on typological characteristics that are relevant to the change displayed by *kAZ* 'edge'. Section 3 deals with the data sources and research methodology. Section 4 describes the development of *kAZ* from Late Middle Korean to contemporary Korean, focusing on the lexical origin (4.1), formal

¹ In the earliest extant data written in Korean script *Hangeul* (= *Hankul*), *kAZ* and *kAS* occur in a mixed way (see 4.2 below). A general pattern is that *kAZ* occurs when followed by a particle without an onset consonant, and *kAS* occurs when standing alone or followed by a particle with an onset consonant (for discussion on various positional issues regarding /z/ and /s/, see Yi 2021). Evidently, *kAC-* (as in *kAcang/kAcay* 'extremely, most') is a variant developed from *kAZ*, as is often attested in historical change of certain lexemes, e.g., examples in (6) in 4.3.2 (Jung 1995, Yi 2021). Great spelling variability is a norm in historical data, a situation that continues until the implementation of the First Hangeul Orthographic Regulation (*Hankul Macchwumpep Thongilan*) in 1933. Unless warranted by the context, the lexeme is represented as *kAZ* not specifying variants.

changes (4.2), polylexicalization (4.3) and polygrammaticalization (4.4). Section 5 discusses the noteworthy issues, i.e., multiple paths of language change (5.1), grammaticalization mechanisms (5.2), and conceptual motivation (5.3). Section 6 summarizes the findings and concludes the paper.

2. Typological characteristics and word-formation in Korean

Korean is spoken by 81.7 million people worldwide, of which 75.6 million are in the Korean peninsula (Eberhard, Simons & Fennig 2022). Genealogically, it has often been regarded as an Altaic language since eminent Finnish Altaic linguist Gustaf Ramstedt proposed it in 1939 (Ramstedt 1997 [1939]), but in the modern linguistic research tradition the Altaic hypothesis is often contested (see Kim 1992, Sohn 1999, among others, for discussion of the issue). Eberhard, Simons and Fennig (2022) list it as a Koreanic language along with Jejueo, a language variety spoken in Jeju Island. Most recently, it is frequently discussed under the geographically motivated classificatory term ‘Transeurasian languages’ (Johanson & Robbeets 2010, Robbeets 2013), often along with Japanese since the two languages share many structural characteristics (Narrog & Rhee 2013, Robbeets 2017).

Typologically, Korean is an agglutinating, head-final, SOV language. In line with the SOV word order characteristics in morphology, it is suffixal and postpositional. Prepositions do not exist, and prefixes are relatively unproductive. Grammatical forms are predominantly suffixes and postpositions, as shall be seen with the development of *kaz* ‘edge’. Argument NPs are often omitted, and NPs may occur without their postpositional particles. The particles most susceptible to omission are primary case-markers, e.g., Nominative, Accusative (and, to a lesser degree, Dative and Allative), and those with more specific semantic content, such as those developed from *kaz* ‘edge’, tend to be retained for preservation of meaning. Syntactic and thematic functions of NPs are marked with case-markers and postpositions. In terms of verbal morphology, finite verbs are marked with tense, aspect, mood, and modality, whereas non-finite verbs are often marked with ‘converb’-markers (*converbialia*, Ramstedt 1903), of which the main function is adverbializing a non-finite verb (Haspelmath 1995).

Relevant to our discussion is the verb formation strategy, i.e., the productive use of the light verb (*ha-* ‘do/be/say’) for lexicalization of property words (e.g., anxiety-do > be anxious (adj.)), a feature widely shared among Transeurasian languages (Robbeets 2017: 595–596). The use of the light verb is also a common strategy for forming a verb). In such verb formation, the Accusative case-marker is deleted from the syntactic construction of [N-ACC *ha-*] ‘do N’, resulting in the verb [N-*ha-*], e.g., food-ACC do > food-do > cook (v.). In addition, the use of the verbs of existence (*iss-* ‘exist’) and non-existence (*eps-* ‘not exist’) in lexicalization and grammaticalization is also common. In such word formation, the Nominative case-marker is deleted from the syntactic construction of [N-NOM *iss-/eps-*]

‘N exists/does not exist’ (e.g., ‘taste exists/doesn’t exist’), resulting in the verb/adjective [N-*iss-*] (e.g., ‘be tasty/be tasteless’) (see 4.3.2 below for more).

Based on these typological and word-formation characteristics, this study aims to describe the lexicalization and grammaticalization patterns of the lexeme *kAZ* ‘edge’ and analyze their interrelation and conceptual motivations. As shall be made clear in the following discussion, the typological characteristics of headedness play a crucial role in the development of grammatical forms and functions.

3. Data and methodology

The primary data source for investigation of diachronic change patterns is the Sejong Historical Corpus, a 15-million word corpus derived from the 21st Century Sejong Corpus, a 200-million word corpus, developed by the Korean Ministry of Culture and Tourism and the National Institute of the Korean Language (1998–2006). This corpus encompasses data from the fifteenth century to the early twentieth century (1446–1912). The corpus consists of Buddhist scriptures, commentaries, edificatory textbooks, medical advisories, poems, diaries, interpreter training textbooks, bilingual dictionaries, Biblical texts, Christian commentaries, novels, short stories, newspaper articles, and personal correspondences, among others. The search engine used is UNICONC, developed by Jin-Ho Park of Seoul National University. All spelling variants used in historical sources are first identified and their attestations are retrieved from concordance searches using UNICONC. All concordance hits are individually examined to ensure their relevance by eliminating homonyms or spelling variations of irrelevant lexemes.

In addition to the corpus, a number of historical dictionaries have been consulted (see the list in References). These dictionaries contain extensive data compiled from diverse sources from Late Middle Korean (LMK; 15th – 16th c.) and onward. As is the case with concordance data, dictionaries contain headwords that are not related to the target item, largely because of the great level of spelling variation in historical data (see Figure 1 for all relevant forms). A thorough investigation into the various usages of the target lexeme and its derived forms manifested in the historical sources reveals now-defunct usages that are likely to have worked as bridges for the development of contemporary functions.

4. The development of *kAZ* ‘edge’

4.1. The lexical origin

The nominal *kAZ* is attested in LMK, carrying the meaning of ‘edge’ and related concepts (e.g., ‘shore, limit, boundary, end, etc.’), as exemplified below:²

² The Extended Yale Romanization System (Rhee 1996) is used for romanization of the Korean data. Also, following the convention, the Chinese characters in historical sources are rendered with their Modern Korean pronunciation value, indicated in upper-case.

(1) *kAZ/kAS* noun ‘shore, boundary, limit’

a. *LUNGKASAN-i* *NAM.CHENCHWUK* *palAl-s* *kAZ-ay* *is-nAni*
 Mt.Leungga-NOM South.India sea-GEN edge-at exist-CONN
 ‘Since Mt. Leungga is located at the coast of Southern India...’
 (1447, *Sekposangcel* 6:43b)

b. *MILAY-s* *kAZ-i* *taA-tAlok*
 future-GEN end-NOM reach-till
 ‘until (Buddha’s truths) reach the end of the future worlds’
 (1459, *Welinsekpo* 13:39)

In contemporary Korean, the surviving nominal form of *kAZ* is *ka*, which resulted from the loss of the coda consonant (see 4.2 below), as exemplified below³:

(2) *ka* n. ‘margin, edge, limit, vicinity’

a.	<i>wumwul</i>	<i>ka</i>	b.	<i>yenmos</i>	<i>ka</i>
	fountain	edge		pond	edge
	‘fountain side’			‘pond side’	
c.	<i>kil</i>	<i>ka</i>	d.	<i>nanlo</i>	<i>ka</i>
	road	edge		stove	edge
	‘street side’			‘fireside’	

The form has undergone a series of changes in form and function in history. Some of the forms and functions are lost over time and are obsolete in contemporary Korean. We will now look at the changes in more detail, first formal changes, followed by semantic-functional extensions through lexicalization and grammaticalization.

4.2. Formal change

The LMK noun *kAZ*, with the primary meaning ‘edge’, has a few variant forms, e.g., *kAZ*, *kAS*, *KA*, *ka*, and *kas*. In the earliest data, i.e., of the 15th century, it appears as *kAZ* and *kAS*, which often have the same phonetic representation, i.e., [kʌt], due to the general rule of final-consonant neutralization into an alveolar stop. When *kAZ* is followed by a particle with no onset consonant, the /z/ is phonetically realized as [z].

In the 16th century /z/ begins to disappear as part of a historical change, adding *KA* to the inventory of variants, and the final consonant /z/ is no longer found in Early Modern Korean (EModK; 17th–19th c.) and onward. The coda /z/ is changed either to /c/ (usually when occurring word-medially), or /s/ (phonetically realized as [t], when occurring word-finally), or it is completely eroded. The vowel ‘A’ /ʌ/ in LMK is changed to ‘a’ /a/ in Modern Korean (ModK; 20th c. – the present), and consequently the only nominal form surviving in contemporary Korean is *ka* /ka/ (apart from the derived nouns).

³ The most common nominalizer (or dependent noun) in ModK is *kes* ‘thing’, the origin of which is hypothesized as *kes/kas* ‘skin, surface’ (Hong 1983). Semantic affinity between ‘edge, boundary’ and ‘skin, surface’ and formal similarity between *kAZ/kAS* and *kes/kas* suggest a possibility that the two words are cognates. However, the connection has not yet been established.

While the form is undergoing the reductive change of the loss of the coda, there also occur additive changes over time. Some of the major morpho-syntactic changes are as shown in (2):

- (3)
- a. suffixation of the diminutive *-ang*
 - b. compounding of (a) with *cali* ‘place’
 - c. syntactic combination of (a) with the light verb *hA-* ‘do/be/say’
 - d. derivation of (c) with a causative morpheme *-i/-y-*
 - e. absorption of the genitive *-s* in the preceding nominal
 - f. syntactic combination with the verb *ep(s)-* ‘not exist’

We will look at each of the processes listed above in more detail. The suffix *-ang*, etymologically traceable to *ak/aki* ‘child’ (Rhee 2001), is a diminutive affix for a noun (Kang 1993: 96). The effect of the affixation of the diminutive suffix to *kAZ* ‘boundary’ is reduction of the size of the ‘edge’ to its extreme and thus creates intensified meaning, i.e., ‘the very edge, the extreme boundary, the very limit,’ from which various ‘extreme’ meanings emerge (see 4.3.2 below). The derived word is further phonetically reinforced by compounding with *cali* ‘place’, i.e., *kacangcali* ‘boundary, edge’ from the turn of the 20th century (1915 *Sincacen*), which is the most commonly used noun denoting ‘edge’ in ModK, and the original stem *ka* is more frequently used in compounds, e.g., *kangka* ‘riverside’, *pataska* ‘beach, coast’, etc.

The diminutivized *kacang/kAcang* undergoes a syntactic operation by combining with the light verb *hA-* ‘do/be/say’, whereby the noun is changed into a verb. The verbalized *kAcanghA-*, literally meaning ‘do the edge’, denotes ‘reach the point of; act arbitrarily; enjoy to the heart’s content; exert self to the limit, etc.’ The word undergoes a further morphological change through suffixation of the causative *-y* (a variant of *-i*), resulting in *kAcanghAy-*, which denotes ‘let someone do at will; let someone act arbitrarily; let someone do something to his/her heart’s content; etc.’ Still another derivation is through the suffixation of *-tAOy-* ‘become, fit’, i.e., *kAcangtAOy-* ‘become complete’. The derived words *kAcanghA-*, *kAcanghAy-* and *kAcangtAOy-* are all attested in LMK (1459 *Welinsekpo*, 1475 *Nayhwun*, and 1482 *Kumkamkyengsamkahay*, respectively) but are obsolete in ModK (see 4.3.2 below).

The diminutivized *kAcang*, when it is preceded by a noun, typically occurs with the genitive case-marker *-s*, in the structural template of *X-s kacang* [X-GEN edge] ‘X’s edge’ (note that Korean is a head-final language with the G-N phrasal order, a common Transeurasian feature, Robbeets 2017). In this configuration, a reanalysis of the morpheme boundary occurs from [X-s kacang] to [X-skAcang], whereby *kAcang* becomes *skAcang*, in which the onset ‘sk’ is the tensified /k/.⁴ The morphosyntactic reanalysis also leads to the functional reinterpretation of the nominal *kAcang* ‘edge’ into the postposition *-skacang* ‘till, up to’ (written as *-kkacang* in ModK). The surviving ModK forms of *kAZ/kAS* contain the initial

⁴ Some researchers (Choe 1982, Hur 1975, Kim 1955, Lee 1955, among others) hypothesize that *sk* was phonetically realized as [sk]. Transeurasian languages, however, tend to avoid word-initial consonant clusters (Deny 1924, Robbeets 2017).

consonant either /k/, when used as a nominal, or /kʰ/ (= /kk/), when used as a dependent form, most notably the postposition ‘to, till’. Thus, the development of the particle can be characterized as [X-s *kAcang* ‘X’s edge’ > X-*skAcang* ‘till/to X’]. A slight variation is observed here, i.e., in some cases of the dependent forms (i.e., suffix), *kAcang* is realized as *-khAcang*, as in *sulkhAcang* ‘to the point one hates; to one’s heart’s content’ derived from the verb *sulh-* ‘dislike, hate’, of which /h/ changes /k/ into an aspirated /kh/. Its reduced form *silkses* ‘maximally, heartily, pamperingly’ survives in ModK.

The last extension of *kAZ* is its syntactic combination with the verb *ep(s)-* ‘not exist’. As briefly noted in 2 above, an idiosyncrasy of Korean is the productive use of the verbs of existence *iss-* ‘exist’ (e.g., *mas.iss-* ‘be tasty’) and non-existence *eps-* ‘not exist’ (e.g., *mas.eps-* ‘be tasteless’) in lexicalization (Koo 2005, 2008). The nominal *kAZ* also undergoes this operation, producing *kaz-ep(s)-* [edge-not.exist] ‘be limitless, be boundless’ (< ‘the edge does not exist’), which later becomes *kayep(s)-* ‘be pitiable’ (note, however, that there is no lexicalization of *kAZ* involving *iss-* ‘exist’) (see 4.3.2 below for more).

In addition to formal changes, there occurred a number of notable semantic-functional changes. Many changes already occurred in LMK texts, the earliest data written in *Hangeul*. Some changes led to a dead-end before MoK, leading the forms to disuse, while many others survive in ModK. The *kAZ*-derived words and morphemes are distributed across many word classes. Depending on the nature of the final item created, we discuss the broad two-way categorization of lexicalization and grammaticalization. Put simply, lexicalization refers to the creation of major class words, e.g., verbs, adjectives and adverbs, whereas grammaticalization refers to the emergence of the forms carrying grammatical functions.⁵

4.3. Polylexicalization

The lexeme *kAZ* has undergone a number of lexicalization processes, notably, conversion, derivation, and compounding, and we turn to an elaboration of each of them.

4.3.1. Conversion

The simplest form of lexicalization that *kAZ* has undergone is ‘conversion’ (Haspelmath 2002: 24–26, Valera 2006: 172–175), i.e., the case in which the form of the base remains unaltered in derivation of a word in a different part of speech, e.g., *hammer* (noun to verb), *book* (noun to verb), etc. in English. This process is also often referred to as ‘zero-derivation’ for the lack of formal change. In the case of *kAZ*, the most prominent case of conversion is the change from a noun into an adverb, as shown by the examples below, taken from historical texts:

⁵ Creation of adverbs may or may not be considered as lexicalization. For instance, Heine, Claudi and Hünemeyer (1991: 3) treat adverbs as non-major (closed) class words (contra Anttila 1972: 151) and the lexicon by Heine et al. (1993) includes their development in grammaticalization.

- (4) a. *kaS* adverb ‘just now, only, barely’
kutuy CENGSA cizwu-lye theh-ul kaS SICAKhA-ya toy-enul
 you temple build-PURP lot-ACC just.now start-CONN measure-CONN
 ‘You just started and measured the lot to build a temple, but...’ (1447, *Sekposangcel* 6:35)
- b. *kaS* adverb ‘just now, only, barely’
kaS kul payh-on hyekun salAm-Ay mal-Al musumula tulu-si-li-isko
 just.now letter learn-ADN small person-GEN word-ACC why listen-HON-FUT-Q
 ‘Why would you listen to an unimportant man who only started to learn letters recently?’
 (1481, *Yekwu Samkang Cwuwuncelham* 7a)

The adverb *kaS* denotes ‘just now, recently, etc.’, typically modifying an eventive verb by adding the meaning that the event occurred not long ago. The notion of physical vicinity in ‘edge’ is metaphorically transferred to that of temporal vicinity, i.e., recency.

The conversion between major classes is a relatively unproductive strategy in Korean, largely because major word classes, e.g., nouns and verbs, tend to be different in stem forms and derived forms tend to carry morphological trappings that indicate the derivation (see, however, Hong 1947 [1927], Nam & Ko 2011 [1992], Ko & Koo 2018 for discussion of ‘cross-categorial uses’ in Korean). The instance described above, however, occurs early in history, i.e., LMK, at the same time when the nominal form *kaZ* is attested. In ModK, *kas* as an adverbial is often found as exemplified in (5):

- (5) *kas* adv. ‘just now, recently’
- | | | | | | | | | |
|----|------------|-------------|----|------------------|-------------------|----|------------|--------------|
| a. | <i>kas</i> | <i>phi-</i> | b. | <i>kas</i> | <i>kyelhonha-</i> | c. | <i>kas</i> | <i>kwup-</i> |
| | recently | bloom | | recently | marry | | recently | bake |
| | ‘bloom(ed) | just now’ | | ‘marry(/married) | recently’ | | ‘bake(d) | just now’ |

4.3.2. Derivation and compounding

Among a few lexicalization patterns involving morphological derivation is the creation of the adverb *kaCay* ‘most, very’, i.e., involving the variant form of *kaZ* and the adverbializing suffix *-ay* ‘at, to’. The semantic change from ‘at/to the edge’ to ‘extremely’ is intuitively well motivated. This short-lived form is attested in LMK literature (e.g., 1466, *Mokwucaswusimkyel* 20a; 1527, *Hwunmongcahoi* II 15b, etc.) but is completely obsolete in ModK. As is evident from its form (*kaCay*) and its initial meaning (‘at the edge’), the word develops into the postposition *kkaci* ‘to, toward, etc.’ as the cohesion between the preceding noun and the adverbial increases. Thus, the adverbial *kaCay* ‘at the edge’ is the bridge from the noun to postposition, a state of affairs corroborating the directionality proposed by Heine, Claudi & Hünnemeyer 1991: 167), i.e., lexical > (adverbs >) adpositions > case affixes > zero. The fully developed adverbial meanings are Elative (‘extremely, very’) and Superlative (‘the most’), a noteworthy directionality of change, considering the parallel development of the adverb *kaCang* (see below).

Another type of morphological derivation is ‘diminutivization’, involving the diminutive suffix *-ang*, traceable to *aki* ‘baby’ (see (3a) above). The ModK *kaCang* carries adverbial functions, as exemplified in (6), taken from historical texts:

- (6) a. *kAcang* adv. ‘all, altogether, completely’
ILCElSEYKAN-ay-s *mAZAM-Al* *kAcang* *pAli-ko*
mundane.world-at-GEN mind-ACC altogether discard-and
‘Giving up (worldly thoughts) altogether, and...’ (1467, *Mongsanhwasang pepe* 23)
- b. *kAcang* adv. NPI ‘(not) at all’
CAMI *kAcang* *eps-un* *pskuy*
taste not.at.all not.exist-ADN time
‘when it has no taste at all’ (1467, *Mongsanhwasangpepe* 15)
- c. *kAcang* adv. ‘very, greatly, very much’ (Elative)
hanAl *stah-i* *kAcang* *CINTONGha-ni*
heaven earth-NOM greatly shake-CONN
‘as the heaven and earth shook very violently...’ (1459, *Welinsekp* I 8)

In LMK, the adverb *kAcang* is used for a few different, yet related meanings. As illustrated in (6), they all make reference to the notion of ‘entirety’ inclusive of the extreme members. The usage of (6c), i.e., the Elative degree marker function, was very productive in LMK. In such contexts, it modified eventive or stative verbs, as in *kAcang tulechi-* ‘(the earth) shakes very violently’ (1447 *Yekcwu Welinsekp* 20: 52b), *kAcyang hyotoha-* ‘be very dutiful to parents’ (1514, *Soksamkang Yel*: 22b), etc. The usages illustrated in (6), however, are no longer current in contemporary Korean. Instead, *kAcang* is used as the Superlative degree marker, as exemplified in (7):

- (7) *kAcang* adv. ‘most’ (Superlative)
- | | | |
|-------------------------------|--------------------------------|-------------------------------------|
| a. <i>kAcang</i> <i>palk-</i> | b. <i>kAcang</i> <i>ppalu-</i> | c. <i>kAcang</i> <i>ttokttokha-</i> |
| most be.bright | most be.fast | most be.smart |
| ‘be brightest’ | ‘be fastest’ | ‘be smartest’ |

The ModK adverb *kAcang* in (7) is the Superlative marker, modifying a stative verb (= adjective), even though it was an Elative degree marker in LMK. The shift from Elative to Superlative seems to have completed around the 17th c. (e.g., 1670, *Nokeltayenhay* I: 10).⁶

Another type of lexicalization involving *kAZ* is compounding. Compounding is presumed to be universal (Greenberg 1966[1963]: 93, Guevara & Scalise 2009: 102), even though the level of productivity may vary across languages. As briefly discussed in 3.1, *kAZ* survives as *ka* in ModK as a full-fledged nominal, still carrying the original meaning ‘edge’. There is a more commonly used derived nominal, i.e., *kAcangcali*, which is a fortified form through diminutivization (with *-ang*) and compounding (with *cali* ‘place’), as exemplified in (8):

⁶ There are rare instances that were amenable to both Elative and Superlative interpretations in LMK, e.g., *kAcang motin nimkum* ‘the very/most cruel king’ (1459, *Welinsekp* 4:6). However, previous to the 17th century, there are few, if at all, instances carrying the Superlative function. In contrast, the form is invariably the Superlative marker in ModK (see Rhee 2022 for more discussion).

- (8) *kacangcali* n. ‘edge, brim, perimeter’
- | | | | | | |
|----------------------|-------------------|--------------------------|-------------------|-----------------|-------------------|
| a. <i>hwatan</i> | <i>kacangcali</i> | b. <i>nwun</i> | <i>kacangcali</i> | c. <i>khep</i> | <i>kacangcali</i> |
| flowerbed | edge | eye | edge | cup | edge |
| ‘edge of flower-bed’ | | ‘region around the eyes’ | | ‘brim of a cup’ | |

When the examples of *kacangcali* in (8) are compared with those of *ka* in (2) above, it is obvious that the two nominals are nearly synonymous and can often be used interchangeably. The former, however, being the phonetically and semantically fortified form of the latter, tends to refer to a more expansive, often circumferential, region. Thus, *nwun ka* ‘the side of eyes’ tends to refer to a smaller region, the outer corner of the eyes (e.g., where the crow’s-foot lines are visible) whereas *nwun kacangcali* ‘region around the eyes’ refers to a wider region surrounding the eyes (e.g., where a dark circle is visible). Similarly, *ip ka* ‘the side of mouth’ tends to refer to the two end points of the lips (e.g., where smiling is most noticeable), whereas *ip kacangcali* ‘region around the mouth’ tends to refer to a wider region surrounding the mouth (e.g., where some unsightly food particles may smudge while eating).

Another type of compounding involving *kAZ* is one in which the light verb *ha-* (historically *ha-*) ‘do/be/say’ and the verbs of non-existence *ep(s)-* ‘not exist’ (see (3c) and (3f) above) participate. Haspelmath (2002: 85–86) notes that the type of compounds formed by the notional object and the verb (called ‘incorporation’ e.g., *drawbridge* or *babysit* in English) is unproductive in English but productive in morphologically rich polysynthetic languages. Compounding of *kAZ* and the light verb *ha-* constitutes an instance of an ‘incorporation’ process. However, compounding involving the notional subject and its predicate *eps-* ‘not exist’ is a syntactically peculiar case (note, however, that morphosyntactic operations developing into morpholexical operations over time is not infrequent; Sadler & Spencer 2001). The instances of the first type attested in historical data are exemplified below:

- (9) a. *kasha-* verb ‘reach the point of’ (< *kAs(-ul) ha-* [boundary(-ACC) do])
chivi-yeyS *kechu-n* *phul-i* *KALSEKSAN-ay* *kasha-ni*
 cold-at wild-ADN grass-NOM [name]-to reach-CONN
 ‘As the wild grass reaches (the top of) Mt. Kalsek. (1481, *Twusienhay* Cho 21:36)
- b. *kazeps-* verb ‘be endless’ (< *kAZ-i eps-* [edge-NOM not.exist])
kazeps-un *KONGTEK* *ila-sy-a* *CWUNGSAYNG*
 be.endless-ADN virtue accomplish-HON-CONN people
KWUha-si-nAN *tal*
 save-HON-ADN NOMZ
 ‘(The Boddhisatva heard) that (Buddha) accomplished endless virtues and saved people.’
 (1447, *Welinchenkangcikok* 324)
- c. *kacangha-* adjective ‘be great’ (< *kAcang(-ul) ha-* [boundary(-ACC) do])
culkewum-i *kacangh-om-ay* *meli* *syey-yom-Al* *sul-noni*
 pleasure-NOM be.great-NOMZ-CSL hair gray-NOMZ-ACC lament-CONN
 ‘(I) lament the graying of my hair because my pleasure is at its height.’
 (1481, *Twusienhay* Cho 21:30)

In ModK the lexicalized verbs and adjectives, exemplified above, are obsolete. But compounding involving the verb of non-existence *eps-* ‘not exist’, an instance of ‘univerbation’ (Lehmann 2015[1982]) of a syntactic construction, survives in ModK. The source construction is a clause *ka-i eps-* [edge-NOM not.exist] ‘the boundary does not exist; limitless’, which later changes to ‘be pitiable’, in the sense that ‘the pity is boundless’, as is exemplified in (10):

- (10) *kayep(s)-* adjective ‘be pitiable’
ku hwanca-ka kayep-ta
 that patient-NOM be.pitiable-DEC
 ‘The patient is pitiable.’

Incidentally, the univerbation process, whereby the internal composition becomes increasingly opaque, is still ongoing, which is observable in the fact that there are two adnominal inflected forms, i.e., the conservative *kayeps-un* (in which /s/ of *eps-* ‘not exist’ survives) and the more eroded *kayew-un* (from which /s/ disappeared; note that [p] > [w] is a lexically-controlled phonological rule, applicable to many words in Korean).

4.4. Polygrammaticalization

Another important group of changes that *kAZ* has undergone is grammaticalization, i.e., the creation of linguistic forms that carry grammatical functions. In a now classical work, Kuryłowicz (1976 [1965]: 69) defined grammaticalization as “an increase of the range of morpheme advancing from a lexical to a grammatical or from a less grammatical to a more grammatical status,” according to which the development of derivational morphemes is relatively less grammatical than that of inflectional morphemes. In this spirit, we can distinguish weakly grammaticalized *kAZ*-forms, e.g., prefixes and suffixes, and strongly grammaticalized *kAZ*-forms, e.g., postpositional particles.

4.4.1. Derivational prefix

The first type of grammaticalization is found in *kAZ* used as a derivational prefix, as exemplified in historical and modern sources:

- (11) *kAS-* nominal prefix ‘just, just now, fresh, recent’
- a. *kAS-* nominal prefix
kAS-swin-i cyem-ul-kka-manAn ka-n tAy-mata swul-ul po-ko
 just-50-NOM be.young-FUT-Q-CONN go-ADN place-DIST wine-ACC see-CONN
 ‘(One) may wonder if [no one would think that] (my) age just having turned 50 is young, but (I) see (and drink) wine wherever I go, and... (15xx, *Songkangkasa* Sengcwu ed. 58)
- b. *hanselnal kAS-pAlki-yey*
 New.Year.day just-daybreak-at
 ‘at the very beginning of the daybreak of the New Year’s day’
 (1613, *Kanipyekonpangenhay* 18)

- c. *kas-pyengali*
fresh-chick
'a newly hatched chick' (Paek 2012: 42)

The lexeme *kas* also develops into an adjectival prefix in ModK, as shown below:

- (12) *kas*- adjectival pref. 'just, freshly'
- | | | |
|---|---|---|
| a. <i>kas-ikun</i>
just-ripened
'freshly ripened (fruit)' | b. <i>kas-nemun</i>
just-past
'just over (age)' | c. <i>kas-capun</i>
just-caught
'freshly caught (fish)' |
|---|---|---|

The prefix *kas*- in (12) is a development from the adverbial use of *kas* 'just now, recently', which is evident not only in meaning but also from the fact that its host is usually a deverbal adjective, i.e., it includes a verbal stem, e.g., *ik*- 'ripen' in (12a), *nem*- 'pass' in (12b), *cap*- 'catch' in (12c), etc. However, *kas*- in these forms is better analyzed as a prefix because it occurs with these deverbal adjectives with a high degree of interlexical cohesion (cf. Paek 2012: 42).

4.4.2. Derivational suffix

The ModK nominal *ka* 'edge, limit' develops into a nominal suffix, which adds the meaning of '-side, -shore, etc.' as shown in (13):

- (13) *-ka* nominal suffix '-side, shore'
- | | | |
|--|--|--|
| a. <i>hayan-ka</i>
coast-side
'coast, sea-shore' | b. <i>chang-ka</i>
window-side
'window side' | c. <i>mwutem-ka</i>
grave-side
'graveside' |
|--|--|--|

It is obvious that the suffix *-ka* in (13) is the development from compounding, as exemplified in (2) above. The increased cohesion between the two compounded nominals through frequent use must have demoted the nominal status of *ka*, whereby *ka* is reinterpreted as a suffix, analogous to the development of the English *seaside* (< *sea-side* < *sea side*), *seashore* (< *sea-shore* < *sea shore*), etc. Incidentally, many words involving *ka* in contemporary Korean occur without interlexical spacing (in which *-ka* is regarded as a suffix), or with spacing (in which *ka* is regarded as an independent noun in compounding), or with the Genitive *-s* inserted between the two nominals (in which *ka* is the head of an NP of a syntactic construction), in dictionaries and in popular writing.

Historical texts also show other *kaZ*-derived nominal suffixes, e.g., *-kaS* and *-skAcang*, as exemplified in (14):

- (14) a. *-kaS* nominal suffix 'utmost, to the maximum degree of, to the fullest'
- | | | | |
|-------------------------|--------------|--------------------------|-----------------|
| <i>KUMKANGSAN HAK-i</i> | <i>toy-e</i> | <i>ILMANICHENPONG-uy</i> | |
| [name] | crane-NOM | become-CONN | 12,000.peaks-to |
| <i>mAum-kaS</i> | | <i>sosaol-na</i> | |
| heart-utmost | soar.up-CONN | | |
- '(I) wish I would become a crane and fly up to the top of 12,000 peaks of Mt. Kumkang to my heart's content, and...' (1498, *Manpwunka* 9)

b. *-skAcang* nominal suffix ‘utmost, to the fullest, with all of’

icey cyem-un cek-ulan ancAk mAZAm-skAcang no-taka
 now be.young-ADN time-at still heart-utmost play-CONN

‘At this time that (I) am still young, (I) want to play to my heart’s content as yet and then [seek the truth later]...’ (1447, *Sekposangcel* 6:11)

In examples in (14), the nominal suffix adds the meaning ‘to the utmost of, to the fullest of, with all of, etc.’ to the nominal host. Thus, *mAum-kAs* in (14a) and *mAZAm-skAcang* in (15b) mean ‘to the satisfaction in heart, to one’s heart’s content, as much as the heart desires, etc.’ The second suffix *-skAcang* has become obsolete, but the first survives in the form of *-kkes* in contemporary Korean, as shown in (15), and of a rare variant form *-khes*, derived from a verb-based construction, in (16):

(15) *-kkes* nominal suffix ‘to the point of’

a. <i>him-kkes</i> power-degree ‘with all one’s might’	b. <i>cengseng-kkes</i> sincerity-degree ‘with all sincerity’	c. <i>cikum-kkes</i> now-degree ‘up until now’
--	---	--

(16) *-khes* verbal suffix ‘to the point of’

sil-khes
dislike-degree
‘to one’s heart’s content; lit. to the point of disliking’

The function of the suffixes *-kkes* and *-khes* in (15) and (16) is not to make reference to an entity (as ‘edge’) but a degree, i.e., the extent of the exertion denoted by the host, e.g., ‘with all one’s might’, ‘with all sincerity’, ‘to the point of disliking’, etc. When the suffix is used with a temporal noun as in (15c), it adds the durativity meaning in addition to the limit, as in ‘up until now, throughout until now’. The suffix *-khes* in (16) is a variant of *-kkes*. The added /h/ is from the verb stem *silh-* ‘dislike, hate’ (historically *sulh-*), as briefly noted in 4.2 above.

4.4.3. Postpositional particle

A notable grammatical class of *kAZ*-derived linguistic forms is postposition. There are a dozen different dialectal variations, but the primary postpositional particle (in ‘standard’ Korean) is *-kkaci*, with a variety of meanings. This development has been noted, though mostly in passing, by a number of researchers (Ahn 1967, Lee 2001, Narrog & Rhee 2013, Park 2015, Lee 2016, among others), by virtue of the fact that in the history of *kAZ*, the lexeme’s most grammaticalized form, is the postposition *-kkaci*. The development occurs early in history, as exemplified in the following, in its historical forms *-kAcang* and *-skAcaci*:

(17) a. *-kAcang* postposition ‘up to, till, including’

chezem ing-eynye sa-te-n cek-ulo onAlsnals-kAcang hyey-myen
 first here-at live-RET-ADN time-from today-till count-COND

ahAnhan KEP-i-losoni
 91 kalpa-be-CONN

‘If (we) count the days that (the ants) lived here from the beginning up to today, it is 91 eons, so...’ (1447 *Sekposangcel* 6:37)

b. *-skaci* postposition ‘up to, till’

nilk-ki-lal *etAy-skaci* *hA-yes-nA-nyo*

read-nomz-ACC where-till do-PST-CR-Q

‘Where did (we) stop reading (last time)? (lit. Up to where did we do reading?)’

(1677 *Pakthongsaenhay* I:44)

In contemporary Korean, the postposition survives in the form of *-kkaci* (though *-kkacang* also survives in certain dialects) and functions as a signal of diverse functions of forward-direction marking, e.g., goal (Allative), addition (Additive), inclusion (Inclusive), or end point (Terminative). It also marks counter-expectation (Mirative). These uses are exemplified in the following:

(18) *-kkaci* postposition

a. Allative ‘to’

Paris-kkaci *ka-nun* *pihayngki*

Paris-ALL go-ADN airplane

‘a plane going to Paris’

b. Additive ‘in addition to’

chwuw-untey *pi-kkaci* *nayli-n-ta*

be.cold-CONN rain-ADD come-PRES-DEC

‘On top of cold, it’s raining, too.’

c. Inclusive ‘including’

i *khong-un* *kkepcil-kkaci* *mek-nun-ta*

this bean-TOP pod-INCL eat-PRES-DEC

‘This bean is (the type) that (we) eat its pod as well.’

d. Terminative ‘till, up to’

l-si-kkaci *cemsimsikan-i-ta*

1-time-TMN lunch.hour-be-DEC

‘The lunch hour is until 1 o’clock.’

e. Mirative ‘even’

yecachinkwu-kkaci *ttena-ss-ta*

girlfriend-TMN.MIR leave-PST-DEC

‘Even (my) girlfriend left me.’

The five sub-functions of the postposition *-kkaci* illustrated above are not mutually exclusive and cannot always be delineated clearly. For instance, some of these, especially, Additive, by virtue of signaling addition of the extreme member on a scalar continuum, tend to carry the overtone of counterexpectation (Mirative).

The development of *kaz* and its derived forms in history can be diagrammatically presented as in Figure 1. The diagram shows that the lexeme changes in a number of ways either reductively or expansively and that a few forms are lost in history. One caveat is that the distance between the forms and Middle Korean or Present-Day Korean and their relative positions are not proportional to the time of their emergence in history.

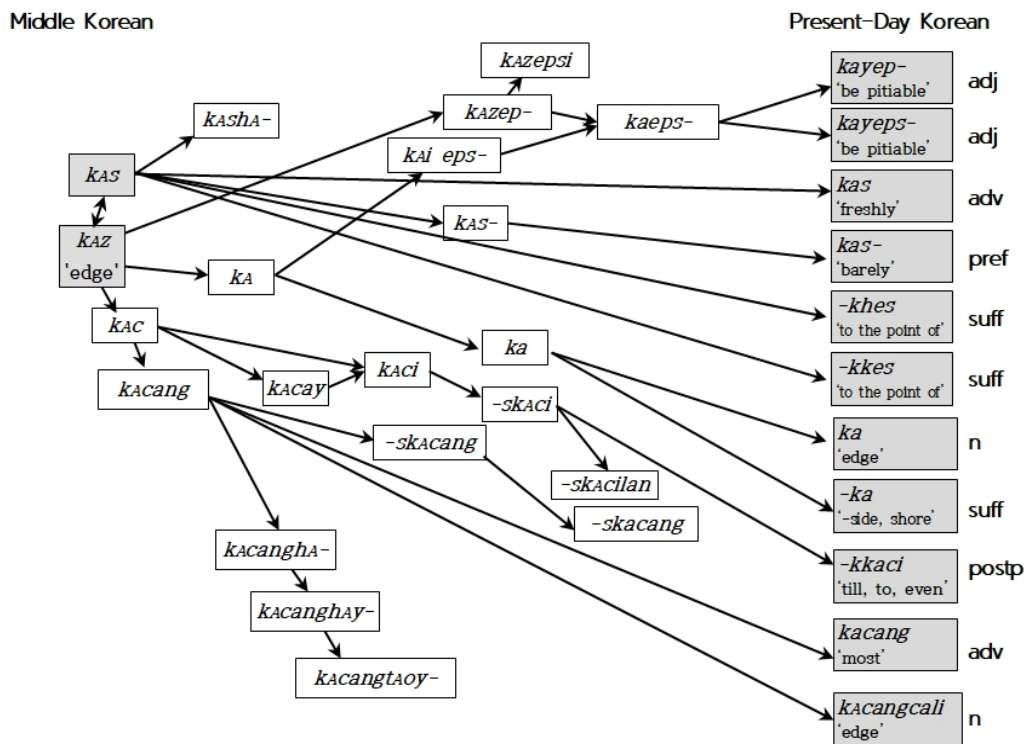


Figure 1. Formal change of *kAZ* from LMK to Present-Day Korean

5. Discussion

We noted in the above that the lexeme *kAZ* has undergone various changes in history. The description warrants discussion of a number of theoretically interesting issues, but we will limit our discussion to three major issues, i.e., multiple paths (5.1), grammaticalization mechanisms (5.2), and conceptual motivation (5.3).

5.1. Multiple paths

The changes of *kAZ* described above encompass lexicalization (4.3) and grammaticalization (4.4). Diverse semantic and grammatical functions that the nominal *kAZ* acquired over the course of time can be summarized as follows (note that certain meanings are not exemplified in 3):

(19) Polylexicalization of *kAZ*

- a. NOUN: 'edge' 'shore' 'boundary' 'limit' 'end' 'levee' 'adjacent area' 'outskirts' 'brim' 'brink'
- b. VERB: 'act arbitrarily' 'do x to one's heart's content' 'do x to the limit' 'let someone do x arbitrarily', 'become complete' 'become satisfactory' 'reach the point of x' 'put x as the limit'
- c. ADJECTIVE: 'endless' 'be great' 'be extreme' 'be pitiful (with Neg)'
- d. ADVERB: 'most' 'highest in degree' 'all' 'very' 'just now' 'only' 'barely' 'for the first time' '(not) at all [NPI]' 'greatly' 'endlessly (with Neg)'

(20) Polygrammaticalization of *kAZ*

- a. PREFIX: 'just' 'just now' 'freshly' 'recently'
- b. SUFFIX: 'utmost' 'to the maximum degree of' 'to one's heart's content' 'to the fullest'
- c. POSTPOSITION: 'to' (Allative), 'in addition to' (Additive), 'even' (Counter-expectation), 'till' (Terminative), 'including' (Inclusive)

Lexicalization processes, inclusive of conversion, derivation, and compounding, listed in (19), are some of the ways whereby a lexicon is enriched, either through spontaneous shifts of functions in different word classes (conversion) or morphosyntactic operations involving a single stem (derivation) or multiple stems (compounding). In these lexical operations, *kAZ* tends to designate the 'limit' or 'end', often physical but sometimes abstract. When the operation recruits a negative word (e.g., *eps-* 'not exist'), the word denotes the absence of such 'limit' or 'end'. On the other hand, in the case of adverbs, *kAZ* often denotes 'edge' or 'periphery', thus not having advanced enough toward the center, even though it also denotes 'limit' or 'end', thus maximal degree in some instances (see 5.2 for more discussion of conceptual motivation).

More intriguing is the grammaticalization listed in (20) in that the change makes the source lexeme depart from its original lexical function and acquire grammatical functions. As we have seen, grammaticalization of *kAZ* is varied and proceeds into different grammatical domains, thus constituting polygrammaticalization. In other words, the single lexeme develops into diverse grammaticalized forms in the domains of derivational morphemes (e.g. prefixes and suffixes) and of postpositions (Allative, Additive, Inclusive, Terminative, Mirative, etc.). In the case of prefixes, as their development is closely related to that of adverbs, *kAZ* tends to denote shallow depth (from 'edge, boundary') in time, hence, temporal recency. In the case of suffixes, as their development is closely related to nominal compounding, *kAZ* tends to denote 'edge' or 'end', i.e., the source meaning of the lexeme. A similar developmental scenario is observed with the grammaticalization of postpositions. As *kAZ* occurred in the nominal compounding configuration, it tends to designate the 'end point' with variable foci.

When the meanings of *kAZ* in the lexicalized forms and those in the grammaticalized forms are compared, the semantics of the lexicalized forms are substantially more concrete. This is in line with the observation that grammaticalization involves 'abstraction' in meaning (Traugott 1980, Heine, Claudi & Hünnemeyer 1991), which is closely tied to the fact that grammatical meanings in general are abstract (see also Sapir 1921). The abstraction process is so robust in grammaticalization that it is often considered a mechanism or principle, sometimes with a different name, i.e., desemanticization (see 4.2 below).

5.2. Grammaticalization mechanisms

In this context, we can briefly review the mechanisms of grammaticalization, as proposed by Heine and Kuteva (2002) and Kuteva et al. (2019), i.e.,

desemanticization, extension, decategorialization, and erosion. As shall be seen, these grammaticalization mechanisms are often observable in lexicalization processes as well, because grammaticalization is not exclusive of lexicalization. Rather, grammaticalization is often accompanied by lexicalization, and both processes exhibit fluctuation of form and function.

Desemanticization, also commonly called ‘semantic bleaching’ in figurative terms, refers to the loss in meaning content. The lexeme *kAZ*, even at the lexicalization level, has undergone extensive semantic bleaching from its original meaning of ‘edge’, a physical object, to abstract meaning of ‘limit’, ‘degree’, and temporal meaning of ‘recency’, among others. When it develops into grammatical markers, it also acquires more abstract meanings as addition, termination, inclusion, surprise, etc. Also notable is the fact that when desemanticization or abstraction occurs, the previous meanings remain, and thus the process is not meaning shift (e.g., from A to B) but meaning extension (e.g., from A to A&B). In this regard, desemanticization of *kAZ* (and in fact most instances of grammaticalization) is related to ‘generalizing abstraction’, a process whereby the number of distinguishing features of a concept is reduced to its most central characteristics (Heine, Claudi & Hünnemeyer 1991: 43). In this sense, desemanticization (i.e., the reduction of distinguishing features) is in fact semantic enrichment (i.e., the increase in the number of semantic designations).

The mechanism of extension, also known as context generalization, refers to the use of a form in new contexts. In its lexicalization and grammaticalization stages, *kAZ* extends its use context from its original position, i.e., an argument position by virtue of a noun, to other non-argument positions, e.g., modifier of a verb or verb phrase (as an adverbial), which enables its further positional extension, i.e., placement before a deverbal adjective (as an adjectival prefix). When the meaning becomes more abstract, its placement in compounding becomes not restricted to behind a concrete noun with physical edges or boundaries; it can be affixed to an abstract noun such as ‘heart’, ‘power’, ‘sincerity’, etc. (as a nominal suffix).

Decategorialization refers to the loss in morphosyntactic properties characteristic of lexical or other less grammaticalized forms. Since *kAZ* is a noun, decategorialization *kAZ* necessarily involves the loss of the characteristic features of the nominal category. The characteristics of the nominal category typically include pluralizability, modifiability by an adjective, ability to be case-marked, ability to function as an argument, among others (note that the ability to be marked by an article is not applicable in Korean). At the level of lexicalization whereby the nominal *kAZ* has changed its word class into a verb, adjective, or adverb, such categorial features are all lost. Likewise, at the level of grammaticalization, whereby the lexeme has changed to a prefix, suffix, or postposition, such categorial features are lost.

Erosion, also known as phonetic reduction, refers to the loss in phonetic substance. An agglutinating language, Korean has instances of substantial loss of phonetic volume of multiply stacked postpositional particles and verbal suffixes.

However, the change of *kAZ* does not always involve reduction of phonetic volume. The change from the LMK noun *kAZ* to ModK noun *kA* is an instance of erosion. Lexicalization processes such as compounding and derivation, needless to say, lead to increase of phonetic volume. Even in grammaticalization, the developments of the prefix *kas-*, the suffixes *-khes*, *-kkes*, and *-ka*, and the postposition *-kkaci* do not uniformly exhibit erosion. Rather, most of them have clearly increased phonetic volume, as shown by additive processes listed in (3) above. This state of affairs suggests that the mechanisms are by no means the prerequisites or absolute diagnostics of grammaticalization; they indicate a general directionality of grammaticalization processes.

5.3. Conceptual motivation

As illustrated in the preceding exposition, the series of semantic changes *kAZ* has undergone in history involves diverse threads of conceptualization, some of which seem to be antonymous to each other, namely the maximal meanings ('most', 'extremely', 'completely', 'very', 'to the limit', etc.) vs. the minimal meanings ('barely', 'freshly', 'recently', 'only just now', etc.). Such a seemingly peculiar antonymic semantic change diverging from the identical origin is not uncommon in language (Rhee 1996) and reveals the flexibility of human conceptualization, i.e., in the case of *kAZ*, how an image-schema of an 'edge' is represented in various ways in the mind.

An 'edge' may be conceptualized, from an entity-external perspective, in relation to other surrounding areas, in which case the edge is the object's boundary that separates it from the environment. In this entity-external conceptualization, the edge is the beginning, i.e., the surface of the mass of the entity. Thus, the conceptualization leads to the emergence of such senses as 'barely', 'freshly', 'only just now', etc., all implying that some movement, be it physical or imaginary, has not sufficiently advanced toward the center of the referenced entity. If a word-formation operation recruits a negative word (e.g., *eps-* 'not exist'), the newly formed word denotes the absence of the minimum, thus complete absence (e.g., *cami kacang epsun* 'with no taste at all', (6b)). Furthermore, from this entity-external perspective, the edge may be the object itself because the boundary may represent the whole entity in this macroscopic conceptualization. Thus, the grammatical marker *-kkaci* with the Allative, Terminative, Inclusive, Additive functions may denote reaching the referent, e.g., 'a plane going to Paris' (in (18a)). In other words, in this conceptualization, reaching the edge of an object is tantamount to reaching the object.

On the other hand, an 'edge' may be conceptualized from an entity-internal perspective, i.e., in relation to the 'center', in which case the edge is the periphery. In this entity-internal conceptualization, the edge is the end. Thus, the conceptualization leads to the emergence of such senses as 'limit', 'margin', 'end', 'extreme', 'outskirts', 'brim', etc. When the word-formation operation recruits a negative word (e.g., *eps-* 'not exist'), the newly formed word denotes the absence

of such ‘limit’ or ‘end’, thus ‘limitless’ ‘endless’, etc. This entity-internal conceptualization may be further subjectified by involving the speaker’s evaluative-epistemic judgment such as likelihood of an occurrence of an event. Thus, the ‘extreme’ on a scale of likelihood engenders the subjective, counter-expectation meaning ‘even’ (Mirative). This is an excellent exemplar of ‘subjectification’ (Traugott & Dasher 2002).

In this regard, the diverse meanings of *kAZ* can be said to be the results of variable conceptualizations of the ‘edge’ on different kinds of continua, as in (21b) through (21d):

- (21) a. objective, physical configuration (‘edge’, ‘shore’)
 b. on the degree continuum (‘very’ ‘most’)
 c. on the path continuum (‘to’)
 d. on the likelihood continuum (‘even’)

Further, the results of the multi-linear development form a conceptual network, by virtue of the development’s gradual nature, which can be shown as Figure 2.

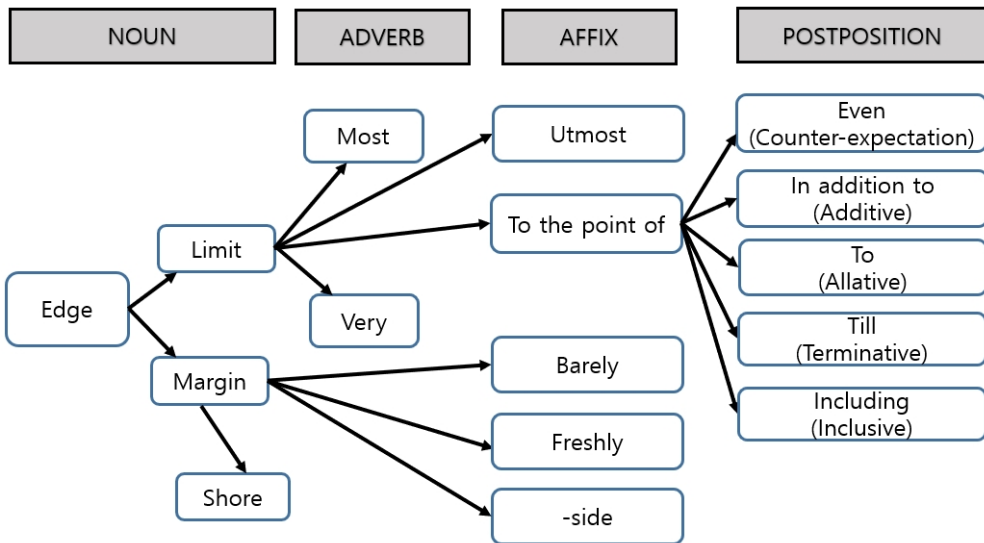


Figure 2. Conceptual network of *kAZ* ‘edge’ in lexicalization and grammaticalization

The Korean situation can be briefly reviewed from a crosslinguistic perspective. The documentation of grammaticalization of ‘edge’ is not extensive. The lexicon by Kuteva et al. (2019) shows that the source lexeme *EDGE* tends to grammaticalize into Locative signaling a (proximal) location, e.g., Welsh prep. *yn ymyl* ‘near to’; Kpelle postp. *da*: ‘at, in front of’; Italian prep. *accanto a* ‘beside’; Colonial Quiché adp. *ch(i)* ‘in’, ‘within’, ‘into’, ‘at the edge of’; Medieval Chinese *bian* ‘nearby, surrounding’; Basque postp. *bazterrean* ‘at the side of’; Albanian prep. *ânës* ‘at’, etc. (for illustration and original data sources, see Kuteva et al. 2019). All these documented cases seem to be based on the conceptualization of the edge from an entity-external viewpoint, thus an edge of an entity is either the location close to

the center of an entity (as in ‘near’ ‘beside’) or the entity itself (as in ‘at’ ‘in’). Kuteva et al. (2019: 154) analyze this development as an instance of a more general process whereby relational nouns (e.g., BOTTOM, BOUNDARY, HOME, SIDE, TOP, etc.), give rise to relational (typically spatial or temporal) grammatical markers. Kuteva et al. (2019: 266), citing Luraghi (2016: 361), report another case in which the Turkish multifunctional postposition *için* (Benefactive and other case functions) grammaticalized from *uç* ‘edge’ or *iç* ‘interior’. Since benefaction is a highly subjective notion, this development is clearly an instance of subjectification. However, as Luraghi (2016) characterizes it as an ‘unpredicted trend’ in semantic change, this type of grammaticalization does not seem to have been frequently observed across languages.

From a crosslinguistic perspective, the development of *kAZ* ‘edge’ exhibits a particularly extensive grammaticalization (and possibly lexicalization) and shows a wide range of conceptualizations that has brought about diverse meanings and functions.

6. Summary and conclusion

This paper addressed polylexicalization and polygrammaticalization of the LMK lexeme *kAZ* ‘edge’. The nominal lexeme *kAZ* ‘edge’ has undergone extensive development in the lexical as well as grammatical domains. A diachronic investigation shows that there emerged many forms from the lexeme in history and some of them have fallen into disuse. Through lexicalization processes, such as conversion, derivation, and compounding, new words are formed in the word classes of noun, verb, adjective, and adverb. In contemporary Korean, however, there is no surviving verb, and the adverb formerly carrying the Elative (intensifier) function has changed into a Superlative marker. Through grammaticalization processes, such grammatical forms as prefix, suffix, and postpositions have emerged. The grammaticalized functions all survive in contemporary Korean.

The meanings of *kAZ* ‘edge’ are diverse, partly because of the semantics of the participating forms in derivation (e.g., with a diminutive suffix) and compounding (e.g., with a verb of non-existence), but more crucially because of differential conceptualizations of the source meaning ‘edge’, i.e., entity-internal and entity-external conceptualizations; mapping the ‘edge’ onto different continua, e.g., degree, path, likelihood; and the involvement of subjectification, e.g., evaluative-epistemic judgment such as counter-expectation. This paper also showed that due to the gradient and gradual nature, diverse meanings form a conceptually motivated network.

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Abbreviations

ACC: accusative; ADJ: adjective; ADN: adnominal; ADV: adverb; CAUS: causative; CONN: connective; CR: current-relevance; CSL: causal; DEC: declarative; DIST: distributive; FUT: future; GEN: genitive; HON: honorific; N: noun; NEG: negative; NOM: nominative; NOMZ: nominalizer; POSTP: postposition; PREF: prefix; PST: past; PURP: purposive; Q: question; RET: retrospective; SUFF: suffix

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