

Futuristic Questions in Our Thinking: The Case of Apprehensionals in Korean*

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Sunhee Yae, Tania Kuteva, Sujin Eom, and Seongha Rhee. 2024. Futuristic Questions in our Thinking: The Case of Apprehensionals in Korean. *Studies in Modern Grammar* 121, 117–147. Korean has a large inventory of apprehensionals, the grammatical markers of fear. This study analyzes six apprehensionals that developed from Future and Question, i.e., *-lkka*, *-lkkapwa(se)*, *-lkkamwusewe(se)*, *-lkkatwulyewe(se)*, *-lkkamolla(se)*, and *-lkkasiphe(se)*, all involving the future marker *-l* and the question marker *-kka*. Lexical forms serving the grammaticalization source constructions are the verbs of perception, cognition and emotion, e.g. *po-* ‘see’, *mwusep-* ‘be afraid’, *twulyep-* ‘be afraid’, *molu-* ‘not know’, and *siph-* ‘think’. It is particularly intriguing that there is no logical necessity that the notions such as ‘future’, ‘question’, ‘thinking’, ‘not knowing’, etc. should engender the notion of fear. This strongly suggests that the emergence of the ‘fear’-meaning is the result of interaction among the source components, i.e., indeterminacy from the future, lack of confidence from the question, and self-oriented contemplation from the cogitation, among others. In this respect the development exhibits ‘subjectification’ of meaning.

[Key words: apprehensional, future, question, grammaticalization, Korean]

1. Introduction

Fear is among the most powerful of all emotions for humans which functions as a mechanism to avoid harm and ensure survival. Since

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survival is one of the humans' most basic and primitive interests, and language mirrors human thoughts and experiences, all languages presumably have means to express fear about potential, undesirable events, as observed in Lichtenberk (1995). Some of such expressions develop into grammatical forms, known as 'apprehensionals' in specialized literature. For example, we have such expressions as *in case*, *lest*, *in order not to*, *might*, etc. in English, as exemplified below:

(1) English

- a. Take an umbrella in case it rains.
- b. Use a mosquito repellent lest mosquitos bite you.
- c. I work in order not to starve.
- d. A war might break out.

Korean has a large inventory of grammatical forms that encode the speaker's apprehension, addressed in the literature as 'preventive' (Ramstedt 1939) or its Korean counterpart *kyengkyeypep* (M-S Kim 1960; Ko 1989; Son 1994; among others). Their primary function is to warn the addressee of potentially harmful consequences of an action or to present reasons of the speaker's action or mental state, as exemplified in the following:¹

(2) a. Apprehensional connective – *lkka* 'lest'

kwipin-i tachi-lkka chelcehi kyenghoha-yss-ta
VIP-NOM get.hurt-APPR thoroughly protect-PST-DEC
'(They) protected the VIP lest s/he get hurt.'

b. Apprehensional connective – *lkkapwa* 'for fear of'

cencayng-i na-lkkapwa cam-i an o-n-ta
war-NOM come.out-APPR sleep-NOM not come-PRES-DEC
'(I) cannot sleep for fear of war.'

¹ For transcription of Korean data, the Extended Yale Romanization System (Rhee 1996) is used. Following the tradition of Korean historical linguistics, Chinese characters in the text are romanized in uppercase with the contemporary pronunciation.

Apprehensionals have attracted much attention in recent linguistic research trends (Vuillermet 2012, 2017, 2018; Schultze-Berndt 2015; see 2.4 below). Research on apprehensionals in individual languages as well as across languages bears theoretical significance, because they constitute an excellent exemplar of grammaticalization of emotion, creativity, and expressivity.

In line with the current trend of increasing interest in apprehensionals, the objectives of this paper are twofold: to illustrate a subset of apprehensional forms in Korean, i.e., those that developed from the combination of the future marker and question marker, and to discuss theoretically important issues involved in their development. In order to pursue these objectives, this paper is organized in the following manner. Following this introductory section, section 2 presents a brief description of Korean, a definition of relevant terminology, an overview of Korean apprehensionals, and an introduction to previous studies. Section 3 illustrates the two major concepts, i.e., futurity and question, and exemplifies the six apprehensionals that grammaticalized out of the constructions built on these vital concepts. Section 4 discusses select aspects bearing theoretical significance, e.g., semantico-functional change and conceptual motivation (4.1) and pragmatic operations and morpho-syntactic change (4.2). Section 5 summarizes the findings and concludes the paper.

In order to exemplify the forms and functions with authentic data, examples are taken from the historical and contemporary corpora, i.e., the Sejong Historical Corpus (historical) and the Drama and Movies Corpus (contemporary).² To search and process the data, the Korean concordance program UNICONC, developed by Jinho Park, was used.³

² The Sejong Historical Corpus is a 15 million-word historical section of the Sejong Corpus, developed as part of the 21st Century Sejong Project by the Korean Ministry of Culture and Tourism and the National Institute of Korean Language. The texts in the historical section, dating from 1446 through 1923. The Drama and Movies Corpus is a 24 million-word contemporary corpus, a collection of 7,454 scenarios of dramas and movies dating from 1992 through 2015, compiled by Min Li while at Seoul National University (currently at Tsinghua University).

2. Preliminaries: Background and Previous Studies

In order to facilitate the discussion, this section presents a brief introduction to typological characteristics of Korean, terminology, apprehensions in Korean, and previous studies.

2.1. Typological Profile of Korean

Korean has a number of typological characteristics, but our description is limited to a few that have relevance to the present study. Korean is an agglutinating, head-final, topic-prominent, SOV language. In line with the SOV word order characteristics in morphology, it is suffixal and postpositional.

Argument NPs are often omitted, and NPs may occur without their postpositional particles, especially in speech. NPs are strictly head-final; thus all nominal modifiers occur before the modified noun. In terms of verbal morphology, finite verbs are marked for tense, aspect, mood, evidentiality, and modality, whereas non-finite verbs are often marked with converb-markers, whose main function is adverbializing a non-finite verb (Haspelmath 1995). Finite verbs, which occur sentence-finally, are marked by a sentence-type marker, such as declarative, imperative, interrogative, hortative, exclamative, promissive, propositive, etc. These sentence-enders form a complex paradigm with a large number of members (cf. a list of 381 sentence-enders in T Kim 2001), which still grows due to frequent innovation of former connectives into sentence-enders through the process of ‘insubordination’ (Evans 2007; see 3.3.2 below).

In complex sentences, the subordinate clause precedes the main clause and the connective introducing the subordinate clause occurs clause-

³ We thank the developers of the program and corpora for generously granting their use for research.

finally. Similarly, sentences involving a quotation typically embed the direct quotation (bare) or the indirect quotation (headed by a complementizer) between the main-clause subject (which may be omitted) and the main-clause verb. This configuration, exemplified in (3) and (4), is important for our purposes in discussion of apprehensional connectives (note that the embedded/subordinated clause are marked by square brackets and enclosed in a box for visual conspicuity, and that the main-clause subject may be marked either with a NOM(inative) or TOP(ic) marker).

(3) Direct quotation

a. (SUBJ)	“[(SUBJ) (OBJ) V]”	V
(NP-NOM)	[(NP-NOM) (NP-ACC) V-A-T-M-END]	V-A-T-M-END
b. ku-nun	“John-i chayk-ul sa-ss-l-kka?”	sayngkakha-yss-ta
he-TOP	John-NOM book-ACC buy-PST-CNJT-Q*	think-PST-DEC

‘He thought (to himself), (saying) “Has John bought the book?”’

(4) Indirect Quotation

a. (SUBJ)	[(SUBJ) (OBJ) V]	V
(NP-NOM)	[(NP-NOM) (NP-ACC) V-A-T-M-COMP]	V-A-T-M-END
b. ku-nun	John-i chayk-ul sa-ss-nyako	mwul-ess-ta
he-TOP	John-NOM book-ACC buy-PST-Q.COMP	ask-PST-DEC

‘He asked (someone) if John bought the book.’

As shown above, direct and indirect quotations do not carry much difference in overall structure. A notable difference is the use of a sentence-ender (END above, but there are other speech-act-based enders) for direct quotation and COMP(lementizer) for indirect quotation. Note that Korean complementizers are differentiated by the speech act of the embedded clause, i.e., *-tako/lako* for declarative, *-nyako* for interrogative, *-lako* for imperative, and *-cako* for hortative.⁴

Korean grammatical markers signal not only garden-variety grammatical

⁴ Some researchers, unlike here, regard only *-ko* as the complementizer and the formants preceding it a sentence-ender (Kwon 1998; Sohn 2011). For discussion supporting the present analysis, see Rhee (2016, 2017), Rhee and Koo (2020).

notions but also diverse stance-related notions in multiple grammatical categories simultaneously, the latter being often difficult to pinpoint or label (cf. ‘elaborateness’, ‘semantically elaborate categories’ Kuteva and Comrie 2005; Kuteva 2009; Kuteva, Aarts et al. 2019). Another noteworthy characteristic is that intersubjectivity marking is obligatory in Korean (cf. ‘allocutivity’ Bonaparte 1862; Hualde and De Urbina 2003; Antonov 2013; Koo and Rhee 2013; Narrog and Rhee 2013; Rhee and Koo 2017).

2.2. Terminology

The notion of ‘apprehensional’ has been discussed in a body of crosslinguistic literature, but researchers have used diverse labels to mark the form, e.g., ‘apprehensive’, ‘adverse consequence clause’, ‘negative purpose clause’, ‘evitative’, ‘precautioning’, ‘*lest*-clause’, etc. (Dixon 1980, 2002; Austin 1981; Dench 1988; Lichtenberk 1995; Epps 2008; Angelo and Schultze-Berndt 2016). Diversity of labels notwithstanding, an apprehensional, as the term straightforwardly indicates, is a marker of apprehension, i.e., fear. A similar term, which has caused much terminological confusion, is apprehensive. Following Yae et al. (2023), Rhee and Kuteva (in press), among others, this paper uses the term ‘apprehensional’ as a cover term to subsume diverse types of ‘fear’-markers.

Apprehensionals occur typically in bi-clausal sentences, consisting of one clause for undesirable event description and another clause for preemptive action description (e.g., ‘Don’t go close to the cliff lest you fall’). An apprehensive is used typically in monoclausal sentences (e.g., ‘Beware of poison ivy’). Precautioning has two subfunctions, i.e., precautioning avoidive and precautioning in-case; the former marks what is to be avoided (e.g., ‘Leave home early so as not to be late for class’), whereas the latter marks an undesirable event for which the addressee should be

prepared (e.g., ‘Take an umbrella with you in case it rains’). A timitive is an apprehensional that functions like an adposition as it takes a nominal as its complement (e.g., ‘He stays indoors for fear of insects’). The ‘fear’-function marks one’s fear with an explicit means, often lexically (e.g., ‘I’m afraid that a pandemic might occur again’). Languages are different in the way they encode apprehension, and the subcategories may overlap.

2.3. Apprehensionals in Korean: An Overview

Korean has a large number of apprehensionals, which have grammaticalized to varying degrees. Some forms still retain morphosyntactic characteristics of their source constructions, while some others are opaque in that aspect, suggesting a greater extent of grammaticalization. The extant research renders sixteen apprehensional forms, which are listed in (5):

(5) Apprehensional forms, sources and grammatical classes

Form	Source	Gloss for Source	Class
a. <i>-lka</i>	⟨ <i>-l-kka</i> ⟩	FUT-Q	CONN
b. <i>-lkapwa</i>	⟨ <i>-l-kka-po-a</i> ⟩	FUT-Q-see-CONN/END	CONN/END
c. <i>-lkkamwusewe</i>	⟨ <i>-l-kka-mwusep-e</i> ⟩	FUT-Q-be,afraid-CONN/END	CONN/END
d. <i>-lkkatwulyewe</i>	⟨ <i>-l-kka-twulyep-e</i> ⟩	FUT-Q-be,afraid-CONN/END	CONN/END
e. <i>-lkkamolla</i>	⟨ <i>-l-kka-molu-a</i> ⟩	FUT-Q-not,know-CONN/END	CONN/END
f. <i>-lkkasiphe</i>	⟨ <i>-l-kka-siph-e</i> ⟩	FUT-Q-think-CONN/END	CONN/END
g. <i>-lla</i>	⟨ <i>-l-la</i> ⟩	FUT-END	CONN/(END)
h. <i>-lseyla</i>	⟨ <i>-l-sa-i-la</i> ⟩	FUT-occasion-be-END	CONN/(END)
i. <i>-cimolla</i>	⟨ <i>-ci-molu-a</i> ⟩	NOMZ-not,know-CONN/END	CONN/END
j. <i>-cimoluni</i>	⟨ <i>-ci-molu-ni</i> ⟩	NOMZ-not,know-CONN	CONN
k. <i>-cimosshakey</i>	⟨ <i>-ci-mos-ha-key</i> ⟩	NOMZ-cannot-do-MODE	CONN
l. <i>-cimoshatolok</i>	⟨ <i>-ci-mos-ha-tolok</i> ⟩	NOMZ-cannot-do-PURP	CONN
m. <i>-cianhkey</i>	⟨ <i>-ci-ani-ha-key</i> ⟩	NOMZ-not-do-MODE	CONN/(END)
n. <i>-cianhtolok</i>	⟨ <i>-ci-ani-ha-tolok</i> ⟩	NOMZ-not-do-PURP	CONN/(END)
o. <i>-malkey</i>	⟨ <i>-ci-mal-key</i> ⟩	NOMZ-stop-MODE	CONN/END
p. <i>-maltolok</i>	⟨ <i>-ci-mal-tolok</i> ⟩	NOMZ-stop-PURP	CONN/END

As can be easily identified in the source glosses, apprehensionals in Korean

develop from the constructions that consist of a limited number of key concepts, including grammatical forms such as Future, Question, Nominalizer, Purpose, Mode, and Negation, and lexical forms such as ‘be fearful’, ‘think’, ‘not know’, and ‘stop’.⁵ These key components of apprehensionals are listed in (6).

- (6) a. (5a)–(5f)
 Future (–l–) and Question (–kka)
 –lka; –lkapwa(se); –lkkamwusew(e);
 –lkkatwulyew(e); –lkkamolla(se); –lkkasiph(e)
- b. (5g)–(5h)
 Future (–l–)
 –lla; –lseyla
- c. (5i)–(5p)
 Nominalizer (–ci) and Negation (*molu*– ‘not know’, *mosha*– ‘cannot’,
an(i)ha– ‘do not’, *ma*– ‘stop’)
 –ci(to)molla; –ci(to)moluni(kka); –cimoshakey; –cimoshatolok; –cianhkey;
 –cianhtolok; –cimalkey; –cimaltolok

For multiplicity of forms, the present paper focuses on the first group, i.e., those consisting of Future and Question markers. Analyses addressing other forms should await future research.

2.4. Previous Studies

As briefly alluded to in the previous section, apprehensionals have attracted substantial attention in the recent literature (Pakendorf and Schalley 2007; Vuillermet 2012, 2017, 2018; Schultze–Berndt 2015; Vuillermet et al. (eds.) in press and works therein). The most notable study that pioneered the research of apprehensional is Lichtenberk (1995), who identified ‘apprehen–

⁵ The status of –ci is controversial. Some researchers consider it a complementizer, some a connective, some a converb–marker, some a nominalizer. We regard it as a nominalizer (see Rhee 2003 for a supporting analysis).

sional epistemic modality' in To'aba'ita, an Austronesian language spoken in the Solomon Islands. In To'aba'ita, the complementizer *ada* signals relative uncertainty (i.e., 'an epistemic downtoner'), which functions like the English connective *lest*. He also compares the form with other Australian languages and asserts that the form originated from a word denoting 'see'. More recently, Vuillermet's (2012, 2018) studies focus on Ese Ejja (Takanan), an Amazonian language, and Schultze-Berndt (2015) studies Australian languages, in which apprehensional forms are commonly attested as a modal particle, a subordinate marker, or a nominal marker. Asserting that undesirability is a crosslinguistic category, she addresses the forms that carry the apprehensional function, e.g., transparent complex connectives (e.g., negative purpose), verbs of looking, temporal connectives, and general modal markers.

Studies on Korean apprehensionals center around the two representative forms, i.e., *-lla* and *-seyla* (Ramstedt 1939; M-S Kim 1960; Ko 1989; Yoon 2010; Lim 2011; Do 2018, among others). Yae et al. (2023) address a subset of Korean apprehensional, i.e., avoidives, and Yae et al. (forthcoming) address those that developed from the source constructions involving Negation, i.e., *an(i)* 'do not', *mos* 'cannot', *mal-* v. 'stop' and Purpose, i.e., *-key* and *-tolok*. Rhee and Kuteva (in press) analyze apprehensionals from a grammaticalization perspective, presenting a historical survey about thirteen apprehensionals. Since its scope is large, the treatment of individual forms is necessarily brief. Given the background, the present research is intended to complement existing research with more detailed analysis on a subset of apprehensionals.

3. Futuristic Questions and Apprehensionals

There are two basic building blocks of the apprehensionals under discussion, i.e., Future and Question. This section explicates each of the six

apprehensionals. In order to facilitate the exposition, we will first discuss some issues with the two grammatical concepts, i.e., Future and Question.

3.1. Future

Korean has a number of futurity markers, e.g., the future adnominalizer ('prospective adnominalizer', Rhee 2012), the future *-li-*, the future sentence-ender *-li*, the future *-lkesi-*, the future promissive *-lkey*, and the future *-keyss-* (Rhee, forthcoming). They all involve the morpheme *-l-*, one of the oldest forms in the temporal marking system in the history of Korean.

The primary function of the grammatical morpheme *-l-* is marking the future tense and prediction, but it can also mark counterfactual or conjecture when used with a past tense marker. This morpheme is also known to mark irrealis (Lim 2009). In the current context, this irrealis marking function is particularly relevant to the development of apprehensional, which, by definition, is a category of 'non-realization' (Kuteva, et al. 2019).

3.2. Questions

Korean has a large number of the interrogative sentence-enders, *-nya*, *-ni*, *-supnikka*, *-suptikka*, *-na*, *-nka*, *-lkka*, *-e*, *-ci*, *-uo*, *-so*, etc. (Kwon 1992), but the list is longer if the more recent innovative forms are included, e.g., *-nunci*, *-kose*, *-nuntey*, *-eyaci* and myriad others (see T. Kim 2001: 148–150 for a list of 154 interrogative enders). Of these, *-lkka* is of primary interest to us because it is the one recruited in the formation of the apprehensionals being addressed here.⁶

⁶ One thing to note is that the form *-lkka* is already polymorphemic involving the future marker *-l-*. But since the Question marker *-kka* only occurs with *-l-*, it is a matter of analytical granularity and preference whether *-lkka* should be

One of the most intriguing aspects of Korean question markers is that Korean distinguishes between directed and non-directed questions in the choice of sentence-enders. Non-directed question markers are *-lkka*, *-nka*, and *-na*, and they have been labeled with different names such as ‘self-directed question’ (contra ‘other-directed’) (Rhee and Koo 2017), ‘audience-blind forms’ (Rhee and Koo 2017, Koo and Rhee 2013), ‘internal question’ (S. Lee, 1963, Ahn 1964, H. Lee 1986), ‘Indirect question’, (I.-H. Lee, 1979, H. Lee 1982), among others. Since *-lkka* is used in self-directed questions, i.e., monologues, the main-clause verbs hosting a clause marked with this *-lkka* are often verbs of locution (for speaking to the speaker himself or herself) or verbs of cogitation (for quoting the speaker's own thought or disbelief).

3.3. Apprehensionals from Future and Questions

Now we turn to the illustration of each of six individual apprehensional forms that developed from Future and Question.

3.3.1. *-lkka*

As observed above, the apprehensional *-lkka* is polymorphemic, consisting of the future tense (*-l-*) and the internal question (*-kka*), thus rendering the concatenative meaning ‘Will X...?’ This form can be used in the main clause, but even so, it carries the monologual flavor. Its apprehensional use is found when it is used as a connective, which is attested frequently in the oldest Hangeul literature (15th century, Late Middle Korean) in a few variant forms. In Late Middle Korean, *-lkka* occurs with

analyzed as an interrogative marker used for future event or state or whether *-kka* should be analyzed as an interrogative marker that only occurs with the future tense marker *-l-*. Since *-l-* is still visible in the source construction, we take the latter, more analytical, view.

diverse psych-verbs, as listed in (7):

- (7) ha- ‘say/do’, neki- ‘think/regard/consider’, pwunpyelha- ‘discern’, silumha- ‘worry’, ceh-/ceph- ‘fear’, uysimha- ‘doubt’, hyey- ‘consider’, sulh- ‘lament’, twuli- ‘fear’, KONGha- ‘fear’, sip-/siph- ‘think’, minmangha- ‘feel ashamed’, kunsimha- ‘worry’, twulyeha- ‘fear’, sAyngkakha- ‘think’, nyemnyeha- ‘worry’, acheha- ‘dislike’, mwusep- ‘be afraid’, kepulnay- ‘be afraid’, cAkepha- ‘be afraid’, KONGPHOha- ‘fear’, cosimha- ‘be mindful’, samkaha- ‘be wary’, etc.

One of the earliest attestations is exemplified in (8):

- (8) SWUTHAHOYCHEN-i neki-toy [...] SWUTAL-i WEN-ul
 (name)-NOM think-CONN (name)-NOM wish-ACC
 mot ilwu-lkka hA-ya [...] do-and
 cannot accomplish-APPR
 ‘the divinity Sutahechon thought, [he came to the earth and intervened...]
 lest Sudal should fail to accomplish his dreams, and...’
 (1447 Sekposangcel 6:25a)

The verbal suffix *-lkka* has not fully grammaticalized as an apprehensional in Late Middle Korean and has sometimes been used as a non-apprehensional suffix in neutral or even in positive (desirable) contexts, e.g., with the verb *pAla-* ‘hope’. The apprehensional interpretation of *-lkka* heavily depends on the meaning of the co-occurring verb, such as ‘fear’, ‘doubt’, ‘worry’, etc. In historical texts, *-lkka* occurs frequently with negative verbs, and this collocational pattern is thought to have given impetus for grammaticalization. In non-apprehensional usage, *-lkka* carries diverse modal meanings, e.g., Uncertainty, Possibility, Conjecture, etc., concepts evidently related to apprehension.

In Present-Day Korean (PDK), *-lkka* can still be used in non-apprehensional contexts, but all occurrences of *-lkka* in the referenced corpus involve apprehension, indicative of its greater extent of its grammaticalization. The apprehensional *-lkka* is used at a moderate frequency but is yielding

the functional primacy to its reinforced innovation *-lkkapwa(se)* (see 3.3.2 below). The apprehensional *-lkkā* in PDK is exemplified below:

- (9) ike-y macimak-i ani-lkka pwulanha-ko
 this-NOM last-NOM e.not-APPR be.nervous-and
 ‘(I) am nervous for fear that this might be the/my last chance, and ...’
 (2007 Drama, 9-*hoymal 2-awus* Episode #4)

In the excerpt, *-lkkā* is a marker indicating the reason for the speaker’s nervousness, i.e., he might not have any more chances in the future, in the form of monologual question ‘Wouldn’t this be the last chance?’. It is interesting that since the content of the monologual question about an undesirable event, which is indeterminate (yet) as to its realization or non-realization, the apprehensional may host a question based on either positive or negative proposition, as exemplified in the following constructed examples, without noticeable semantic difference:

- (10) a. Positive polarity
 senswu-tul-i tachi-lkka copasimha-yss-ta
 player-PL-NOM get.hurt-APPR feel.uneasy-PST-DEC
 ‘(I) felt uneasy fearing that the players might get hurt.’
 (Lit. ‘I felt uneasy asking to myself ‘Will the players get hurt?’)
 b. Negative polarity
 senswu-tul-i tachi-ci.anh-ulkka copasimha-yss-ta
 player-PL-NOM get.hurt-NEG-APPR feel.uneasy-PST-DEC
 ‘(I) felt uneasy fearing that the players might get hurt.’
 (Lit. ‘I felt uneasy asking to myself ‘Will the players not get hurt?’)

3.3.2. *-lkkapwa(se)*

The apprehensional *-lkkapwa(se)* is a reinforced form of *-lkkā*, discussed above. The source construction of the apprehensional *-lkkapwa(se)* is *-l-kka-po-a-(se)* [FUT-Q-see- CONV-(SEQ)] ‘see if X will and

(then)', indicating, at least in form, that the speaker is looking at a situation, asking a monologal question if something will happen. The final optional particle *-se* is a tonic variant of the converb marker *-e/a* with a fortified sequential or causal meaning (Rhee and Kuteva in press). In contemporary Korean, the speakers are not cognizant of the elements involved in source semantic composition, e.g., future, question, visual perception, and sequence, but treat the construction as a fully unitized marker of apprehension. It is first attested in the late 19th century data in the text of a novel, exemplified below (note the orthographic variation):

- (11) calmoshAtAka os-ul tuley-kena phAymwul-ul
 by.accident dress-ACC make.dirty-or jewelry-ACC
 sanghA-lk^{ap}oa cosim-i toy-ya [...] damage-APPR concern-NOM become-CONN
 'As (I) became worried lest my [rented silk] dress become sordid or my [rented] jewelry become scratched [at the party], [I hurried home to take them off and return to you]' (1911 novel, *Welhakain* 23)

In the excerpt, the speaker is narrating what happened to her at the party, where she went in a rented silk dress wearing rented jewelry. She was afraid of any damage to those expensive, rented articles, and returned home hurriedly.

Like *-lkka*, *-lkkapwa(se)* can, in principle, be used in neutral or positive contexts but in the corpus there are no such attestations, i.e., it is fully grammaticalized as an apprehensional, as shown by a constructed example below:

- (12) ku-ka o-lkkapwa {√mwusep-, *sayngkakha-n-, *selley-n}-ta
 he-NOM come-APPR {be.afraid, think-PRES, be.excited-PRES}-DEC
 '(I am) {√afraid, *thinking, *excited} that he might come.'

However, there is a functional split involving the apprehensional *-lkkapwa*, when it is used in a monoclausal sentence. In other words, it may function

as an apprehensional marker or a marker of tentative conation, as exemplified in (13):

- (13) a. Apprehensional
 amwulayto cencaying-i na-lkka-pwa
 by.all.means war-NOM come.out-APPR
 'Indeed, a war might break out (I'm afraid; be careful).'
- b. Tentative conation
 amwulayto cip-ey ka-lkka-pwa
 by.all.means home-to go-TEN.CON
 'Indeed, I might as well return home.'

The development of this monoclausal apprehensional (commonly referred to as 'apprehensive', or 'admonitive' if involving warning) is recent in history and involves the process known as 'insubordination' (Evans 2007; Evans and Watanabe 2016). The apprehensional meaning has not been acquired in the case illustrated in (13b). Instead the meaning of tentative conation (i.e., expressing the speaker's intention that has not been made conclusive yet) has been acquired.

3.3.3. *-lkkamwusewe(se)*

The apprehensional *-lkkamwusewe(se)* is polymorphemic involving a number of components, i.e., *-l-kka-mwusep-e-(se)* [FUT-Q-be.afraid-CONV-(SEQ)] 'be fearful that X will and (then)'. A literal meaning of the source construction is 'be fearful, (saying) 'Will X ...?' and (then) ...'. Its forerunner construction is first attested in the late 19th century data, as illustrated below:

- (14) [The partying magistrate protested why there were no toast songs in the drinking party but]
 kisA-yng-tul-un chaykmanghA-lkamwusewesye
 entertainer-PL-TOP scold-APPR

mos hA-te-n chA-i-la
 cannot do-RETR-ADN point-be-END
 ‘(in fact) the entertainers had not (sung) lest they would be scolded.’
 (1896 *Toklipsinmwun*)

The excerpt is taken from a text describing a partying scene. The magistrate who appears without notice, instead of reprimanding the partyers, pretends to be unhappy about the entertainers not singing at the party thrown by the low-ranking officials without the magistrate's knowledge. The entertainer girls do not sing but instead remain quiet lest they be scolded, because the magistrate is known to be stern and austere and thus does not approve of any unnecessary spending of the government fund like partying. They are in a quandary between their job of singing and the concern not to anger the magistrate. An example from contemporary Korean is exemplified below:

- (15) cingkyeypat-ulkkamwusewe ha-l mal-kkaci mos-ha-myense
 be.reprimanded-APPR say-ADN word-even cannot-say-while
 ilha-kosiph-cianh-a
 work-want-do.not-END
 ‘I don't want to work where I cannot even say what I need to say for fear
 of being reprimanded.’ (2008 Drama, *Kangcektul* Episode #3)

The apprehensional *-lkkamwusewe(se)* involves the core lexeme *mwusep-* ‘be afraid’ (thus, ‘endophoric’ apprehensional, Plungian 2001; Jing-Schmidt and Kapatsinski 2012). Despite, or perhaps, due to, its explicitness of ‘fear’ meaning, the form is not frequently used in contemporary Korean. Furthermore, in spite of the presence of *mwusep-* ‘be fearful’, the construction, even when it is used in the apprehensional function, does not signal genuine fear but some ‘concern’ the situation evokes (analogous to the English preface discourse marker *I'm afraid ...*) (see 4.1 for more discussion).

Like *-lkkapwa* discussed above, *-lkkamwusewe* can also be used as a connective or sentence-ender, and regardless of its status, it always carries

the apprehensional function.

3.3.4. *-lkkatwulyewe(se)*

The apprehensional *-lkkatwulyewe(se)* is polymorphemic involving a number of components, i.e., *-l-kka-twulyep-e -(se)* [FUT-Q-be.afraid-CONV-(SEQ)] ‘be fearful that X will and (then)’. A literal meaning of the source construction is ‘be fearful, (saying) ‘Will X ...?’ and (then) ...’. Evidently, the verb *twulyep-* ‘be fearful’, the core lexeme of *-lkkatwulyewe(se)*, and the verb *mwusep-* ‘be fearful’, the core lexeme of *-lkkamwusewe(se)* are synonyms. But the apprehensional *-lkkatwulyewe(se)* is much older in history than the latter, first occurring in Late Middle Korean. The development and the present status is remarkably similar to that of *-lkkamwusewe(se)*, and here we only present the attestations in the earliest data source and in a contemporary drama script.

- (16) [A thief orders Mrs. Chu to guard the women he kidnapped until he returns in the evening]

CHWU.SSI tut-ko SWUYOKha-lHkatwuliye stal-wa ta
Mrs.Chu hear-and receive.shame-APPR daughter-with all
mok may-ya cwuk-kenul [...]
neck tie-CONV die-CONN

‘Mrs. Chu heard him and for fear of being shamed (raped) she and her daughter committed suicide by strangling themselves, and ...’

(1481 *Samkanghayngsilto*-London #100)

- (17) i hayngpokha-n swunkan-i talana-lkkatwulyewese
this be.happy-ADN moment-NOM run.away-APPR
han palccak-to wumciki-lswukaeps-e-yo
one step-even move-cannot-END-POL
‘I cannot even move a step for fear that this happy moment might disappear (if I do).’

(2008 Drama, *Nay sayngay macimak skhayntul* Episode 8)

3.3.5. *-lkkamolla(se)*

The source construction of the apprehensional *-lkkamolla(se)* is *-l-kka-molu-e-(se)* [FUT-Q-not.know-CONV- (SEQ)], ‘not knowing if X will’, literally meaning ‘do not know, (saying) “Will X ...?” and (then)’ or ‘as (I) don’t know, (saying) “Will X ...?” ...’ The core lexeme in the construction is the verb *molu-* ‘not know’. The following example is one of the earliest attestations, taken from the text of a 17th century novel (Early Modern Korean):

- (18) [I want to receive a couple of pieces of poems and some calligraphic writings from him, but]
 cyecye-y ei nyeki-si-lkamolna cacyehA-naita
 he-NOM how think-HON-APPR restrain.self-DEC
 ‘(I) restrain myself from (requesting) fearing how he would react/think.’
 (1687 Novel, *Kwuwunmong* SNU Archive)

Obviously, the absence of knowledge (‘not know’) or uncertainty arising thereof has engendered the apprehensional meaning (see 4.2 for more discussion). The apprehensional *-lkkamolla* is in use in contemporary Korean but its frequency in the corpus is among the lowest. The following example is found in an online article reviewing a child-care product:

- (19) [When I received the product for my 27-month old baby, ...]
 kkomayngi-ka hoksi cakukceki-lkkamolla cey-ka
 baby-NOM by.any.chance be.irritant-APPR I-NOM
 ss-epo-ko
 use-ATTM-and
 ‘as I was afraid that (the cream) might be too strong for the baby, I tested it (on myself first) and ...’
 (m.koriinj.com/article/review/4/262, accessed February 2024)

3.3.6. *-lkkasiphe(se)*

The final item in our discussion is *-lkkasiphe(se)*, whose source construction is *-l-kka-siph-e-(se)* [FUT-Q-think- CONV-(SEQ)], ‘thinking if X will’, literally meaning ‘(I) think, (saying) “Will X ...?” and (then)’ or ‘as (I) think, (saying) “Will X ...?” ...’ The core lexeme in the construction is the verb *siph-* ‘think’. This verb *siph-* is among the earliest forms found in the Late Middle Korean literature, with the meaning of ‘think’, but it has undergone extensive semantic change, which led the form to grammaticalize into diverse modal markers (boulomeic, epistemic, evidential), similitive/evaluative connectives, discourse markers, etc. (Rhee 2021; see also M. Kim 2010). Having started to mean cogitation ‘think’, the meaning of *siph-* bleached to mean ‘be inclined to think’.

One of the earliest attestation of the apprehensional *-lkkasiphe* is found in the 17th century data of a wartime diary written by a court lady (note that the exact authorship year is unknown), exemplified below:

- (20) skwum-i ha pencaphA-ni na-y cwuk-ulkasipu-te-la
dream-NOM very be.disorderly-CONN I-NOM die-APPR-RETR-DEC
‘The dreams were so disconcerting that I feared that I might die.’
(163x Diary, *Pyengcailki* 410)

In contemporary Korean *-lkkasiphe* is not exclusively specialized in marking apprehensional, i.e. it may occur in a context where the speaker is inclined to ask a question being hosted by the marker. An apprehensional use is exemplified in (21):

- (21) yay kipwun-i ecce-lkkasiphe mal-to
this.child feeling-NOM be.how-APPR word-even
mos kkenay-keyss-ney
cannot take.out-FUT-EXCL
‘I cannot even bring up the issue for fear how she would feel about it.’
(2004 Drama, *Kkochpota aluntawe* Episode #27)

As was the case with *-lkkapwa*, *-lkkasiphe* can also be used as a sentence-ender, functioning as a marker of tentative intention.

4. Discussion

We have seen examples of apprehensionals in the preceding exposition. Now, we discuss some issues including semantico-functional change and conceptual motivation (in 4.1) and pragmatic operations and morpho-syntactic change (in 4.2).

4.1. Semantico-functional Change and Conceptual Motivation

Among the most notable aspects in grammaticalization is semantic change, typically reductive change, termed as ‘desemanticization’ (Kuteva et al. 2019). Desemanticization typically occurs with lexical items because they have more content to ‘bleach’ than grammatical items that are already abstract in nature. However, when we consider apprehensionals, we observe that desemanticization also occurs with grammatical forms, akin to ‘secondary grammaticalization’ (Hopper and Traugott 2003; Traugott 2010; Heine and Narrog 2010; Narrog 2015). The patterns of desemanticization are illustrated in (22):

(22) Desemanticization of apprehensionals

a. FUTURE (<i>-l-</i>)	Temporality	> irrealis
b. QUESTION (<i>-kka</i>)	Query	> uncertainty, concern
c. ‘see’ (<i>po-</i>)	visual perception	> ‘experience, be in’
d. ‘be fearful’ (<i>mwusep-</i>)	feeling fear	> ‘be concerned’
e. ‘be fearful’ (<i>twulyep-</i>)	feeling fear	> ‘be concerned’
f. ‘not know’ (<i>molu-</i>)	absence of knowledge	> ‘be uncertain’
g. ‘think’ (<i>siph-</i>)	cogitation	> ‘consider possible’

As shown above, the notion of futurity encoded in the future tense marker *-l-* inherently indexes temporality, but the notion has been considerably

bleached to irrealis in the development of apprehensionals. Incidentally, this change is not exclusive in this occasion but a general process that *-/-* has undergone in the history of Korean.

Similarly, the question marker *-kka*, an interrogative mood marker, no longer carries this speech-act meaning of posing a question as the construction involving it develops into an apprehensional. Instead, it signals indeterminacy, thus uncertainty, associated with a question.

The lexical verb *po-* 'see', originally denoting visual perception, does not carry such a perceptual meaning but denotes the situation or the event being referred to. Thus, in the phrase *cencayng-i na-lkkapwa* [war-NOM come.out -APPR], involving *po-* (> *pw*) 'see', the subject is not physically 'seeing' the war breaking out but is simply experiencing, or situated in, a circumstance in which certain undesirable event (i.e., war) is likely to occur, at least in the mind of the perceiver.

The lexical verbs *mwusep-* 'be fearful' and *twulyep-* 'be fearful', originally denoting the emotion of fear, do not denote such a meaning but simply denote concern. For instance, the proverbial expression *kkwum-ey poi- lkkamwusewe* [dream-at be.see-APPR] 'worrying that it might be seen in dreams/nightmares', used to describe an unlikable person or thing, only signals the speaker's dislike or disapproval, i.e., one much weaker than the genuine fear.

The lexical verb *molu-* 'not know', originally denoting the absence of knowledge, does not denote such a cognitive state but signals that there exists uncertainty as to an occurrence of an undesirable event, which causes an alarm to the speaker. The 'absence of knowledge' meaning has been bleached in apprehensionals, but it also has acquired the pragmatically inferred meaning of 'be worried', an instance of pragmatic strengthening (see 4.2 for more discussion).

The lexical verb *siph-* 'think', as indicated above (see 3.3.5 above), originally carried the cogitation meaning but has undergone semantic

bleaching to mean ‘be inclined to think’. Since humans, in general, do not think about any random subjects but those that are relevant, meaningful, or situationally evoked, an event one thinks about is typically one that carries the potential of occurrence, albeit its likelihood may be widely variable. In the development of apprehensionals, the contribution made by *siph-* ‘think; inclined to think’ is attributing possibility to the event being described.

In the context of semantic change, conceptual motivation involved in the grammaticalization of apprehensionals is of significant importance (cf. the source-determination hypothesis, Bybee et al. 1994). It is so because grammaticalization is basically a conceptually motivated process (Heine 1986, 1997; Heine and Claudi 1986; Heine et al. 1991).

The development of apprehensionals, i.e., the emergence of the ‘fear’-meaning, from the ‘fear’-related lexemes is an excellent exemplar of ‘endo-phoric evidential’ (Plungian 2001; Jing-Schmidt and Kapatsinski 2012), in that ‘fear’ is recruited as the source of information in the construction of epistemological stance, a state of affairs widely attested across languages. It is evident that cognitive verbs such as ‘fear’ and ‘not know’ and the perception verb ‘see’ contribute to the development of apprehensionals since apprehension is inherently cognitive/perceptual state of affairs (cf. ‘apprehensional-epistemic’ Lichtenberk 1995).

In broad terms, the apprehensional meanings that emerged from grammaticalization are the results of semanticization of the pragmatic inferences from the source constructions that involve such perceptual or cognitive verbs as well as the grammatical markers of indeterminacy, e.g., Future and Question. When these notions are combined, the source constructions have reinforced the potential for inviting the inference of potential harm, which eventually becomes conventionalized. It is particularly intriguing that there is no logical necessity that the notions such as ‘future’, ‘question’ and ‘thinking’ should engender the notion of fear. This strongly suggests that the emergence of the ‘fear’-meaning is the result of inter-

action among the source components, i.e. indeterminacy from the future, lack of confidence from the question, and self-oriented contemplation from the cogitation. In this respect the development exhibits ‘subjectification’ of meaning (Traugott and König 1991).

It is noteworthy that humans have propensity associating uncertainty with negative emotion. It is true that the source of apprehension does not have to be uncertainty, considering that we may become particularly apprehensive when we are positive that something bad is going to happen. However, it is also true that the uncertainty–anxiety relationship has long been recognized in human psychology and neuroscience. For instance, it has been noted that the human brain is an “anticipation machine” (Gilbert 2006, as cited in Grupe and Nitschke 2013), and that people have a general propensity toward negative affective responses to uncertainty (Anderson et al. 2019, see also Carleton 2016a; 2016b).

Considering these aspects, grammaticalization of apprehensionals from the combination of multiple source concepts seems to be conceptually well-motivated. In this respect, however, the development of *-lka* into an apprehensional is rather peculiar in that it does not involve ‘fear’ or its related concepts. The oldest predecessor constructions of the apprehensional *-lka* are followed by the verbs of cognition, e.g. ‘worry’, ‘doubt’, ‘lament’, etc., while *-lka* is merely a combination of the markers of Future and Question. Therefore, in the development of the apprehensional function from *-lka*, the ‘fear’-semantics of these cooccurring verbs seems to have been absorbed by *-lka* (cf. ‘Absorption’, Bybee et al. 1994; borrowed semanticization from neighboring forms, Rhee 2017).

Given the situation, it is evident that semantic change in grammaticalization involves pragmatic reasoning. This is in line with Lichtenberk (1995), who remarks that epistemic modality, to which the apprehensional belongs, is characterized by subjectivity, by pragmatic force. We will discuss the pragmatic aspect in the next section.

4.2. Pragmatic Operations and Morpho-syntactic Change

Grammaticalization is a result of diverse pragmatic operations enabled and, at the same time, constrained by human cognition. In a nutshell, grammaticalization can be said to be a cumulative effect of pragmatic inferences on grammar. Pragmatic inferences may bring about structural, semantic and functional changes. The structural change typically involves reanalysis, semantic change involves subjectification, and functional change involves reinterpretation.

The structural change can be shown in (23), in which bi-clausal (or bi-sentential) structure (23a) is reanalyzed as a mono-clausal (i.e., simplex sentence) structure (23b) (note that the sentence-initial letter is capitalized for visual conspicuity).

- (23) a. Cencaying-i na-l-kka? Mwusew-e.
 war-NOM come.out-FUT-Q be.afraid-END
 ‘Will war break out?’ ‘(I) am afraid.’
 b. Cencaying-i na-lkamwusewe.
 war-NOM come.out-APPR
 ‘I am afraid that war might break out.’

Along with structural reanalysis, functional reinterpretation is also evident in the example. The univerbated form *-lkkamwusewe* (< *-l.kka.mwusep.e*) is no longer subject to a morphological analysis of its components to obtain its concatenative meaning. It is now a single grammatical form (i.e., fully ‘univerbated’, Lehmann 2015), signaling apprehension. Incidentally, this type of change is pervasive in the grammaticalization of connectives in Korean, which involves ‘self-quotative constructions’ (Koo and Rhee 2019), *-lka* being one of them.⁷

⁷ Univerbation and its concomitant internal bonding have advanced to a great extent and *-lka*-derived forms do not allow insertion of a modifier in between the components. For discussion on the extent of grammaticalization of these forms

Also prominent is subjectification that operates at the level of semantics. It is widely accepted that subjectification is a frequent semantic concomitant, or even a prerequisite, of grammaticalization (Traugott 2003, Traugott and König 1991). Subjectification, as conceived of in a series of work by Traugott and her colleagues (Traugott 1982, 2003, 1989; Traugott and König 1991; among others), refers to a process whereby objective meanings become subjective meanings, or less subjective meanings become more subjective meanings. In other words, subjectification can be said to be a process of the language user's selective focus on a particular aspect of existing meaning and developing increasingly subjective meaning based on it.

Instances of subjectification abound in grammaticalization of apprehensionals. The verb *molu-* 'not know', for instance, which develops into an apprehensional, i.e., from 'absence of knowledge' to 'afraid, avoidable', is likely to have undergone the progressive subjectification as in (24), even though individual stages are not discretely attested diachronically:

- (24) a. I have no knowledge about P
 b. I am unsure if P
 c. I am uncertain if P or not P
 d. P is worrisome
 e. P is to be avoided

Progression of a series of semantic change in a similar manner, with minor modifications as needed, can also be hypothesized with the lexemes *po-* 'see', *siph-* 'think', and *twulyep-* 'be afraid'.

5. Summary and Conclusion

This paper analyzed six apprehensionals in Korean that involve the

as reflected in their occurrence frequency, see Rhee and Kuteva (in press).

grammatical markers of Future (*-l-*) and Question (*-kka*), i.e., *-lkka*, *-lkkapwa(se)*, *-lkkamwusewe(se)*, *-lkkatwulyewe(se)*, *-lkkamolla(se)*, and *-llasiphe(se)*. It is argued that the development into apprehensionals is motivated by pragmatic inferences of meaning, reanalysis of the structure, and reinterpretation of function. Pragmatic inferences are typically in the direction of subjectification and reveals human propensity toward negative interpretation of events. It is also argued that lexical semantics (e.g., of *po-* ‘see’, *siph-* ‘think’, *molu-* ‘not know’, *mwusep-* ‘be afraid’, and *twulyep-* ‘be afraid’) as well as the functions of grammatical forms (e.g., of FUT and Q) in the source constructions contributed to the creation of the notion of apprehension. Noteworthy aspects include that the apprehensionals involving an interrogative, i.e., *-kka*, developed from embedded monologal questions; it has undergone reanalysis, whereby former morpheme- and clausal-boundaries have been erased.

The grammaticalization processes of Korean apprehensionals are intertwined with diverse conceptual and pragmatic operations and warrant future research. On the one hand, the research on apprehensionals in other categories are needed to complement existing studies, and on the other hand, in-depth explorations into individual members of the apprehensionals are called for to provide more comprehensive insights into grammaticalization of the hard-wired human emotion of fear.

Abbreviations

A: aspect; ACC: accusative; ADN: adnominalizer; APPR: apprehensional; ATTM: attemptive; CNJT: conjecture; COMP: complementizer; CONN: connective; CONV: converb; DEC: declarative; END: sentential-ender; EXCL: exclamative; FUT: future; HON: honorific; M: mood/modality; MODE: mode/manner-marker; NEG: negative; NOM: nominative; OBJ: object; PST: past; PL: plural; POL: polite; PRES: present; PST: past; PURP: purposive; Q: question; RETR: retrospective; SUBJ: subject; T: tense; TEN.CON: tentative conative; TOP: topic; V: verb

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