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Negation-Based Avoidives in Korean: Sources, Development, and Uses*

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Avoidives as a subcategory of apprehensionals constitute the set of grammatical means used for precautioning the hearer against probable and undesirable events. Korean avoidives have developed, and are developing, from multiple sources, such as markers of negation, purpose, mode, question, and lexical expressions of perception and cogitation. Prominent among these is negation, i.e., the avoidives involving negative morphemes *an* ‘do/be not’, *mos* ‘cannot’, and the verb *mal-* ‘stop’, a state of affairs aligning with crosslinguistic patterns. There are six such avoidives and this paper addresses these negation-based avoidives, which developed from negative purpose constructions, commonly used in such speech acts as imperatives, warnings, threats, and negative commands. It also addresses the development of admonitives through insubordination, whereby a connective is turned into a sentence-ender, in which pragmatically inferred meanings become semanticized and conventionalized. A quantitative

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analysis reveals that the negation-sourced avoidives carry varying levels of lexical strength. (**Chung-Ang University · Heinrich-Heine Universität-Düsseldorf · Hankuk University of Foreign Studies · Mahidol University**)

Key Words: avoidive, admonitive, grammaticalization, negation-based, collocation

1. Introduction

Presumably every language possesses ways to convey fear regarding anticipated unfavorable occurrences (as observed in Lichtenberk, 1995), and some of these linguistic expressions evolve into grammatical structures known as apprehensionals. A class of apprehensionals serves the purpose of cautioning against unwanted events, akin to words like *lest*, *in order not to*, *for fear of*, etc. in the English language. Korean also features its own set of apprehensionals. Rhee & Kuteva (in press) list thirteen grammatical forms and constructions of apprehensionals in Korean. According to the authors, the majority of them, ten out of thirteen apprehensionals, are used as avoidives (see 2.1 for terminologies).

Avoidives in Korean have been grammaticalized to a varying extent from a number of conceptual sources. Of these, this paper addresses a subset of avoidives that involved negation as the major conceptual source in the course of their development, numbering six altogether, i.e., *-ci.moshakey*, *-ci.moshatolok*, *-ci.anhkey*, *-ci.anhtolok*, *-ci.malkey*, and *-ci.maltolok*. This set of avoidives has not yet received attention in earnest among grammaticalization researchers, and the present paper intends to fill this research gap by analyzing them with special focus on their conceptual sources and usages from a crosslinguistic perspective. The objectives of this paper are threefold: (i) describing avoidives that developed from the conceptual source of negation, (ii) explicating their grammaticalization process into

admonitives through insubordination, and (iii) analyzing their everyday usage based on corpus-based investigation.

In order to achieve these objectives, this paper is organized in the following way. Section 2, as a preliminary, presents the theoretical background and previous studies; Section 3 addresses negation-based avoidives with respect to their source characteristics, diachronic development, and further grammaticalization into admonitives; Section 4 provides a usage-based analysis based on their token and type frequencies. Section 5 summarizes the discussion and concludes the paper.

For a quantitative analysis, acknowledging that corpus-based studies adduce the hidden or unnoticed evidence even to the native Korean speakers, this study adopts a corpus analysis as a methodology. Using corpora and concordance tools, the quantitative analysis provides a number of significant generalizations with respect to token and type frequencies, patterns of collocations and keywordness the avoidives cooccur. This study used the AntCont program (version 4.2.0) as a concordance tool as well as multiple contemporary and historical corpora for target text search. The contemporary Korean corpora include the untagged (known as the written *wonsi*) corpus and the tagged (known as the written morpho-semantic analysis) corpus, both of the 21st Century Sejong Project (revised in 2020, 3rd ed.) by the Korean Ministry of Culture and Tourism and National Institute of Korean Language. The untagged corpus consists of 11,547,048 sentences and 36,586,988 words in 1,292 files, and the tagged corpus includes 797,251 sentences and 9,071,036 words in 250 files (searched in April 2023). The historical corpus for the diachronic data is excerpted from the historical section of the said corpus developed by the 21st Century Sejong Project. In orthography, Korean follows a rule of inter-lexical spacing, i.e., a word with its morphological trappings is separated from another with a white space. In this paper, a period is used to indicate the presence of a word boundary, in order to show that the form is periphrastic and still give the sense of a single unit from the construction, when dealing with polylexemic forms.

2. Theoretical Background and Previous Studies

2.1. Theoretical Background

The notion of ‘apprehensional’ as constituting a grammatical category has been popularized in linguistics in the past couple of decades, notably by Pakendorf & Schalley (2007), Vuillermet (2012, 2017, 2018), Jing-Schmidt & Kapatsinski (2012), Schultze-Berndt (2015), Angelo & Schultze-Berndt (2016, 2018), Kuteva, Aarts, Popova, & Abbi (2019), among others. However, the notion has a longer history with a wide range of different terminologies, e.g., ‘lest’, ‘admonitive’, ‘adverse consequence clause’, ‘apprehensional’, ‘apprehensive’, ‘evitative’, ‘negative purpose clause’, ‘precautioning’, among others (Austin, 1981; Dixon, 1980; Evans, 1995; Lichtenberk, 1995; Epps, 2008; among many others). The multiplicity of labels for an identical or similar concepts warrants an explication. This is particularly so, because there exists a term, formally similar to ‘apprehensional’, namely ‘apprehensive,’ which has often led to terminological confusion in specialized literature. Following Faller & Schultze-Berndt (2018) and Yae, Kuteva, & Rhee (2021, 2022, 2023), this paper uses ‘apprehensional’ as a cover term for grammatical expressions signaling the speaker’s apprehension about a potentially harmful and highly probable event. The term ‘apprehensive’ is used to refer to a mono-clausal structure, unlike other types that typically involve bi-clausal constructions that combine a precautionary clause and an apprehension-causing clause. Following this model, we differentiate linguistic expressions that serve various functions, as exemplified in (1), which list diverse lexical and grammatical forms or constructions, used to convey a range of notions with examples in English. This model helps identify the position of avoidives (marked as (b-1)) and admonitives (= apprehensives) (marked as (a); see 3.3), among the apprehensionals.

(1) Subcategories of apprehensionals

- ▶ a. Apprehensive (= admonitive; ADM)
 - (i) Watch out!, Look out!
 - (ii) Beware (lest the dogs bite you)!
 - (iii) A war might break out.
 - (iv) Don't move. Never come closer.
- b. Precautioning
- ▶ (b-1) Avoidive (AVD)
 - (i) I work in order not to starve.
 - (ii) I study so as not to fail.
 - (iii) He ran fast lest he (should) be eaten by the tiger.
 - (iv) He left early for fear that he would be caught in traffic.
- (b-2) In-case
 - (i) Take an umbrella in case it rains.
 - (ii) Use a mosquito repellant lest mosquitos bite you.
- c. Timitive (for a feared entity)
 - I don't go into the bushes for fear of snakes.
- d. Fear function
 - (i) I fear that a tiger attack me.
 - (ii) I'm worried that he might be killed in action.

(Yae et al., 2023: 3, modified)

It is noteworthy from the exemplification in (1) that apprehensionals are realized in a number of morphosyntactic manifestations (indicative of different levels of grammaticalization) in English, which is also the case in many languages, and that an identical form may carry multiple functions subsumable under the label apprehensional in English, which is also a shared feature in many languages. For instance, apprehensives may be realized as a mood signal (i.e., imperative), implicitly as a derivative function of a modal, or explicitly as part of lexical meaning. Thus, at least at the morphosyntactic level, the devices in English do not form a homogenous set. Among the various types of apprehensives, the type that involve issuing a warning is labeled as 'admonitive' (see 3.3), following the model proposed in Yae et

al. (2023). Similarly, the fear-function apprehensionals do not have a clearly grammaticalized formants but primarily depend on a lexeme denoting ‘fear’ (thus, ‘endophoric’ apprehensionals; Jing-Schmidt & Kapatsinski, 2012). The crosslinguistic literature, however, notes that there are languages that have complementizers specializing for the complements of fear-involving verbs (see Lichtenberk, 1995; Vuillermet, 2017; Dąbkowski & Anderbois, 2023).

2.2. Previous Research

As briefly indicated above, there is a body of literature that addresses apprehensionals or their functional relatives across languages. Korean apprehensionals have also been studied by a number of researchers, mostly focusing on *-lseyla* and *-lla*, the earliest known study being Ramstedt (1939), who labeled such markers as ‘preventive’ (p. 85). Kim (1960) used the label *kyengkyeyhyeng* ‘cautionary form’ or ‘warning form’, which was followed by Ko (1987: 301; 1989: 34; 2002), Kang (2002: 1015-1016), Lee (1994: 74), Do (2018), and Jang (2022: 193-194). Ramstedt’s (1939) study, with reference to *-lla*, observes that it “expresses some fear that something might happen, and implies the sense: ‘take care that it does not happen’” (p. 85), and thus succinctly makes a point that ‘I’m afraid’ and ‘don’t let it happen’ are two core elements of the preventive, e.g., *nemeci-lla* ‘I’m afraid you might fall’ and ‘Take care not to fall’.

Also noteworthy is Martin (1992), who notes that the verbal complex *-ci.anh-* is commonly shortened to *-c’anh-* and that the rhetorical use of the negative questions, such as this, extends to expressions of doubt, fear, or anxiety (p. 323). Thus, even though he did not label the forms as apprehensionals or of any kindred functions, the mention of ‘fear’ and ‘anxiety’ has direct relevance to avoidives that this paper addresses. Martin’s (1992) remarks are in line with the observation by Kim (1981), as referenced therein, who notes that certain negations are not true negations.

More recent, notable studies are Yae et al. (2023) and Rhee & Kuteva (in press). These studies address Korean apprehensionals as a whole or in

contrast with other languages. For the comprehensiveness of the scope and multiplicity of forms under investigation involving a number of languages compared, the discussion on individual forms is necessarily brief.

In sum, the apprehensionals in Korean have attracted attention from researchers and some significant advances have been made. However, the studies addressing avoidives are underrepresented, hence the need for a subset of avoidives, i.e., those involving forms denoting negation either grammatically or lexically. Furthermore, previous studies are largely conceptual analyses not involving usage analysis, hence the need for a quantitative analysis based on the natural corpus data to supplement a conceptual analysis.

3. Avoidives from Negations

3.1. Sources

Recent studies by Yae et al. (2023) and Rhee & Kuteva (in press) on apprehensionals analyze their conceptual sources as the grammatical notions of futurity, question, nominalizer, and the lexical notions of perception, cognition, and locution. A subset of apprehensionals, avoidives also involve similar conceptual sources, i.e., prospective (future-oriented) temporality, interrogation, and negation. This paper addresses six avoidives that were built on the notion of negation, i.e., *-ci.moshakey*, *-ci.moshatolok*, *-ci.anhkey*, *-ci.anhtolok*, *-ci.malkey* and *-ci.maltolok*, in which *an* ‘do not’, *mos* ‘cannot’ and *mal-* ‘stop/not do’ are negation markers. It may seem that the three negatives do not lack grammatical equivalence, since the negatives *an* ‘do not’ and *mos* ‘cannot’ are adverbs by word class (though it is not clear from their English glosses) and *mal-* ‘stop/not do’ is a verb. Semantically, however, they all belong to a category of negation, as is indirectly evidenced by the fact that they occur with the nominalizer *-ci* (or a converb marker depending on the framework; cf. Rhee (2003) for the nominalizer thesis) when they take a complement. At a conceptual level, it is evident that negation plays a crucial

role in the development of avoidives, since avoidives, by definition, are nothing more than grammatical forms of negative purpose.

The six negation-based avoidives in (2) include as source components the nominalizer *-ci*, negatives *mos* ‘cannot,’ *ani* ‘do not’ or *mal-* ‘stop’, and purposive or mode markers *-key* and *-tolok*. The composition of the constituents are as shown in (2):

(2) Constituents of negation-based avoidives

Form	Source	Construction	Class
a. <i>-ci.moshakey</i>	< <i>-ci.mos-ha-key</i>	[NOMZ-cannot-do-PURP]	CONN (PROH)
b. <i>-ci.moshatolok</i>	< <i>-ci.mos-ha-tolok</i>	[NOMZ-cannot-do-PURP]	CONN (PROH)
c. <i>-ci.anhkey</i>	< <i>-ci.ani-ha-key</i>	[NOMZ-not-do-PURP]	CONN (PREV)
d. <i>-ci.anhtolok</i>	< <i>-ci.ani-ha-tolok</i>	[NOMZ-not-do-PURP]	CONN (PREV)
e. <i>-ci.malkey</i>	< <i>-ci.mal-key</i>	[NOMZ-stop-PURP]	CONN (PROH)
f. <i>-ci.maltolok</i>	< <i>-ci.mal-tolok</i>	[NOMZ-stop-PURP]	CONN (PROH)

The negatives *mos* ‘cannot’ and *mal-* ‘stop’ convey a sense of prohibition, thus labeled as ‘prohibitive’, while the negative *ani* ‘do not’ (and its eroded form *an* ‘do not’) implies prevention, thus labeled ‘preventive’. In other words, the prohibitive is stronger in negative illocutionary force than the preventive, akin to the contrast between ‘so that he wouldn’t go’ and ‘so that he wouldn’t be able to go’ in English, the former involving discouragement, the latter disablement. The prohibitive sense from the verb *mal-* ‘stop’ and that from the grammatical *mos* ‘cannot’ are comparably strong.

As briefly alluded to previously, the marker *-ci* has been controversial

as to its source, i.e., whether it is a nominalizer, a connective (converb marker), or a complementizer, among others. For the probability of phonological derivation and semantic-syntactic comparability with the bound noun *cwul* ‘way, fact’, we consider it a nominalizer, following Rhee (2003). Controversial grammatical status notwithstanding, its function is to form a propositional entity to be negated by the negative marker that follows. In the case of avoidives, the proposition thus formed is the theme argument (i.e., sentential object) of the verbs *ha-* ‘do’ and *mal-* ‘stop’ and is to be negated by *an* ‘do not’, *mos* ‘cannot’, and *mal-* ‘stop’.

The use of converb markers *-key* and *-tolok* is among the shared features. The converb *-key*, also known as an adverbializer or a non-finite marker, signals the mode of an action or event (thus labeled as a ‘mode’ marker in Yae et al., 2023). And the converb *-tolok* encodes purpose, result, manner, and degree with reference to an event or action. As components of avoidives, both *-key* and *-tolok* encode futuristic manner or purpose of a described event or action, and thus we label them as ‘purposive’ as a notational short-hand. Including *-key* as a purposive is in line with M Kim (2011).

The six negative-based avoidives are exemplified in (3) through (5) in three groups, by the core verb, i.e., *mosha-* ‘cannot do’ (< *mos* ‘cannot’ and *ha-* ‘do’), *an(i)ha-* ‘do not do’ (< *ani* ‘not’ and *ha-* ‘do’), and *mal-* ‘stop, not do, discontinue’, a lexeme with two conflated notions of ‘not’ and ‘do’. These excerpts are among the early attestations in historical corpus texts.

(3) *mosha-*: *-ci moshakey*, *-ci moshatolok* (< *ci-mos-ha-key/tolok*
[NOMZ-cannot-do-PURP])

- a. *sanyangkwan-i cumsayng-ul cap-nuntey ku cumsayng*
hunter-NOM animal-ACC capture-while that animal
po-ci.moshakey mom-ul swumky-e
see-AVD body-ACC hide-and
‘When a hunter is capturing an animal, (he) hides himself lest it
can see (him).’

(1903 *Sinhakwelpo* 3: 425)

- b. *cikum makwi-ka kyelcinha-ko* [...] *hananim-skuyse*
 now Satan-NOM strengthen-and God-NOM:HON
helakha-si-n tey ka-ci.moshatolok ha-ni
 allow-HON-ADN place go-AVD do-as
 ‘Now Satan has formed an encampment and works lest (we) reach
 the place God has allowed us to enter, so ...’

(1903 *Sinhakwelpo* 3: 337)

- (4) *anh-*: *-ci anhkey, -ci anhtolok* (< *ci.ani-ha-key/tolok*
 [NOMZ-not-do-PURP])

- a. (The Jews to Prophet Samuel)
wuli-lulwihaya cwuk-ci.anihakey ne-uy cwu
 we-for die-AVD you-GEN lord
hananim-skuy kuytoha-ap-ose
 God-to pray-HON-OPT
 ‘[Since we have done wrong] please pray for us to your Lord God
 lest we die (for our sins).’

(1903 *Sinhakwelpo* 3: 412)

- b. *satto-key mianh-ci.anihatolok cal*
 magistrate-to be.sorry-AVD well
yeccwu-ecwu-si-ki-lul pala-o
 talk-BEN-HON-NOMZ-ACC hope-END
 ‘I hope you speak to the magistrate well (explaining my delay) lest
 he feels unhappy about me.’
 (orally transmitted from the mid-18th c., recorded 1916,
Paypicangcen #106)

- (5) *mal-* ‘stop’: *-ci.malkey, -ci.maltolok*: ‘in order that x stop y-ing’

- a. *po-nan-tAy tulenwus-ci.malkey ha-ko*
 see-ADN-place (= while) lie.down-AVD do-CONN
 ‘Make sure that [your son] would not lie down while [someone
 else] is watching and ...’

(16xx, *Wuam SyensAyng Kyeynyese* #7)

- b. *kyumo-lul* *syeywu-ko* *ilho-lato*
 effectiveness-acc establish-and one.bit-even
hepitoy-ci.maltolok *ha-si-mye*
 be.wasted-AVD do-hon-conn
 ‘(We request that you) make sure [the local magistrates]
 planeffectively and not waste even a small bit of finance and...’
 (1896, *Toklipsinmwun* #5552)

3.2. Diachronic Development

A diachronic investigation immediately makes it apparent that avoidives in Korean have not proceeded to a great extent of grammaticalization, as evidenced by little change in form and meaning. A historical survey renders attestations of forerunner constructions rather recently. For instance, the forerunners of *-ci.moshakey* and *-ci.malkey* occur from around the 17th century carrying a strong prohibitive meaning. Other avoidive forms are dated even more recently.

Interestingly, the *-tolok* counterparts of avoidives, i.e., those involving *antholok/aniholok/anihatolok*, *moshatolok*, and *maltolok*, all occur consistently at a later time as compared to their *-key* counterparts, i.e., those involving *ankhey/anihakey*, *moshakey*, and *malkey*. This is evident in the comparison of the pairs: *-ci.moshakey* (17th c.) vs. *-ci.moshatolok* (20th c.); *-ci.anihakey* (18th c.) vs. *-ci.anhtolok* (20th c.); and *-ci.malkey* (17th c.) vs. *-ci.maltolok* (late 17th c.).¹ This states of affairs suggest that the mode-marking converb *-key*, which became popularized only at a time later than its functional competitor *-i*, but seems to have had much stronger ‘lexical

¹ The avoidive *-ci.maltolok* occurs in *Kyeyhaypanceonglok*, whose exact time of publication is unknown. *Kyeyhaypanceonglok* is considered to be a sequel of *Kyeychwukilki*, describing the political turmoil around *Incopanceng* ‘King Injo Rebellion’ (1623), resulting in the enthronement of King Injo following the dethronement of King Kwanghay in Korean history. Thus, it is reasonably presumed to have been written (shortly) after 1623.

strength' (Eom, 2020: 16) than its competitor *-tolok* in denoting purpose.

Another noteworthy aspect is the structural fluctuation observed with certain avoidive forms. For instance, Chung (1994: 99), in his comparative study of multiple versions of the Lord's Prayer in the New Testament, notes the following:

- (6) a. *sihem-ey tu-ci.ankey* *hasimye* (1884)
 b. *sihem-ey tul-ci.malkey* *haopsiko* (1892, 1895, 1900,
 1906, 1936)
 c. *yukam-ey ppaci-ci.malkey* *hasiko* (1939)
 d. *yuhok-ey ppacyetul-ci.malkey* *hasiko* (1965)
 e. *yuhok-ey ppaci-ci.anhkey* *hasiko* (1971, 1977)
 f. *sihem-ey tul-ci.anhkey* *hasiko* (1977)
 g. *sihem-ey tul-key-ha-ci.masiko* (1993)
 'Lead us not into temptation, and...'
 (Matthew 6: 13; Chung, 1994: 99, modified)

Based on the data in (6), Chung (1994: 100) notes that the fluctuation may be due to the confusion as to the cooccurrence restriction by the sentence-type, i.e., *-ci.mosha-* and *-ci.aniha-* occurring in declarative and interrogative sentences and disallowed in imperatives (for which *mal-* should be used) as well as the inference that invocation (e.g., a prayer) is a type of imperative. What is significant in this situation is that grammaticalization proceeds not in a streamlined manner but involving fluctuations en route.

The overall grammaticalization patterns on a timeline and their lexical strength as represented by their token frequency are as shown in Figure 1.

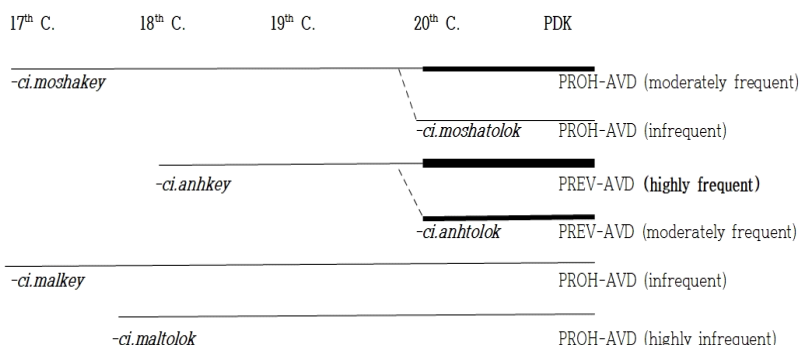


Figure 1. Historical Development of the Negation-based Avoidives

As briefly alluded to above, the degree of grammaticalization of avoidives is not extensive either semantically or morphosyntactically. In terms of semantics, avoidives are expressions encoding negative purpose, and this core concept was signaled from the early stages of their development. In other words, the concatenative meaning of the avoidives was already marking precautioning. This is evident in the meanings of some of the source components, i.e., negation (*an*, *mos*, and *mal-*) and purpose (*-key* and *-tolok*). In terms of morphosyntax, avoidives do not exhibit prominent changes characterizable as desemanticization, extension, decategorialization, and erosion (Kuteva, Heine, Hong, Long, Narrog & Rhee, 2019). Among the states of affairs with respect to these grammaticalization mechanisms is erosion, i.e., the negative *ani* (adv. ‘do/not’) eroding to *an* and the morphosyntactic strings *ani.ha-* to *anh-*, and *ani.hakey* to *anhkey*. It is to be noted, however, that this instance of erosion is one of general changes triggered by the phonotactics in Korean, not specific to this grammaticalization scenario. Without doubt, this morphosyntactic compacting may have contributed to the formal univerbation process and conceptual unitization of this forerunner construction.

Another noteworthy aspect is that the historical depth of a grammaticalizing form may not be necessarily coextensive with its productivity or use frequency. For instance, *-ci.malkey* and *-ci.maltolok* are

among the early forms denoting negative purpose, but they carry the weakest ‘lexical forces’ (Eom, 2020) as evidenced by the lowest frequency in contemporary corpus data. On the other hand, *-ci.anhkey* and *-ci.anhtolok* are latecomers and have shallow temporal depth, but they are the most frequently used pair in contemporary Korean.

From a crosslinguistic perspective, the developmental scenarios fit well the patterns observed in other languages. For instance, apprehensionals developing from negation-denoting lexemes are found in Papapana, Bulgarian, English, Malayalam, and Fali (Kuteva, Heine et al., 2019; Yae et al., 2023), Warlmanpa (Browne et al., in press), Gban (Fedotov, 2018), Modern Hebrew (Francez, in press), and Upper Tanana Dene (Lovick, 2020). Similarly, apprehensionals developing from purpose-denoting lexemes are found in Japhug (Jacques, 2021), English, French (Schultze-Berndt, 2015; Faller & Schultze-Berndt, 2018), Kambaata (Treis, 2018), Kubokota (Chambers, 2009). Some examples are illustrated below, in which negative (in (7), Bulgarian, a Slavic language) and negative purpose (in (8), Kubokota, an Austronesian language), function as avoidives:

(7) Bulgarian (*za da ne* + Verb [for-CONJ.PTCL-NEG-verb]):

Roditelite i šte napravjat vsiĉko vāzmoĉno,
 parents.def her will do.3PL.PRES all possible

za.da.ne se otkaĉe ot sāstezanieto.

AVD REFL back.out.3SG.PRES from competition.DEF

‘Her parents will do their best, lest she back out of the competition.’

(Yae et al., 2023: 14)

(8) Kubokota (*keta* ‘lest’):

Qa koini raro gu beto muna

1SG.R just cook.in.pot LIM then 2.FUT

gani-gani keta mu burana

REDUP-eat AVD 2.IRR hungry

‘I’ve just cooked and you will eat, lest you be hungry.’

(Chambers, 2009: 145, modified)

Excerpt (9a) occurs in the corpus and its word order strongly suggest the

latter part being an addition of an after-thought. In the same text (BSEO0083) of the referenced corpus, the utterance (9b) occurs twice more. It is clear, therefore, that the mono-clausal excerpt (9b) *mok maykhici anhkey*, meaning ‘So as not to choke’ is a shortened (insubordinated) form of the bi-clausal (9a) *mok maykhici anhkey chunchunhi meke* ‘Eat slowly so as not to choke.’ The example (9b) being of a speech act issuing a warning and urging attention to prevent an undesirable event is clear from the context. This contextual meaning has become semanticized in the utterance-final *-ci.anhkey*, which has been functionally reanalyzed as a sentence-ender.

The admonitive based on the negative verb *mal-* ‘stop’, i.e., *-ci.maltolok*, is exemplified below, taken from the contemporary corpus:

- (10) *kkuthkkaci ha-l.swu.iss-tanun casinkam-ul ilh-ci.maltolok.*
 to.the.end do-can-COMP.ADN confidence-ACC lose-ADM
 ‘Do not lose your confidence that you can do it till the end.’
 (BSBB0064.txt)

The excerpt in (10), with *-ci.maltolok* occurring utterance-finally, is a complete sentence. The former connective *-tolok* is now a verbal suffix for imperative, which, according to *Wulimalsaym* by National Institute of Korean Language, gives the feeling of ‘the lesser degree of assertiveness’. Thus, the sentence (10) is a command not to lose confidence, but the illocutionary force, according to *Wulimalsaym*, is weaker than its counterpart with *-ala*, the regular imperative ender (i.e., *ilh-ci.mal-ala*). Incidentally, this innovative imperative form carries register-specific feeling as belonging to the (quasi-)military style.

As grammaticalization proceeds, some irregularities may be observed as well, a common phenomenon across, or in principle to all, grammaticalization scenarios, as a result of desemanticization and usage context extension. This is applicable to the avoidive *-ci.malkey*, as exemplified in the corpus:

(11) *hannwunphal-ci.malkey*

take.one's.eyes.off-ADM

'(Be mindful) not to lose focus/Watch carefully.'

(BSGO0348.txt)

The example above involves the sentence-final suffix *-ci.malkey*, of which the primary function is marking a command of prohibition, thus a clear case of admonitive. Even though the development of admonitives from avoidives is hypothesized to have involved insubordination, the putative main clause of (11) is not immediately clear. This is directly connected to the issue of the development of the sentence-final *-key*, which has been addressed in a number of studies in Korean linguistics (notably H Lee, 1982; Han, 1984; Park, 1998; T Kim, 2000, 2001; J Kim, 2001; Ko, 2002; Yoo, 2003; Sohn & Kim, 2009; Cho & Lee, 2011; M Kim, 2011, among others). Most studies hypothesize multiple types of *-key* for their heterogeneous nature in terms of its morphosyntactic behavior and semantic attributes. A series of studies by T Kim, notably T Kim (1997, 1998, 2000, 2001), from a grammaticalization perspective, throws light to this issue. He distinguishes between functional change (*kinung pyentong*) and functional shift (*kinung cenyong*), both of which are developmental processes from an earlier form, but as a result a form may exhibit clear morphosyntactic differences (T Kim, 2000: 50-51). For instance, the sentence-final *-key* from functional change specializes in imperative, whereas the same form from functional shift has no speech-act restriction and is modifiable for politeness marking (as in *-key-yo*). His thesis well captures the diachronic divergence and synchronic layering in which the form may exhibit significant differences in its morphosyntactic behavior.²

² However, the distinction, according to T Kim's study, is based on whether the development involves formal change and functional reanalysis, i.e., functional change involves them, whereas functional shift does not. Therefore, instances of insubordination (in which a form remains intact) would be functional shift. From the formal and functional contrast, however, the development of the admonitive *-ci.malkey*

A similar view of the connectedness of diverse functions of *-key* is expressed by M Kim (2011), who argues that the purposive marker *-key* in Korean is the source of the imperative *-key* (e.g., *keki anc-key* [there sit-IMP] ‘Take a sit there.’). She hypothesizes the developmental paths of *-key* as in Figure 2.

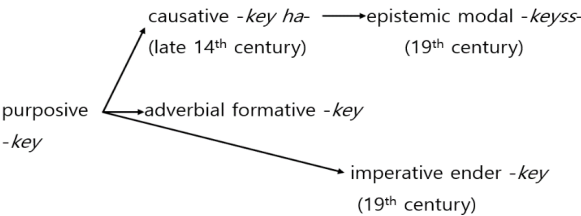


Figure 2. Developmental path of *-key* (M Kim, 2011: 3)

Crosslinguistic data also support the thesis presented here that avoidives evolve into admonitives. For example, this phenomenon is observed in languages such as Kayardild, Diyari, Bulgarian, Kubokota, Hup (Austin, 1981; Evans, 2007; Chambers, 2009; Epps, 2008), as well as in Warlmanpa (Browne & Osgarby, 2018). The sentences in (12) and (13) provide specific examples of cross-linguistic evidence from Kayardild (a Tangkic language spoken in South Wellesley Islands) and Diyari (an indigenous Australian language).

(12) Kayardild

- a. Avoidive *-nharr*
walmathi karn-da rajurri-n, ba-yii-nyarra
on.top grass-NOM walk-NEG.IMP bite-pass-AVD
yarbuth-iiwa-nharr!
snake-v.i.all-AVD
‘Don’t walk across the grass, in case you get bitten by a snake.
(Evans, 2007: 392, modified)

from the avoidive is an instance of functional change, i.e., more detached from the source than functional shift. This anomaly warrants further in-depth research.

b. Admonitive *-nharr*

nyingka ba-yii-nyarra kulkiji-yiwa-nharr
 you.nom bite-pass-adm shark-v.i.all-adm

‘(Watch out/Do something,) you might get bitten by a shark.’

(Evans, 2007: 392, modified)

(13) Diyari

a. Avoidive *-yathi*

pulanha mingka-nhi kuthi-ipa-yi, thanali
 3dl.ACC hole-LOC hide-TR-PRES 3PL.ACC
nhayi-yathi parlpa-li
 see-AVD some-ERG

‘(He) hides them in a hole lest some of the others see (them).’

(Austin, 1981: 230, modified)

b. Admonitive *-yathi*

nhulu-ka kinthala-li yinanha
 3SG(NONFEM):ERG.TOKEN dog-ERG 2SG.ACC
matha-yathi
 bite-ADM

‘This dog might bite you.’

(Austin, 1981: 233, modified)

4. Usage-based Analysis

A usage-based model captures the mental representations of the speakers, as formed by the use of language form, and linguistic fluidity, the mechanisms of triggering language change (Barlow & Kemmer, 2000; Tomasello, 2003; Diessel, 2017; Eom, 2020). In the experience-driven mechanism, the frequency effects find a natural expression by mapping onto existing representations and being stored in memory along with information about meanings and contexts of use, both linguistic and nonlinguistic (Bybee, 1985, 2001). In this section, we explore the current states of avoidives and admonitives as represented in contemporary corpora.

4.1. Data and Methods

The quantitative exploration of this study made use of the Sejong tagged and untagged corpora. The results from the Sejong spoken corpus are omitted due to very low frequencies, not yielding statistically significant, conclusive results. The data gathered from the tagged corpus are particularly useful because the morphological and semantic tagging in the corpus allows for more effective searches for target expressions, as compared to the untagged corpus.

In data collection, concordance lines from the six files are saved as text files for easy data handling. For collocation analysis, AntConc (version 4.2.0, Anthony, 2022) is employed with encoding adjustment. The method and steps of the data collection using AntConc follow those indicated in the study of Lee (2022). The total number of tokens processed by AntConc is 49,064 across six files. The collocate settings use the threshold value of $p < 0.05$ (3.84 with Bonferroni).

4.2. Token Frequencies and Type Frequencies

Token frequency is the frequency of occurrence of a unit, usually a word in running texts, indicating how often a particular word form (token) occurs in the targeted source text. On the other hand, type frequency refers to the dictionary frequency of a particular pattern (Bybee, 2001: 10), i.e., different forms of a single word (mostly inflected forms) are comprehensively calculated as belonging to the word (type). This section illustrates and compares the token frequencies and type frequencies of the six negation-based avoidives.

Table 1 shows token frequencies of the six negation-based avoidives in the tagged and untagged corpora. The frequency figures are given in two forms, i.e., raw hits and the number per million words (PMW).

Table 1. Token Frequencies of Negation-based Avoidives

	Untagged		Tagged	
	Raw Freq	PMW	Raw Freq	PMW
<i>-ci moshakey</i>	1,559	42.6	402	44.3
<i>-ci moshatolok</i>	687	18.8	186	20.5
<i>-ci anhkey</i>	4,518	123.5	1,010	111.3
<i>-ci anhtolok</i>	2,699	73.8	748	82.5
<i>-ci malkey</i>	150	4.1	26	2.9
<i>-ci maltolok</i>	93	2.5	26	2.9
Total	9,706	265.3	2,613	288.1

According to Table 1, *-ci.anhkey* records the highest frequency among the six avoidives, followed by *-ci.anhtolok* in both corpora. The frequency of *-ci.maltolok* indicates the lowest in the untagged corpus, followed by *-ci.malkey*. In the tagged corpus, the two forms in this pair are on a par with each other but still represent the lowest in frequency. Considering both datasets, it appears that the frequency of *-ci.malkey* is slightly higher than that of *-ci.maltolok*. The other pair, i.e., *-ci.moshakey* and *-ci.moshatolok*, falls between the two pairs. The frequency ranking, in a descending order, is as shown below:

$$(14) \text{ } -ci.anhkey > -ci.anhtolok > -ci.moshakey > -ci.moshatolok > -ci.malkey > -ci.maltolok$$

This frequency ranking carries an obvious, yet interesting, implication of language use. The markers *an* ‘do not’ and *mos* ‘cannot’ are both negation markers, but the avoidives developed from them have different levels of circulation, i.e., *an*-forms occurring more frequently than *mos*-forms. This is exactly in consonance with the general frequency ranking of Korean basic vocabulary by NIKL (2004). According to this report, *an* ranks 44th in contrast with *mos* 207th. From a grammaticalization perspective, this disparity may be attributable to different levels of ‘semantic generality’ (Bybee et al., 1994; Rhee, 2000) in these negative forms, i.e., *an* is lighter in semantic load than *mos* (note the difference in ‘do not’ and ‘cannot’).

A similar observation is available with the core verbs in the avoidives; the verb-deriving light verb *ha-* (occurring in *-ci.anhkey* and *-ci.moshakey*) is among the most frequent lexemes in Korean, i.e., 2nd as a main verb, 7th as an auxiliary verb, whereas *mal-* ranks 5,343th as a main verb and 161st as an auxiliary. This disparity may be again attributable to different levels of semantic generality, as is obvious from the contrast of ‘do’ of *ha-* and ‘stop, discontinue’ of *mal-*. In other words, the frequency of formally-complex grammatical forms is coextensive with the frequency of their source components, which, in turn, is coextensive with the levels of semantic generality.

The frequency of avoidives shown in Table 1 also involves the token frequencies of *-key*-patterns and *-tolok*-patterns. On the tagged corpus, the collective frequencies of the *-key*-patterns (i.e., of *-ci.anhkey*, *-ci.moshakey*, and *-ci.malkey*) are higher (1,438 or 158.5 pmw) than those of the *-tolok* counterparts (i.e., of *-ci.anhtolok*, *-ci.moshatolok*, and *-ci.maltolok*) at 960 or 105.8 pmw, being approximately 1.5 times more frequent than the latter. The two converb markers *-key* and *-tolok* are comparably old forms in history, both occurring in Late Middle Korean. The marker *-key* was not as frequently used as its functional competitor *-i* in marking ‘mode’ but it has become one of the most frequent grammatical forms in Modern Korean (Rhee, 1996: 111-112). For instance, the list of about 1,000 grammatical affixes by H Kim (2005), *-key* ranks 10th. On the other hand, the converb marker *-tolok*, despite its long history, ranks 45th. Once again, there is a profound semantic difference in that the mode-marking *-key* is general in marking purpose, result, manner, and degree (*Wulimalsaym*, n.d.) and interchangeable with other forms (e.g., *coyonghakey* and *coyonghi* ‘quietly’; *nophkey* and *nophi* ‘highly’, whereas the converb marker *-tolok* is much more restricted in usage. Thus, most instances of *-tolok* may be replaced by *-key* (e.g., *calatolok* and *calakey* ‘in order to facilitate the growth’; *catolok* and *cakey* ‘in order to help sleep’, etc.) but the reverse is not true (e.g., *coyonghakey* ‘quietly’ and **coyong-t(h)olok*; *nophkey* ‘highly’ and **noph-tolok*, etc.). A recurrent point is the crucial role of semantic generalization, which is directly linked to

functional diversity, which, in turn, affects the frequency of use.

In this context, as indicated above, the most important frequency statistics are not token but type frequencies, because the latter, indexing how many different words can be combined with a particular form, directly represents the productivity (cf. Bybee & Thompson, 1997; Smith, 2007; Beijering, 2012). The type frequency information of six avoidives/admonitives are as shown in Table 2 (note that, as before, the concordance data were handscreened for data sanitization).

Table 2. Type and Token Frequencies of Avoidives/Admonitives

Rank order	Form	Type freq	Token freq
1	<i>-ci.anhtolok</i>	381	748
2	<i>-ci.anhkey</i>	341	1,010
3	<i>-ci.moshakey</i>	208	402
4	<i>-ci.moshatolok</i>	124	186
5	<i>-ci.malkey</i>	24	26
6	<i>-ci.maltolok</i>	20	26

An interesting picture emerges from the type frequency information. Even though *-ci.anhkey* is the most frequently used token, it is not so when we consider types. The highest type frequency is attested with *-ci.anhtolok*. In other words, *-ci.anhkey* occurs highly frequently with fewer number of words than *-ci.anhtolok*, but *-ci.anhtolok* occurs less frequently but with larger number of words than *-ci.anhkey*. It is notable, however, that the overall rank order of the three pairs remains the same, i.e., *anh*-forms, *mos*-forms, and *mal*-forms, occurring in this order of frequency. Once again, this is in line with our observation in the above that semantic generalization plays an important role in grammaticalization, i.e., the level of semantic generalization is coextensive with the level of frequency of use. The reason for the internal disparity of frequency between the two members of each pair is not immediately clear and warrants future study.

4.3. Collocates, Keywordness, and Lexical Strength

Among the advantages of concordance studies is their usefulness in identifying collocates, keywordness, and lexical strength. We now turn to the discussion of these aspects with referecne to avoidives.

First, we investigate the collocates for each of the six negation-based avoidives within a window span from 0 on the left and 1 on the right (L0R1), using AntConc. The threshold value for collocate settings is set at $p<0.05$ (3.84 with Bonferroni). The most distinctive feature of the collocate analysis, excluding the collocates with the function verbs *ha-* ‘do’ and *toy-* ‘become’, is the result of [**ci anhtolok*] (Note that the asterisk mark (*) indicates zero or more syllables.). This is illustrated in Table 3. The other five avoidives do not exhibit any meaningful or regular patterns and are excluded in the discussion.

Table 3. Collocates (L0-R1) of **ci anhtolok*

Search query	Token per file	Collocate token	Collocate	Freq
<i>*ci anhtolok</i>	14,244	229	<i>cwuuyha-yya</i> ‘be.cautious-must’	11
			<i>cwuuyha-n-ta</i> ‘be.cautious-PRES-DEC’	6
			<i>cosimha-ko</i> ‘be.careful-CONN’	6
			<i>cosimha-n-ta</i> ‘be.careful-PRES-DEC’	5
			<i>cwuuyha-mun</i> ‘be.cautious-SIM.ADN’	5
			<i>yuyha-yya</i> ‘be.careful-must’	4
			<i>cwuuyha-l</i> ‘be.cautious-PROS.ADN’	4

As Table 3 shows, [**ci anhtolok*] takes collocates whose base forms are the three verbs, *cwuuyha-* ‘be cautious,’ *cosimha-* ‘be careful’ and *yuyha-* ‘look out, pay attention to’. Other collocates of [**ci anhtolok*], not listed in the Table, are *seysimhan* ‘scrupulous’, *kakpyelhi* ‘particularly’, *mancen-ul* ‘perfectness-ACC’, and *cosimcosim* ‘gingerly’. These modifiers and objects are associated with the verbs indicated above. The identified collocates and their modifiers show how particular word forms, though theoretically

combinable with any morphosyntactically and semantically compatible forms, occur in reality only with specific forms as part of routinized practices in the speech community. This, in grammaticalization, may have to do with the role of constructionalization, contextualization, and potentially specialization, as well (Heine et al., 1991; Hopper, 1991: 22; Heine, 2002; Hopper & Traugott, 2003 [1993]: 116). Similar target forms with different collocates constitute an interesting topic for future research.

The next issue to examine is keywordness, which refers to words that appear significantly more or less frequent in a target corpus compared to a reference corpus, as determined using AntConc (Jung, 2011). The keywordness results are obtained by comparing the reference with the target. The avoidive *-ci.anhkey* is chosen as the reference due to its highest frequency, while the other five data points, *-ci.moshakey*, *-ci.moshatolok*, *-ci.anhtolok*, *-ci.malkey* and *-ci.maltolok*, are treated as the target. A keywordness analysis helps identify which verbs, excluding *ha-* ‘do, make’ and *toy-* ‘become,’ with respect to each target datapoint, are more or less prominent in use compared to the reference. The result of the keywordness search with [**ci anhtolok*] returns a distinctive keyword *cwuuyha-* ‘be cautious,’ as occurring at a statistically significant level, a finding consistent with the results in collocation analysis (L0-R1) of [**ci anhtolok*] as elaborated above. Bybee (1985: 117-123, 2001: 12, 113) argues that tokens of use map onto the memory representation, and that high-frequency paradigms grow strong, determining their ‘lexical strength.’ Eom (2020: 16) asserts that in terms of linguistic representation of lexemes, the frequency of co-occurring formants establishes their ‘lexical strength.’ Drawing upon the insights of Bybee (1985, 2001) and Eom (2020), it is observed that **ci anhtolok* distinctively indicates its high ‘lexical strength’ through caution-verbs and caution-related arguments and adverbs.

4.4. A Frequency Analysis of Admonitives

As discussed in 3.3, crosslinguistic data support the idea that avoidives

often evolve into admonitives. In Korean some avoidives have undergone grammaticalization to admonitives, though at varying degrees. The consequence of this additional development is the layering of older (avoidive) and newer (admonitive) layers (cf. ‘layering’ Hopper, 1991).

In order to obtain the frequency information of admonitives, we used the tagged corpus with a search string containing a period (.), which indicates the end of a sentence (note that one instance of [**ci malkey*] occurs with an exclamation mark). A method similar to the query for Table 1 was adopted (see 4.2 above). The data mined from the search are hand-screened for data sanitation, in which certain forms are eliminated (e.g., *ne tapci anhkey* ‘in a way that doesn’t suit you’). Table 4 presents the results of each item under the search condition.

Table 4. Frequencies of Admonitives in Tagged Corpus

Search query	token freq	
	raw	per mill
<i>*ci mshakey.</i>	0	0
<i>*ci mshatolok.</i>	2	0.22
<i>*ci anhkey.</i>	4	0.44
<i>*ci anhtolok.</i>	4	0.44
<i>*ci malkey.</i>	19	1.98
<i>*ci maltolok.</i>	6	0.66

Interestingly, in contrast to the results in Table 1, the admonitives [**ci malkey.*] and [**ci maltolok.*] record the highest and second-highest frequencies, respectively, followed by the [**ci anhkey.*] and [**ci anhtolok.*]. Furthermore, the admonitive [**ci mshakey.*] is not attested in the referenced corpus. The admonitive ranking in a descending order is as in (15):

(15) *-ci.malkey* > *-ci.maltolok* > *-ci.anhtolok* = *-ci.anhkey* >
-ci.moshatolok > *-ci.mshakey*

In view of the fact that the *mal*-based avoidives are the least frequently

attested forms, whereas the *mal*-based admonitives are the most frequently attested forms, we can deduce that the *mal*-based forms are specialized in the admonitive domain, which is not the case in the avoidive domain. This leads to a hypothesis that when a warning is given without the clause depicting preemptive action (i.e., main clause), a semantically strong form based on the prohibition semantics (i.e., *mal*-based) is preferred.

5. Conclusion

Avoidives are grammatical expressions of fear used to signal caution and prevent an event that is unwanted but likely to occur. This study addressed the development of Korean avoidives that were derived from negation. The involvement of negation well aligns with cross-linguistic patterns.

The avoidives under the investigation involve negation markers such as *an* ‘do not’, *mos* ‘cannot’, or the verb of lexical negation *mal*- ‘stop, discontinue’; the nominalizer *-ci*; and purpose markers *-key* and *-tolok*. The combination of these elements form negative purpose constructions, the core semantics of avoidives. Avoidives, in general, are commonly employed in imperatives, warnings, threats, and negative commands, and the same applies to the Korean avoidives.

Some Korean avoidives have developed into admonitives (also commonly known as apprehensives), the mono-clausal forms of apprehensional used for warning, without specifying preemptive action. This developmental process involves insubordination, whereby the main clause is elided and the former subordinate clause is upgraded to the main-clause status.

The analyses of collocates and keywordness reveal that the verbs *cwuuyha*- ‘be cautious’ and *cosimha*- ‘be careful’ are prominently associated with the avoidive *-ci.anhtolok*, whereas other avoidives do not exhibit patterns that are statistically meaningful. These collocation patterns strongly suggest that the three aspects of language and language use, i.e., frequency, semantic generalization, and functional diversity, interact with each other. An analysis of admonitives also shows that the highest frequency is exhibited by the

mal-based admonitives, i.e., *-ci.malkey* and *-ci.maltolok*, presenting a clear case of functional specialization.

This paper has shown how negative morphemes, grammatical or lexical, create avoidives with their collocates through uses in specific speech acts and further how they develop into admonitives through main-clause ellipsis, known as insubordination. Since the present study addresses a set of avoidives that share a conceptual source, i.e., negation, from a global, crosslinguistic perspective, the details of development and functional extension of individual forms have not been given sufficient attention. It is hoped that more microscopic studies of individual forms are made in subsequent research.

Abbreviations:

ACC: accusative; ADM: admonitive; ADN: adnominal; AVD: avoidive; BEN: benefactive; COMP: complementizer; CONJ: conjunctive; CONN: connective; DEC: declarative; DEF: definite; DL: dual; END: sentence-ender; ERG: ergative; FUT: future; GEN: genitive; HON: honorific; IMP: imperative; IRR: irrealis; LIM: limiting particle; NEG: negation; NOM: nominative; NOMZ: nominalizer; NONFEM: non-feminine; OPT: optative; PASS: passive; PL: plural; PRES: present; PREV: preventive; PROH: prohibitive; PROS: prospective; PTCL: particle; PURP: purposive; Q: question; R: relational; REDUP: reduplication; REFL: reflexive; SG: singular; SIM: simultaneous; TOKEN: token; TR: transitive; V.I.ALL: verbal intransitive allative case

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