

Two types of subjunctive in Korean: Interaction between inquisitiveness and nonveridicality

Arum Kang · Suwon Yoon

Abstract The goal of the current work is to identify a novel type of subjunctive mood in Korean. We address the following questions: First, what are the semantic functions of two types of modalized questions in Korean? Second, what do they tell us about the universality and variation of the subjunctive phenomena across Korean and other languages? Given these questions, we want to explore the empirical dimension and show the crosslinguistically extended paradigm of the subjunctive mood. Specifically, we argue first that the Korean subjunctive can be formally marked at the level of an inquisitive subordinator *C*. Second, it exhibits flexible distributions with respect to the selection by attitude predicates. Third, subjunctive marking has the semantic contribution of epistemic/buletic weakening rather than merely reflecting the modal properties of the context in which it occurs. Assuming that the inquisitive subjunctive in Korean expresses the relation between the speaker/subject's attitude and the potential answers of the interrogative complements in the partitioned modal base, we propose a unified analysis of subjunctive mood in Korean within the framework of nonveridicality.

Keywords subjunctive · inquisitiveness · nonveridicality · modalized questions

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1 Introduction

The goal of this study is to investigate a novel paradigm of subjunctive mood in Korean. Subjunctive mood selection refers to the linguistic phenomenon in which the complement of certain propositional attitude verbs appears in a subjunctive form. In many Indo-European languages, attitude predicates require the subjunctive mood to be reflected as overt verbal inflection in embedded clauses. As shown below, the desire verb *veut* 'wants' in French in (1b) obligatorily selects for the subjunctive verbal form in an embedded clause, whereas the factive verb *sait* 'knows' selects for the indicative in (1a) (Giannakidou & Mari 2021: 11, (17a-b)).

- (1) a. *Marc sait que le printemps {*soit/est} arrivé.*
 Marc knows that the spring be.SBJV.3SG/be.IND.3SG arrived
 ‘Marc knows that spring has arrived.’
- b. *Marc veut que le printemps {soit/*est} long.*
 Marc wants that the spring be.SBJV.3SG/be.IND.3SG long
 ‘Marc wants spring to be long.’ [French]

While languages exhibit some variation with regard to subjunctive-selecting predicates that trigger this mood with distinct marking strategies (Marques 2004; Porter & Rubinstein 2020, a.o.), these grammatical mood selection patterns share the following properties: (i) they show complementary distribution between indicative and subjunctive; (ii) a mood marker mostly appears in a declarative complement; and (iii) subjunctive marking itself does not have any additional semantic contribution but merely reflects modal properties of the context in which it occurs.

To capture cross-linguistic facts beyond European languages, however, we suggest adopting an extended spectrum of the notional mood (à la Giorgi & Pianesi 1996), rather than the traditional grammatical mood. The advantage of the notional mood includes the following: First, unlike the traditional view, the subjunctive can be also marked on subordinate complementizers in modern Greek and Balkan languages (Farkas 1992), as illustrated in (2) for Greek (Giannakidou & Mari 2021: 13, (22)).

- (2) *Thelo {na/*oti} kerdisi o Janis.*
 want.1SG that.SBJV/that.IND win.NONPAST.3SG the John
 ‘I want John to win.’ [Greek]

Second, mood is shown to be variable. In Italian, the doxastic verb *crede* ‘believe’ in (3) allows flexibility in mood selection between the indicative with stronger belief and the subjunctive with weaker belief (Farkas 1985; Quer 1998; Villalta 2008; Anand & Hacquard 2013; Mari 2016; Mari & Portner 2021: 2, (2)).

- (3) *Piero crede che Maria {é/sia} malata.*
 Peter believe.IND.3SG that Mary be.IND.3SG/be.SBJV.3SG ill
 ‘Peter believes that Mary is ill.’ [Italian]

Third, subjunctive mood selection occurs not only in declarative clauses, but also in interrogative clauses where rogative predicates can be a mood trigger, as illustrated in (4) for Italian. A predicate of inquiry such as ‘ask’ in (4a) selects for the indicative, whereas a predicate of inquisitive such as ‘wonder’ in (4b) selects for the subjunctive. Portner suggests that the inquiry ‘ask’ is the interrogative counterpart of a verb of assertion (i.e., ‘want to be told’) whereas the inquisitive ‘wonder’ is the interrogative counterpart of a verb of belief/knowledge (i.e., ‘want to know’).

- (4) Rogative predicates can be mood governors (Portner 2018: 237, (9)):
- a. *Gli avevo chiesto se ci sono corsi d'inglese.*
 him have.1SG asked if there be.IND.3PL courses of.English
 ‘I asked him whether there are English courses.’
 - b. *Mi chiedo se ci siano corsi d'inglese.*
 me wonder.1SG if there be.SBJV.3PL courses of.English
 ‘I wonder whether there are English courses.’ [Italian]

Compared to the extensive research conducted in Indo-European languages, the precise nature of the Korean subjunctive has yet to be systematically explained, except for some preliminary works (Yoon 2011; Yoon 2013; Kang & Yoon 2019a; Kang & Yoon 2019b; Kang & Yoon 2020). Just as has been done for Indo-European languages, we will show that the Korean subjunctive exhibits the three aspects of extended spectrum mentioned above: First, Korean subjunctive mood can be marked on the subordinator C position. Second, the Korean subjunctive exhibits mood flexibility, along with Italian. Third, the subjunctive in Korean is sensitive to inquisitiveness.

In this work, our main data are based on three different types of question markers (Q-markers): (*n*)*ci*, *nka* and *lkka*. As shown below, the criteria of question markers in Korean are subdivided into two parts, i.e. the ordinary question marker (*n*)*ci* vs. the modalized question markers (MQ-markers) *nka* and *lkka* (Kang & Yoon 2019a; Kang & Yoon 2019b; Kang & Yoon 2020).¹ The question marked (*n*)*ci* forms a typical yes-no question in (5a), whereas the questions marked *nka* in (5b) and *lkka* in (5c) report on the speaker’s consideration of a set of possibilities of the given proposition. Just like an epistemic modal, they specify the degree of certainty about the proposition

¹The modalized questions are glossed as ‘MQ’.

in question.

- (5) a. *Inho-ka pathi-ey o-ci?*
 Inho-NOM party-LOC come-Q
 ‘Is Inho coming to the party?’
- b. *Inho-ka pathi-ey o.nu-nka?*
 Inho-NOM party-LOC come-MQ
 ‘Maybe Inho is coming to the party, maybe not? (I don’t know which)’
- c. *Inho-ka pathi-ey o-lkka?*
 Inho-NOM party-LOC come-MQ
 ‘Might Inho come to the party?’
 ≈ ‘I conjecture (the possibility) that Inho is coming to the party.’

The meaning of epistemic uncertainty expressed by *nka* and *lkka* is revealed in the following examples. As a Q-marker, when (*n*)*ci*, *nka* and *lkka* are affixed on the embedded verbs in (6), they all occur in the complement clause of the verb *kwungkumha* ‘wonder’ (Kim 2016). Unlike the ordinary Q-marker (*n*)*ci*, the MQ-markers *nka* and *lkka* cannot combine with the verb *a(l)* ‘know’ in (7).

- (6) a. *Mina-nun Inho-ka pathi-ey o-nu.nci kwungkumha-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q wonder-DECL
 ‘Mina wonders whether Inho is coming to the party.’
- b. *Mina-nun Inho-ka pathi-ey {o-nu.nka/o-lkka}*
 Mina-TOP Inho-NOM party-LOC come-MQ/come-MQ
kwungkumha-ta.
 wonder-DECL
 ‘Mina wonders if Inho might come to the party.’
- (7) *Mina-nun Inho-ka pathi-ey {o-nu.nci/#o-nu.nka/#o-lkka}*
 Mina-TOP Inho-NOM party-LOC come-Q/come-MQ/come-MQ
an-ta.
 know-DECL
 ‘Mina knows whether Inho is coming to the party.’

Given this, we will show that the function of *nka* and *lkka* involves modal exponents and they bring about a subjunctive effect in that they yield a

weaker commitment interpretation (Schlenker 2003; Portner & Rubinstein 2012; Giannakidou & Mari 2021).

Our main research questions are as follows: First, what are the semantic functions of the two types of modalized question markers in an embedded clause? Second, what does it tell us about the universality and variation of the subjunctive phenomena across Korean and other languages? Given these questions, we want to explore the empirical dimension and show the crosslinguistically extended paradigm of the subjunctive mood. In particular, we argue first that Korean employs distinct types of Q-markers in an embedded clause: As an ordinary Q-marker, *(n)ci* forms a typical interrogative. As MQ-markers, which can be analyzed as an instance of inquisitive disjunction as shown in Section 3, *nka* and *lkka* give rise to an inquisitive subjunctive.

(8) Subtypes of the Korean Q-marker in an embedded clause:

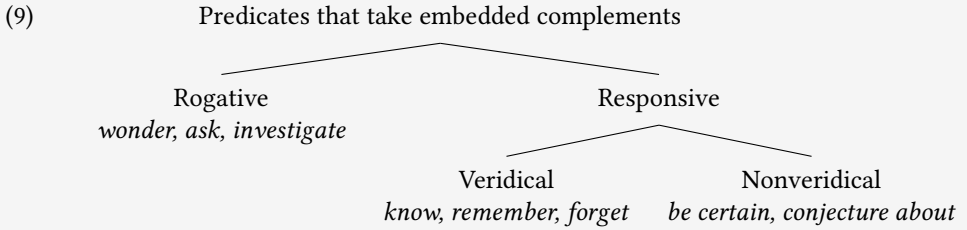
- a. Typical interrogative: *(n)ci*
- b. Inquisitive subjunctive: *nka*, *lkka*

Second, as clarified in Section 2, assuming that inquisitive subjunctive markers combine with nonveridical predicates (Lahiri 2002; Égré & Spector 2007; Uegaki 2015; Theiler & Roelofsen & Aloni 2018), we show how the semantic role of inquisitive subjunctive in Korean can be captured under the general theory of nonveridicality.

The paper proceeds as follows: In Section 2, we discuss the core properties of *nka* and *lkka* by observing what types of attitude predicates they take. In Section 3, to show the status of inquisitive subjunctive, we offer a critical review on theories of modalized questions. In Section 4, we present the interaction between inquisitiveness and nonveridicality. We conclude in Section 5 with theoretical implications.

2 Empirical observation: Distributional restriction on attitude predicates in Korean

Before jumping into the main discussion, we briefly discuss the types of attitude predicates that subjunctive complementizers take. Building on Lahiri (2002), we assume a classification of embedding predicates into rogative and responsive predicates as shown in (9).



A rogative verb only takes an interrogative complement, whereas a responsive verb takes both declarative and interrogative complements. The responsive predicates are further subcategorized into veridical responsive and nonveridical responsive. The following examples show the case of veridical responsive ‘know’ (10) and nonveridical responsive ‘be certain’ (11):

- (10) a. John knows who called.
 b. John knows that Mary called.
- (11) a. John is certain who called.
 b. John is certain that Mary called.

Following Spector & Égré (2015) and Theiler & Roelofsen & Aloni (2018), we assume that responsive predicates express a relation between an attitude holder and a proposition which is an answer to the embedded question. In other words, veridical responsive predicates express a relation between the attitude holder and the proposition that is the actual answer to the embedded question. On the other hand, nonveridical responsive predicates express a relation between an attitude holder and a proposition that is simply a potential answer to the embedded question. Accordingly, the sentence (10a) is true if and only if John knows who called (i.e., ‘Mary called’), which is the true answer of the declarative complement in (10b). On the other hand, for the case of the nonveridical predicate in (11a), the same inference cannot be applied. The sentence is true in those worlds in which the attitude holder considers it possible that Mary called. Accordingly, the sentence (11a) is true if and only if John is certain who called, where ‘Mary called’ was one possibility. As a result, (10a) entails that John’s knowledge corresponds to actuality as to who called, whereas (11a) is true even if John believes that Mary called while in fact it was not the case.

Now let us examine Korean data. Traditionally, the declarative suffix

tako and the interrogative suffix *(n)ci* on the embedded verb have been known to form a split morpho-syntactic system corresponding to English *that* and *whether*, respectively. Just like English complementizers, *tako* and *(n)ci* exhibit complementary distribution with regard to matrix predicates in terms of Lahiri's typology. As shown below, *tako* can take the anti-rogative predicate *mit* 'believe' in (12), whereas it cannot combine with the rogative predicate *kwungkumha* 'wonder' in (13):

(12) Anti-rogative: 'believe'

- a. *Mina-nun Inho-ka pathi-ey o-n.tako mit-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-that believe-PST-DECL
 'Mina believed that Inho is coming to the party.'
- b. #*Mina-nun Inho-ka pathi-ey o-nu.nci mit-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q believe-PST-DECL
 '(lit.) #Mina believed whether Inho would come to the party.'

(13) Rogative (inquisitive): 'wonder'

- a. #*Mina-nun Inho-ka pathi-ey o-n.tako*
 Mina-TOP Inho-NOM party-LOC come-Q
kwungkumhay-hayss-ta.
 wonder-PST-DECL
 '(lit.) #Mina wondered that Inho would come to the party.'
- b. *Mina-nun Inho-ka pathi-ey o-nu.nci*
 Mina-TOP Inho-NOM party-LOC come-Q
kwungkumhay-hayss-ta.
 wonder-PST-DECL
 'Mina wondered whether Inho would come to the party.'

Likewise, in (15), the MQ-marker *nka/lkka* can appear with the rogative verb *kwungkumha* 'wonder' whereas they exhibit distributional restriction in that they never co-occur with the anti-rogative verb in (14):

(14) Anti-rogative: 'believe'

- a. #*Mina-nun Inho-ka pathi-ey o-nu.nka mit-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ believe-PST-DECL
 '(lit.) #Mina believed if Inho might come to the party.'

- b. #*Mina-nun Inho-ka pathi-ey o-lkka mit-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ believe-PST-DECL
 ‘(lit.) #Mina believed if Inho might come to the party.’
- (15) Rogative (inquisitive): ‘wonder’
- a. *Mina-nun Inho-ka pathi-ey o-nu.nka*
 Mina-TOP Inho-NOM party-LOC come-MQ
kwungkumhy-hayss-ta.
 wonder-PST-DECL
 ‘Mina wondered if Inho might come to the party.’
- b. *Mina-nun Inho-ka pathi-ey o-lkka*
 Mina-TOP Inho-NOM party-LKKA come-MQ
kwungkumhy-hayss-ta.
 wonder-PST-DECL
 ‘Mina wondered if Inho might come to the party.’

However, *nka* and *lkka* reveal a huge contrast in the distributional restriction of responsive verbs from the typical interrogative (*n*)*ci*. First, (*n*)*ci* and *nka/lkka* exhibit distinct distributional restrictions in crucial aspects in the sense that, unlike (*n*)*ci*, *nka* and *lkka* never co-occur with factive verbs and epistemic certainty-inducing verbs. They thus never combine with veridical responsive predicates such as *a(l)* ‘know’ and nonveridical epistemic *hwaksinha* ‘be certain.’ Accordingly, *tako* and (*n*)*ci* co-occur with the veridical responsive factive verb *a(l)* ‘know’ in (16a-b), which implies that the subject Mina knows the true answer to ‘is Inho coming to the party?’. On the other hand, *lkka* or *nka* cannot take veridical responsive predicates, as in (16c-d).

- (16) Veridical responsive: ‘know’
- a. *Mina-nun Inho-ka pathi-ey o-n.tako al-ko.iss-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q know-ASP-DECL
 ‘Mina knew that Inho would come to the party.’
- b. *Mina-nun Inho-ka pathi-ey o-nu.nci al-ko.iss-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q know-ASP-DECL
 ‘Mina knew whether Inho would come to the party.’
- c. #*Mina-nun Inho-ka pathi-ey o-nu.nka al-ko.iss-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ know-PST-DECL

- ‘(lit.) Mina knew if Inho might come to the party.’
- d. #*Mina-nun Inho-ka pathi-ey o-lkka al-ko.iss-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ know-PST-DECL
 ‘(lit.) Mina knew if Inho might come to the party.’

Likewise, *tako* in (17a) and *(n)ci* in (17b) are compatible with the nonveridical responsive predicate *hwaksinha* ‘be certain’. On the other hand, the *nka/lkka*-clause cannot take the nonveridical responsive predicate in (17c-d).²

- (17) Nonveridical responsive (epistemic): ‘be certain’
- a. *Mina-nun Inho-ka pathi-ey o-n.tako hwaksinha-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q be.certain-ASP-DECL
 ‘Mina was certain that Inho would come to the party.’
- b. ?*Mina-nun Inho-ka pathi-ey o-nu.nci hwaksinha-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q be.certain-ASP-DECL
 ‘(lit.) Mina was certain whether Inho would come to the party.’
- c. #*Mina-nun Inho-ka pathi-ey o-nu.nka*
 Mina-TOP Inho-NOM party-LOC come-MQ
hwaksinha-ess-ta.
 be.certain-PST-DECL
 ‘(lit.) Mina was certain if Inho might come to the party.’
- d. #*Mina-nun Inho-ka pathi-ey o-lkka*
 Mina-TOP Inho-NOM party-LOC come-MQ
hwaksinha-ess-ta.
 be.certain-PST-DECL
 ‘(lit.) Mina was certain if Inho might come to the party.’

Another important feature in combining with nonveridical responsive predicates is that *nka* and *lkka* exhibit mood flexibility. The most interesting property of *nka* and *lkka* is shown in the case where they co-occur with polysemous verbs such as *siph*, which has four different meanings, namely ‘want, believe, hope, intend’, as illustrated in (18).

²As a reviewer pointed out, the occurrence of *(n)ci* with *hwaksinha* ‘be certain’ is felicitous if the sentence is negative, as in “Mary was not certain (or uncertain) whether Inho would come to the party.” Even in the negative sentence, *nka* and *lkka* cannot combine with *hwaksinha* ‘be certain.’

- (18) Nonveridical responsive: *siph* ‘want; believe; hope; intend’
- a. *ppang-ul mek-ko siph-ta.*
bread-ACC eat-that want-DECL
‘I want to eat bread.’
 - b. *Inho-ka o-lkka siph-ta.*
Inho-NOM come-MQ think/believe-DECL
‘I am doubt if Inho might come.’
≈ ‘I am uncertain whether Inho will com to the party (although it is unlikely to happen).’
 - c. *ilccik ca-ss-umeyn siph-ta.*
early sleep-PST-if hope-DECL
‘I hope to sleep early.’
 - d. *cip-ey ka-lkka siph-ta.*
home-LOC go-MQ intend-DECL
‘I intend to go home.’

Tako and *(n)ci* are not compatible with *siph*, as shown in (19a-b). When *nka* and *lkka* combine with the polysemous verb *siph* that has four potential interpretations, a doxastic meaning is chosen; a conjectural reading (i.e., ‘believe but not know’) arises with *nka* in (19c) while a dubitative reading arises with *lkka* in (19d). Here the dubitative meaning is achieved by the addition of presupposition of unlikelihood on the conjectural interpretation. In so doing, the speaker expresses her non-commitment to the truth of the propositional content, which is the main function of the subjunctive.

- (19) Context: Kim asks Mina if Inho is coming to the party. With uncertainty, Mina says:
- a. *#Mina-nun Inho-ka pathi-ey o-n.tako siph-ess-ta.*
Mina-TOP Inho-NOM party-LOC come-that believe-PST-DECL
‘(intended) Mina was uncertain that Inho would come to the party.’
 - b. *#Mina-nun Inho-ka pathi-ey o-nu.nci siph-ess-ta.*
Mina-TOP Inho-NOM party-LOC come-Q believe-PST-DECL
‘(intended) Mina was uncertain whether Inho would come to the party.’

- c. *Mina-nun Inho-ka pathi-ey o-nu.nka siph-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ believe-PST-DECL
 ‘Mina was **uncertain** if Inho would come to the party.’
- d. *Mina-nun Inho-ka pathi-ey o-lkka siph-ess-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ believe-PST-DECL
 ‘Mina **doubt** that Inho would come to the party.’
 ≈ ‘Mina was **uncertain** if Inho would come to the party (although it is unlikely to happen).’

Further empirical evidence to support this comes from the fact that the emotive and desire reading is only available for *lkka*. In (20), by combining with *twulyewoha* ‘fear’, *lkka* manifests an unfortunate possibility which will be realized.

(20) Emotive: ‘fear’

- a. *#Mina-nun Inho-ka pathi-ey o-n.tako twulyewohay-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q fear-PST-DECL
 ‘(lit.) #Mina feared that Inho will come to the party.’
- b. *#Mina-nun Inho-ka pathi-ey o-nu.nci twulyewohay-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q fear-PST-DECL
 ‘(lit.) #Mina feared whether Inho will come to the party.’
- c. *#Mina-nun Inho-ka pathi-ey o-nu.nka*
 Mina-TOP Inho-NOM party-LOC come-MQ
twulyewohay-ss-ta.
 fear-PST-DECL
 ‘(lit.) #Mina feared whether Inho will come to the party.’
- d. *Mina-nun Inho-ka pathi-ey o-lkka twulyewohay-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ fear-PST-DECL
 ‘Mina feared if Inho might come to the party.’

In (21), by combining with *kitayha* ‘hope’, *lkka* also manifests a fortunate possibility which will be realized.

(21) Desire: ‘hope’

- a. *#Mina-nun Inho-ka pathi-ey o-n.tako kitayha-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q hope-PST-DECL
 ‘(lit.) #Mina hoped that Inho will come to the party.’

- b. #*Mina-nun Inho-ka pathi-ey o-nu.nci kitayha-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-Q hope-PST-DECL
 ‘(lit.) #Mina hoped whether Inho will come to the party.’
- c. #*Mina-nun Inho-ka pathi-ey o-nu.nka kitayha-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ hope-PST-DECL
 ‘(lit.) #Mina hoped whether Inho will come to the party.’
- d. *Mina-nun Inho-ka pathi-ey o-lkka kitayha-ss-ta.*
 Mina-TOP Inho-NOM party-LOC come-MQ hope-PST-DECL
 ‘Mina hoped if Inho might come to the party.’

Table 1 below summarizes the co-occurrence patterns of the various types of attitude predicates and different types of affixes we observed above.

Attitude predicates		<i>tako</i>	<i>(n)ci</i>	<i>nka</i>	<i>lkka</i>
Anti-rogative	<i>mit</i> ‘believe’		*	*	*
Rogative	<i>kwungkumha</i> ‘wonder’	*			
Veridical responsive	<i>al</i> ‘know’			*	*
Nonveridical responsive	<i>hwaksinha</i> ‘be certain’ <i>siph</i> ‘want/believe/ hope/intend’		?	*	*
		‘want’	*	‘conjecture’	‘doubt’
Emotive	<i>twulyewoha</i> ‘fear’	*	*	*	
Desire	<i>kitayha</i> ‘hope’	*	*	*	

Table 1 The co-occurrence patterns of attitude predicates and clausal affixes

Summing up, the inquisitive subjunctive in Korean makes the following crucial distinctions. First, *(n)ci*, *nka* and *lkka* all share the property that they do not combine with anti-rogative predicates. Second, as markers of the inquisitive subjunctive, *nka* and *lkka* cannot co-occur with veridical responsive predicates. Third, when combining with a nonveridical responsive (epistemic uncertainty), *nka* yields a conjecture reading whereas *lkka* gives rise to a doubt reading. Fourth, emotive and desire verbs such as the verb ‘fear’ and ‘hope’ select for *lkka* only. In the next section, we will see the behavior of *nka* and *lkka* when they are in an unembedded clause.

3 Modalized Question: The role of the inquisitive subjunctive in an unembedded clause

In unembedded clauses, the main role of *lkka* and *nka* is to mark a modalized question (MQ). In this section, we briefly introduce the core properties of MQs as proposed in Kang & Yoon (2019, 2020).

3.1 Epistemic modality

The first characteristic of a MQ is that it has the flavor of an epistemic modal. Kang & Yoon (2019a, 2019b, 2020) took the MQ as a question about the possibility of the proposition.³ Unlike the ordinary information-seeking questions whose goal is to receive a true answer from the hearer (Hamblin 1973; Karttunen 1977; Groenendijk & Stokhof 1984), MQs are used to express the speaker's epistemic uncertainty or conjecture on the given propositional content. The examples in (22) show the meaning difference between MQs and regular questions. In (22a-b), we can infer from the MQ-markers *nka* and *lkka* that the speaker, John, considers that 'today is Friday' has a good possibility of being true, while considering the possibility that it is false at the same time. It contrasts with the ordinary question marker *ni* in (22c) which lacks such a conjecture:

- (22) Context: John is not sure whether today is Friday or not. With uncertainty, John says (to himself):
- a. *onul-i kumyoil-i-nka?*
today-NOM Friday-be-MQ
'Maybe today is Friday, maybe not?' [MQ]
 - b. *onul-i kumyoil-i-lkka?*
today-NOM Friday-be-MQ
'Might today be Friday? (although it is unlikely to be).' [MQ]
 - c. #*onul-i kumyoil-i-ni?*
today-NOM Friday-be-Q
'Is today Friday?' [Regular Q]

A MQ questions the speaker's belief and knowledge, and reports on the

³Previous studies have examined this type of question under various labels; they are *self-addressing questions* (Hara & Davis 2013), *conjectural questions* (Matthewson 2010; Eckardt 2020), *subjunctive questions* (Giannakidou 2016).

consideration of a set of alternatives. By uttering MQs, the speaker expresses her weak commitment to the possibility of propositional content (Kang & Yoon 2020: 233, (51)):

$$(23) \quad \llbracket \text{MQ} \rrbracket = \llbracket \text{that it is possible that } p \rrbracket \cap \llbracket \text{that it is not possible that } p \rrbracket$$

The semantic meaning proposed above in (23) shows how a MQ expresses the speaker's perspective towards p by achieving a medium possibility in the modal base characterized as an equiposed epistemic space (i.e., *nonveridical equilibrium* in Kang & Yoon 2020).

3.2 Inquisitive disjunction

The second characteristic of *nka* and *lkka* is that they are instances of inquisitive disjunction. Under the framework of Inquisitive Semantics (Groenendijk & Roelofsen 2009; Ciardelli & Groenendijk & Roelofsen 2019, a.o.), the core function of questions and disjunctions is to contribute issues to discourse. When interlocutors engage in conversation, the conversational effect of informativeness and inquisitiveness arises. The declarative sentence yields informativeness, whereas interrogatives or declaratives with disjunctions give rise to inquisitiveness. When the speaker utters an informative sentence, she provides the information that at least one of the states in p must be compatible with the actual state. When the speaker utters an inquisitive sentence, the proposition embodies a proposal to update the common ground in one or more ways. In other words, disjunction and questions share the property of inquisitiveness in that they both raise an issue by presenting a set of alternatives and demanding that one of them be chosen. The common ground should be enhanced where one of these states is reached. The definition of inquisitiveness and informativeness is as follows:

- (24) Inquisitiveness in terms of possibilities (Groenendijk & Roelofsen 2009: Definition 9):
- a. ϕ is inquisitive in σ iff there are at least two possibilities of ϕ in σ ;
 - b. ϕ is informative in σ iff there is a possibility for ϕ in σ and a possibility is excluded by ϕ in σ .

The notion of inquisitiveness provides a fundamental explanation of the

interrogative-disjunctive affinity in natural languages (AnderBois 2012; Slade 2011; Szabolcsi 2015, a.o.). Likewise, in Korean, the MQ markers *nka* and *lkka* exhibit an interrogative-disjunction affinity as illustrated in (25).

- (25) Context: John knows there is a possibility that today is Friday or Thursday, but he is very uncertain about his inference. John says (to himself):
- a. *onul-un mokyoil-inka kumyoil-i-ta*
 today-TOP Thursday-DISJ Friday-be-DECL
 ‘Today is maybe Thursday or Friday (I don’t know which).’
 - b. *onul-i kumyoil-i-nka/lkka? mokyoil-nka/lkka?*
 today-NOM Thursday-be-MQ Friday-be-MQ
 ‘Maybe today is Friday, or maybe Thursday? (I don’t know which)’

Given that the function of (*i*)*nka* in (25a) is that of a disjunction marker without overt modals (Zimmerman 2001; Geurts 2005) and the function of *nka* in (25b) is that of a MQ marker, they are inquisitive operators. In terms of Inquisitive Semantics, the semantico-pragmatic contribution of *nka* in (25a) and (25b) is the same in that it functions as a join operation of two alternatives. Similarly, *lkka* in (25b) gives rise to an inquisitive interpretation because it is inherently treated as an inquisitive component. Accordingly, MQs in Korean can be analyzed as inquisitive disjunctions, which predicts the common semantic denominator of the disjunction and the questions.

4 Interaction between inquisitiveness and nonveridicality

We propose that the addition of *nka* or *lkka* in an embedded clause produces a weakening, nonveridicality effect, which specifies the degree of certainty about the proposition in the embedded question and gives rise to epistemic uncertainty or doubt interpretation. The inquisitive subjunctive in Korean expresses the speaker’s perspective towards *p* by achieving a partition in the modal base, as defined in (26).

- (26) Licensing condition for the subjunctive mood in Korean:
 The subjunctive is licensed in the complement of attitude predicates that express a relation to *the potential answers*.

Given that the semantics of embedded questions comprises all potential answers, the employment of an inquisitive subjunctive introduces both positive and negative possibilities of p or $\neg p$. If the speaker chooses *nka* or *lkka*, she expresses her weak commitment to the possibility of propositional content, as illustrated in (27).

- (27) a. *Mina-nun Inho-ka pathi-ey o.nu-nka/o-lkka*
 Mina-TOP Inho-NOM party-LOC come-MQ
siph-ess-ta.
 believe-PST-DECL
 ‘Mina is uncertain whether Inho might come to the party.’
- b. (27a) is true iff Mina believes p , where p is a potential answer to ‘will Inho come to the party?’ & Mina is undecided as to where the actual world is on the possible answer sets (epistemic uncertainty)

Despite their overall similarities as MQ markers, *nka* and *lkka* differ from each other since the latter involves a strong irrealis mood with the non-actualizations (i.e. the realm of the unrealized), which makes two crucial differences.

The examples in (28) show significant meaning differences between hypothetical and counterfactual MQs. As shown below, while we can infer from the hypothetical MQ-marker *nka* in (28a) that the speaker, John, considers that ‘today is Friday’ has an equal possibility of being true and false at the same time, the counterfactual MQ-marker *lkka* in (28b) marks a low possibility.

- (28) Context: John is not sure whether today is Friday or not. With uncertainty, John says (to himself):
- a. *onul-i kumyoil-i-nka?*
 today-NOM Friday-be-MQ
 ‘Maybe today is Friday, maybe not? (I don’t know which)’
- b. *onul-i kumyoil-i-lkka?*
 today-NOM Friday-be-MQ
 ‘Might today be Friday? (although it is unlikely to be)’

Further, unlike *nka* (29a), *lkka* can presuppose a counterfactual possibility

in an unembedded clause as in (29b).

- (29) Context: Although John is aware that Santa Clause does not exist in the real world, he wonders how old Santa would be if he exists. John says (to himself):
- a. #*Santa-ka issta-myen, myech-sal-i-nka?*
 Santa-NOM exist-if what-age-be-MQ
 ‘How old might Santa Clause be if he exists?’
 - b. *Santa-ka issta-myen, myech-sal-i-lkka?*
 Santa-NOM exist-if what-age-be-MQ
 ‘How old might Santa Clause be if he exists?’

In the counterfactual context in which Santa exists, only *lkka* in (29b) can be felicitously uttered. This shows that only *lkka* can form a counterfactual inquiry.

Another crucial difference between *nka* and *lkka* comes from the fact that only *lkka* is compatible with expletive negation (EN, a.k.a. evaluative negation, pleonastic negation, vacuous negation) while *nka* is not (Yoon 2011, 2013), as illustrated in (30). When combined with EN, the meaning of *lkka* in emotive predicates is akin to *lest* in English.

- (30) a. *Inho-ka pathi-ey*
 Inho-NOM party-LOC
 {**o-ci-anh-nu.nka/o-ci-anh-u.lkka*}
 come-COMP-EXPL.NEG-MQ/come-COMP-EXPL.NEG-MQ
siph-e.
 believe-DECL
 ‘I conjecture that Inho might come to the party (although it is unlikely to happen).’
- b. *Inho-ka pathi-ey*
 Inho-NOM party-LOC
 {**o-ci-anh-nu.nka/o-ci-anh-u.lkka*}
 come-COMP-EXPL.NEG-MQ/come-COMP-EXPL.NEG-MQ
twulyewo-e.
 fear-DECL
 ‘I fear lest Inho might come to the party (although it is undesir-

able to happen).’

Yoon (2011, 2013) suggests a unified analysis of EN at the pragmatic-semantic interface that can capture the nature of EN across linguistic contexts and languages. In particular, she argues that the main contribution of EN is to mark a scalar meaning of undesirability or unlikelihood, and the modal base of scale varies depending on the context or the epistemic subject’s emotional state, which can be reflected in the tone of voice, for example.

Given this meaning of EN, we can understand why only the low-likelihood or counterfactual *lkka* is compatible with EN, while the medium-likelihood or pure hypothetical *nka* is odd. The dual marking of the low-likelihood or counterfactuality by the combination of *lkka* and EN seems to have a strengthening effect on the undesirability or unlikelihood.

5 Conclusion and implications

In this paper, we showed that there are three distinct mechanisms within Korean and Indo-European subjunctive marking: First, Korean subjunctive can be formally marked at the level of an inquisitive subordinator C. Second, it exhibits rather flexible distributions with respect to the selection by attitude predicates. Third, subjunctive marking has the semantic contribution of commitment weakening rather than merely reflecting modal properties.

Theoretical implication of the current analysis includes the fact that we identify a novel type of subjunctive mood markers that falls under the realm of inquisitiveness. Our empirical findings imply that the tight connection between inquisitiveness, subjunctive, and polarity can be incorporated within a unified perspective of nonveridicality.

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