

A study on subjunctive mood in Korean: Using corpus and experimental linguistic data

Arum Kang (arkang@hknu.ac.kr) & Sanghoun Song (sanghoun@korea.ac.kr)

Data&Puzzle. The goal of current study is to investigate a novel paradigm of subjunctive mood marking in Korean from the crosslinguistic perspective. Subjunctive mood selection refers to the linguistic phenomenon when the complement of certain propositional attitude verbs or complementizers appear in a subjunctive form. Compared to the extensive research conducted in Indo-European languages, the precise nature of Korean subjunctive has yet to be systematically explained, except for some preliminary works (Yoon 2011, 2013; Kang&Yoon 2019a,b, 2020). What underlies in common is that just like Indo-European languages (e.g. modern Greek and Balkan languages), Korean subjunctive mood can be marked on the subordinator C (Giannakidou&Mari 2017, 2021) appearing in the “inquisitive” subordinate C position.

In this work, our main data is four different types of interrogative complementizers which correspond to ‘whether’ in English. The criteria of interrogative complementizers in Korean are subdivided into two parts, i.e. the ordinary complementizer *nci/(u)lci* and the modalized complementizer *(u)lkka/nka*. They are all inquisitive in that they co-occur with rogative verbs *kwungkumha* ‘wonder’:

- (1) Mina-nun Inho-ka pathi-ey o-nunci/o-lci/o-nunka/o-lkka **kwungkumha**-ass-ta.
M.-Top I.-Nom party-Loc come-**whether** wonder-Pst-Decl
‘Mina wondered whether Inho would come to the party.’

Among them, the function of *(u)lkka* and *nka* involves modal exponents and they bring about subjunctive effect in that they yield *subjectively weaker commitment interpretation*. For example, *(u)lkka* and *nka* combine with the doxastic verbs *siph* ‘think/believe’ and they give rise to conjectural/dubitative reading:

- (2) Mina-nun Inho-ka pathi-ey *o-nunci/*o-lci/o-nunka/o-lkka **siph**-ess-ta.
M.-Top I.-Nom party-Loc come-**whether** think/believe-Pst-Decl
‘Mina **was uncertain/doubted** whether/if Inho **might** come to the party.’

Given that doxastic verbs (i.e. predicates of knowledge and belief) have been considered as a typical indicative mood trigger, the use of *siph* ‘think/believe’ in Korean subjunctive is quite surprising. Built on that the valid types of mood trigger vary across languages (Mari 2016b; Mari&Portner 2018; Portner 2018), we want to explore the types of subjunctive mood predicates and their interactions with subjunctive complementizers. Further, we will figure out how the distinct properties between Korean and Indo-European relate to each other. For this, our study mainly focuses on the empirical dimension: First, we will analyze usage-based corpus data; Second, the data will be further verified through the linguistic experiments.

I. Corpus study. The purpose of corpus study is to examine the distributions of subjunctive complementizers and co-occurring predicates. The current corpus-based investigation conducts the *collostructural analysis*; i.e. a statistical tool to measure how a set of lexical items is associated with a specific construction (Stefanowitsch&Gries 2005; Stefanowitsch 2013). The dataset exploited is the Sejong POS-tagged corpus (approximately 15 million of words). We measured the association strength via the Fisher’s Exact Test. The top 16 items are as follows:

COMP	PREDICATE	VALUE	RANK	COMP	PREDICATE	VALUE	RANK
<i>nci</i>	<i>molu</i> ‘not.know’	Inf	1	<i>(u)lkka</i>	<i>po</i> ‘see’	179.5039	9
<i>nci</i>	<i>al</i> ‘know’	Inf	2	<i>(u)lci</i>	<i>uymwuni</i> ‘wonder’	137.6842	10
<i>(u)lci</i>	<i>molu</i> ‘not.know’	Inf	3	<i>nci</i>	<i>hwakinha</i> ‘verify’	132.3629	11
<i>nka</i>	<i>siph</i> ‘think/believe’	319.5983	4	<i>nci</i>	<i>alapo</i> ‘investigate’	117.8666	12
<i>(u)lkka</i>	<i>siph</i> ‘think/believe’	263.4047	5	<i>(u)lkka</i>	<i>ha</i> ‘do’	112.6172	13
<i>nka</i>	<i>po</i> ‘see’	255.6239	6	<i>nci</i>	<i>pwunkanha</i> ‘distinguish’	110.1617	14
<i>nci</i>	<i>kwungkumha</i> ‘wonder’	228.8574	7	<i>nci</i>	<i>mwu</i> ‘ask’	100.2547	15
<i>(u)lci</i>	<i>sayngkakha</i> ‘think’	194.9454	8	<i>nka</i>	<i>mwu</i> ‘ask’	98.23087	16

As shown above, *nci/(u)lci* shows strong collostructional strength with rogative and responsive predicates. On the other hand, *(u)lkka/nka* exhibit strong collostructional strength with nonveridical responsive predicates (Uegaki 2015, 2019) including the inquisitive belief *siph* (Mari 2016b) and emotive *fear* predicates (rank 25), while exhibiting incompatibility with veridical responsive predicates. It leads us to assume that *(u)lkka/nka* is licensed in the complement of attitude verbs that express a relation to the *potential answers* (Égré and Spector 2007).

II. Experiment 1: Context-free. Next, we conducted acceptability judgement task. We extracted 7 predicates and 4 inquisitive complementizers from corpus study, forming 28 sentential constructions. 120 university students were recruited for experiment. The results are as follows:

very good	<i>nci kwungkumha</i> ‘wonder’, <i>(u)lci kwungkumha</i> ‘wonder’, <i>(u)lkka kekcengsulep</i> ‘fear’, <i>(u)lci kekcengsulep</i> ‘fear’, <i>(u)lkka siph</i> ‘think/believe’, <i>(u)lkka kwungkumha</i> ‘wonder’, <i>(u)lkka molu</i> ‘not.know’, <i>nci kekcengsulep</i> ‘fear’, <i>nci kwungkumha</i> ‘wonder’, <i>(u)lci molu</i> ‘not.know’
good	<i>nci molu</i> ‘not.know’, <i>(u)lci siph</i> ‘think/believe’, <i>nka</i> ‘think/believe’, <i>nka molu</i> ‘not.know’, <i>nka kekcengsulep</i> ‘fear’
neutral	<i>(u)lci al</i> ‘know’, <i>nci</i> ‘think/believe’, <i>nci hwaksinha</i> ‘be certain’, <i>nci al</i> ‘know’, <i>(u)lci hwaksinha</i> ‘be certain’
bad	<i>(u)lkka hwaksinha</i> ‘be certain’, <i>(u)lci mit</i> ‘believe’, <i>nka hwaksinha</i> ‘be certain’, <i>nci mit</i> ‘believe’, <i>nka al</i> ‘know’, <i>(u)lkka al</i> ‘know’, <i>(u)lkka mit</i> ‘believe’

(u)lkka/nka exhibit good acceptability with rogative, emotive *fear* and doxastic *siph* predicates, whereas they show bad acceptability with factive predicates and epistemically certain predicates.

III. Experiment 2: Context-sensitive. Based on the result of experiment I, we extracted 4 predicates and form 14 sentences. Setting specific context, we test each sentence to see the speaker’s commitment (10%/50%/90%) on the propositions. The process of Experiment 2 is same as in Experiment 1. The results are as follows:

COMP	PREDICATES	POSSIBILITY	PERCENTAGE	COMP	PREDICATES	POSSIBILITY	PERCENTAGE
<i>nci</i>	<i>kwungkumha</i> ‘wonder’	50%	89.19%	<i>nci</i>	<i>molu</i> ‘not.know’	50%	86.49%
<i>(u)lci</i>			91.89%	<i>(u)lci</i>			75.68%
<i>nka</i>			72.97%	<i>nka</i>			89.19%
<i>(u)lkka</i>			89.19%	<i>(u)lkka</i>			78.38%
<i>nci</i>	<i>kekcengsulep</i> ‘fear’	10%	72.97%	<i>nci</i>	<i>siph</i> ‘think/believe’	10%	56.76%
<i>(u)lci</i>			72.97%	<i>nka</i>		50%	54.05%
<i>(u)lkka</i>			51.35%	<i>(u)lkka</i>		10%	83.78%

Unlike rogative and non-factive predicates, emotive *fear* and doxastic predicates shows weaker (10%) commitment, which leads us to assume that they function as a subjunctive mood trigger.

Conclusion & Implications. As observed through the set of empirical data, we could establish the following core properties of subjunctive in Korean: First, *nka* and *(u)lkka* are lexicalized forms of the inquisitive subjunctive mood exponent appearing in subordinator C. Second, unlike Indo-European languages where mood selection is observed in a strict binary system, Korean subjunctive appears as a subset under the realm of inquisitiveness. Third, building on Marques (2004), we provide crosslinguistic variation on the interaction of indicative, interrogative and subjunctive as follows:

	Context where the proposition <i>p</i> occurs				
	Veridical			Non-veridical	
	Reality		Non-reality		
	Non-epistemic	Epistemic		Non-epistemic	Epistemic
	<i>be good that p</i>	<i>know that p</i>	<i>imagine that p</i>	<i>want that p, fear that p</i>	<i>conjecture that p, doubt that p</i>
Romanian, Hungarian, (Modern) Greek	INDICATIVE			SUBJUNCTIVE	
Portuguese	INDICATIVE		SUBJUNCTIVE		
Italian, Catalan, Spanish, French	SUBJUNCTIVE	INDICATIVE		SUBJUNCTIVE	
Korean	INDICATIVE			SUBJUNCTIVE (<i>u)lkka</i>	SUBJUNCTIVE (<i>u)lkka, nka</i>

Selected References. Giannakidou&Mari. 2021. Truth and veridicality in grammar and thought ♦ Kang&Yoon. 2020. From inquisitive disjunction to nonveridical equilibrium. ♦ Mari&Portner. 2018. Mood variation with belief predicate ♦ Portner. 2018. Mood ♦ Uegaki. 2015. Interpreting questions under attitudes.