

## Effects of Construction Grammar–based Instruction on Unlearning Topic–prominence of Korean EFL Learners’ Interlanguage\*

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Hwang, Saehee. 2019. Effects of Construction Grammar–based instruction on unlearning topic–prominence of Korean EFL learners’ interlanguage. *Korean Journal of English Language and Linguistics* 19–3, 347–370. This study investigates effects of two instructional methods, i) Construction Grammar(CxG)–based instruction and ii) instruction on the ungrammaticality of null arguments in English, in removing topic prominence in Korean EFL learners’ interlanguage. Sixty one college students were divided into two experimental groups and the control group, and they were given a four–week instruction. All three groups took a pretest, an immediate posttest, and a delayed posttest of the same grammaticality judgment task which was designed to measure the learners’ acceptance of topic prominent properties. The results showed that explicit teaching on null arguments was effective only in helping the learners better reject the incorrect null subject sentences in the immediate posttest but such effect was not maintained in the delayed posttest. However, the teaching was not effective in making them recognize the ungrammaticality of null object sentences or other topic–prominent sentences. As for the construction–based instruction, there was no significant improvement found in the learners’ performance except for topicalization. In other words, neither the positive evidence focusing on the target language nor the negative evidence on null arguments contributed to the unlearning of topic prominence transferred from L1.

**Keywords:** topic prominence, Construction Grammar–based instruction, positive evidence, negative evidence, null arguments

### 1. Introduction

According to language typology studies, natural languages can be classified in terms of topic prominence or subject prominence, which influences how a sentence is organized in a particular sentence (Li and Thompson 1976). In a topic prominent (Tp) language, a sentence consists of a topic situated at the initial position of the sentence

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and a comment which provides further information about the topic. On the other hand, in a subject prominent (Sp) language, every sentence comprises a subject and a verb which assigns a theta role to every argument. As Tp and Sp languages are drastically different in their ways of constituting a sentence, it is reported that a speaker of a Tp language like Korean experiences considerable difficulty when trying to acquire an Sp language like English (Hahn 2000, Hwang 2005, 2014, Kim, S-Y 2006 among others). Furthermore, the fact that Tp functions on a discourse level, not on a sentence level (Shi 1989, Tsao 1977) and belongs to the interface of semantics, pragmatics and syntax renders it even more difficult to unlearn.

The ability to generate appropriate sentences in the target language not only enhances accuracy of L2 expressions but it also contributes to fluency in L2 speaking (Kim, R-H 2012, Larsen-Freeman 2006). By acquiring representative sentential structures in the target language, L2 learners can deliver their intended messages fast and correctly. Construction Grammar (CxG)-based instruction may help achieve such an objective in the L2 acquisition in that it focuses on both formal and semantic/discourse features of a sentence. The present study was designed to explore how Korean EFL learners can unlearn topic prominence transferred from their L1 Korean and whether Construction Grammar (CxG)-based instruction is effective in that regard. Since there has been no such study in the literature, it is expected that the findings of this study will make an important theoretical contribution and also be able to suggest pedagogical implications.

This study investigates effects of two instructional methods, I) CxG-based instruction and ii) instruction on the ungrammaticality of null arguments in English, in removing topic prominence in Korean EFL learners' interlanguage, as compared to an ordinary communicative language class. If the CxG instruction is found to be effective in making the participants aware of the ungrammaticality of Tp features in English, it will suggest that positive evidence focusing on the target language alone is sufficient to unlearn the L1 influence. In other words, such a result will imply that acquiring the Sp features of the target language will naturally lead to rejection of the incorrect Tp features transferred from the L1. As for the second type of instruction, it will be first examined whether explicit teaching on the ungrammaticality of null subjects and null objects actually leads to the rejection of them in L2 English. Then, it will be looked into whether such an instruction utilizing negative evidence also helps the learners reject other Tp properties like double nominative constructions and pseudo-passives. If the instruction reduces the learners' incorrect acceptance of topic-comment structures

not directly dealt with in the instructional sessions, it may indicate actual unlearning of topic prominence itself, not just unlearning of null arguments.

## 2. Literature Review

### 2.1. Topic Prominence and Subject Prominence

Among various language typological parameters, topic prominence and subject prominence have been paid much attention to. According to Li and Thompson (1976), the world's languages can be classified into four types — subject prominent, topic prominent, subject and topic prominent, neither subject nor topic prominent. English is a representative subject prominent (Sp) language and Chinese is a topic prominent (Tp) language<sup>1</sup>.

Tp and Sp languages contrast in various aspects. According to Jin (1994), the two types of languages differ in phrase structure rules, distribution of null arguments, use of articles, and presence of double nominative constructions. As illustrated in (1), in Chinese, the most integral entity of a sentence is a topic and it is obligatory. On the other hand, in English, not a topic but a subject is prominent and obligatory.

- (1) Chinese:  $S' \rightarrow \text{Topic } S$   
 $S \rightarrow (\text{NP}) \text{ VP}$   
 English:  $S' \rightarrow (\text{Topic}) S$   
 $S \rightarrow \text{NP VP}$

As for null arguments, Chinese allows a topic, a subject, and an object to be dropped, but English does not allow any type of argument-drop. Moreover, unlike English, Chinese does not have articles but displays double nominative constructions, in which the first NP serves as a topic and the second one is a subject. Xiao (1998) also identified Tp/Sp properties. The Tp properties are absence of subject-verb agreement and dummy subjects like 'it' and 'there', subject- and object-drop, use of

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<sup>1</sup>Li and Thompson (1976) classified Korean as a both subject and topic prominent language, but such a classification has not been accepted unanimously by other researchers nor does it seem to affect the analysis of this study, which investigates the ways to remove topic prominence observed in Korean EFL learners' L2 English.

topicalization and double nominative constructions. In contrast, Sp languages are characterized by use of subject-verb agreement and dummy subjects, verb inflections, and absence of null arguments.

A more important feature of Tp languages is the so-called 'topic chain' operating across sentences, which consists of consecutive topic-comment structures (Huang 1984, Shi 1989, Tsao 1977). Moreover, the topics in the chain which are coreferent to a preceding topic can be deleted through the 'topic NP deletion rule,' as illustrated in (2). In this Chinese example, the topic "na-ke shu" appears overtly only once in the first clause, and the following mentions of the same topic are not phonetically realized whether they appear in the possessive, subject, or object position.

- (2) (na-keshu)<sub>i</sub>, e<sub>i</sub> hua xiao, e<sub>i</sub> ye da, e<sub>i</sub> hen nankan,  
 TOP TOP SUB TOP SUB SUB

That-CL tree, e flowers small, e leaves big, e very ugly,

suoyi wo mei mai e<sub>i</sub>.

SUB

so I not buy e

"The tree, (its) flowers are small, (its) leaves are big, (it) is very ugly, so I did not buy (it)." (Xiao, 1998)

According to Huang (1984), null objects commonly observed in Tp languages are variables resulting from topicalizing objects into sentence-initial topic positions and then deleting them after forming topic-chains with the overt topic, as can be illustrated in (3). That is, null objects are a topic prominent property not displayed in Sp languages.

- ( 3 ) Top<sub>i</sub>, \_\_\_\_\_  
 Topic chain ...  
 [Obj<sub>i</sub>], \_\_\_\_\_ t<sub>i</sub>



Korean is also categorized as a TP language, whose TP features include null arguments, a topic marker '(n)un' and double nominative constructions (Jung 2004, Sohn 1980). Subjects or objects are frequently omitted in Korean when their referents are easily recoverable from previous discourse, the immediate conversational context or general shared knowledge (Hwang 1983). Also, unless there exists some ambiguity or contrastive focus, null arguments are preferred over overt ones. Moreover, although a topic phrase, as in a topicalized or a left-dislocated sentence<sup>2</sup>, is rare and considered marked in English, it is very common in Korean in both spoken and written discourse. The topic in Korean is normally accompanied by a morphological marker '(n)un' as in (4). Also when the topic phrase is followed by a subject, the sentence is termed a double nominative construction, which is a basic sentential structure of Korean.

- (4) Nali-nun    nwun-i    yeypputa.  
 TOP topic    SUB subject  
           marker            marker  
 Nali            eye            pretty  
 "Nali has pretty eyes." (double nominative construction)

Discourse-oriented TP features like the topic chain and the topic NP deletion rule are also prevalent in Korean as illustrated in (5).

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<sup>2</sup> Topicalized sentences, left-dislocated sentences, and double nominative constructions share a common feature of having a topic phrase located in front of the main clause, but they differ in terms of presence of a gap in the main clause or that of a pronoun coindexed with the topic. Topicalized sentences contain a gap in the main clause left by the topicalization process, which is thus coindexed with the topic. These sentences are grammatical and are acceptable in both spoken and written discourse in English. On the other hand, left-dislocated sentences do not have any gap but have a pronoun coindexed with the topic in the main clause. Such sentences are marginally accepted in spoken English. Finally, double nominative constructions contain neither a gap nor a pronoun in the main clause, and they are ungrammatical in English.

- (a) Bulgogi, I like e<sub>i</sub> most. (topicalized sentence)  
 (b) Bulgogi, I like it most. (left-dislocated sentence)  
 (c) Korean dishes, I like Bulgogi most. (double nominative construction)

- (5) (yengswu-nun)<sub>i</sub> e<sub>i</sub> khi-ka khuko, e<sub>i</sub> elkwul-i cal sayngkiko,  
 TOP topic TOP SUB subject TOP SUB subject  
 marker marker marker  
 Yeongsu e height tall, e face handsome,  
 e<sub>i</sub> chakhayse, motwu-ka cohahay e<sub>i</sub>.  
 SUB subject OBJ  
 marker  
 e kind, everyone like e  
 “Yeongsu, (he) is tall, (his) face is handsome, (he) is kind, so everyone likes (him).”

## 2.2. Tp and Sp in Second Language Acquisition

The typological features of the native language seem to affect the learner language especially in the beginning stages of the second language acquisition. For example, Jin (1994) argued that English speakers with low proficiency in L2 Chinese tended to overuse demonstratives and avoid null arguments, which indicates their dependence on L1 grammar. Moreover, according to Xiao (1998), low- to intermediate-level Chinese learners of English could not detect the ungrammaticality of a null subject when its position was filled with a topic, as in (6), although they were able to reject a sentence initiated by a null subject.

- (6) a. **Every day** eat breakfast.  
 b. **Beijing** snows a lot.  
 c. **Chicago** happened a big fire.  
 d. **Here** cannot swim.

The learners showed a similar tendency in embedded clauses as well and rejected incorrect null subjects much more easily when they headed the embedded clause as in (7) than when the clause was head by some other constituent as in (8).

- (7) Feng Yi says failed the test.  
 (8) The teacher says that **tomorrow** must come early.

Similarly, Yip (cited from Hawkins 2001) showed that intermediate-level Chinese

speakers learning English were unable to detect the ungrammaticality of pseudo-passives like (9), where a sentence-initial topic is used along with a null subject and a null object.

(9) This film  $\emptyset$  must see as soon as possible.

Topic

Korean EFL learners also exhibited difficulty rejecting topic prominent features in their interlanguage. Although they could easily detect the ungrammaticality of null subjects from a beginning stage, they showed considerable difficulty in rejecting null objects even at advanced levels (Hwang 2005, Kim 2006, Park 2004). Moreover, according to Hwang (2005), beginning- and intermediate-level Korean learners of English had similar difficulty in rejecting incorrect double nominative constructions. In a study with 167 Korean college students learning English, Hwang (2014) argued that null objects were produced more frequently in the discourse-based writing task than in the sentence-based one, which indicates that object-drop in their interlanguage is influenced by the recoverability of reference from the discourse context, as in their L1 Korean. Furthermore, objects were more likely to be dropped if verbs had more complex argument structures, they were more unfamiliar to the learners, and their objects were optional, which suggests that unlike null subject, null object unlearning is more item-based than rule-based. Thus, it was suggested that instruction on English verb complementation such as Construction Grammar-based instruction would help Korean learners recognize the ungrammaticality of null objects in English.

### 2.3. Construction Grammar in L2 acquisition

Construction Grammar is a theoretical approach in which linguistic analysis and generalizations are conducted using constructions, or form-meaning pairings that provide a sentence with a specific meaning independent of particular lexical items in the sentence (Goldberg 1995, 2006). For example, the three sentences in (10) share the meaning of 'X causes Y to move X' mapped onto the form 'Subject + Verb + Object + Oblique' although the verbs do not possess semantic similarity.

- (10) a. Kim pushed the shoe under the sofa.  
b. They laughed his Hamlet off the stage.  
c. Tracy sneezed the tissue off the table. (Kay 2013, p. 40)

Since native speakers easily describe various scenes using different constructions stored as linguistic knowledge in their mind, learning a second language can be considered as helping the learners express meaning through appropriate constructions. Because Construction Grammar-based instructions focus on both formal and semantic features of sentences, they are expected to enhance the learners' accuracy as well as fluency in the target language.

### 3. Method

#### 3.1. Participants

The participants of this study were 61 college students who were taking a 'College English' course at a two-year women's college in Seoul, Korea. They had been all assigned to the lower intermediate level (the second level out of the three) based on their score of the English placement test administered to all freshmen, which included listening, reading and grammar questions. The participants were recruited from three classes taught by the researcher, which were randomly decided as the control group, the first experimental group or the second experimental group. The participants that could not attend all the experimental sessions — the instructional sessions, the pretest, the posttest, and the delayed posttest — were later excluded in the analysis of the results. Thus, there were 20, 28, and 23 participants in the control group (COG), the first experimental group (null argument instruction group; NAG) and the second experimental group (Construction Grammar instruction group; CGG) respectively.

The two-way ANOVA of the participants' performance in the pretest indicates that the three groups did not show statistically meaningful differences ( $F = 0.067$ ,  $p = .935$ ). Therefore, the three groups can be considered as homogeneous groups.



### 3.2. Procedure and Instrument

Two experimental groups and the control group were given an equal amount of instruction by the researcher and they were only differentiated in the contents and method of the four-week instructional sessions. The first experimental group (NAG) was presented with negative evidence of incorrect subject- and object-drop in English and taught obligatory inclusion of overt subjects and objects. On the other hand, the second experimental group (CGG) was provided with positive evidence on English constructions. Lastly, the control group was taught using the usual college English textbook and provided with various listening, speaking, reading, and writing activities. The class materials for the group did not contain any of the eight constructions used in the experiment nor was none of the constructions given any instructional focus.

All three groups took a pretest one week prior to the first instructional session, an immediate posttest on the last instructional session, and a delayed posttest four weeks after the last instructional session. The three tests were a grammaticality judgment task designed to measure the learners' acceptance of topic prominent properties. Twenty four identical items were utilized across the three tests, but the presented order of the items was different. In the task, the learners were asked to judge the grammaticality of individual sentences on a 5-point Likert scale (-2: completely incorrect, -1: rather incorrect, 0: I don't know, +1: somewhat acceptable, +2: completely correct). The task items included null subjects, null objects, and other topic-prominent constructions. And there were also six distracter items. Following are the actual sentences used in the task.

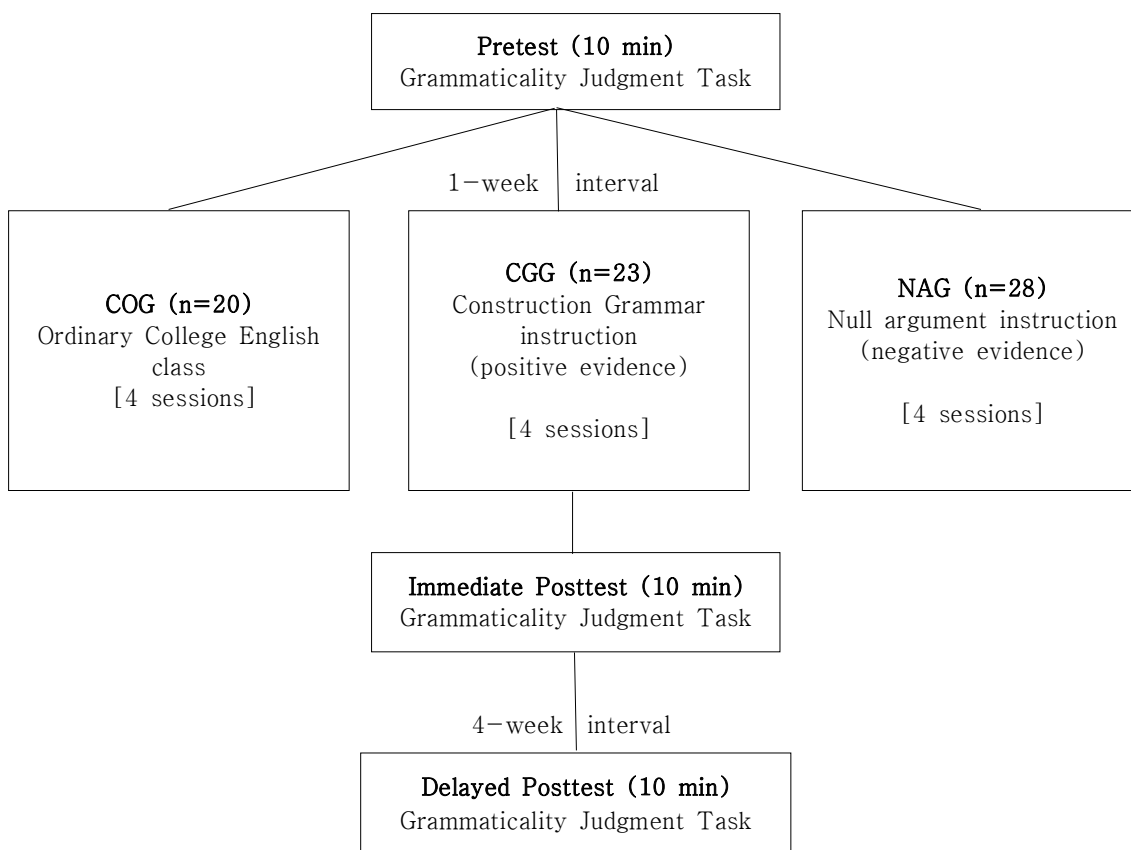


Figure 1. Overall experimental design

**1) null subject in the sentence-initial position**

I must go now. Is eight o'clock.  
I have bought a new bag. Is very pretty.

**2) null object**

Tom told me something surprising, but I don't believe.  
If you write a good book, I will definitely buy.  
I don't know the gentleman. I haven't met before.  
Where is my bag? I can't find anywhere.

**3) topic NP + is (topic marker) + subject + verb phrase**

The tree is the leaves are so big.  
The house is the garden is beautiful.

**4) double nominative construction (topic NP + subject NP + verb phrase)**

The flower, the color is beautiful.

The book, the story is very interesting.

**5) topic phrase + null subject + verb phrase**

January snows a lot in Korea.

Here cannot swim.

**6) left dislocation**

The movie, it is so sad.

The girl, I like her very much.

**7) topicalization**

That pizza, I won't eat.

This man, I really hate.

**8) pseudo-passive**

Rotten food should throw away.

Violent movies should not see.

### 3.3. Instructional Sessions

The two experimental groups were instructed in their assigned way for twenty minutes of each two-hour college English class over four weeks. The first experimental group (NAG) was taught that unlike their L1 Korean, English does not allow subjects or objects to be omitted even when their referents are easily recoverable from the context. To be specific, in the first instructional session, the learners were instructed about general use of pronouns and told that in English, same noun phrases are not used repetitively to refer to the previously introduced entities but are replaced with pronouns, which take different forms depending on the position in a sentence they appear. In the second and third week, it was emphasized that subjects and objects cannot be dropped in English respectively. Finally, in the last session, the ungrammaticality of subject- and object-drop in an embedded clause was looked into. This group was given instruction only on null arguments, but not on other topic prominent structures like double nominative constructions or pseudo-passives. In

every session, the learners were first presented with explicit teaching using examples and then practiced what they learned with various activities such as filling in blanks, guided writing.

On the other hand, the second experimental group was provided with explicit instruction on six key constructions in English: intransitive–motion, intransitive–resultative, transitive, ditransitive, caused–motion, and resultative construction. In the first instructional session, the learners were taught the semantic, syntactic features of the transitive construction. Then, in the second week, they were given instruction on the semantic, syntactic differences between the intransitive–motion and the caused–motion construction. The third session was devoted to the ditransitive construction. And in the last session, the semantic, syntactic differences between the intransitive–resultative and the resultative construction were paid attention to. In each instructional session, the learners were first presented with representative examples of a target construction and asked to find out their semantic, syntactic similarities. Then, explicit explanation about the construction was followed. Finally, the learners tried to internalize the given construction with various activities such as putting words in a correct order to make a sentence, describing a picture, translating given English sentences into Korean.

#### 4. Results and Discussion

The grammaticality judgment task was designed to find out effects of two types of instruction in helping the learners reject topic prominent properties transferred from L1 Korean. The identical grammaticality judgment task was utilized in the pretest, the immediate posttest and the delayed posttest and the learner responses for each experimental sentence type were compared across the three groups and also across the three test periods. For statistical analysis, SPSS repeated–measures ANOVA was used for each experimental sentence type.

The descriptive statistics of the participants' performance on the grammaticality judgment task are summarized in Table 1. Among the eight sentence types, only topicalization is grammatical in standard English and left dislocation is marginally acceptable in colloquial spoken English<sup>3</sup>. Thus, if the Korean learners had behaved like

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<sup>3</sup>Since neither topicalization nor left dislocation is normally used in unmarked written

English native speakers, they would have given positive numbers only to the test questions involving those two constructions and negative ratings to the rest of the questions. The results of the pretest show that although left-dislocated sentences were evaluated as rather grammatical by the Korean learners of all three groups, topicalized sentences were perceived as ungrammatical. As for left-dislocated sentences, the two types of grammar instruction did not change the learners' acceptability and their responses remained similar across the three test periods in all three groups. The two-way repeated-measures ANOVA revealed no significant effect of Time ( $F(2, 278) = 0.892, p = .411$ ) or Group ( $F(2, 139) = 0.137, p = .872$ ) nor was there any significant interaction between Time and Group ( $F(4, 278) = 0.096, p = .984$ ), suggesting that the test scores did not differ by time or by group and that the score difference between the time periods was not disparate among groups. However, when it comes to the topicalization sentence type, COG and CGG improved their perception of its grammaticality especially in the delayed posttest (see Figure 2 and 4), but NAG showed the highest score in the pretest (see Figure 3). According to the results of repeated-measures ANOVA, there was no main effect of Group ( $F(2, 139) = 0.434, p = .649$ ) but a significant effect of Time ( $F(2, 278) = 11.487, p = .000$ ), indicating that the scores were not significantly different across groups but across time periods. There was also a significant interaction of Time and Group ( $F(4, 278) = 3.799, p = .005$ ), which suggests that the learners' different performances in the three time periods were not observed across all three groups. The reason why only NAG did not show any improvement in recognizing the grammaticality of topicalization in English may be related to unexpected effects of the instruction provided to the group. It may be the case that the instruction targeting the ungrammaticality of null subjects and null objects actually led the learners to mistakenly reject all the gaps in object positions although gaps resulting from movement are perfectly grammatical and common in the target language English. In other words, the instruction focusing on incorrect argument drop may make the learners pay attention only to surface features and take the standard SVO word order for granted, but it may not necessarily make them acquire the target norms. However, it is still unclear what made COG and CGG recognize the grammaticality of

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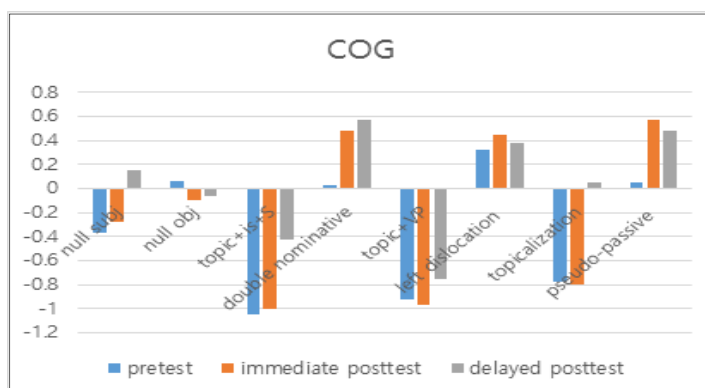
contexts, having presented experimental sentences of such constructions in context-free written form could have influenced the participants' performance in the grammaticality judgment task. However, to maintain the same format in the task and thus prevent any potential unintended task effect, the two constructions were not dealt with differently in the task.

topicalization in the delayed posttest but not in the immediate posttest.

**Table 1. Mean Scores for Each Sentence Type in the Grammaticality Judgment Task**

Sentence Type	Time	Group		
		COG	NAG	CGG
Null Subject	Pretest	-.38 (1.497)	-.43 (1.512)	-.39 (1.556)
	Immediate	-.28 (1.664)	-.113 (1.161)	-.57 (1.500)
	Delayed	.15 (1.562)	-.34 (1.505)	-.20 (1.392)
Null Object	Pretest	.06 (1.512)	.10 (1.548)	-.16 (1.535)
	Immediate	-.05 (1.637)	-.21 (1.612)	.14 (1.494)
	Delayed	-.11 (1.583)	-.03 (1.539)	.32 (1.421)
Topic NP+is	Pretest	-1.05 (1.108)	-1.27 (1.070)	-1.07 (1.218)
	Immediate	-1.00 (1.320)	-.98 (1.286)	-1.09 (1.330)
	Delayed	-.43 (1.583)	-.93 (1.189)	-.83 (1.322)
Double Nominative	Pretest	.03 (1.493)	-.21 (1.398)	.52 (1.410)
	Immediate	.48 (1.585)	.02 (1.567)	.41 (1.454)
	Delayed	.58 (1.517)	.29 (1.398)	.43 (1.424)
Topic NP+VP	Pretest	-.93 (1.366)	-.93 (1.110)	-.96 (1.210)
	Immediate	-.98 (1.291)	-.88 (1.251)	-.83 (1.270)
	Delayed	-.75 (1.316)	-.55 (1.413)	-.39 (1.273)
Left dislocation	Pretest	.33 (1.440)	.18 (1.441)	.17 (1.450)
	Immediate	.45 (1.535)	.30 (1.413)	.46 (1.441)
	Delayed	.38 (1.462)	.30 (1.451)	.33 (1.400)
Topicalization	Pretest	-.78 (1.250)	-.21 (1.449)	-.57 (1.344)
	Immediate	-.80 (1.436)	-.57 (1.425)	-.46 (1.394)
	Delayed	.05 (1.484)	-.39 (1.410)	.17 (1.403)
Pseudo-passive	Pretest	.05 (1.339)	-.04 (1.452)	.20 (1.293)
	Immediate	.58 (1.583)	-.05 (1.507)	-.07 (1.389)
	Delayed	.48 (1.396)	-.05 (1.482)	.11 (1.370)

Note. Each score can range from -2 to 2. Values in the parentheses indicate SDs.



**Figure 2. Grammaticality Judgment Responses of the Control Group**

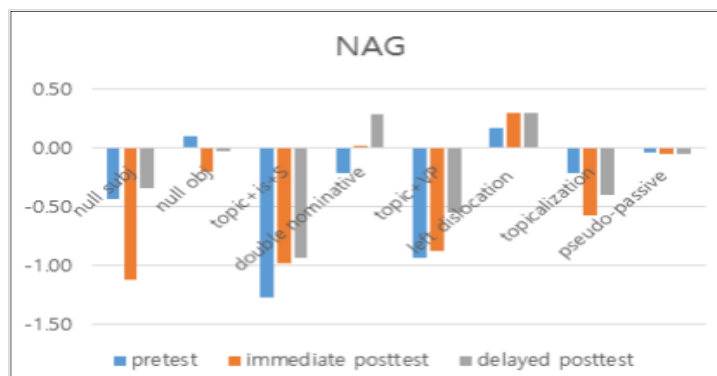


Figure 3. Grammaticality Judgment Responses of the Null Argument Instruction Group

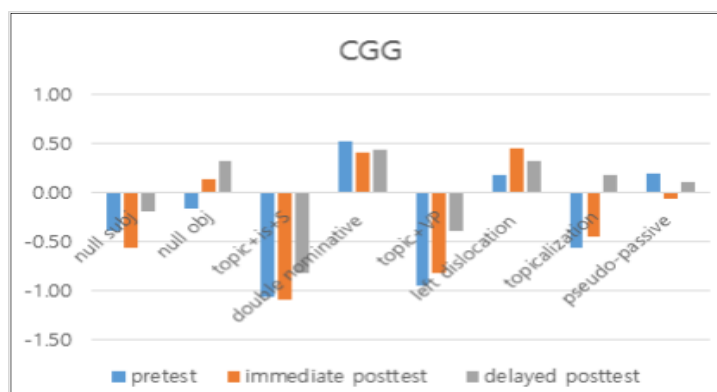


Figure 4. Grammaticality Judgment Responses of the Construction Grammar Instruction Group

As for the null subject construction, only NAG showed a statistically significant effect of Time ( $F(2, 110) = 6.265, p = .003$ ) but the other two groups did not (See Table 2). That is, after receiving the instruction, the learners in NAG could detect the ungrammaticality of incorrect subject drop in English much better but in the other two groups, the learners' performance did not change significantly over time. This finding can be explained by the apparent instructional focus with NAG, for which the ungrammaticality of null subjects was dealt with explicitly and directly. Interestingly, however, such instructional effect was not maintained in the delayed posttest: the learners' rejection of null subjects was lower than that in the pretest. It might suggest that providing an explicit rule that subjects in English should be overt was not sufficient enough to make substantial change to the learner language. In other words,

pieces of conscious knowledge may not be retained for long unless they are subsumed into a newly adopted or adapted principle of processing or generating the target language. Therefore, it may be argued that only when the underlying topic-prominent features that make it possible to delete overt subjects will null subjects no longer be employed by Korean EFL learners.

**Table 2. Results of the Repeated ANOVA between Scores of the Pretest, the Immediate Posttest, and the Delayed Posttest**

Sentence Type	Group		
	COG	NAG	CGG
Null Subject	$F(2, 78) = 2.236,$ $p = .114$	$F(2, 110) = 6.265,$ $p = .003$	$F(2, 90) = .891,$ $p = .414$
Null Object	$F(2, 158) = 0.405,$ $p = .668$	$F(2, 222) = 1.442,$ $p = .239$	$F(2, 182) = 4.183,$ $p = .017$
Topic NP+is	$F(2, 78) = 3.350,$ $p = .040$	$F(2, 110) = 1.526,$ $p = .222$	$F(2, 90) = 0.867,$ $p = .424$
Double Nominative	$F(2, 78) = 2.614,$ $p = .080$	$F(2, 110) = 2.406,$ $p = .095$	$F(2, 90) = 0.144,$ $p = .866$
Topic NP+VP	$F(2,78) = 0.407,$ $p = .667$	$F(2, 110) = 2.248,$ $p = .110$	$F(2, 90) = 4.692,$ $p = .012$
Left dislocation	$F(2, 78) = 0.100,$ $p = .905$	$F(2, 110) = 0.211,$ $p = .810$	$F(2, 90) = 1.137,$ $p = .325$
Topicalization	$F(2, 78) = 12.453,$ $p = .000$	$F(2, 110) = 1.596,$ $p = .207$	$F(2, 90) = 5.749,$ $p = .004$
Pseudo-passive	$F(2, 78) = 2.661,$ $p = .076$	$F(2, 110) = 0.004,$ $p = .996$	$F(2, 90) = 0.566,$ $p = .570$

What is particularly interesting here is that NAG did not show improved awareness of the ungrammaticality of null objects in English despite the instruction that directly dealt with it. Although the learners of the group were more likely to reject null objects in the immediate posttest and the delayed posttest than in the pretest, such difference was not statistically significant ( $F(2, 222) = 1.442, p = .239$ ). COG also showed no significant improvement over time for the null object construction ( $F(2, 158) = 0.405, p = .668$ ) and CGG even became more likely to accept the construction as time passed. This is indicative of particular difficulty unlearning null objects in L2 acquisition, also observed by Yuan (1997), Park (2004), and Hwang (2005) among others. According to Yuan (1997), Chinese learners of English find it much less difficult to get rid of null subjects than null objects because L2 input contains positive evidence that shows subjects should be overtly represented in



English. To be more specific, since English marks subject-verb agreement morphologically but only imperfectly in a sense that only the third person singular is morphologically represented, it requires every verb to be accompanied by an overt subject. As for null objects, on the other hand, there exists no triggering element in the L2 input that mandates use of overt noun phrases for the object positions. In addition, according to Hwang (2005), while null subjects can be prevented by applying one straightforward rule that every tensed verb requires an overt subject, unlearning of null objects poses a more complex problem since various complementation structures that different verbs take make it impossible for L2 learners to create such one simple rule that can be applied to all surface forms. Unlike null subjects, null objects are expected to be completely removed only when the underlying topic-prominent features like topic-chains and the topic NP deletion rule are replaced with subject-prominent features in the L2 acquisition.

As for CGG, the group showed slightly improved judgment of the null subject construction only in the immediate posttest, but such improvement was not maintained in the delayed posttest. And the group's performance difference in the three time periods was not statistically significant ( $F(2, 90) = 0.891, p = .414$ ). When it came to the null object construction, the group actually tended to accept null object sentences as grammatical increasingly over time. Although the main cause for such change is unknown, there could have been some task effect in that the similar pattern was also observed with COG and NAG. For example, COG, though not given any explicit instruction targeting the topic-prominent properties, became more lenient towards quite a few constructions including the null subject construction, the 'topic NP + is' construction, double nominative construction, topicalization, and pseudo-passive and consider them more acceptable as time passed, especially in the delayed posttest. NAG also showed increased acceptance towards constructions such as the 'topic NP + is' construction, double nominative construction, the 'topic NP + VP' construction. In addition, besides the null object construction, CGG displayed significant increase in its grammatical judgment with the 'topic NP + VP' construction and the topicalization construction. Considering that identical experimental sentences were used in all three tests with only their presented order varied, it may have been the case that the learners' growing familiarity with the sentences somehow influenced their judgment about their grammaticality. In short, it can be argued that the instruction provided to CGG was not effective in helping them unlearn null subjects and null objects as well as other topic-prominent features.

It is not clear why the instructional method that depended on positive evidence of the target language failed to lead the learners to reject deviant forms in L2. If the same instruction were given over more extended periods, it might produce different results. However, the failure of CxG-based instruction to remove the topic-prominence in the learner language may be related to its instructional style in which the meaning and form of various constructions are emphasized only on a sentence level with no discourse context provided. On the other hand, subjects and objects in L1 Korean are omitted when they refer to earlier mentioned entities and thus their referents are easily recoverable from the linguistic context. In the sense, null subjects and null objects are governed by principles operating on a discourse level. Then, it may be natural that knowledge of target constructions does not prevent the learners from applying discourse-related rules. Furthermore, the constructions dealt with in CxG are not an exhaustive list in that not all sentences in English can be explained by the finite number of constructions. For example, passive sentences or sentences with relative pronouns do not belong to any present construction. Therefore, it is possible that when faced with experimental sentences not belonging to any construction such as double nominative or pseudo-passive sentences, the learners in the study might have considered them as new types not covered in the instruction. That is, since CxG instruction focuses on possible ways to map a meaning into a form, it may not necessarily lead to ruling out illegitimate forms.

Other than null subjects or null objects, there were considerable differences between the topic-prominent experimental sentences across the three groups. The participants of the study appeared to already know that the 'topic NP + is' construction and the 'topic NP +VP' construction are ungrammatical in L2 English even from the pretest whereas double nominative and pseudo-passive sentences continually posed a great difficulty to all three groups. The two-way ANOVA of the three groups' performance regarding the eight construction types revealed that at the pretest, there was a statistically significant effect of Construction type ( $F(7, 1254) = 19.354, p = .000$ ) but not of Group ( $F(2, 1254) = 0.282, p = .754$ ) nor was there any significant interaction between Group and Construction type ( $F(14, 1254) = 1.051, p = .399$ ). It indicates that at the pretest, the test scores did not differ by group and the three groups behaved similarly but that different constructions posed different difficulty to the participants. Also, the score difference between the construction types was not disparate among groups. The post-hoc analysis of the results showed that as for Group, all the three groups belonged to the same homogeneous subgroup but that as

for Construction type, the eight constructions were divided into five different homogeneous subgroups (see Table 3). Thus, the three groups were able to detect the ungrammaticality of 'Topic NP + is' and 'Topic NP + VP' construction most easily and they were least willing to reject double nominative and left dislocated construction.

**Table 3. Post-hoc Results of the Pretest**

	Construction type	N	1	2	3	4	5
Tukey HSD	Topic NP+is	142	-1.1408				
	Topic NP+VP	142	-.9366	-.9366			
	Topicalization	142		-.4859	-.4859		
	Null Subject	142			-.4014	-.4014	
	Null Object	284				.0035	.0035
	Pseudo-passive	142				.0634	.0634
	Double Nominative	142					.0915
	Left Dislocation	142					.2183
	Sig.			.910	.096	1.000	.076

Interestingly, the same pattern was observed with the immediate posttest and the delayed posttest. The two-way ANOVA of the immediate posttest revealed a significant effect of Construction type ( $F(7, 1254) = 21.418, p = .000$ ) but there was only a marginally significant effect of Group ( $F(2, 1254) = 3.119, p = .045$ ). And there was found no significant interaction between Group and Construction type ( $F(14, 1254) = 1.071, p = .379$ ). Then the post-hoc analysis of the results showed that all the three groups belonged to one homogeneous subgroup but that the eight constructions were divided into two different homogeneous subgroups (see Table 4). Although the number of homogeneous subgroups differed for the pretest and the immediate posttest, the order of constructions arranged according to relative difficulty did not vary. Similarly, the ANOVA of the delayed posttest revealed a significant effect of Construction type ( $F(7, 1254) = 11.382, p = .000$ ) and of Group ( $F(2, 1254) = 3.775, p = .023$ ). However, there was no significant interaction between Group and Construction type ( $F(14, 1254) = 0.933, p = .522$ ). Also, the post-hoc analysis of the results revealed that all the three groups belonged to one homogeneous subgroup but that the eight constructions belonged to four different homogeneous

subgroups (see Table 5). Here again, although the number of homogeneous subgroups differed from that of the pretest or the immediate posttest, the order of constructions arranged according to relative difficulty remained unchanged.

**Table 4. Post-hoc Results of the Immediate Posttest**

Construction type		N	1	2
Tukey HSD	Topic NP+is	142	-1.0211	
	Topic NP+VP	142	-.8873	
	Null Subject	142	-.7042	
	Topicalization	142	-.5986	
	Null Object	284		-.0493
	Pseudo-passive	142		.1197
	Double Nominative	142		.2746
	Left Dislocation	142		.3944
	Sig.			.186

**Table 5. Post-hoc Results of the Delayed Posttest**

Construction type		N	1	2	3	4
Tukey HSD	Topic NP+is	142	-.7535			
	Topic NP+VP	142	-.5563	-.5563		
	Null Subject	142		-.1549	-.1549	
	Topicalization	142		-.0845	-.0845	-.0845
	Null Object	284			.0599	.0599
	Pseudo-passive	142			.1479	.1479
	Left Dislocation	142			.3310	.3310
	Double Nominative	142				.4155
	Sig.			.934	.083	.066

Such a finding indicates that all topic-prominent properties do not disappear instantly via parameter resetting but are unlearned gradually over an extended period and thus that they do not cause the same amount of difficulty in L2 acquisition. It

may also be possible that the learners had already acquired the target sentential structure within the IP domain such as SVO word order, subject–predicate relations because they could easily reject experimental sentences containing ‘topic NP and topic marker is’ or ‘topic NP and null subject’. However, they may not have removed TopP transferred from their L1 Korean yet, which is in the CP domain, given that they have difficulty recognizing the ungrammaticality of sentences with a topic position filled such as double nominative and left–dislocated sentences<sup>4</sup>. Interestingly, unlike double nominative and left–dislocated sentences, topicalized sentences were judged as ungrammatical although they are perfectly acceptable in English. Their tendency to reject topic phrases generated through movement suggests that the topic phrases in these Korean learners’ interlanguage have been base–generated in the CP.

In sum, it can be argued that L1 topic–prominence and L2 subject–prominence are not incompatible but can be coexistent at least at some points of the learners’ interlanguage. That is because subject–prominence can be accomplished only on the sentence level while topic–prominence also functions across sentences. Therefore, some Korean learners may have acquired subject–prominent features of English like subject–predicate relations within the IP domain but they may still retain discourse–oriented features like a topic chain and the topic NP deletion rule transferred from their L1.

## 5. Conclusion

The present study explored instructional effects of construction–based teaching and explicit teaching of the ungrammaticality of null arguments in English in removing topic–prominence in Korean EFL learners’ interlanguage. The results showed that the explicit teaching was effective only in helping the learners better reject the incorrect null subject sentences in the immediate posttest but such effect was not maintained into the delayed posttest and that the teaching was not effective in making them recognize the ungrammaticality of null object sentences or other topic–prominent sentences. As for the construction–based instruction, there was found no significant improvement in the learners’ performance except for topicalization. Therefore, it can be

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<sup>4</sup> What causes the learners’ particular difficulty with pseudo–passive requires further research, which could be attributed to their yet–to–acquire passive voice or to their adherence to topic NP and null arguments.

concluded that neither the positive evidence focused on the target language nor the negative evidence on null arguments contributed to the unlearning of topic prominence transferred from L1.

In light of the findings above, the present study draws the following implications for pedagogical practices. First, in order to overcome topic prominent features operating in a discourse level and acquire legitimate sentence structures of the target language, Korean EFL learners should be provided with more explicit instruction on such features from a discourse-grammar perspective. They should be given sufficient practice to process and generate correct sentences in a meaningful context and 'correctness' should not be decided within an isolated sentence. The learners will also benefit from negative evidence that directly deals with different topic prominent constructions in a form of formal explanation or corrective feedback.

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예시 언어(Examples in): 영어(English)

적용가능 언어(Applicable Languages): 영어(English)

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