https://doi.org/10.24303/lakdoi.2018.26.3.71

English Sentential Subject Extraposition: A Constraint-Based Approach

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Lee, Seung Han. (2018). English sentential subject extraposition: A constraint-based approach. *The Linguistic Association of Korea Journal*, *26*(3), 71-87.
This study provides a systematic account of the properties of sentential subject extraposition (SSE) with the help of sign-based construction grammar which enables SSE construction to inherit multiple constraints through an inheritance hierarchy. In doing so, we take a closer look at a total of 414 examples of SSE structures from COCA and then describe their properties. Adjectival predicates stay on the top of frequency rate, and simultaneously convey an objective and evaluative stance. The information structure within an extraposed sentential subject is not always discourse-new, thus not being an absolute answer for its movement. The heaviest grammatical weight within an extraposed constituent also does not become a fundamental trigger for the extraposition. Not surprisingly, the conclusive statement on why the sentential subject is extraposed is the result of a stronger focus effect, whereby prominence maximizes a speaker's illocutionary act. Considering these facts, in a constraint-based analysis, we employ a Head-Extra Construction and then subcategorize it into a Head-Noun-Extra Construction in order to explain the case when a head noun selects a nonlocal EXTRA feature. The main predicate of an SSE construction is specified as a verb lexeme to allow a finite auxiliary as well as a finite main verb. It is also licensed from *core-cl*, so its declarative and interrogative clauses are allowed in English. Last, we add a FOCUS feature to the feature structure in order to reflect a speaker's prosodically marked point. Consequently, all these constraints license English sentential subject extraposition.

Key Words: SSE, sentential subjects, extraposition, focus effect, EXTRA

1. Introduction

Sentential subject extraposition (hereafter SSE) is a marked feature in English, allowing a grammatically heavy constituent like *that*-clause, *wh*-clause, or infinitival clause to be extraposed at the sentence final. SSE construction is well attested by the authentic data from COCA (Corpus of Contemporary American English) introducing 410 million words of American English[1]):

(1) a. It is unclear [why the Santelli manuscript itself was never published]. (COCA, 2015)
b. It was assumed [that the teachers answered all written and oral questions honestly]. (COCA, 2015)
c. Thus, it appears [that this change was difficult for these teachers]. (COCA, 2015)
d. It 's really hard [for me to take something I make up in my head and put it on the paper]. (COCA, 2015)
e. It is worth remembering [that the Arno, in 1966, was not just any river]. (COCA, 2015)

As exemplified in (1), a verb predicate or a predicative complement of copula *be* is followed by a clausal element and at the same time an expletive *it* resides at a subject place. This systematic feature enables speakers to productively and easily employ SSE construction (Sag et al., 2003):

(2) a. [That dogs bark] annoys people.
b. It annoys people [that dogs bark]. (Sag et al., 2003, p. 338)
(3) a. [That the Cardinal won the game] gave Sandy a thrill.
b. It gave Sandy a thrill [that the Cardinal won the game]. (Sag et al., 2003, p. 339)

As described like (2b) and (3b), sentential subjects are extraposed. Even the clausal subject in (3b) goes beyond several grammatical functions without any

1) It is freely available at http://corpus.byu.edu/coca.

restriction: predicator, indirect object, direct object. At this point, one thing to notice is that a noun subject is not allowed to undergo the extraposition (Miller, 2001):

(4) a. [The fact that a bloodthirsty, cruel capitalist should be such a graceful fellow] was a shock to me.
b. *It was a shock to me [the fact that a bloodthirsty, cruel capitalist should be such a graceful fellow]. (Miller, 2001, p. 684)

A complex and long NP subject in (4b) cannot be extraposed to the end of a sentence. Another thing to remember is that the subject *it* of SSE construction is considered as a semantically dummy noun, thus conveying no meaning[2]:

(5) a. It bothers me that John speaks loudly.
b. ***What*** bothers you that John speaks loudly? (Kim, 2008, p. 118)
(6) a. For him to smoke is itself illegal.
b. *It is **itself** illegal for him to smoke. (Kim, 2005b, p. 856)
(7) a. *That Pat is innocent proves.
b. **It** proves that Pat is innocent. (Sag et al., 2003, p. 339)

As attested by a *wh*-question test like (5), such a replacement in (5b) is not allowed since the subject *it* in (5a) is semantically null. Both sentences in (6) also describe the difference between an expletive *it* and anaphoric *it*. The reflexive *itself* in (6b) does not have an emphatic function to stress the expletive *it* in the same way of the usage of the anaphoric pronoun. In addition, a lexical item *it* in (7b) featured with a referential pronoun is different from an expletive *it*, thus enabling (7b) to be grammatical.

Considering all properties of SSE construction, it can be schematized as follows[3]:

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2) The subject of SSE construction makes a listener or reader anticipate what occurs later within an identical sentence, so it is called anticipatory *it* (Kaltenböck, 2003). This anticipatory *it* takes a middle status between the referential *it* indicating a narrow entity and the prop *it* denoting general and wide reference (e.g., weather, time, circumstance).

3) See Lee (2017b) for more details.

(8) Subject[expletive *it*]+VP[*finite*]+[Extraposed Sentential Subject [GAP < >]]

The template in (8) tells us that a dummy *it* precedes a main predicate featured with *finite* tense. An extraposed sentential subject is already discharged with no need of any filler, thereby implying that the clausal constituent is complete. This schema can differentiate SSE construction from other seemingly similar structures:

(9) a. Few books are published today **that treat the matter of heretical ideas**. (COCA, 2015)
b. It 's the principal **who makes the schedule**. (COCA, 2015)
c. The problem then arose (of) **what contribution the public should pay**. (Quirk et al., 1985)

A restrictive relative clause in (9a) is extraposed to the sentence final position, violating an X-bar phrase structure. Not only does it has a gap, but its antecedent is also referential. For the case of *it*-cleft sentence like (9b), the expletive *it* is interpreted to be semantically inert (Reeve, 2011). However, a focused NP *the principal* is derived from *who*-clause, thus being coindexed with a gap NP within the incomplete sentence. The example like (9c) also shows the extraposition of a phrase from inside an NP, but its subject is not expletive. Therefore, all of the structures like (9) are not licensed as SSE construction.

With the consideration of these aspects, this paper introduces a constraint-based approach to SSE construction. In doing so, first of all we identify the corpus findings of SSE construction. We further review previous literatures and analyze SSE construction in terms of sign-based construction grammar.

2. Corpus Findings

We took a closer look at a total of 414 data of SSE construction from COCA showing the registers of spoken and written English from a wide range of sources. This attempt also helps contribute to the acquisition of the target

language in an appropriate way.

First, we classified the predicates of SSE construction into several categories: predicative complement of copula *be*, passive voice, and general verb predicate.

(10) a. It **is unclear** why the Santelli manuscript itself was never published.
b. It **was assumed** that the teachers answered all written and oral questions honestly.
c. Thus, it **appears** that this change was difficult for these teachers.

As shown in (10), the adjectival predicate hits the top in frequency rate (52.17%), followed by the passive voice as the secondary status (27.05%). In light of this point, Zhang (2015) elaborates that SSE construction is frequently used in scientific academic writing in order to express an objective and impersonal stance, so the passive voice takes priority over other predicates. However, in this corpus study the deontic predicates (e.g., *it is imperative/necessary*) and epistemic (e.g., *it is true/clear/likely*) are more commonly employed.

Sag et al. (2003) claim that a particular group of verbs conveying 'badness' selects the extraposition of a sentential subject:

(11) a. That the Giants lost the series (really) **bites**.
b. It (really) **bites** that the Giants lost the series.
(Sag et al., 2003, p. 339)

The sentence like (11b) explains that the meaning of a verb predicate *bites* results in the extraposition. However, in contrast with the validity of the criteria, this corpus study provides us with a wide range of lexical verbs with diverse meanings:

(12) *occur, matter, remain, begin, seem, appear, turn out, become, stand,* etc.

As exemplified in (12), the main verb predicates of SSE construction do necessarily not have the implication with 'be bad'. In light of this rigour, the extraposition of a sentential subject depersonalizes a given information, thus

enabling speakers to deliver the generally objective messages rather than their subjective thoughts. (Collins, 1994; Kaltenböck, 2004; Kim, 2005a). In addition, if a sentential subject is not explicitly inferred or evoked from the preceding lines or context or it is the new information that hearers cannot feel familiar with, it is appropriate to extrapose the sentential subject to the end of a sentence (Huddleston & Pullum, 2002).

On the other hand, we also delved into the extraposed sentential types:

(13) a. Thus, it appears **that** this change was difficult for these teachers.
b. It 's really hard for me **to** take something I make up in my head and put it on the paper.
c. It is worth remembering **that** the Arno, in 1966, was not just any river.
d. It is unclear **why** the Santelli manuscript itself was never published.
e. As expected, it was revealed **[∅]** there has been rapid growth in AP test-taking. (COCA, 2015)

The most frequently occurring sentential type is *that*-clause (55.80%), followed by infinitival clause (35.51%). Other types like *wh*-clause and *that*-ommission clause take up a small portion of corpus data. Interestingly, an extraposed *that*-clause in (13c) is not commonly allowed to be extraposed, but its extraposition can convey the marginal information (Smolka, 2005). Its adjectival predicates largely evaluate the content within the extrposed *that*-sentences: *worth*, *nice, bad (enough), (no/quite) good, weird,* etc.

One thing to notice is that contrast to previous analyses, the information within the extraposed sentential subject is not necessarily discourse-new:

(14) The author also supported Sand's conclusion that **Israel** should not be recognized as a Jewish state yet should be allowed to exist, much like a baby born as the result of rape. In the article, Sand expressed his position against **Israel's war** on Hamas. When asked about **the rocket attacks on Israeli citizens**, he is quoted as saying: It 's true; it 's not normal that **rockets are launched at Israel**. (COCA, 2015)

Like the counterevidence in (14), the information within an extraposed sentential subject can be discourse-old and traced from prior background.

According to Wasow (2002)'s PEW, the extraposition of a sentential subject with ever growing weight in SSE construction serves to satisfy PEW[4]. In addition, the relative grammatical weight of a subject to a main predicate can be a decisive factor for the extraposition of a sentential subject (Davies & Dubinsky, 2009). Therefore, we investigated the average number of constituents occurring within SSE construction from this corpus data, adopting Francis and Michaelis (2016)'s method that the criterion for the grammatical weight is word-based units, not length in syllables:

Table 1. Grammatical Weight

	Predicates	Extraposed Sentential Subject
Average Length (Word-Based)	2.32	13.7

An extraposed clause has the inclination to hold the heaviest grammatical weight, thus not violating PEW. However, this grammatical heaviness cannot be a definite and fundamental answer for the extraposition phenomenon:

(15) [That much of what he calls folklore is the result of beliefs carefully sown among the people with the conscious aim of producing a desired mass emotional reaction to a particular situation or set of situations] is irrelevant. (Huddleston & Pullum, 2002, p. 1405)

The sentence like (15) tells us a different story that a subject of non-SSE construction does not need to be fairly short. Here, this long sentential subject serves as a summary of the preceding lines, so its familiarity and felicity are accepted to an addressee in spite of the extremely heavy weight.

Taking into consideration the above-mentioned facts, Focus Effect Principle provides a plausible answer for why the sentential subject is extraposed (Lee, 2017a; Lee, 2017b). The 'focus' term is interpreted as pitch increase, not new

4) Principle of End Weight (PEW) (Wasow, 2002): phrases are presented in order of increasing weight.

information within information structure. A sentence consists of a subject (i.e., non-focused part) and a main predicate (i.e., focused element); a pitch rise usually occurs within the area of the predicate in order to convey a speaker's main point remarkably. The main predicate is classified into a shorter focused or longer focused one according to its total word length[5]. This logic also goes to the subject classification. Thus, a sentence is made solely on grounds of the combination of such four factors involved. They are hierarchically ordered to determine a varying degree of the pitch increase, and not surprisingly the extraposition is triggered to maximize focus effect:

(16) Hierarchy of Focus Effect Determiners (Lee, 2017a, p. 103):
Shorter Non-Focus > Shorter Focus > Longer Focus > Longer Non-Focus

As described in (16), the shorter non-focused subject is the most powerful determinant to trigger the strongest focus effect, whereas the longer non-focused subject is a trigger to result in the least focus effect. These factors are combined to explain the different degree of focus effect as follows:

Table 2. Focus Effect Table (Lee, 2017a, p. 103)[6]

		Predicate	
		Shorter Focus	Longer Focus
Subject	Shorter Non-Focus	**1st** e.g., pseudo-cleft	**2nd** e.g., RCE, *it*-cleft, pseudo-cleft followed by an adjunct
	Longer Non-Focus	**3rd** e.g., non-RCE	**4th** no case

According to Table 2, a sentence consisting of a shorter non-focused subject and a shorter focused predicate produces the strongest focus effect (i.e., 1st)[7]. One

5) The criterion on 'Shorter' term is available when the words range from one to six, whereas 'Longer' term accommodates more than seven words (Lee, 2017a).
6) RCE is relative clause extraposition construction. See Lee (2017a) for more details.
7) When a shorter focused predicate and a shorter non-focused subject compose a sentence such as pseudo-cleft, its pitch rise within the predicate is strongest (Lee, 2017a):
(i) What they ought to start doing **is taping**. (Buckeye Speech Corpus)

thing to notice is that the extraposition (i.e., 2nd) is preferred over its canonical structure (i.e., 3rd) because its non-focused subject becomes shorter, thus resulting in stronger focus effect:

(17) a. Few books are published today [that treat the matter of heretical ideas.] (COCA, 2015)
b. Few books [that treat the matter of heretical ideas] are published today.

As repeated here, the relative clause extraposition like (17a) conveys a speaker's point more remarkably with the help of stronger focus effect. This logic can be applied to SSE construction.

(18) a. It is unclear [why the Santelli manuscript itself was never published]. (COCA, 2015)
b. [Why the Santelli manuscript itself was never published] is unclear.

Once again, a sentential subject in (18a) has no choice but to move at the end of a sentence in order to produce stronger focus effect than its canonical structure like (18b) because a shorter non-focused subject is highly favored in order to maximize a speaker's illocutionary act.

3. Previous Analyses

From the perspective of transformational approach, an expletive *it* of SSE construction occurs in a derivational process. An extraposed sentential subject is derived from within VP, but it is preposed to the front of a sentence when a canonical structure is generated (cf. Chomsky, 1981; Groat, 1995):

(ii) What you really need to do **is like in the morning when you're all done dressed you need to look the mirror and go**. (Buckeye Speech Corpus)

The focus effect (i.e., pitch rise) of a sentence like (ii) is weaker than one like (i) because the word length of the predicate in (ii) is extremely longer.

(19) a. [[e] hits me [that Rob isn't in his twenties]].
b. [That Rob isn't in his twenties]*i* hits me [t*i*]. (*that*-move)
c. [[It] hits me that Rob isn't in his twenties]. (*it* insertion)
(Kim, 2005a, p. 152)

A deep structure like (19a) enables *that*-clause to become a base-generated one within VP. For the case of SSE structure like (19c), the expletive *it* occurs during a transformational process, whereas *that*-clause goes to leftward direction as described in (19b). Even if this argument well reflects a certain property of SSE construction, it provides a rather circular explanation for what is a driving force behind the leftward movement and the insertion of the dummy *it*.

Another alternative claim is that SSE structure is lexically determined, so it is appropriate to analyze it by a lexical rule under the feature structures of HPSG system (Kim, 2005a; Kim, 2005b; Sag et al., 2003)[8]. Its constraint-based analysis well provides a systematic account:

(20) Extraposition Lexical Rule (Kim, 2005a):

$$\left[\text{ARG-ST } \boxed{A} \oplus \left\langle \boxed{1} \right\rangle \oplus \boxed{B}\right] \Rightarrow \left[\begin{array}{l}\text{ARG-ST } \boxed{A} \oplus \left\langle \text{NP}\left[\text{FORM } \textit{it}\right] \right\rangle \oplus \boxed{B} \\ \text{EXTRA } \left\langle \boxed{1}\left[\text{CONT } \textit{message}\right] \right\rangle\end{array}\right]$$

This lexeme-focused ARG-ST implies that one lexeme is specified as a word, thus being applied to a word level, not to a phrasal level. The rule puts the semantic condition on an extraposed sentential constituent, thereby being featured with *message* type. A head verb choosing a sentential complement (i.e., $\boxed{1}$) changes into another taking both a dummy *it* and selecting CP featured with EXTRA. Subsequent to Kim and Sag (2005, p. 202) and Kim and Sells (2008, p. 248), we are also in the same vein with the introduction of English extraposition to be a nonlocal dependency, thus being featured with nonlocal EXTRA as follows:

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8) The abbreviations used here are HPSG(Head-driven Phrase Structure Grammar), ARG-ST(ARGUMENT STRUCTURE), CONT(CONTENT), and EXTRA(EXTRAPOSITION). The elements in the ARG-ST are syntactically a subject and complements (Kim, 2005b).

(21) Head-Extra Construction (Kim & Sells, 2008, p. 248):
[EXTRA < >] → H[EXTRA <1>], 1

This rule like (21) proposes that EXTRA feature passes up to a higher node with its head discharged, so it can be used in the analysis of other types of extraposition phenomena when a head selecting the EXTRA feature is a noun, not a verb:

(22) a. **The problem** then arose (of) what contribution the public should pay.
b. **Few books** are published today that treat the matter of heretical ideas.
c. **It** is unclear why the Santelli manuscript itself was never published.

As repeated in (22) again, EXTRA featured with a postposed sentential subject as well as a prepositional phrase and restrictive relative clause is percolated up to the mother node even if their heads are nouns. It does not also have an effect on the violation of Head Feature Principle (hereafter HFP)[9]. Consequently, the fact tells us that the phrases constructed by a head bearing an extraposed element are independently allowed in English. At this point, we feel the necessity to add the extra information on why the extraposition phenomenon occurs. As introduced earlier, a sentential subject like (22c) can be extraposed to the sentence final in order to convey a speaker's illocution with the help of stronger focus effect. We will light this issue in a constraint-based analysis.

4. A Constraint-Based Approach

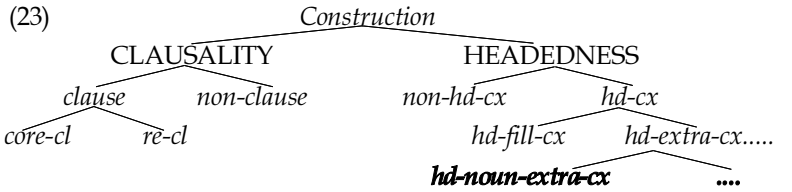
Our job here is to provide a systematic account on the characteristics of SSE construction and simultaneously formalize them with the help of feature

9) According to Head Feature Principle (HFP), a phrase's head feature (e.g., POS(part of speech), VFORM(verb form), etc.) should be identical with that of its head (Kim & Sells, 2008, p. 74).

structures of sign-based construction grammar (hereafter SBCG)[10]. The system has been considered to be in a similar vein with HPSG, thus enabling SSE construction to inherit multiple constraints through an inheritance hierarchy.

Taking into consideration the case when a head noun selects an extraposed sentential subject, the Head-Extra Construction like (21) can explain SSE construction as well as other extraposition structures introduced here[11]:

(23)



As described in the multiple inheritance hierarchy of (23), Head-Extra Construction is subcategorized into Head-Noun-Extra one constraining the examples like (22). One thing to notice here is that the EXTRA feature of a head noun can be passed up to the sentence node without the violation of HFP; it is nonlocal feature. In other words, EXTRA feature automatically moves up to the top node of a sentence regardless of a head's grammatical category.

We should also consider that a head verb feature of SSE construction is licensed by *core-cl* in (23), which is subcategorized into declarative and interrogative clause. At first glance, SSE construction is constrained by English Declarative Sentence rule:

(24) English Declarative Sentence Rule (Kim & Sells, 2008, p. 51):
Each declarative sentence must contain a finite VP

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10) The features abbreviations used here are ARG-ST(ARGUMENT-STRUCTURE), DTRS (DAUGHTERS), COMPS (COMPLEMENTS), POS(PART OF SPEECH), SUBJ(SUBJECT), AUX (AUXILIARY), SPR(SPECIFIER), EXTRA(EXTRAPOSITION), DEF(DEFINITENESS), SIT (SITUATION), SYN(SYNTAX), RESTR(RESTRICTION), SEM(SEMANTIC), H(HEAD), hd(HEAD), MTR(MOTHER), cxt(CONSTRUCT), MARKG(MARKING), CNTXT(CONTEXT)

11) The expressions we employ here are *hd-fill-cx: head-filler-construction/ core-cl: core-clause/ hd-cx: headed construction/ rel-cl: relative-clause/ int-cl: interrogative-clause/ decl-cl: declarative-clause* (Sag et al., 2003, p. 487).

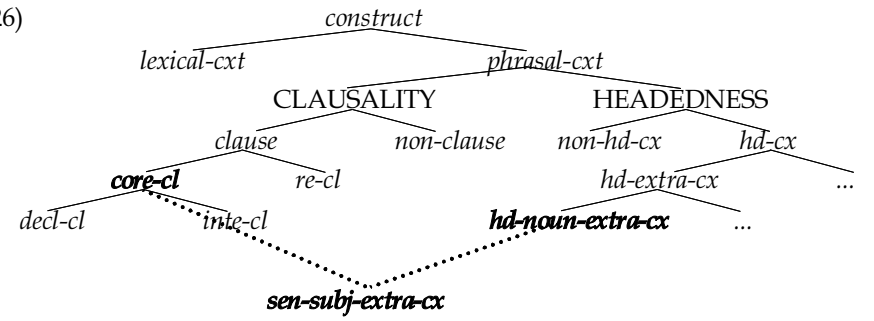
This constraint forces a sentence to be headed by a verb with a finite feature. As introduced in the corpus findings of SSE construction, its main predicates are classified into passive voice, predicative complement of copula *be*, and general verb predicates reflecting verb lexemes. Thus, the main predicate of SSE construction will be specified as *verb-lxm*[12]. On the other hand, SSE construction can undergo subject-auxiliary inversion in order to make an interrogative clause:

(25) a. **Is it unclear** why the Santelli manuscript itself was never published?
b. **Would it be unclear** why the Santelli manuscript itself was never published?

Finite auxiliaries in (25) are allowed to move to the sentence initial in SSE construction. The last thing to notice is that as discussed earlier, an extraposed sentential subject of SSE construction is complete with no gap, conveying the generally objective messages and simultaneously a semantically dummy *it* is left behind at a subject place.

Consequently, we propose that SSE construction inherits multiple constraints through a hierarchy while reflecting Kim (2004, p. 39) and Boas and Sag (2012, p. 173)'s studies:

(26)



As sketched in (26), constraints are inherited into SSE construction, licensed by a non-inverted and inverted finite VFORM (i.e., *core-cl*) and Head-Noun-

12) See Boas and Sag (2012, p. 173) for more details.

Extra-construction (i.e., *hd-noun-extra-cx*) characterized when a sentential subject is extraposed. This reasons that the subject position needs a noun grammatical category. In addition, the main predicate of SSE construction will be specified as verb lexemes, so it allows finite auxiliary as well as finite main verb. Thus, all these constraints license English sentential subject extraposition. One problem we face is that there seems to be no structural difference between SSE construction and other types like (22a) and (22b), but the salient difference among them is specified in the system like (27).

Last, the constraints of SSE construction can be illustrated in a sign-based system:

(27) Sentential-Subject-Extraposition Construction

$$sen-subj-extra-cxt \left[\begin{array}{l} \text{MTR} \left[\begin{array}{l} \text{SYN} \left[\begin{array}{l} \text{HEAD } \boxed{1}\left[\begin{array}{l} \text{VFORM } \textit{fin} \\ \text{PHON } [\text{FOCUS } +] \end{array}\right] \\ \text{EXTRA } \langle \quad \rangle \end{array}\right] \\ \text{SEM} \left[\begin{array}{l} \text{MODE prop} \\ \text{SIT } S_1 \end{array}\right] \end{array}\right] \\ \text{DTRS} \left\langle H, \boxed{2}\left[\begin{array}{l} \text{SYN} [\text{GAP} \langle \quad \rangle] \\ \text{SEM} \left[\begin{array}{l} \text{MODE prop} \\ \text{SIT } S_2 \end{array}\right] \\ \text{CNTXT } \textit{objective message} \end{array}\right] \right\rangle \\ \text{HD-DTR } H\text{:} \left[\begin{array}{l} \text{HEAD } \boxed{1} \\ \text{SPR} \langle \quad \rangle \\ \text{EXTRA} \langle \boxed{2} \rangle \end{array}\right] \end{array}\right]$$

As described in (27), a head daughter's specifier (i.e., SPR) is already discharge with a subject (i.e., NFORM *it*). The head verb selects nonlocal EXTRA feature (i.e., $\boxed{2}$) which is a proposition (i.e., *prop*) with no gap, conveying an objective message. When two constituents combine at the mother node, a sentence is featured with a *finite* VFORM, transferring to another situation (i.e., S_1). EXTRA feature is percolated up to the top node (i.e., EXTRA < >). As discussed earlier, we provided the fundamental reason for the extraposition of a sentential subject. It is prosodically in association with focus effect (i.e., degree of pitch increase) within a main predicate in order to convey a speaker's illocutionary act remarkably. Thus, we supplement phonological focus information, being specified as [FOCUS +]. This illustration reflects the corpus-based properties of SSE

construction introduced here. More to the point, SSE construction is distinguishable from the structures like (22a) and (22b) in that the example like (22a) has an extraposed preposition phrase or noun phrase, so its EXTRA daughter will be PP[PFORM *of*] or NP[NFORM *what*]. In addition, the GAP feature within an extraposed sentential clause in (22c) is already discharged in contrast to the one within an extraposed relative clause in (22b).

5. Conclusion

We introduced a constraint-based approach to SSE construction. In doing so, we first took a closer look at a total of 414 examples of SSE structure from COCA and then described its properties. One of them is that the adjectival predicates (52.17%) stay on the top of frequency rate, thus conveying an objective and evaluative stance. The verb predicates of SSE do not consistently show semantic characteristics to extrapose a sentential subject. The most frequently occurring extraposed sentential type is *that*-clause (55.80%), followed by the secondary status of infinitival clause (35.51%). The information structure within an extraposed sentential subject of SSE construction is not always discourse-new in this corpus study, so it cannot be an absolute answer for the extraposition. In addition, the heaviest grammatical weight within an extraposed constituent does not become a fundamental trigger for the movement of a sentential subject. However, we introduced the conclusive statement on the extraposition; it is the result of stronger focus effect to maximize a speaker's illocutionary act remarkably. In other words, he or she puts higher degree of pitch rise within a main predicate with the help of the extraposition structure, thereby conveying their points prominently.

On the other hand, we provided a systematic account on the characteristics of SSE construction with the help of SBCG which enables SSE construction to inherit the multiple constraints through an inheritance hierarchy. In particular, we employed Head-Extra Construction and then subcategorized it into Head-Noun-Extra Construction in order to explain the case when a head noun selects nonlocal EXTRA feature. Thus, EXTRA feature is automatically percolated up the top node. The main predicate of SSE construction is specified as verb

lexemes to allow a finite auxiliary as well as finite main verb. SSE construction is also licensed from *core-cl*, so its declarative and interrogative clause are allowed in English. Last, we supplemented FOCUS feature to a feature structure in order to reflect a speaker's prosodically marked point. Consequently, all these constraints license English sentential subject extraposition.

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Received on April 28, 2018
Revised version received on August 24, 2018
Accepted on September 30, 2018