Subjectless *as*-parenthetical Constructions in English: A Corpus-based Approach[*]

Seulkee Park & Jong—Bok Kim[**]

(Kyung Hee University)

Park, Seulkee & Kim, Jong-Bok. (2021). Subjectless *as*-parenthetical constructions in English: A corpus-based approach. *The Linguistic Association of Korea Journal*, *29*(4), 93-112. *As*-parenthetical constructions usually include either a sentential or predicate gap, but they can also have a subject gap. In this paper, we first investigate the authentic uses of subjectless *as*-parenthetical clauses, referring to the extracted corpus data. One of the key issues that emerges from the corpus data is that the subjectless *as*-clause is missing an expletive subject gap as well as a clausal complement gap. The subject gap is construed as a proposition containing a proper predicate for the antecedent. Our corpus findings show that the predicate type in subjectless *as*-clauses determines whether the expletive subject *it* is elided optionally or obligatorily. Based on the observed properties, we suggest that subjectless *a*s-parenthetical constructions are base-generated rather than derived from deletion operations. Our corpus-based view can account for the idiosyncratic properties of subjectless *as*-parenthetical constructions in a streamlined manner.

Key Words: *as*-parentheticals, subject ellipsis, expletive *it*, conventional implicature, question under discussion

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1. Introduction

The *as*-parenthetical constructions (henceforth, APC) have been widely discussed in the literature concerning their syntax and semantics (e.g., Dehe & Kavalova, 2007; Huddleston & Pullum, 2002; LaCara, 2016; Lee-goldman, 2012; Potts, 2002b). Canonically, *as*-parenthetical clauses in English have at least one sentential or predicate gap, as illustrated by the following examples[1]:

(1) a. John, **as the FBI eventually discovered**, was a spy. [S-gap]
   b. John stole important documents, **as the FBI said he had**.
      [Pred-gap] (Potts, 2002b, p. 624)

In this paper, we focus on another type of *as*-parenthetical constructions where the subject is absent (Flickinger, 2008; Postal, 2004; Seppänen & Herriman, 2002, a.o.). The followings include some illustrative attested examples from COCA (Corpus of Contemporary American English):

(2) a. **As happens**, we've all moved on to new phases of life, and virtually everyone has moved away. (2016 NEWS)
   b. **As is obvious**, all answers from everyone are simply incredible. (2012 WEB)
   c. Variable results might be obtained by different studies, **as is the case**. (2012 BLOG)

In (2), the *as*-clauses do not have an overt subject which seems to be elided, and the interpretation of the elided material corresponds to the adjacent clause which as-clause anchors. This kind of subjectless as-parenthetical construction (henceforth, subjectless-APC), which has received less attention in the literature, displays quite idiosyncratic properties in many respects. For instance, in subjectless APC, a complementizer *as* and a verb phrase remain as the remnants in the finite clause. However, if the *as*-clauses in (2) are reconstructed with the putative antecedent clause in the elided subject position, this would yield an illegitimate construct, as in (3). Therefore, the antecedent clause cannot serve as a putative subject of the *as*-clause.

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1) The *as*-clauses without a syntactic gap can appear as an adjunct in the sentence:
   (i) I denied him and the other children access to the Internet, as we know it. (1999 SPOK)

(3) a. *[(That) we've all moved on to new phases of life] happens.
   b. *[(That) all answers from everyone are simply incredible] is obvious.
   c. *[(That) variable results might be obtained by different studies] is the case.

Rather, the reconstruction is more natural with a non-referential subject *it*, and the verb acts like the main verb taking a complement clause which is the antecedent, as follows:

(4) a. **It** happens [that we've all moved on to new phases of life].
   b. **It** is obvious [that all answers from everyone are simply incredible].
   c. **It** is the case [that variable results might be obtained by different studies].

This implies that the subjectless-APC has a sentential gap, and the corresponding antecedent is the main clause. However, assuming that the expletive subject *it* is the elided subject of subjectless-APC, it is questionable if the subjectless ones are compatible with or derived from APC with an overt expletive subject *it* (hereafter, expletive-subj-APC) as in (5).

(5) **As it happens**, the house I'm sharing belongs to a friend of mine. (2007 FIC)

In this paper, we try to examine the distribution possibilities and grammatical properties of the subjectless-APC, while referring to those of the expletive-subj-APC. For this, we look into the authentic uses of subjectless- APC and identify the patterns observed in its uses. Together with this empirical research, we try to account for the grammatical properties of internal and external structures of the subjectless-APC.

2. Basic Grammatical Properties

2.1. Syntactic Properties

Structurally, *as*-parentheticals are assumed to be syntactically separate from, but semantically integrated with the main clauses (Potts, 2002b). In accounting for distributional possibilities, *as*-clauses can occur in the sentence- initial, medial, or final positions, as seen from the following data set:

(6) a. **As happens** in a dream, I felt that someone was looking at me. (2012 MOV)

    b. Dinner was served and beverages imbibed, time passed, **as happens**, and Mr. Allen found he needed the privy. (2012 MOV)

    c. He knows that they will be frustrated in their hope, **as happens**. (2001 MAG)

This positional mobility enables the *as*-clauses to either precede or follow the antecedent. Furthermore, the *as*-clause can intervene in the scope of a restrictive or nonrestrictive relative clause. In (7a), a subjectless *as*-clause is placed between a restrictive relative clause and its antecedent *defamation*. Also in (7b), an *as*-clause is embedded in a nonrestrictive relative clause immediately after a relativizer *which*.

(7) a. For now, it's his word against McNamee's – unless McNamee sues Clemens for *defamation*, **as threatened**, *which potentially would expose the pitcher's dirty laundry*. (2008 NEWS)

    b. A Tibetan woman reportedly cried as though she were being violently detained, *which*, **as noted**, *was impossible*. (2012 WEB)

Since the subjectless-APC does not have its explicit subject, a predicate phrase occurs immediately following *as*. In the subjectless-APC, the expression *as* can combine with either a finite verb phrase or a nonfinite predicate. As for the finite VPs, the typical verb type includes a raising verb such as *seem*, *appear*, *turn out* or *happen* or a copula verb *be*, as in (8a). The finite verb can also take a predicative complement with certain types like an adjectival predicate as in (8b), a passive predicate as in (8c), or a definite noun phrase predicate as in (8d):

(8) a. **As happens**, we've all moved on to new phases of life, ... (2016 NEWS)

    b. This relaxation will occur even if, **as seems likely**, it diminishes U.S. welfare. (1998 ACAD)

    c. Some of the trees died, **as was expected**, but others flourished. (1991 NEWS)

    d. This year's win makes them ineligible for future polls, **as is the case** with past winners. (2006 NEWS)

On the other hand, the head of the nonfinite phrase in the construction can be an adjectival or passive predicate, as follows:

(9) a. Add a bit more chile-soaking liquid, **as necessary**, to keep mole smooth. (2007 MAG)

 b. In attendance, **as expected**, were plenty of young people. (2016 NEWS)

One of the distinctive properties of the subjectless-APC is that only a singular verb form is allowed when the predicate type is a finite VP. The following examples in (10) with plural verb forms are ungrammatical:

(10) a. *as happen

 b. *as seem likely

 c. *as were expected

 d. *as are the case

2.2. Semantic and Pragmatic Properties

As noted in the previous analyses (Potts, 2002a, 2002b, 2005, a.o.), the most key semantic property in APC concerns the notion of Conventional Implicature (CI). CI is an implicature that is not part of the conditions for the truth of the expression, as suggested by Grice (1975) with the following generalization:

(11) Conventional Implicature (CI): The speaker makes a commitment to the truth value of the content of the *as*-parentheticals without actually asserting that it is true.

Since the *as*-clause is not part of the sentential domain of the main clause, it expresses a separate proposition. Accordingly, *as*-clause makes its contribution only in the form of a CI. In (12), for instance, the sentence asserts the proposition of the main clause which is the antecedent, but this conventionally implicates that 'it is recommended that the intervention occurred over the course of several months'.

(12) The intervention occurred over the course of several months, **as is recommended**. (2008 ACAD)

 a. Assertion = The intervention occurred over the course of several months.

 b. CI = It is recommended that the intervention occurred over the course of several months.

In other words, the matrix clause denotes at-issue, while the *as*-clause denotes CI (Potts, 2005). Furthermore, the CI can be relevant to Question under Discussion (QUD) in discourse in that CI expressions are used to guide the discourse in a particular direction or to help the hearer to understand better why the at-issue content is important. Addressing an implicit QUD is the current topic of discourse either by answering it or by raising another question that could be answered to QUD. Therefore, when a proposition is at-issue relative to a QUD, it contextually entails a partial or complete implicit answer to the QUD (Simons, 2010). For example, let us look at the following conversation from a movie script in the corpus data:

(13) [**Context:** In this SF fiction, Ewern Chaz disappeared in space, and a spaceship operated by him was left in the spaceport, and the spaceship was being handled by the data integrator instead of him.]
A: "Was Chaz ever seen or spoken to?"
B: "No. The ship's integrator handled all the formalities,
    as is not uncommon." (2007 FIC: SweetTrap)

In the B's answer to A, only the underlined proposition which is the antecedent of *as*-clause contextually entails an implicit answer to A's question, and the subjectless-APC makes the at-issue content of the proposition relative to the QUD.

The entailment of CI can also explain the fact that when the *as*-clause is embedded below the standard 'presupposition holes', the content of the *as*-clause 'escapes' (Potts, 2002b, 2005). In other words, even though the *as*-clause is embedded below conditionals, questions, or negation, the proposition denoted by the *as*-clause is interpreted outside their scopes, as follows:

(14) a. If the legislation passes next year, **as is expected**, France will become the wealthiest and most powerful country... (2012 WEB)
a'. It conventionally implicates that *it is expected that the legislation passes next year.*
b. Might you leave CBS for another network, **as is rumored**? (1999 SPOK)
b'. It conventionally implicates that *it is rumored that you might leave CBS for another network.*
c. Bureaucracy in relation to foreigners is not such frightful, **as seems**. (2012 BLOG)
c'. It conventionally implicates that *it seems that bureaucracy in relation to foreigners is such frightful.*

In (14), the contribution of *as*-clauses is a conventional implicature rather than a presupposition in that the *as*-clauses conventionally implicate only the at-issue content with no need for presuppositional predicates.

3. Corpus Research

3.1. Research Method

To collect attested data, we used COCA (The Corpus of Contemporary American English)[2]. We initially identified a total of 15,500 tokens of spoken, fiction, magazine, news, and academic registers[3]. Throughout the data, the predicate distributions and frequencies are identified according to the construction types.

First of all, since the subjectless-APC is based on the assumptions that the absent subject is the expletive subject *it* and that there can be the possibility of distributional differences between the expletive-subj- and subjectless-APCs, we first investigated *as*-clauses with a non-referential pronoun *it*:

(15) APC with an overt expletive subject (approx. 1,376+ α tokens)[4][5):
   PUNC as it (_vm/_vh) VERB+ (ADJ) PUNC
   (_vm=verb.modal and _vh=verb.[have] for auxiliary verbs)

Prior to the search, however, we introduced some semantic diagnostics manually in order to filter out unsuitable cases. For example, to identify the non-referential uses of the subject pronoun *it* of *as*-clauses, we needed to identify whether *it* has a referential meaning not only from the main clause of *as*-clauses but also from adjacent preceding or

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2) We investigated the actual usages by using COCA, which is the most widely-used corpora in English. It contains more than one billion words of text with various functions, contexts, or registers.

3) COCA is not allowing for searching strings more than 8 words. Therefore, the tentative tokens are limited to this restriction.

4) One of the distinct structural properties in APC is that the *as*-clauses have intonational breaks at the onset and coda positions, which is so-called 'comma intonation' (Potts, 2002b). Due to this peculiarity, two punctuation marks for search strings are required.

5) The tokens correspond to only raising verbs, because it has difficulty in filtering out the referential usages of copula verb *be* technically, which is represented as 'α' at this point.

following contexts, as in the following example:

(16) **The spider***i* sneaks up behind Ashley. **As it***i* **moves**, so does Ashley. (2002 FIC)

Next, for the subjectless-APC, along with the expletive-one, the search strings are largely classified into two types of finite and nonfinite predicates with two obligatory punctuation marks allowing additional auxiliary verbs or adjuncts:

(17) Subjectless-APC with a finite verb phrase (4,507+ tokens):
    a. **PUNC as (_vm/_vh) VERB+ PUNC** (560 tokens)
    b. **PUNC as (_vm/_vh) VERB+ _v?n PUNC** (_v?n=verb.EN) (1,164 tokens)
    c. **PUNC as (_vm/_vh) VERB+ ADJ PUNC** (549 tokens)
    d. **PUNC as (_vm/_vh) VERB+ the NOUN PUNC** (2,234 tokens)

As in the expletive-subj-APC, identifying the verb type was first conducted, and then we examined additional predicative complements of the verb. Different from the expletive-subj-APC, the distribution of predicative complements was more various with a tensed verb such as a raising or copula verb. In the verb phrase, a passive, adjectival, or definite noun predicates were found.

Last but not least, a nonfinite predicate phrase can occur in subjectless- APC. Without any tensed verb, an adjectival or passive phrase appears, in which the lexical classes of the predicates are the same as in the finite ones.

(18) Subjectless-APC with a nonfinite predicate (8,441+ tokens):
    PUNC as _v?n/ADJ PUNC

In the following subsection 3.2, more detailed distributions and quantitative and qualitative observations of the expletive-subj-APC and the subjectless- APC will be suggested according to the corpus-based results.

3.2. Data Distribution

3.2.1. Predicate Types in Expletive-subj-APC
    To look into the subjectless APC, as noted earlier, the environment of the

expletive-subj-APC needs to be inspected in advance, based on the assumption that the expletive subject *it* occurs covertly in the subjectless-APC in this paper. From the extracted corpus data, one of the most salient distributional properties of the expletive-subj-APC is that it primarily appears with a raising verb such as *seem*, *happen*, *turn out*, or *appea*r or a copula verb *be*, as follows:

(19) a. **As it seems**, these kinds of natural disasters are to become more common. (2012 BLOG)
    b. **As it is**, your posts are very hard to read. (2012 WEB)

However, since there are many cases with a copula verb *be* where the subject *it* is referentially used in the corpus data, a copula verb *be* is excluded in this research.

In addition, we have found examples in which a raising or copula verb takes a raising adjectival predicative complement such as *likely* or *certain* as in (20), though the frequencies are relatively very low with only 7 tokens of examples.

(20) But if it makes, **as it seems likely**, the living will a great deal more necessary or popular in the states which have provided for them, the U.S. Conference of Catholic Bishops has opposed living wills, how is that going to be resolved? (1990 SPOK)

3.2.2. Predicate Types in the Subjectless-APC

As mentioned earlier, the predicate types of the subjectless-APC have two subtypes: a finite verb phrase and a nonfinite predicate. First, in the finite verb phrase, as in the expletive-subj-APC, most cases are with a raising or copula verb[6][7]:

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6) Copula verb *be* in subjectless-APC will not be discussed in detail in this research, since various meanings including its idiomatic usage can be hard to be distinguished.
7) For an exception case, the verb *follow* which is not a raising or copula verb can occur with the elided expletive subject *it*. The only difference from raising/copula type is that the subject ellipsis is obligatory in this case as in the following example:
   (ii) Label the bottom of the box with a pen or a pencil, **as (*it) follows:**
       Box 1: Elementary school
       Box 2: Middle school (2012 WEB)

(21) a. You were expected to perform even if, **as happened**, you had to be carried from your sickbed into the ring. (1994 NEWS)

    b. She says that when she's able to ignore her friends' Facebook status updates about relationships, marriages, and children, she recognizes the fullness of her life, **as is**, and tries not to worry too much about the future. (2014 MAG)

Contrary to the examples of the subjectless-APC with a raising verb, expletive ones have significantly higher frequencies than the subjectless ones in APC, as in the table 1.

Table 1. Comparison of lexical frequencies of raising verbs according to the existence of expletive subject 'it' in APC (raw frequencies (%))

Verbs	Existence of subject		
	Expletive subject	Subjectless	Total
turn out	2,289 (59.1%)	2 (0.1%)	2,291
happen	995 (25.7%)	199 (5.1%)	1,194
seem	316 (8.2%)	4 (0.1%)	320
appear	65 (1.7%)	4 (0.1%)	69
Total	3,665 (94.7%)	209 (5.4%)	3,874 (100%)

However, when there is an accompanied predicative complement of the verb in the *as*-clauses, the subjectless-APC has much more frequent and various kinds of predicates than expletive ones. To be specific, as mentioned earlier, the frequency with an adjectival predicate in expletive-sub-APC was found with only 7 tokens, whereas the one in the finite subjectless-APC was found with 549 tokens as in (17c). Also, different from expletive-subj-APC, subjectless-APC can occur with not only an adjectival as in (22a) but also passive as in (22b) or a definite noun predicate as in (22c) with broader spectrum.

(22) a. If the new rules become permanent, **as now appears likely**, carriers will need more ground workers and expensive new bag-handling equipment. (2006 NEWS)

    b. President Bush, **as was expected**, vetoed it. (2007 MAG)

    c. Variable results might be obtained by different studies, **as is the case**. (1994 ACAD)

In particular, in the passive predicate type like (22b), a passive verb form of CP complement taking verbs can appear such as *expect*, *predict*, *suggest*, and *mention*, which

are also known as 'reporting or comment verbs'. From the corpus data, coordinated adjectival and passive predicates in (23) show that they are both used as the predicative complements of the copula verb in subjectless-APC.

(23) a. In the funeral ceremonies, the gods had signed that the old lady's soul had been taken up by the Mother of Summer, **as was expected and proper**. (2005 FIC)
  b. The meeting did not discuss, **as was customary and expected**, Johnson's scholarship and teaching. (2003 ACAD)

One unique predicate type in the finite VP is that there can be a definite noun phrase predicate only with a determiner *the*. Also, a restricted set of nouns such as *case*, *custom*, or *practice* can appear in subjectless-APC, as in (24).

(24) a. Others would expand forever, **as seems the case** with the bubble that humans occupy. (1993 NEWS)
  b. Truscott gathered together, **as was the custom** in Israel, to celebrate the Passover festival. (2011 MAG)
  c. Fragile and very valuable objects were in showcases, **as was the   practice** among early collectors in France and England. (2005 MAG)

The restriction of the *case*-class nouns in subjectless-APC explains why the examples like *as is the problem* is not acceptable since *the problem* does not fall under this class of nouns, as shown in table 2:

Table 2. Lexical distributions of nouns in subjectless-APC (raw frequencies (%))

Nouns	Frequency	Nouns	Frequency
case	2,016 (90.2%)	right	10 (0.4%)
custom	76 (3.4%)	fashion	10 (0.4%)
practice	30 (1.3%)	habit	9 (0.4%)
fact	20 (0.9%)	nature	8 (0.35%)
way	16 (0.7%)	ability	7 (0.3%)
need	16 (0.7%)	lack	5 (0.2%)
idea	11 (0.5%)	**Total**	2,234 (100%)

Moreover, the predicate type of a *case*-class noun phrase is idiosyncratic in that unlike other predicate types in subjectless-APC, it is incompatible with an overt subject or a nonfinite form, as in (25). In this respect, examples of this type can be considered as lexically fixed expressions.

(25) a. *Variable results might be obtained by different studies, **as it is the case**.
     b. *Variable results might be obtained by different studies, **as the case**.

Last but not least, an adjectival or passive predicate can also appear as a nonfinite phrase in subjectless-APC, as follows:

(26) a. He adapts, **as necessary**, to the bizarre. (2016 MAG)
     b. If he does win tomorrow, **as expected**, his political influence will only make that easier. (2016 TV)

The adjectival and passive predicates in the nonfinite subjectless-APC have the same lexical classes as the corresponding finite ones have. However, as found in the following table 3, the nonfinite predicates are more frequently used than their corresponding finite predicates due to their idiomatic uses. Especially, the passive predicates have significantly higher frequencies in the nonfinite clauses.

Table 3: Comparison of frequencies of adjectival and passive predicates between finite and nonfinite subjectless-APC (raw frequencies (%))

Predicate type	Finiteness		Total
	Finite	Nonfinite	
Adjectival	549 (41.4%)	777 (58.6%)	1,326 (100%)
Passive	1,164 (13.2%)	7,664 (86.8%)	8,828 (100%)
Total	1,713 (16.9%)	8,441 (83.1%)	10,154 (100%)

To identify the significance between the finiteness and the predicate type, we conducted the chi-square statistic with Yates's correction. The result is that the association is considered to be extremely statistically significant ($p < 0.00001$).

3.2.3. Distributional Patterns and Subject Ellipsis

The earlier findings, while preliminary, suggest that various types of predicates of finite subjectless-APC, except for *case*-class nouns, are compatible with the distributions with an overt expletive subject or a nonfinite predicate. The following table 4 shows that the predicates in subjectless-APC have some distributional patterns and contrast predominance of frequencies.

Table 4: The predicate distribution and frequencies of expletive-subj- and subjectless-APCs (raw frequencies (%))

	Expletive-subj-APC	Subjectless-APC	
		Finite	Nonfinite
Raising verb	3,665	209	–
Adjectival	7	549	777
Passive	–	1,164	7,664
case-class nouns	–	2,234	–
Total	3,672+ (22.6%)	4,156 (25.5%)	8,441 (51.9%)
		12,597+ (77.4%)	

One of the issues that emerge from the findings is that the distributional patterns of predicate types in subjectless-APC seem to correlate with the optionality of subject ellipsis, as in the following table 5[8]).

Table 5: The optionality/obligatoriness of subject ellipsis in subjectless-APC

Types of verbs	Subject requirement	Example
Raising verb	Optional	**As happens**, we've all moved on to new phases of life.
Adjectival VP	Obligatory	He concludes his book, **as is customary**, with a spoonful of optimism.
Passive VP	Obligatory	President Bush, **as was expected**, vetoed it.
VP with a *case*-class noun	Obligatory	Variable results might be obtained by different studies, **as is the case**.

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8) Based on the assumption with low frequencies and previous analysis (e.g. Postal, 2004, pp. 32), it is assumed that the subject ellipsis with an adjectival predicate is obligatory.

For instance, to check the optional subject ellipsis, we compared the frequencies between explicit and implicit subjects in the APC with a raising verb, since the optional subject ellipsis usually happens when the raising verb appears in APC, as in the following repeated examples:

(27) a. You were expected to perform even if, **as (it) happened**, you had to be carried from your sickbed into the ring. (1994 NEWS)

b. Labor agreement is built on the principle of domestic law, **as (it) is**, for example, the NAFTA's Chapter 19 on trade law. (1996 ACAD)

With the environment of the expletive subject *it* in APC, the expletive subject *it* seems to be optionally present. As shown in table 4, however, the frequencies of expletive-subj-APC with no additional predicative complement are remarkably higher than the subjectless one. In contrast, the adjectival predicate which is the only available predicative complement of the expletive-subj-APC is relatively much lower than the corresponding adjectival predicates both in the finite and nonfinite subjectless ones. With the Fisher's exact test, we found that there is a significant relationship between the existence of expletive subject and the raising verb/adjectival predicate ($p < 0.00001$). Therefore, based on the findings and results, the comparison of the two results reveals that the predominant frequencies of usages can be varied according to the predicate types.

Different from the optional subject ellipsis type, when the predicate is adjectival or passive with a raising or copula verb *be*, the expletive subject must be absent (Postal, 2004):

(28) a. If the new rules become permanent, **as (*it) now appears likely**, carriers will need more ground workers and expensive new　　 bag-handling equipment. (2006 NEWS)

b. President Bush, **as (*it) was expected**, vetoed it. (2007 MAG)

(29) a. He adapts, **as (*it is) necessary**, to the bizarre. (2016 MAG)

b. If he does win tomorrow, **as (*it is) expected**, his political influence will only make that easier. (2016 TV)

Also, the definite *case*-class nouns with the obligatorily elided subject can appear with a raising verb as well as a copula verb with the same distribution from the following

corpus data[9]). What is interesting here is that even though a raising verb can occur here, the expletive subject *it* is obligatorily elided.

(30) a. Variable results might be obtained by different studies, **as (*it) is the case**. (1994 ACAD)
  b. Others would expand forever, **as (*it) seems the case** with the bubble that humans occupy. (1993 NEWS)

3.3. Data Distribution

3.3.1. Propositional Antecedent

Ellipsis in general requires both syntactic and semantic identity. From the extracted corpus data, however, we have found some examples of syntactic mismatches such as tense and category mismatches. For example, in (31), there is a tense mismatch between the past tense in the *as*-clause and the future tense in the antecedent clause.

(31) And then **just as happened two years ago**, the House of Lords
  <u>will dillydally</u> around about it and put it off. (2002 SPOK)

Moreover, not only a sentential S or CP but also a phrasal AP, NP, VP, or PP can be the antecedent of subjectless *as*-clause, as follows:

(32) a. ... and the controls for Catholic legislators and educational attainment
    ([AP positive], **as predicted**, but statistically insignificant). (2010 ACAD)
  b. [NP No stars, just endless dimensionless frogspawn]. **Exactly as expected**. (2001 FIC)
  c. The hammer rattled between two pig-iron bells. [VP[*ing*] Alarming], **as intended**. (2012 WEB)
  d. For if the demigods are the illegitimate sons of gods, [PP whether by the Nymphs or by any other mothers], **as is thought**, that, as all men will allow, necessarily implies the existence of their parents. (2012 WEB)

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9) This type of construction is so-called 'as be the case' construction from previous literature (Lee-goldman, 2012; Prado-Alonso, 2015).

The reconstructions of those examples yield syntactically ungrammatical results leading to syntactic mismatches. But the interpretation is understood as if there is a proposition from the antecedent. Along with the mismatches, the following corpus data show that various types of clauses also can be the antecedent of subjectless-APC:

(33) **Small clause**
  a. She shoots from Xs made by the Net, [SC [NP *her marks*][AP *closer to the hoop*] than mine]. **As is fair**. (1995 FIC)

  Restrictive relative clause
  b. But redirecting all these resources into *a war in Iraq* [RelC that *was not*, **as was stated**, *an immediate threat to the United States*], could have gone a long way toward achieving what we said at the time was the goal to get this guy. (2005 SPOK)

  Non-restrictive relative clause
  c. "Don't be creepy" should really be "don't let someone else think of you that way", [RelC *which*, alas, *is*, **as explained**, *impossible to do*]. (2001 SPOK)

Furthermore, the examples in (34) show that only part of *x* of the 'not (only) *x* but *y*' or 'not *x*, but *y*' structures is selected as the antecedent clause, even though they are the discontinuous sentential antecedent:

(34) a. <u>It can get changed</u> not only <u>in the House</u>, **as is likely**, but even still on the Senate floor, possibly. (1993 SPOK)
  b. <u>It encouraged women</u> not <u>to remain silent</u>, **as was expected**, but to speak out against the sources of their oppression, thus granting speech to those who have been denied independent voices. (2011 ACAD)

Especially, in (34b), the *x* part does not include the negated reading of the clause, in which the meaning of the *as*-clause is 'it was expected that it encouraged women to remain silent'. Therefore, as seen from the suggested corpus data, we suggest that syntactic mismatch and semantic identity yield a propositional interpretation of subjectless-APC. Regarding the syntactic mismatches, Potts (2002a, pp. 641-646) argues that APC tends to display mismatches on tense, modal, and negation, but they represent matching semantic identity according to their gap-type: the propositional or property-level argument of the

as-clause. This provides further support for the fact that subjectless-APC indicates the matching semantic identity from the propositional gap to the propositional antecedent, even though the sentential gap corresponds to the phrasal antecedent as in (32).

Another issue with regard to the propositional antecedent arises when it fails to take agreement into account. From some corpus data we found, even though there are two sentential antecedents of the subjectless-APC, the verb is only allowed to agree in the singular number:

(35) a. [Such cases are comparatively rare] and [both private and public purses are capacious enough to meet them adequately and even generously], **as is/*are right**. (1999 ACAD)

b. [Power tends to corrupt] and [absolute power corrupts absolutely], **as seems/*seem evident**. (1994 MOV)

Similarly, Postal (2004) suggests that the conjoined subject *that*-clauses can link to a floating quantifier 'both', whereas extraposed clauses cannot. Because when the example (36a) is extraposed as (36c), they fail to link to the floating quantifier together.

(36) a. [The company is bankrupt] and [he is responsible], as is/*are (both) obvious.

b. [That the company is bankrupt] and [that he is responsible] are both obvious.

c. *It is both obvious [that the company is bankrupt] and [that he is responsible]. (Examples from Postal (2004, p. 38))

Therefore, this shows that the absent subject in APC is base-generated rather than derived from extraposition or movement-and-deletion operations.

3.3.2. Compatibility of Subject Ellipsis

The expletive-subj-APC shows parallel patterns with null-parentheticals as in (37) and the clauses with a proform 'so' which functions as a pro-clause as in (38), especially with the same distributions where they allow expletive *it* to appear in the subject position and the same kinds of predicates[10].

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10) When the *so*-clause functions as a pro-clause, it substitutes for a complement *that*-clause. Especially with certain verbs such as *seem* or *appear*, *so* can be fronted (Quirk et al., 1985, pp. 881).

(37) a. Cruises, **it seems**, are where families go to travel. (2012 MAG)

   b. If it all sounds overly optimistic, **it is**, says Hirsch. (2003 ACAD)

   c. For some this is very easy, **it seems natural**, for some it is very difficult. (2012 MAG)

(38) a. Participating, therefore, in such a behind-the-scenes documentary was, **so it seems**, not an easy thing to reconcile herself to. (1992 NEWS)

   b. I went to Los Angeles just after the riots to interview people about them, **so it is**, in fact, a remembrance of that time. (2002 SPOK)

   c. We've all got daddy issues, **so it seemed appropriate**. (2012 WEB)

Despite the fact that those constructions have similar distributions, ellipsis of the putative expletive subject *it* of subjectless-APC is not allowed in null parentheticals and pro-clauses with 'so', as in (39) and (40):

(39) a. *Cruises, **seems**, are where families go to travel.

   b. *For some this is very easy, **seems natural**, for some it is very difficult.

   c. *For some this is very easy, **is obvious**, for some it is very difficult.

(40) a. *Cruises are where families go to travel, **so seems**.

   b. *For some this is very easy for some it is very difficult, **so seems natural**.

   c. *For some this is very easy for some it is very difficult, **so is obvious**.

Hence, with the environment of an absent subject in APC, the expression *as* needs to have a function to anaphorically refer to its antecedent. In this manner, it is doubtful that the elided subject is entirely compatible with the overt subject *it* in APC, although the expletive-subj- and subjectless-APCs share some common grammatical properties of APC.

4. Conclusion

Unlike typical *as*-parenthetical constructions that allow a sentential or predicate gap, the subjectless-APC contains at least two gaps: the expletive subject *it* and a sentential gap. The observed corpus data indicate the elided subject of subjectless *as*-clauses is not the CP antecedent but the expletive pronoun *it* which corresponds to the sentential antecedent in the main clause. However, the syntactic mismatch issues arise when the gap

appears to be not only a clausal antecedent but also a phrasal one such as NP, AP, VP, or PP. Despite the selectional dependencies, the interpretation of the gap is construed as a proposition containing a proper predicate from the antecedent. From the semantic point of view, the subjectless-APC seems to require semantic identity between the propositional gap and the propositional antecedent.

In addition, the corpus data have shown that when there are two antecedent clauses for the gap in subjectless-APC, the verb agrees only in the singular number. This shows that the absent subject in APC is base-generated rather than derived from extraposition or movement-and- deletion operations. The corpus findings also suggest that various types of predicates in subjectless-APC are compatible with an overt expletive subject *it* or a nonfinite predicate, and that the distributional patterns of predicate types in APC seem to correlate with the optionality of subject ellipsis. However, due to the different frequencies and spectrum of predicates and the compatibility with some related parallel constructions, an elided subject does not seem to be entirely compatible with an overt subject *it*, even though the expletive-subj- and subjectless-APCs share common grammatical properties of *as*-parenthetical constructions. In this manner, further work will be needed to fully understand the implications of the compatibility between expletive-subj-APC and subjectless-APC.

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Seulkee Park

Ph.D. Candidate

Department of English Language and Literature

Graduate School, Kyung Hee University

26 Kyunghee-daero, Dongdaemun-gu

Seoul 02447, Korea

Email: seulkeepark@khu.ac.kr

Jong-Bok Kim

Professor

Department of English Language and Literature

College of Humanities, Kyung Hee University

26 Kyunghee-daero, Dongdaemun-gu

Seoul 02447, Korea

Email: jongbok@khu.ac.kr