1. Introduction

Typical Sluicing involves wh-movement to Spec of CP, followed by IP-ellipsis, as shown in (1):¹

(1) He saw someone, but I don’t know who [he saw].

One of the characteristics of Sluicing is that (certain) island violations are ameliorated in Sluicing environments, as Ross (1969) observed. Some of the examples are provided below:

(2) a. I believe the claim that he bit someone, but they don’t know who <* I believe the claim that he bit>.  (Complex NP Constraint, noun complement)
b. Irv and someone were dancing together, but I don’t know who <*Irv and were dancing together>.  (Coordinate Structure Constraint)
c. She kissed a man who bit one of my friends, but Tom doesn’t realize which one of my friends <*she kissed a man who bit>.  (Complex NP Constraint, relative clause)

Under the PF-deletion approach to ellipsis, amelioration of island effects may lead to the conclusion that (certain) islands are PF-islands, as argued by Merchant (2001).² According to the PF-deletion approach to ellipsis (cf. Chomsky and Lasnik 1993), an elided constituent is present with full-fledged structure and terminal elements in overt syntax, with ellipsis process taking place at PF. (In (2), the elided IP is represented with angled brackets). Wh-movement to Spec of CP induces an island violation in (2), but the violation is repaired by ellipsis at PF.³

Sluicing is also found in many other languages. If (certain) islands are universally PF-islands and ellipsis takes place at PF, all else being equal, we would expect to find the same amelioration of island effects in these languages. However, this is not the case. For instance, arguing Sluicing in Japanese involves ellipsis, Takahashi (1994) and Fukaya and Hoji (1999) report that Japanese Sluicing is island-sensitive:⁴

(3) *John-wa [[ottoto-ni nanika-o okuttekita] hito]-o
   syootaisita raiiga, boku-wa [nani-o ka] siranai. invited seem:but I-Top what –Acc Q know:not

*I would like to thank Howard Lasnik, Željko Bošković, Jonathan Bobaljik, Yael Sharvit, Mamoru Saito, Sei-Rang Oh, Masaya Yoshida, and the audience at WCCFL 24 for their valuable comments, questions and discussion.

¹ The constituent with strikethrough intends to mean that it is elided.
² Note that Merchant (2001) argues that only some islands are PF-islands. He argues that islands like relative clause islands are LF-islands and thus cannot be repaired by PF-deletion. See section 3 for discussion.
³ Chung, Ladusaw, and McClosky (1995) adopt the LF-copying approach to Sluicing, according to which an elided constituent is generated empty in overt syntax and the relevant antecedent is copied onto the elided constituent (May 1985). But see Merchant (2001) for convincing arguments for PF-deletion approach to ellipsis (see also section 3).
⁴ When the wh-remnant in (3) is caseless, the sentence becomes island-insensitive. This is also true of the corresponding Sluicing in Korean. See Fukaya and Hoji (1999) and B.-S. Park (in preparation) for discussion.

'It seems that John invited a person who had sent something to his brother, but I don’t know what.'

Korean Sluicing patterns with Japanese Sluicing in this respect, as shown in (4).\(^5\)


One might hypothesize that the parametric difference between English and Korean Sluicing with respect to island (in)sensitivity lies in the fact that islands in Korean are LF-islands and thus cannot be repaired by ellipsis at PF. The paper, however, argues against the hypothesis. The argument is based on the elliptical constructions in Korean that show island insensitivity. If combined with the PF-deletion approach to ellipsis, this indicates that islands in Korean are also PF-islands. The constructions in question are fragment answers. Reviewing previous analyses of fragment answers (FA, henceforth), the paper argues that FA in Korean is derived from its sentential equivalent by ellipsis at PF and that island violations can indeed be repaired in FA in Korean.

The rest of the paper is structured as follows: section 2 provides arguments that FA in Korean is derived by ellipsis at PF. Section 3 demonstrates that island violations are repaired in FA. Section 4 concludes the paper.

2. Fragment answers

2.1 Two approaches to fragment answers

(5) is an example of FA in Korean:


B: sakwa-lul / C: (John-i) sakwa-lul mekesse apple-Acc John-Nom apple-Acc ate ‘an apple’ ‘John ate an apple.’

(5) involves utterances between two speakers A, and B. The utterance B is an answer to the utterance A, and the answer is called a fragment answer, given that on the surface, it is not a full-fledged sentence as in the utterance C.\(^6\)

Before providing an analysis of fragment answers that include islands, it is necessary to consider how they are derived. One suggestion would be that fragments are derived by ellipsis, as advocated by Morgan (1973), Hankamer (1979), Stanley (2000), and recently Merchant (2004). Under the ellipsis approach, when a speaker utters a fragment, what she really produces is a complete sentence, and the fragment is derived by ellipsis. To see the point more clearly, let us consider (5). Under the ellipsis approach, the fragment in (5B) is generated with a full-fledged sentence as in (5C). The fragment is derived by eliding all other parts, except the object sakwa-lul ‘an apple-Acc’.

There is a different view on fragments. According to this view, fragments do not involve ellipsis but are generated as they are and can be interpreted as propositions, questions and assertions by themselves (Yanofsky 1978, Barton 1990, and Stainton 1993, 1995, 1997).

In the following section, it will be argued that FA can be best accounted for by the ellipsis approach.

\(^5\) İnce (2004) also reports that Turkish matrix Sluicing is island-sensitive.

\(^6\) The FA is also possible without the case marker in (5B), which exhibits different behaviors from the case-marked FA (cf. B.-S. Park (in preparation)). Due to space limitation, the paper only discusses case-marked FAs.
2.1.1 Ellipsis approach to fragment answers

As Morgan (1973, 1989) and more recently Merchant (2004) point out, if FA is derived from their sentential equivalent by ellipsis, we expect there to be grammatical dependencies between them, also known as connectivity. One aspect of the connectivity that is relevant here is case-matching connectivity. The morphological case form of a fragment NP is always exactly the same as the one found on the corresponding NP in a fully sentential answer. Morgan (1989) presents the following set of data in (6) from Korean, which exhibits case-matching connectivity:

(6) A: nwu-ka ku chyak-ul sass-ni?
   who-Nom that book-Acc bought-Q
   ‘Who bought that book?’
B: Youngswu-ka / C: *Youngswu-lul / D: Youngswu-ka/*-lul sassta
   Youngswu-Nom Youngswu-Acc Youngswu-Nom/Acc bought
   ‘Youngswu bought that book.’

We can also find other types of connectivity effects. One of them has to do with Binding Condition A:

(7) A: [Mary-wa-Sue]-ka nwukwu-lul pinanhayss-ni?
   Mary-and-Sue-Nom who-Acc blamed-Q
   ‘Who did Mary and Sue blame?’
B: [selo-uy pwumo]-lul
   each other-Gen parents-Acc
   ‘lit. Each other’s parents’
C: [Mary-wa-Sue],-ka [selo-uy pwumo],-lul pinanhayse
   Mary-and-Sue-Nom each other-Gen parents-blamed
   ‘[Mary and Sue], blamed each other’s parents.’

The reciprocal FA in (7B) is as grammatical as the non-elliptical sentence in (7C). On the other hand, the reciprocal FA in (8B) is as ungrammatical as the non-elliptical sentence in (8C):

(8) A: nwu-ka [Bill-kwa-Max]-lul pinanhayss-ni?
   who-Nom Bill-and-Max-Acc blamed-Q
   ‘Who blamed Bill and Max?’
B: ?*[selo-uy pwumo]-ka
   each other-Gen parents-Nom
   ‘lit. Each other’s parents’
C: ?*[selo-uy pwumo],-ka [Bill-kwa-Max],-lul pinanhayse
   each other-Gen parents-Bill-and Max-Acc blamed
   ‘Each other,’s parents blamed [Bill and Max].’

The facts in (7) and (8) are straightforwardly accounted for under the ellipsis approach.

2.1.2 Movement + ellipsis

In the previous section, we have seen that fragment answers are derived by ellipsis. Under the ellipsis approach, there are two different views on how ellipsis takes place. One view assumes that the fragment/remnant stays in situ and the rest of the parts are elided (Hankamer 1979, Morgan 1989). In some cases, this would involve non-constituent ellipsis, as represented in (9):

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7 Under ellipsis approach, fragments are generated in a sentence. When they appear in a sentence, they are not fragments anymore, strictly speaking. Nevertheless, I will still refer them as fragments (or remnants).
This view, however, is not consistent with the standard assumption that grammatical operations can only target constituents. The problem can be avoided if we adopt the view that the fragment first moves out of an elliptical site before ellipsis takes place. In particular, I assume that the fragment first undergoes movement to a sentence initial position, followed by ellipsis, as recently argued by Merchant (2004) (see also Kim (1997)). The representation is shown in (10):

(10) Y-case [X t Z]

This section provides arguments in favor of this view. Let us first consider the following data:

(11) a. *[selo, uy pwumo]-ka [enu enu haksayng]-lul pinanhayess-ni?
   each other-Gen parents-Nom which which student-Acc blamed-Q
   ‘Which students x, y are such that x’s parents blamed y and y’s parents blamed x?’

b. [enu enu haksayng]-i [selo, uy pwumo]-lul pinanhayess-ni?
   each which student-Nom each other-Gen parents-Acc blamed-Q
   ‘Which students x, y are such that x blamed y’s parents and y blamed x’s parents?’

c. [enu enu haksayng]-lul [(selo, uy pwumo)-ka ti pinanhayess-ni?]
   each which student-Acc each other-Gen parents-Nom blamed-Q
   ‘Which students x, y are such that x’s parents blamed y and y’s parents blamed x?’

The contrast between (11a) and (11b) shows that *selo ‘each other’ must be bound by a c-commanding antecedent. (11c) shows that it can be bound by the fronted wh-phrase, enuenuhaksayng ‘which student and which student’ With this in mind, let us consider the following examples:

(12) A: [enu enu haksayng]-lul [(selo, uy pwumo)-ka ti pinanhayess-ni?]
   lit. [which student and which student]i, each otheri’s parents blamed?

B: [Bill-kwa-Sue]-lul
   Mary-and-Sue-Acc
   ‘lit. [Bill and Sue], each other’s parents blamed.’

C: [Bill-kwa-Sue]-lul [(selo, uy pwumo)-ka ti pinanhayess]
   Bill-and-Sue-Acc each other’s parents-Nom blamed.
   ‘lit. [Bill and Sue], each other’s parents blamed.’

D: *[[(selo, uy pwumo)-ka [Bill-kwa-Sue]-lul pinanhayess]
   each other-Gen parents-Nom Bill-and-Sue-Acc blamed
   ‘lit. Each other’s parents blamed [Bill and Sue].’

As a response to (12A), the FA in (12B) is grammatical. This can be straightforwardly accounted for under the assumption that ellipsis takes place after the remnant is fronted. In other words, (12B) is derived from the sentence in (12C), by eliding the underlined constituent. However, if ellipsis took place with the remnant staying in its canonical position, as shown in (12D), (12B) would be ungrammatical, contrary to fact.

Another piece of evidence in favor of the analysis comes from the obligatory presence of the complementizer ko in FA. The contrast in (13) shows that the complementizer ko cannot be dropped when CP headed by ko moves to a sentence initial position but can be dropped otherwise:

(13) a. John-i Bill-ekey [CP Mary-ka ku pati-e olke-la-(ko)] malhayssse
   John-Nom Bill-Dat Mary-Nom that party-to come-Cop-(Comp) said
   ‘John told Bill (that) Mary will come to the party.’

b. John-i [CP Mary-ka ku pati-e olke-la-(ko)], Bill-ekey ti malhayssse

c. [CP Mary-ka ku pati-e olke-la-”(ko)], [IP John-i Bill-ekey ti malhayssse]
However, when CP appears as a FA, \textit{ko} cannot be dropped, as shown below:

\begin{enumerate}
\item[(14)] A: \text{John-i} Bill-ekey mwe-la-(\textit{ko}) malhayss-ni?  
\quad John-Nom Bill-Dat what-Cop-Comp said-Q  
B: \text{Mary-ka} ku pati-e olke-la-*\textit{(ko)}  
\quad Mary-Nom that party-to come-Cop-(Comp)  
\quad ‘That Mary will come to the party.’
\end{enumerate}

The obligatory presence of \textit{ko} can be accounted for if we assume that the CP fragment has moved to a sentence initial position, followed by ellipsis. That is, (14B) is derived from (13c) by eliding IP.\textsuperscript{8,9}

As for the exact position to which the fragment moves, I assume that it can be Spec of FP (=FocP), which is assumed to be located above IP (cf. Kim 1997), or IP-adjoined position, which is identified as a position in which scrambled elements are located (Saito 1985). The two structures are given below, respectively:

\begin{enumerate}
\item[(15)] FP  
\qquad \text{NP}_i \quad F' \quad F  
\quad \text{IP} \quad \ldots t_i \ldots
\item[(16)] IP  
\qquad \text{NP}_i \quad IP \quad \ldots t_i \ldots
\end{enumerate}

\textbf{2.2 Against Cleft-Based Analyses}


In line with these approaches, one might argue that FA in Korean is derived from a cleft(-like) construction. However, this section shows that FA cannot be derived form a cleft(-like) construction. Let us consider (17):

\begin{enumerate}
\item[(17)] A: \text{John-i} mwuess-ul mekess-ni?  
\quad John-Nom  what-Acc ate-Q  
\quad ‘What did John eat?’  
B: sakwa-lul  
\quad an apple  
C: (?)[\text{John-i} mekun-kes]-un sakwa-lul-i-ta/ya  
\quad John-Nom ate-Nm-Top a  pple-Acc-Cop-Decl  
\quad ‘It was an apple that John ate.’
\end{enumerate}

\textsuperscript{8} For some speakers, without \textit{ko}, (13c) is slightly better than (14B). However, for the same speakers, (13c) is still much worse than (13a) or (13b), without \textit{ko}.

\textsuperscript{9} Following Bošković and Lasnik (2003)’s analysis of null C (=complementizer) in English, one might argue that in (13c) and (14B) the obligatory presence of the overt C is due to the fact that the null C is a verbal affix and thus must be attached to an adjacent verb. The null C in (14A) can be attached to the adjacent matrix verb \textit{malhayss} ‘said’, while it cannot in (13c) and (14B) since no adjacent verb is present in these cases. However, the optional presence of the null C in (13b), which is not adjacent to the matrix verb, suggests that null C in Korean is not a verbal affix.
D: *[John-i mekun-kes]-un sakwa-lul  
John-Nom ate-Nm-Top apple-Acc  
E: ?*sakwa-lul-i-ta/ya  
apple-Acc-Cop-Decl

(17B) constitutes a perfect answer to the question in (17A). The cleft in (17C) is also a good answer to the question. Given this, one might argue that the fragment answer in (17B) is derived from the cleft in (17C). This could be achieved by assuming that the topic phrase can be pro. Note, however, that when a focused element appears with a case marker in the focused position in a cleft, it cannot appear alone. It must appear with the copular i and the declarative marker ta/ya, as shown in the contrast in (17C) and (17D). The ungrammaticality of (17E) shows that the topic phrase must appear. If (17C) were the source from which the fragment answer (17B) is derived, the derivational steps would involve (17D) and (17E) (order irrelevant), and it would incorrectly be expected that the fragment answer would be ungrammatical, contrary to fact.

3. Fragment answers and island repair

The examples in (18) and (19) show that FA in Korean is island-insensitive:

(18) A: John-un [casin-uy tongsayng-ekey mwuess-ul cwun salam]-ul manass-ni?  
John-Top self-Gen brother-to what-Acc gave person-Acc met-Q?  
‘*What did John meet a person who gave to his brother?’
B: sakwa-lul  
apple-Acc  
‘An apple’
C: ?*[sakwa-ul], [John-un [casin-uy tongsayng-ekey ti cwun salam]-ul manasse]

(19) A: John-un [nwu-ka cakokhan nolay]-lul pules-ni?  
John-top who-Nom wrote song-Acc sang-Q  
‘*Who did John sing a song that wrote?’
B: Max-ka  
Max-Nom  
‘Max’
C: ?*[Max-ka], [John-un [ti cakokhan nolay]-lul pulesse]

Let us consider (18). As a answer to (18A), (18B) is grammatical, which is derived from (18C). The grammaticality of (18B) shows that island violations in FA are ameliorated. This can be accounted for if we assume following Merchant (2001), Lasnik (2001) and Fox and Lasnik (2003) that (certain) islands are PF-islands and thus can be repaired by ellipsis at PF.

In what follows, it will be argued that ellipsis process in Korean takes place at PF. Merchant (2001) provides arguments for the PF-deletion approach. One of the arguments is based on preposition stranding (P-stranding) under wh-movement. In languages that allow P-stranding (such as English), the residue of Sluicing can be the bare object of a preposition; in languages that don’t (such as Greek), it can’t:

(20) Peter was taking with someone, but I don’t know who.
(21)1 Anna milise me kapjon, alla dhe kesero *(me) pjon  
the Anna spoke with someone but no I.know with who  
‘Anna spoke with someone but I don’t know who.’

This strongly suggests that Sluicing involves movement of the remnant wh-phrase in overt syntax, followed by ellipsis at PF.
Merchant provides another argument, which is based on case-matching connectivity in Sluicing. In overtly case inflected languages such as German, the case of the remnant is just what the case of the fronted wh-phrases would have been in the non-elliptical form, as shown in the following example:

(22) Er will jemandem schmeicheln, aber sie wissen nicht, he wants someone.Dat flatter but they know not *wer / *wen / wem who.Nom who.Acc who.Dat ‘He wants to flatter someone, but they don’t know who.’

Merchant reasons that the case-matching connectivity is straightforwardly accounted for under the assumption that the wh-phrase undergoes movement, followed by ellipsis at PF, but somewhat obscure on the LF-copying analysis to ellipsis.

FA in Korean is well-behaved in this respect. First, notice that Korean does not have preposition but postposition and does not allow postposition stranding, as shown in (23):

(23) *Mary-lul, Bill-i t-wuihayse nolay-lul pulesse
Mary-Acc, Bill -for song-Acc sang
‘Mary, Bill sang a song for.’

If FA is derived by ellipsis at PF, following movement of the remnant NP to a sentence initial position, we predict that postposition stranding is not allowed. The prediction is borne out, as shown in (24):

(24) A: Bill-i nwukwu-lul-wuihayse nolay-lul pulesse-ni?
Bill-Nom who-Acc-for song-Acc sang-Q
‘For whom did Bill sing a song?’
B: Mary-lul-*wuihayse
Mary-Acc-for
For Mary

As discussed in section 2.1.1, case-matching connectivity is also observed in FA. The same case-matching effects are observed when islands are involved:

(25) A: John-un [nwu-ka cakokhan nolay]-lul pulesse
John-top who-Nom wrote song-Acc sang-Q
‘lit. Who did John sing a song that wrote?’
B: Max-ka /*Max-lul /*Max-ekey
Max-Nom Max-Acc Max-Dat
‘Max’

Note that Merchant (2001) argues that relative clause islands are not PF-islands but LF-islands and thus they cannot be repaired by ellipsis. He suggests that (26) is grammatical as it involves a different derivation that does not involve an island in the first place, as shown in (27):

(26) They want to hire someone who speaks a Balkan language, but I don’t know [CP which (Balkan language)]

(27) They want to hire someone who speaks a Balkan language, but I don’t know [CP which (Balkan language)]

However, Lasnik (2001) shows that island repair does take place with relative clause islands, based on data like (28):

(28)
(28) Every linguist met a philosopher who criticized some of his work, but I’m not sure how much of his work the philosopher criticized. (Lasnik’s (52))

In (28), the pronoun *his* in the second conjunct is a variable bound by the universal quantifier *every linguist*, and ensures that the Sluicing site contains the relative clause island. This contrasts with an example lacking the relative clause:

(29) ??Every linguist met a philosopher who criticized some of his work, but I’m not sure how much of his work the philosopher criticized. (Lasnik’s (53))

Thus, one can safely conclude that the wh-phrase in (28) has moved out of the relative clause and the island violation is repaired by ellipsis. The same conclusion can be reached for FA in Korean. The example in (30) shows that the NP *casin-uy haksayng-ul* ‘self’s student’ has moved out of the relative clause, and that the island violation caused by the movement is repaired by ellipsis at PF:

(30) A: motun sensayng-nim-i [nwukwu-lul koyonghan hoysa]-ey cenhwahass-ni?
every teacher-Hon-Nom who-Acc hired company-to called-Q
‘lit. Who did every teacher call the company that hired?’

B: [casin-uy haksayng-ul] [motun sensayng-nim-i, [t koyonghan hoysa]-ey cenhwahasse]
self’s student-Acc every teacher-Hon-Nom hired company-to called
‘Every teacher called the company that hired his student’

4. Concluding remarks

In this paper, it was shown that island violations can be repaired in FA in Korean. The possibility of repairing island violations led us to reject the hypothesis that islands in Korean are LF-islands and thus cannot be repaired by ellipsis at PF. This leads to the harder question why islands violations in Sluicing in Korean cannot be repaired. Due to space limitation, the paper cannot explore a possible analysis in detail. Instead, it briefly introduces the analysis proposed by B.-S. Park (in preparation).

Assuming that Sluicing in Korean is derived by ellipsis at PF, B.-S. Park argues that island-sensitivity in Sluicing is not due to the fact that island violations cannot be repaired, but due to the fact that Sluicing involves wh-movement to a position below CP in overt syntax. Note here that this movement should be one fell-swoop to satisfy Parallelism requirements on ellipsis (cf. Fiengo and May (1994), Fox and Lasnik (2003)). From this position, the fronted wh-phrases establish some relation with CP projection either by moving to Spec of CP or unselective binding by an operator in Spec of CP at LF. It is proposed that establishing such relation, however, will inevitably result in a violation of a modified (Chain) Uniformity condition at LF (Chomsky 1991, Chomsky and Lasnik 1993), which has the effect of preventing movement or unselective binding from taking place when it is preceded by one-fell swoop movement. When islands are not involved, there is an escape hatch that allows the overtly moved wh-phrases to be reconstructed to their base position, followed by wh-movement or unselective binding. Unlike Korean, such a violation would not arise in English, since the wh-phrases in Sluicing in English undergo one-fell swoop movement to Spec of CP in overt syntax and no further movement or unselective binding from this position is involved.

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