Fragments, Clause Type, and Clausal Architecture

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In this squib, we will examine some aspects of fragment answers (FAs) and indicate three properties of the construction: (i) various clause types (or forces) are expressible in FAs; (ii) FAs are not allowed in embedded clauses; (iii) FAs are always interpreted on the non-polite, casual speech level. We will claim that properties (i) and (ii) can essentially be attributed to the properties associated with a null clause type morpheme, which we argue can occupy the root position only. We will also put forward that property (iii) may be due to a presence of a null speech level morpheme which is associated with the non-polite level as a default value.

Keywords: fragment answers, speech level, clause type

1. Introduction

In this squib we examine some interpretive properties of the fragment answers (henceforth, "FAs" for convenience) which we argue have implications for clause typing (or force marking) as well as clausal architecture. An example of FAs is given in (1) and its Korean counterpart in (2).

(1) a. What did John eat?
    b. An apple. (= 'He ate an apple.')

(2) a. John-i mwues-ul mek-ess-ni?
    J-nom what-acc eat-past-Q

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What did John eat?

b. sakwa(-lul).\(^1\) (= 'John-i sakwa-lul mek-ess-e.' (John ate an apple.))

Regarding the derivation of FAs, it has been argued by several researchers that FAs involve an ellipsis process akin to that found in Sluicing, which under standard assumptions involves movement into the Spec of a functional projection (C) and subsequent deletion of the complement of the functional head (TP), as illustrated in (3). The derivation of FAs is shown in (4), which differs from that in (3b) in the categorial status of the functional category that hosts movement.\(^2\)

\small{(3) \hspace{1cm} \begin{array}{l}
(a) \hspace{1cm} \text{a. Jack bought something, but I don’t know what.} \quad \Rightarrow \text{Sluicing}
\vspace{.2cm}
(b) \hspace{1cm} \text{\ldots CP}
\big/ & \\big/ & \\big/ \\
\text{XP}_{wh} & C & \text{TP}
\big/ & \big/ & \big/ \\
\text{C} & \text{t}_{wh} & \text{\ldots}(\text{Merchant 2001, 2004})
\end{array}}

\footnotesize{\(^1\) It has been observed that Case-marked and Caseless fragments behave differently in some respects. We will not be concerned with this issue here. See Park (2005) and references therein. }
\footnotesize{\(^2\) In (4), we use FP to mean ‘functional projection’ without any theoretical implication. (Some researchers such as those mentioned in the text assume this element to correspond to a focus phrase (FocP).) }

We should also point out here that adoption of (4) does not imply that FAs involve exactly the same derivation as Sluicing. Rather, as mentioned in the text, we are only assuming that FAs are similar to Sluicing in that they involve movement to the Spec of a functional projection followed by ellipsis of the complement of the functional head.

Furthermore, as an anonymous reviewer points out, the construction which has often been assumed to be an instance of Sluicing in Korean, as illustrated in (i), crucially differs from FAs in that the copula is obligatory unlike FAs (cf. Kim 1997).


\text{INTENDED: 'Although I heard that John bought something, I don’t know what it is that he bought.'}

We assume following Saito and An (2010), among others, that constructions like (i) do not involve the type of derivation depicted in (3). Rather, we assume that they are derived by ellipsis in a deft-type copula construction. (See Saito and An 2010 for relevant discussion and references.)}
In this paper, we adopt the analysis of FAs along the lines of (4) without further justification.

2. Three Properties of Fragment Answers

The first curious property of FAs is the fact that the remnant, which corresponds to the moved element in (4), is interpreted like a full sentence of various clause types (or forces). The data in (5)-(8) illustrate this.

(5)  a. Chelswu-ka mwe mek-ess-ni?
     C-nom what eat-past-Q
     'What did Chelswu eat?'  ⇒ Declarative
    b. Pap(-ul). '(He ate) rice.'

(6)  a. Chelswu-ka mwe mek-ess-e.
     C-nom something eat-past-dec
     'Chelswu ate something'
    b. Mwe(-lul) 'What (did Chelswu eat)?'  ⇒ Interrogative

(7)  a. Mwe sikhi-e cwu-l-kka?
     what order give-should-Q
     'What should (I) order (for you),'
    b. Pap(-ul). '(Order) rice (for me),'  ⇒ Imperative

(8)  a. Wuli mwe mek-ul-kka?
     we what eat-should-Q
     'What shall we eat?'
    b. Pap(-ul). '(Let's have) rice.'  ⇒ Proposative

Thus, although the remnant is just a single constituent—here a noun phrase, it is still interpreted as if it carries the clause type (or force) of a full sentence.

The second property of FAs we are concerned with here is the absence of FAs in embedded clauses. This is illustrated in the data from (9) through (12).
(Cf. (5)-(8) respectively)

(9) a. John-i Chelswu-ka mwe mek-ess-ta-ko sayngkakha-ni?
   J-nom C-nom what eat-dec-comp thinks-Q
   'What does John think Chelswu ate t ?'
   b. * John-i pap(-ul) sayngkakha-e.
      J-nom rice-acc think-dec
      INTENDED: 'John thinks Chelswu ate rice.'

    J-nom C-nom what eat-past-dec-comp hear-past-Q
    'John heard that Chelswu ate something.'
    b. * John-i mwe(-lul) tul-ess-e?
       J-nom what-acc hear-past-dec
       INTENDED: 'What did John hear Chelswu ate ?'

(11) a. John-i mwe siki-e tal-la-ko hay-ss-ni?
    J-nom what order give-imp-comp say-past-Q
    'What did John tell you to order?'
    b. * John-i pap(-ul) hay-ss-e.
       J-nom rice-acc tell-past-dec
       INTENDED: 'John told me to order rice.'

(12) a. John-i wuli-ka mwe-lul mek-ca-ko hay-ss-ni?
    J-nom we-nom what-acc eat-prop-comp say-past-Q
    'What did John propose us to order?'
    b. * John-i pap(-ul) hay-ss-e.
       J-nom rice-acc say-past-dec
       INTENDED: 'John proposed us to order rice.'

In this respect, FAs appear to be a matrix clause phenomenon. This is a bit surprising given the assumption that derivation of FAs is essentially akin to that of Sluicing (recall (3) and (4)), which is allowed in embedded clauses.

(13) a. A: John will buy something.   B: What?
    ⇒ Matrix Sluicing (Lasnik 1999)
    b. John bought something, but I don't know what.
       ⇒ Embedded Sluicing

The last property of FAs has to do with speech level—the degree of politeness of an utterance, so to speak. Crucially, it seems that FAs are always interpreted on
the non-polite (or casual) level irrespective of the clause type of FAs. Thus, regardless of the speech level of the initial question, FAs are always felt to be casual, which may even make the user of FAs sound impolite in some contexts. This is illustrated in the data from (14).

(14) a. Chelswu-ka mwe mek-ess-ni/-eyo/-upnika?
   C-nom what eat-past-Qnon-polite/QIntermediate/Qformal
   'What did Chelswu eat?'
   b. Pap(-ul). '(He ate) rice.'
   c. Pap(-ul) mek-ess-e.
      rice.acc eat-past-decQnon-polite

Note that the FA in (14b) expresses non-polite speech level which is equivalent to the haj-chey 'hay-style' in (14c) irrespective of the speech levels of the question sentences.

To summarize, we have identified three interesting properties of FAs above: (i) various clause types (or forces) are expressible in FAs; (ii) FAs are not allowed in embedded clauses; (iii) FAs are always interpreted on the non-polite, casual speech level.

3. On Clause Type and Clause Structure

In this section, we propose a possible direction to explore to account for the properties of FAs noted above, which we argue are interrelated with one another.

First, let us consider the fact that FAs can express various clause types. Note incidentally that clause type is normally marked by sentence-final suffixes in Korean, which appear at the end of the sentence attached to the predicate. To give a few examples: -ta is used for declarative sentences; -nya for interrogatives; -la for imperatives; -ca for propositives. Given the usual assumption that the C-domain is responsible for marking the type of a clause (Ahn & Yoon 1989, Cheng 1991, Rizzi 1997), let us assume, following the standard practice in

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3 As is well-known, the system of speech level in Korean is rather complex, and it is not easy to express the subtle differences among the various speech levels using other languages. Given this, we will not be concerned with the question of precisely characterizing these levels, which is clearly beyond the limits of this squib. Here, the "non-polite" level is intended to mean the hay-chey 'hay-style' in traditional Korean grammar.

4 Compare (14) with (5). The same property can be observed from the data in (6)-(8), but we did not repeat them here for reasons of space.
generative work on Korean, that these clause type markers occupy the C head position. Assume further that FAs involve overt movement to the Spec of FP, which we assume to be below CP. Given these assumptions, the question arises why these "overt" clause type markers are never attested in FAs despite the fact that FAs can in principle be interpreted in various clause types. The relevant configuration is given in (15).

(15)  

<table>
<thead>
<tr>
<th></th>
<th>CP</th>
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<tbody>
<tr>
<td></td>
<td>/ \</td>
</tr>
<tr>
<td>FP</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>/ \</td>
</tr>
<tr>
<td>-ta</td>
<td>ha/ha/ha</td>
</tr>
<tr>
<td>NP_1</td>
<td>F'</td>
</tr>
<tr>
<td></td>
<td>/ \</td>
</tr>
<tr>
<td>TP</td>
<td>F</td>
</tr>
<tr>
<td></td>
<td>/ \</td>
</tr>
<tr>
<td>...</td>
<td>t_i ...</td>
</tr>
</tbody>
</table>

Regarding the absence of a derivation like (15), we assume that it is ruled out due to a morphological property of the clause type markers, which require a bound stem.\(^5\) In other words, these suffixes have to attach to the stem of the predicate, which is missing in (15) due to the ellipsis of TP.\(^6\)

Given this, the next question arises: if the suggestion about (15) is correct, i.e., the B-suffix clause type markers are responsible for the problem that arise in (15), how does the interpretation of various clause types come about in FAs in the grammatical cases? With this question in mind, consider a verbal fragment like (16).

(16)  mek-e
      eat-e

\(^5\) In this respect, they may be referred to as "B-suffixes" in the sense of Ahn (1996).

\(^6\) An alternative possibility is where the verb stem overtly head-moves out of the elided TP to support the clause type suffixes in C. However, this derivation is also independently blocked. That is, as Lasnik (1999, 2001) has argued, head movement out of an ellipsis site is impossible as shown in (iB) (see also Merchant 2001, van Craenenbroeck and Liptak 2008 for relevant discussion).

(i)  A: Max has invited someone.
     B: Who (*has)?  (Lasnik 2001)
In other words, the appearance of the aux *has* is ruled out in (iB) since T-to-C movement is barred prior to TP-ellipsis under the standard assumption that (iB) is analyzed as matrix sluicing. Given the condition that head movement out of an ellipsis site is not permitted, it is expected that whenever there is an overt clause type marker (to be supported by a verbal stem), FAs are prohibited.
On the surface, the utterance in (16) only contains a bare verb stem. What is interesting about this example is that it can express all of the clause types examined above. Thus, with proper intonation, (16) is equivalent to a declarative sentence, interrogative sentence, imperative sentence, or a proposative sentence. Given this, we suggest that the structure of (16) can be more precisely represented as in (17).7

(17) mek (verb stem) + e (morphological closer) + Ø (null clause type marker)

In other words, we propose that in addition to the set of overt clause type suffixes mentioned above, Korean also has a null clause type marker Ø. On a par with (16)/(17), the fact that FAs can be interpreted in various clause types can be straightforwardly explained. That is, in the structure in (15), repeated below as (18), what occupies the C head, marking the type of the clause, is actually the null clause type marker Ø as also shown in (17). We assume that no morphological problem arises here because the null clause type marker, unlike its overt counterparts (which are B-suffixes), need not be morphologically supported.

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7 Two anonymous reviewers indicate the possibility that the morpheme e itself is a clause type marker which can receive various interpretations depending on intonation. To this effect, they both point out that e and other clause type markers like ta/nya/ca cannot co-occur, which they interpret to mean that these morphemes occupy the same morphological slot. Thus, one of the reviewers notes the ungrammaticality of an example like (i).

(i) * mek + e + ta/nya/ca
       eat + E + dec/Q/prop

However, we think there may be an alternative possibility for the ill-formedness of (i). That is, as Ahn (1996) argues, suffixes like ta/nya/ca require a bound stem as their host. However, in a configuration like (i), the stem is free due to the presence of e which explains why the final endings cannot attach to it.

It should be pointed out that the suggestion made by the reviewers is quite plausible and, as far as we can see, the main point of our paper will remain unaffected even if we adopt that suggestion. However, given that there is no convincing evidence to favor one or the other of these alternatives at the moment, we will continue to adopt the initial assumption that e has no intrinsic meaning and that it merely serves the function of supporting the verb stem.
This is the gist of our account of the availability of various interpretations of clause type in FAs.\footnote{An anonymous reviewer raises an interesting question about an utterance like (ii).}

Note incidentally that the null clause type marker $\emptyset$ occupies the root position in (18). Bošković (2000) independently argues that merger of a phonologically null element can take place in LF as long as it targets the root.

\footnote{An anonymous reviewer raises an interesting question about an utterance like (ii).}

(i) Yenghi-ka wa-ss-ni an-wa-ss-ni?
  Y.-nom come-past-Q not-come-past-Q
  Did Yenghi come or not?

(ii) Wa-ss-ta.
  come-past-dec
  'Lit. Came.'

He/she asks: (a) whether (ii) involves an FA; (b) if FA involves ellipsis of TP, how does the past tense morpheme survive ellipsis?

Regarding the first question (a), let us point out that FAs are not necessarily restricted to noun phrases: other categories can also be used as a legitimate answer to wh-questions. Thus, given (15), one of the options for (ii) may involve a configuration like (iii).

(iii) \[
\begin{array}{c}
(18) \quad \text{CP} \\
/ \quad \backslash \\
\text{FP} & \quad \text{C} \\
/ \quad \backslash \\
\text{NP}_i & \quad F' \\
/ \quad \backslash \\
\text{TP} & \quad F \\
/ \quad \backslash \\
\ldots & \quad t_i & \quad \ldots
\end{array}
\]

Here, the VP is moved to SpecFP. An alternative option for (ii) involves a full sentence containing a null subject (presumably null pronoun) without ellipsis at all.

Regarding the second question (b), we would like to point out that in an independent work in progress, we pursue the possibility where the tense morpheme is directly attached to the verb stem from the start—i.e., the verb is (partially) inflected when it enters derivation, while the clause type morpheme occupies a separate head position in C. (See also Hwang's (2008) experimental research supporting this conclusion.) We thus assume that the clause type morpheme can combine with the verb contained in the moved VP in PF.
extending the tree. This does not affect anything when it comes to matrix FAs, as the null clause type marker \( \emptyset \) is merged at the root. On the other hand, Bošković's proposal may helps us explain why FAs are impossible in embedded clauses, the situations where the null clause marker occupies embedded C. Regarding this, two different contexts seem worth considering, and it turns out that all of these can be ruled out, which we argue accounts for the absence of embedded FAs. Let us turn to these contexts below.

The first case is where \( \emptyset \) is inserted in the embedded CP in LF. This option is ruled out for the reason already mentioned above. That is, merging \( \emptyset \) at the embedded CP in LF would not extend the tree, violating the Extension Condition proposed by Chomsky (1995).9

The second case involves base-generation of \( \emptyset \) in embedded C. Suppose, following Rizzi (1997), that the functions of clause type marking and embedding are served by different functional heads in the C-domain. For instance, suppose that the morpheme -\( \text{tako} \) which occurs in embedded declarative clauses, is actually morphologically complex to the effect that it can be analyzed as a combination of \( \text{ta} \) and \( \text{k\( \jmath \)} \) where the former is a clause type marker and the latter the embedding marker. If we extend this idea to FAs, we will then have a configuration where the null clause type marker \( \emptyset \) is combined with the embedding marker \( \text{k\( \jmath \)} \) If that is correct, then the impossibility of embedded FAs makes sense, because the embedding marker \( \text{k\( \jmath \)} \) which is itself an affix, would not be properly supported.10

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9 This is basically the same line of reasoning that Bošković (2000) employed to explain the impossibility of certain in-situ wh-questions in French.

10 An anonymous reviewer raises a question in relation to our account of the absence of embedded FAs. Note that it is independently known that complementizers can be null in Korean (see Ahn 1996). Given this, suppose that we derive a configuration like (i).

(i) na-nun [\( \text{yeppu-ta} - \emptyset \)] sayngkakhan-ta.
   I-top pretty-dec-comp think-dec
   'I think (someone) is pretty.'

   Here, the crucial point is that the complementizer is null, which means that we need not worry about a stranded affixal complementizer, unlike the situation discussed in the text.

   Interestingly, such a configuration is expected to be possible under our analysis, as the grammaticality of (i) confirms. More concretely, similarly to the situation discussed in footnote 8, (i) allows two possible derivations: one with a non-elliptic embedded clause with a \( \text{pro} \) subject; the other with an AP FA. (Note incidentally that in (i), the clause type morpheme is overt. If we replace it with the null clause type morpheme, the sentence will be ruled out, because the adjective stem would not be properly supported.)

From this discussion, another important question arises. What if we have a noun FA in the place of the adjective in (i) along with a null clause type morpheme as well as a null complementizer?

(iii) na-nun [Chelsu-w-\( \emptyset - \emptyset \)] sayngkakhan-ta
    I-top C-CT-comp think-dec (CT = clause type)
The account above leads us to yet another possibility to consider. Given that the combination of the null clause type marker Ø and ko is wrong, why don’t we combine an overt clause type marker with ko in embedded FAs? That however does not seem to help either, because the overt clause type marker itself is again an affix, which would not be properly supported, either.\footnote{See also the discussion in footnote 6 for an alternative account.}

4. Some Speculations on Speech Level

Finally, let us return to the observation that FAs are invariably interpreted on the non-polite speech level irrespective of the speech level of the preceding question. Furthermore, this property holds regardless of the clause type. Thus, in (16), for instance, repeated below as (19), the non-polite level interpretation obtains regardless of the choice of its clause type.

\begin{equation}
(19) \text{mek-e} \\
\text{eat-e} \\
'(\text{He) eats (dec.) / (Does he) eat? (inter.) / Eat! (imp.) / (Let’s) eat (prop.)'}
\end{equation}

Given this, one of the fundamental questions to consider here is whether (and how) speech level is structurally represented. One of the possibilities is that speech level is purely a matter of pragmatics or, at least, some component outside syntax. Alternatively, one may assume that speech level is structurally represented just as we assume about clause type. Let us tentatively pursue the second possibility and assume that those sentence-final morphemes that mark speech level head some functional projection. Given this, we may assume that in (19), there is a null speech level morpheme attached to the verb stem. Recall that

\footnote{As indicated, such a configuration is not allowed, and the question is why. Here, unlike the situation discussed in the text, we cannot resort to an unbound affixal complementizer. At the moment, we do not have a concrete answer to this question, but let us just speculate on two potential directions to explore, acknowledging that there may still be other possibilities: first, we could assume that for some reason, the null clause type morpheme can only be inserted at LF. If that is the case, configurations like (ii) would not arise in the first place for reasons discussed in the text; alternatively, we could resort to something like Myers's generalization to the effect that additional affixation to a null morpheme is disallowed, as suggested in an early version of this paper presented as Ahn and An (2010). A potential problem for the latter approach is that Myers's generalization is originally formulated as a regulation on zero-derived words that do not permit the affixation of further derivational morphemes (see Myers 1984, Pesetsky 1995, Martin 1996 for relevant discussion). Since we are dealing with inflectional morphemes here in Korean FAs, it is not clear we can extend Myers's generalization to this context. We thus leave this matter for future research.}
we have already assumed that in (19), there is a null clause type marker. Therefore, if the current discussion is on the right track, there are actually two null morphemes following the verb stem in (19). This is illustrated in (20).

(20) mek-e-Ø-Ø  
      eat-e-SL\text{non-polite}CT_{dec/int/imp/prop}  

Another thing to note about the speech level markers is their distribution. It seems that the non-polite level has the widest option of combining with different clause types. For instance, it seems that unlike the non-polite speech level morpheme Ø, which can combine with various clause types, the formal speech level morpheme \textit{upni} can only combine with the declarative or interrogative clause types, as shown in (21).

(21) po-ass-upni-ta/kka/*la/*ca  
      see-past-SL\text{formal}CT_{dec/-int/*imp/*prop}  

The same seems to be true of other speech level markers in the language. Given this, we assume that the non-polite level is the default speech level and that this can be realized by the null speech level morpheme Ø which is also a "default" morphological realization in the sense of Halle & Marantz’s (1993) Distributed
Morphology.\textsuperscript{13}

If these assumptions are on the right track, then it is expected that FAs are only interpreted on the non-polite speech level. Note finally that (19)/(20) may pattern with FAs in that it cannot be embedded, either.

(22) * John-i Mary-ka mek-e(-ko) malha-n-ta.
J-nom M-nom eat-e-comp say-pres-dec
INTENDED: 'John says that Mary eats.'

We speculate that the ill-formedness of (22) parallels that of embedded FAs, namely, (coocurrence) restrictions on null CT (or presumably null SL together) in embedding contexts, as discussed in the previous section.

5. Conclusion

In this squib, we have examined some aspects of FAs and pointed out three properties of the construction: (i) various clause types (or forces) are expressible in FAs; (ii) FAs are not allowed in embedded clauses; (iii) FAs are always interpreted on the non-polite, casual speech level. We have argued that properties (i) and (ii) hinge essentially on the properties associated with a null clause type morpheme, which we claimed can occupy the root position only. We have also speculated that property (iii) may correlate with the presence of a null speech level morpheme which is associated with the non-polite level as a default value.

There seem to remain several questions, none of which we can address properly here, due to limitations on space and also of our understanding. To mention just one, it appears that embedded FAs (unlike embedded Sluicing) are also unavailable in English.\textsuperscript{14} However, whether the line of analysis proposed for property (ii) above can be extended to English is unclear at the moment.

References

\textsuperscript{13} Thus, the null (default plain) speech level morpheme $\emptyset$ (along with the null force marker) can co-occur with various modality markers, as illustrated in (i), for example: (We thank an anonymous reviewer for bringing this fact to our attention.)

(i) ka-ci-$\emptyset$-$\emptyset$

go-mod-SL=non-polar-CT=dec/inter/imp/prop

\textsuperscript{14} That is, (i-B) in English, for example, is ruled out since it contains an embedded FA.

(i) A: What did Mary purchase?
B: * Fred doesn't realize (that) a motorcycle. (Culicover & Jackendoff 2005)


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