On Clausal Ellipsis in Japanese

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1. Introduction

There have been controversies over how “sluicing” (Ross 1969) in Japanese, shown in (1), is derived.¹

(1) Ken-ga dareka-ni atta rasii kedo,  
Ken-NOM someone-DAT met I.hear but  
‘I hear Ken met someone, but ...’  
boku-wa dare-ni (da) ka siranai.  
I-TOP who-DAT COP Q know.NEG  
‘I don’t know who.’

Takahashi (1994) argues that sluicing in Japanese involves wh-movement just like its English counterpart (see Merchant 2001 for extensive discussion). His analysis, however, has been criticized by a number of authors, who advocate analyses whereby sluicing in Japanese derives from clefts (see, for example, Hoji 1990 for discussion of cleft constructions in Japanese). Consider the pair in (2).

(2) a. Ken-ga Mari-ni atta.  
Ken-NOM Mari-DAT met  
‘Ken met Mari.’
b. Ken-ga atta no wa Mari-ni da.
Ken-NOM met NMLZ TOP Mari-DAT COP
‘It is Mari that Ken met.’

(2a) and (2b) are propositionally similar, but the latter is the cleft version of the former. Thus in (2b) the focused phrase Mari-ni ‘Mari-DAT’ appears right before the copula da, and the rest of the sentential constituent Ken-ga atta ‘Ken-NOM met’ in (2a) is nominalized, to which the topic-marker wa attaches.  

Kuwabara (1996), Nishiyama et al. (1996), Kizu (2005), and, recently, Hiraiwa and Ishihara (2012) all argue for the view that sluicing is based on clefting in Japanese, though the details of their analyses differ. According this family of analyses, the relevant portion of (1) involves the following derivation:

(3) boku-wa [Ken-ga—atta no—wa] dare-ni (da) ka siranai
I-TOP Ken-NOM met NMLZ TOP who-DAT COP Q know.NEG
‘I don’t know who (Ken met).’

One can obtain the sluicing in (1) by eliding the topicalized sentential constituent, as in (3). Let us refer to this kind of analysis as “the cleft analysis.”

The main purpose of this paper is to show contra the authors mentioned in the preceding paragraph that clausal ellipsis (including sluicing and stripping (see below)) in Japanese does not involve clefts. I will argue for “the focus movement analysis” of the kind proposed by Hiraiwa and Ishihara (2002), whereby the focused phrase moves to Spec of Focus Phrase (Rizzi 1997) and the complement of the Focus head undergoes phonological deletion (see also Kim 1997).

The organization of this paper is as follows. Section 2 briefly touches upon Fukaya and Hoji’s (1999) claim, adopted here, that sluicing is only a species of stripping (see Hankamer 1971, Hoji 1990) in Japanese. Section 3 summarizes Hiraiwa and Ishihara’s (2012) recent analysis of sluicing as
ellipses of topicalized sentential constituents in clefts. Section 4 presents data that pose serious problems for the cleft analysis. Section 5 dispels the possible concern that advocates of the cleft analysis might raise about the validity of the counterargument in Section 4. Specifically, it will be shown that the superficial amelioration effects observed in the problematic data are not due to "repair by ellipsis" in the sense of Lasnik (2001, 2007). Section 6 explains how the focus movement analysis deals with the examples the cleft analysis fails to handle. Section 7 makes concluding remarks on the discussion here and some theoretical implications.

2. Sluicing as Stripplng

Before proceeding to a critical examination of the cleft analysis, let us keep in mind that in Japanese, sluicing is only a species of stripping (Hoji 1990 following Hankamer 1971), as Fukaya and Hoji (1999) propose. An example of stripping is given in (4).

\[(\text{4})\quad \text{A: Ken-ga Mari-ni atta rasii yo.} \quad \text{Ken-NOM Mari-DAT met I.hear PRT} \quad \text{‘I hear Ken met Mari.’}\]
\[\text{B: Boku-wa Yuki-ni (da) to omotteita.} \quad \text{I-TOP Yuki-DAT COP C thought} \quad \text{‘I thought (it was) Yuki (that Ken met).’}\]

In reaction to the statement made by the A person, the B person highlights the difference in opinion on who Ken actually met by replacing Mari with Yuki. The parallel between (1) and (4) is straightforward: the only relevant difference between sluicing and stripping is that a wh-phrase (dare in the case of (1)) is focused in the former, whereas a non-wh-phrase (Yuki in the case of (4)) is in the latter. Since a sluiced clause is an interrogative one, it obligatorily contains the Q-marker ka. On the other hand, a stripped clause is a declarative one, requiring a complementizer other than ka (for example, to in (4)). In both types of ellipsis, the elements shared by the antecedent
clause get deleted and the copular $da$ following the focused remnant is optional (see Fukaya and Hoji 1999 for other similarities between sluicing and stripping).4

In short, sluicing is only a variant of stripping in Japanese. This fact will turn out to be crucial in rebutting the cleft analysis, because stripping, which does not include $wh$-remnants, provides us with more empirical testing grounds than sluicing.

3. Sluicing as Clefting

As mentioned earlier, there has been a series of analyses of sluicing in Japanese that make use of clefting (see Kuwabara 1996, Nishiyama et al. 1996, Kizu 2005, and Hiraiwa and Ishihara 2012 among others). Here let us consider Hiraiwa and Ishihara’s (2012) recent analysis, which overcomes various problems with its competing analyses (see Hiraiwa and Ishihara 2012:159-163 for details).

According to their theory (as well as their previous one (Hiraiwa and Ishihara 2002)), sluicing is derived from the so-called in-situ focus construction (Kuno 1973). Observe the following examples. 

(5) a. Ken-ga Mari-ni atta.
   Ken-NOM Mari-DAT met
   ‘Ken met Mari.’

b. Ken-ga MARI-ni atta no $da$.
   Ken-NOM Mari-DAT met NMLZ COP
   ‘Ken met MARI.’

(5b) is an example of the construction, where the nominalizer $no$ and the copula $da$ have been added to the end of (5a). In the in-situ focus construction, any elements bearing a phonological stress are taken to be in focus/contrast. In (5b) $MARI$ in capital letters is singled out as a focus in situ (notice that the position of the dative phrase in (5b) is the same as that in (5a)).
Hiraiwa and Ishihara posit (6) as the underlying structure of the sluice in (1).

(6) boku-wa [Ken-ga
dare-ni
tatta
dan
da
daka] siiranai
I-TOP Ken-NOM who-DAT met NMLZ COP Q know.NEG

Above, *dare* ‘who’ occupies its base position. Hiraiwa and Ishihara argue that (6) undergoes what they call “syntactic metamorphosis” to yield (1). First, the *wh*-phrase moves to Spec of Foc(us)P(hrase) (Rizzi 1997) whose head is the copula *da*, resulting in the following representation:

(7) boku-wa [[_FocP dare-i-ni [Ken-ga ti
tatta

focus movement

Then the nominalized clause headed by *no* undergoes syntactic topicalization into Spec of Top(ic)P(hrase) above FocP to yield (8).

(8) boku-wa [TopP [Ken-ga ti
tatta
dan] [FocP dare-i-ni ti da] ka]] siiranai

topicalization

This is exactly how Hiraiwa and Ishihara derive the cleft construction in (3), where the topicalized constituent is marked with the topic-marker *wa*. Finally, the topicalized clause undergoes ellipsis, as in (9).

(9) boku-wa [TopP [Ken-ga ti
tatta
dan] [FocP dare-i-ni ti da] ka]] siiranai

ellipsis

Through ellipsis, (9) attains the surface string found in the sluiced sentence in (1).

In brief, Hiraiwa and Ishihara’s (2012) theory of sluicing (and stripping) in Japanese involves two instances of syntactic movement, that is,
focus movement and topicalization. The former applies to in-situ focus constructions and the latter applies to the output of the former, followed by ellipsis of topicalized phrases.

4. Counterevidence

The cleft analysis makes clear, empirically testable predictions regarding the correlations between clefting and sluicing. Consider the following table, which exhausts the four possible combinations of grammaticality judgments on the two constructions in question:

<table>
<thead>
<tr>
<th></th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
</tr>
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<tbody>
<tr>
<td>Clefting</td>
<td>OK</td>
<td>*</td>
<td>OK</td>
<td>*</td>
</tr>
<tr>
<td>Sluicing</td>
<td>OK</td>
<td>*</td>
<td>*</td>
<td>OK</td>
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The cases A and B are uninteresting. Under Hiraiwa and Ishihara’s (2012) analysis, they are just what is expected: when the underlying cleft construction is OK, its sluicing counterpart is also OK, and when the former is bad, the latter is also bad with no well-formed input in the first place. Things get more interesting when we take into consideration the C and D possibilities where we find opposite judgments. In the case C, the underlying cleft is grammatical, but its sluicing equivalent is ruled out. Informative as it may seem, this case would be difficult to serve as solid evidence against the cleft analysis, simply because ellipsis is known to be subject to various kinds of constraints (see Lobeck 1995, Merchant 2001 among numerous others for licensing conditions on ellipsis) and the ungrammaticality in question may be for an independent reason having to do with ellipsis. This brings us to the final case D, where clefting is illegitimate, but its sluicing counterpart is legitimate. Obviously, this pattern is not expected under the cleft analysis, whereby sluicing derives from its
base cleft construction.5

Hiraiwa and Ishihara (2012) seem to be aware of the problematic pattern in (10) and suggest (at least tacitly) that the case D does not exist. In other words, they contend that whenever the source cleft is ill-formed, no sluicing can be derived from it (the case B). Their relevant examples involve NPs with focus particles such as sura/sae ‘even.’ Observe the following triplet adapted from Hiraiwa and Ishihara 2012:169:

   Naoya-TOP Mari-DAT-even called
   ‘Naoya even called Mari.’

b. Naoya-wa MARI-ni-sura/sae denwasita no da.
   Naoya-TOP Mari-DAT-even called NMLZ COP
   ‘Naoya even called MARI.’

c. *Naoya-ga denwasita no wa Mari-ni-sura/sae da.
   Naoya-NOM called NMLZ TOP Mari-DAT-even COP
   (‘It was even Mari that Naoya called.’)

(11a) is the baseline example where the dative NP is marked with one of the intensifying particles. (11b) shows that the NP in question can appear in the in-situ focus construction. Interestingly, however, the same NP cannot appear in the focus position of the cleft construction, as shown in (11c).

Given the ungrammaticality of (11c), the cleft analysis predicts that the sura/sae-marked wh-phrase is incompatible with sluicing. Hiraiwa and Ishihara (2012:169) argue that the prediction is borne out, citing the following example (their (54a,b)):

(12) a *Naoya-ga denwasita no wa dare-ni-sura/sae desu ka?
    Naoya-NOM called NMLZ TOP who-DAT-even COP Q
    (‘Even who is it that Naoya called?’)
b. *Naoya-wa dareka igaina hito-ni denwasita rasii
   Naoya-TOP someone unexpected person-DAT called I.hear
   kedo, dare-ni-sura/sae ka siranai.
   but who-DAT-even Q know.NEG
   (‘Naoya called someone unexpected, but I don’t know even who.’)

(12a), where *Mari in (11c) has been replaced by dare ‘who’ and, accordingly, the sentence-final Q-marker ka has been added, is ill-formed, just as expected. Hiraiwa and Ishihara claim that (12b), whose second conjunct derives from (12a) under their analysis, is predictably ill-formed, providing support for the analysis.

In addition to (12b), Hiraiwa and Ishihara offer another argument for their theory based on stripping (recall sluicing constitutes part of the larger phenomenon stripping; see section 2). They point out that negative polarity items (NPIs) cannot occup the focus position in clefting. Observe the following triplet (based on Hiraiwa and Ishihara 2012: 171):

   Naoya-TOP who-DAT-also called.NEG
   ‘Naoya didn’t call anyone.’

b. Naoya-wa DARE-ni-mo denwasinakatta no da.
   Naoya-TOP who-DAT-also called.NEG NMLZ COP
   ‘Naoya didn’t call ANYONE.’

c. *Naoya-ga denwasinakatta no wa dare-ni-mo da.
   Naoya-NOM called.NEG NMLZ TOP who-DAT-also COP
   (‘It was even Mari that Naoya called.’)

One can see the same pattern in (11) repeated in (13). As shown in (13a), the NPI here is dare-ni-mo ‘to anyone,’ which requires the presence of the negative form of the verb denwasinakatta ‘didn’t call.’ The NPI can appear in the in-situ focus construction, as in (13b), but cannot be clefted, as in (13c).

Given (13c), the cleft analysis predicts that NPIs cannot be a remnant
of stripping. Hiraiwa and Ishihara (2012:171) give the following example (their (61)) in support of the analysis:

(14) *Naoya-wa kekkyoku yoteisiteita nan-nin-ka-ni denwasinakatta
Naoya-TOP after・all planned what-CL-Q-DAT called・NEG
rasii kedo, boku-wa dare-ni-mo da to omou.
I.hear but I-TOP who-DAT-also COP C think
‘Although I hear that Naoya did not call some of the people that he was supposed to call after all, I think that he didn’t call anyone.’

(14) contains the NPI dare-ni-mo as the remnant of stripping and is expectedly ungrammatical.

Now I argue that the examples in (12b) and (14) are deviant for reasons having nothing to do with their alleged source clefts in (12a) and (13c), respectively. Consider (12b) first. I maintain that the example sounds awkward because the antecedent clause is not parallel enough to license the ellipsis that follows. It is well known that ellipsis is subject to certain parallelism constraints. Some have argued that the relevant constraints are (in part) semantic (Fox 2000 among others), while others have suggested that they are syntactic (Merchant 2008a, Tanaka 2011 among others). Putting irrelevant details aside, the point is that if we carefully control factors associated with parallelism, we can in fact construct well-formed examples of sluicing in which wh-remnants are marked with sura or sae. Observe (15), which is completely grammatical.

(15) Naoya-ga dareka-ni-sura/sae denwasita rasii kedo,
Naoya-NOM someone-DAT-even called I.hear but
‘I hear Naoya called even someone, but ...’
boku-wa dare-ni-sura/sae (da) ka siranai.
I-TOP who-DAT-even COP Q know.NEG
‘I don’t know even who (Naoya called).’

(15) differs from (12b) in that its antecedent clause is fully parallel to the
sluiced clause, with the particle sura or sae attached to both the antecedent dareka-ni ‘someone-DAT’ and the remnant dare-ni ‘who-DAT.’ The grammaticality of examples like (15) indicates clearly that the ungrammaticality of (12b) has nothing to do with the wh-remnant bearing the focus particle, thereby nullifying Hiraiwa and Ishihara’s argument. As a matter of fact, (15) counts as strong evidence against their analysis for the above-mentioned reason: cleftability is certainly not a prerequisite for sluicing.

A similar set of facts can be found with other particles such as koso, which emphasizes the phrase it attaches to. Observe the following paradigm that mimics (11).

   Naoya-NOM Mari-DAT-EMPH should.meet COP
   ‘Naoya should meet (nobody else but) Mari.’

b. Naoya-ga MARI-ni-koso aubeki na no da.
   Naoya-NOM Mari-DAT-EMPH should.meet COP NMLZ COP
   ‘Naoya should meet MARI.’

c. *Naoya-ga aubeki na no wa Mari-ni-koso da.
   Naoya-NOM should.meet COP NMLZ TOP Mari-DAT-EMPH COP
   (‘It was even Mari that Naoya called.’)

As (16c) shows, the koso-marked NP cannot be clefted. In spite of this, it can readily be a remnant of stripping.

   Naoya-NOM Yuki-DAT-EMPH should.meet COP
   ‘Naoya should meet (nobody else but) Yuki.’

B: Boku-wa Mari-ni-koso (da) to omotteita.
   I-TOP Mari-DAT-EMPH COP C thought
   ‘I thought (it is) Mari (that Naoya should meet).’

The cleft analysis cannot handle (17).
Turning now to the stripping case involving a NPI in (14), once again, its ill-formedness seems to stem from the lack of parallelism, syntactic, semantic or otherwise. This suggestion receives support from examples like the following:

(18) A: Naoya-ga dareka-ni denwasinakatta rasii.
   Naoya-NOM someone-DAT called.NEG I.hear
   ‘I hear Naoya didn’t call someone.’
B: Boku-wa dare-ni-mo (da) to omou.
   I-TOP who-DAT-also COP C think
   Lit. ‘I think that it is anyone (that he didn’t call).’

In the above example, care is taken to make the antecedent sentence and the sluiced one fully parallel, and the result is the complete grammaticality. The NPI dare-ni-mo can be a remnant of clausal ellipsis after all. This fact is of course problematic for the analysis put forth by Hiraiwa and Ishihara (2012).

One can build the same kind of argument against the cleft analysis on the basis of another NPI sika ‘only’ (see Tanaka 1997 for discussion). Observe the following examples:

   Ken-NOM Mari-DAT-only called.NEG
   ‘Ken called only Mari.’
   Ken-NOM Mari-DAT-only called.NEG NMLZ COP
   ‘Ken called only MARI.’
c. *Ken-ga denwasinakatta no wa Mari-ni-sika da.
   Ken-NOM called.NEG C TOP Mari-DAT-only COP
   (Lit. ‘It is only Mari that Ken called.’)

As the above paradigm similar to (13) shows, the sika-marked NP cannot be the focus of the cleft construction ((19c)), though it can be focused in situ
((19b)). The following example demonstrates that the *sika*-marked NP qualifies as a legitimate remnant in stripping, contrary to the prediction made by the cleft analysis:

(20) A: Ken-ga Mari-ni-sika denwasinakatta rasii.
    Ken-NOM Mari-DAT-only called.NEG I.hear
    ‘I hear Ken called only Mari.’

B: Boku-wa Yuki-ni-sika (da) to omotteita.
    I-TOP Yuki-DAT-only COP C thought
    ‘I thought (it was) only Yuki (that Ken called).’

The well-formedness of the above sentence produced by the B person poses a problem for Hiraiwa and Ishihara (2012).

To summarize so far, Hiraiwa and Ishihara’s (2012) arguments for their analysis based on the behavior of NPs marked with particles such as *sura/sae* and NPIs are ill-founded. In fact, these elements can be used to argue against the analysis if necessary care is taken to construct truly relevant examples.

The kind of arguments built around the D case in Table (10) goes beyond data involving special particles and NPIs. In what follows, I will present three pieces of additional evidence against the cleft analysis. They come from different strands of the Japanese grammar.

First, although various kinds of constituents can occupy the focus position in clefts, there exist phrases that cannot. For instance, “small clauses” (Kikuchi and Takahashi 1991), exemplified in (21), are excluded from the position.

(21) a. Ken-ga Mari-o kawaiku omotta.
    Ken-NOM Mari-ACC cute thought
    ‘Ken thought Mari cute.’

b. Ken-ga MARI-o KAWAIKU omotta no da.
    Ken-NOM Mari-ACC cute thought NMLZ COP
    ‘Ken thought MARI CUTE.’

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(21a) is a typical example of the small clause construction in Japanese. There the phrase Mari-o kawaiku ‘Mari cute’ is supposed to constitute a small clause complement of the verb omotta ‘thought.’ (21b) shows that the small clause can be focused in situ. (21c) demonstrates that it cannot be clefted.

In view of (21c), the cleft analysis predicts that small clauses cannot survive clausal ellipsis, stripping in particular, a prediction falsified by (22).

(22) A: Ken-ga Yuki- o kasikoku omotta.
   Ken-NOM Yuki-ACC wise thought
   ‘Ken thought Yuki wise.’

B: Boku-wa Mari-o kawaiku (da) to kantigaisiteita.
   Top Mari-ACC cute COP C misunderstood
   Lit. ‘I misunderstood it was Mari cute (that Ken thought).’

As shown above, the same small clause causing the ungrammaticality in (21c) poses no problem in the case of stripping.

Second, another argument against the cleft analysis can be developed in relation to multiple foci. It has been pointed out in the literature (see Koizumi 1995 among others) that Japanese clefts tolerate multiple foci in many ways. Kawamura (2006), however, notes that generally, one cannot cleft the combination of a wh-phrase and a non-wh-phrase. Consider (23).

(23) a. Ken-ga itu Mari-ni attano?
   Ken-NOM when Mari-DAT met Q
   ‘When did Ken meet Mari?’

b. Ken-ga ITU MARI-ni atta no desu ka?
   Ken-NOM when Mari-DAT met NMLZ COP Q
   ‘WHEN did Ken meet MARI?’
(23a) The above examples all contain the sequence *itu Mari-ni* ‘when Mari-DAT.’ (23b) and its in-situ focus version in (23b) are fine. On the other hand, (23c), where the *wh*-phrase and the dative NP are simultaneously clefted, is ruled out, in accordance with Kawamura’s (2006) observation.

(24) Exactly the same combination can be a remnant of clausal ellipsis, as shown below:

(b) Ken-ga sonouti Mari to Yuki-ni (betubetuni) au kedo,
Ken-NOM soon Mari and Yuki-DAT (separately) meet but
‘Ken will meet Mari and Yuki soon (on separate occasions), but ...’
boku-wa itu Mari-ni (da) ka siranai.
I-TOP when Mari-DAT COP Q know.NEG
Lit. ‘I don’t know when Marl (Ken will meet).’

The grammaticality of (24) is mysterious under the cleft analysis.

Finally, as mentioned in Hiraiwa and Ishihara 2012, clefts generally obey what is known as the Clause Mate Condition (CMC), which demands that focused elements in clefts be clause mates (Koizumi 1995). Consider (25), adapted from Hiraiwa and Ishihara 2012.

(25) a. Mari-ga sensei-ni Naoya-ga ringo-o mittu tabeta
Mari-NOM teacher-DAT Naoya-NOM apple-ACC three ate
to iiituketa.
C told
‘Mari told the teacher that Naoya ate three apples.’
(25a) is the baseline biclausal example. (25b) shows that in-situ focusing can target more than one element belonging to different clauses. In contrast, clefting is subject to the CMC, as shown in (25c) where sensei-ni ‘teacher-DAT’ originating from the main clause and ringo-o mittu ‘apple-ACC three’ originating from the embedded clause are clefted.

Now observe the following grammatical example of stripping:

(26) A: Mari-ga oya-ni Naoya-ga mikan-o yottu tabeta
Mari-NOM parent-DAT Naoya-NOM apple-ACC four ate
C told
Mari told her parent that Naoya ate four oranges.

B: Boku-wa sensei-ni ringo-o mittu (da) to omotteita.
I-TOP teacher-DAT apple-ACC three COP C thought
Lit. ‘I thought (it was) the teacher, three apples (that Mari told that Naoya ate).’

(26) confirms that the CMC-violating combination of the two arguments in (25c) qualifies as a remnant of ellipsis, strongly indicating that the cleft analysis that takes (25c) as the source of the stripping in (26) is on the wrong track.
5. Repair by Ellipsis?

In the previous section, I alluded to the examples that fall into the category D in (10), suggesting that they pose insurmountable problems for the cleft analysis. The proponents of the analysis, however, might be tempted to circumvent the problems by saying that what is involved in the relevant cases is "repair by ellipsis" in the sense of Lasnik (2001, 2007) (see also Ross 1969, Merchant 2001, 2008b). Compare (27) and (28) (taken from Lasnik 2001).

(27) *How much of his work did every linguist met a philosopher who criticized it?
(28) Every linguist met a philosopher who criticized some of his work, but I'm not sure [CP how much of his work [IP every linguist, met a philosopher who criticized it]].

(27) involves extraction out of the complex NP island (Ross 1967) and hence incurs a violation. (28) shows that the island violation in (27) can be repaired by sluicing. A skeptic might say that the inaudible structure in (28) does not contain any island in the first place (cf. Merchant 2001). But that is not the case. Notice that in (28) there is a variable, that is, his, inside the wh-element, which is bound by the subject universal quantifier every linguist. The presence of the bound variable, which must reconstruct into a position c-commanded by its binder at LF, guarantees that the sluicing site contains the complex NP island.9

Lasnik (2002) points out that adjunct wh-phrases are not eligible for island repair. Observe (29).

(29) *Mary liked a man who left for some reason, but I don't know [CP why [IP Mary liked a man who left]].

In (29) the wh-adjunct why has been extracted out of the complex NP island headed by a man. Although ellipsis deletes the entire clause containing the island, no amelioration is detectable in (29).
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Why should there be such an argument/adjunct asymmetry with respect to island repair? Lasnik’s (2002) answer to this question relies on Lasnik and Saito’s (1992) claim that locality constraints on adjuncts (unlike those on arguments) must be satisfied at LF. In contrast, an island violation incurred by argument extraction, as in (27), leads only to PF-uninterpretability (see Lasnik 2002, Merchant 2008b among others). Since ellipsis is a PF operation (Lasnik 2007, Merchant 2001, 2008b, Temmerman to appear, cf. Chomsky and Lasnik 1993), its repair effects are observable only with arguments. The relevant generalization is as follows (Merchant 2010):10

(30) Ellipsis repairs only PF violations internal to the ellipsis site.

The locality violation in (29) persists even under ellipsis because it causes the derivation to crash in LF.11

With (30) in mind, let us go back to the examples that fall into the category D in Table (10). They do count as evidence against the cleft analysis if they are shown not to involve PF violations and hence cannot represent cases of repair by ellipsis.

Let us now consider why the following examples of clefts, repeated here from the preceding section, are ruled out:

(31) a. *Naoya-ga denwasita no wa Mari-ni-sura/sae da. (=11c))
   Naoya-NOM called NMLZ TOP Mari-DAT-even COP
   (‘It was even Mari that Naoya called.’)
   b. *Naoya-ga denwasinakatta no wa dare-ni-mo da. (=13c))
   Naoya-NOM called.NEG NMLZ TOP who-DAT-also COP
   (‘It was even Mari that Naoya called.’)
   c. *Ken-ga omotta no wa Mari-o kawaiku da. (=21c))
   Ken-NOM thought C TOP Mari-ACC cute COP
   (Lit. ‘It was Mari cute that Ken thought.’)
(31a) involves the illegitimate clefting of NPs with the focus particles sura/sae ‘even.’ It has been standardly assumed that focus is a semantic notion (see Rooth 1992 for example) (though it may have syntactic and phonological reflexes) and elements associated with it, being scope-taking objects, are licensed in LF. As for Japanese focus particles, Aoyagai (2006) argues within the early minimalist framework (Chomsky 1995) that they undergo LF movement to appropriate heads to be licensed. In other words, the ungrammaticality of (31a) has nothing to do with the PF component. Then the grammaticality of the sluiced example in (15), which the cleft analysis derives from (31a), cannot instantiate repair by ellipsis. The conclusion is that (31a) cannot underlie (15).12

The same conclusion can be reached on the basis of data such as (31b) where NPIs are involved. There is a consensus in the literature (see Uribe-Echevarria 1994 among numerous others) by now that NPIs are licensed in LF. Again, the ill-formedness of (31b) cannot be attributed to a PF-related problem. The apparent repair of (31b) in the stripping example in (18) is only deceptive; in fact, (18) is not linked to (31b) in any way, undermining the cleft analysis.13

Moving on to (31c), I maintain that there is nothing phonologically wrong with it. In particular, there is no ban on splitting kawaiku omou, which might be regarded as some kind of complex predicate (cf. Kawai 2008), as shown in (32).

[158]
In (32) the small clause *Mari-o kawaiku* has been right-dislocated (see Tanaka 2001 for an analysis of right-dislocation in Japanese). What goes wrong with (31c) then must be ascribed to a violation in LF. Under Koizumi’s (2002) analysis, the adjectival head (*kawaiku* in (31c) and (32)) must move covertly to its host (*omotta* in (31c) and (32)) in order to 0-mark arguments. Given this type of derivation, the failure of LF incorporation in (31c) leads to a violation of the Principle of Full Interpretation, which cannot be mended by ellipsis. The well-formed stripping example in (22) thus goes against the cleft analysts.

Certainly, (31d) involves no PF violation. As Kawamura (2006) shows, the general impossibility of clefting a combination of a *wh*-phrase and a non-*wh*-phrase is due to the fact that they cannot form a single unit both semantically (especially in terms of event quantification) and syntactically. This implies that (24) is not a case of repair by ellipsis and constitutes real evidence against the cleft analysis.

How about (31e)? Curiously enough, Hiraiwa and Ishihara (2012:173-174) point out that the CMC is lifted when multiple *wh*-phrases are clefted or the CMC-violating cleft sentence, with more than one non-*wh*-phrases, is turned into a yes-no question, giving the following examples (their (65b,c)):

(33) a. Naoya-ga Mari-ga nonda to iituketa no wa
    Naoya-NOM Mari-NOM drank C told NMLZ TOP
dare-ni nani-o na no?
    who-DAT what-ACC COP Q
Lit. ‘To whom what is it that Naoya told that Mari drank?’
b. Naoya-ga Mari-ga nonda to iituketa no wa
Naoya-NOM Mari-NOM drank C told NMLZ TOP
Yumi-ni wain-o na no?
Yumi-DAT wine-ACC COP Q
Lit. 'Is it to Yumi, wine that Naoya told that Mari drank?'

The question is: what is responsible for the discrepancy between (31e) and (33)? Hiraiwa and Ishihara suggest in essence that it is the special focus prosody associated with the questions in (33), in particular, with the wh-phrases in (33a) and the clefted phrases in (33b). According to their proposal, (31e) is ruled out because the focused phrases lack the special kind of prosody that rescues (33a,b) from potential CMC violations.

Let us now ask whether (26) is a case of repair by ellipsis. The answer is negative, which means that the example runs counter to the cleft analysis. Under Hiraiwa and Ishihara's account, what is wrong with (31e) is indeed phonological. However, exactly the same alleged phonological defect with the focused phrases remains in the stripping example in (26). Furthermore, only phonological defects within the ellipsis site are supposed to be repairable. In short, the ellipsis in (26) has not repaired anything.

To recapitulate, the five classes of examples that have been cited in the previous section to argue against the cleft analysis are not instances of repair by ellipsis and thus lead us to conclude with confidence that the analysis is incorrect.

6. Focus Movement Analysis

Having established that clausal ellipsis in Japanese such as sluicing and stripping does not derive from clefts, I suggest that the alternative analysis making use of focus movement (Kim 1997, Hiraiwa and Ishihara 2002) is on the right track. Under this analysis, the sluicing example in (1) has the following derivation:
As shown above, the analysis differs from the cleft analysis in that no topicalization is involved. Thus, after the wh-phrase moves to the Spec of FocP, as in (34b), the complement of the Foc head undergoes deletion. To put it differently, Hiraiwa and Ishihara (2012) is only half correct; ironically, they have gone too far and should go back to their 2002 proposal.

The above grammatical examples of ellipsis that turned out to be problematic for the cleft analysis are collected below, with the relevant instances of focus movement and ellipsis indicated:

(35) a. boku-wa [Ken-ga dare-ni atta no da ka] siranai (=15)
   I-TOP Ken-NOM who-DAT met NMLZ COP Q know.NEG
   ‘I don’t know even who (Naoya called).’

b. Boku-wa dare-ni-mo Naoya-ga denwasita no (da)
   I-TOP who-DAT-also Naoya-NOM called.NEG NMLZ COP
to omou. (=18)
   C think
   Lit. ‘I think that it is anyone (that Naoya didn’t call).’

c. Boku-wa Mari-o kawaiku Ken-ga omotta no (da)
   I-TOP Mari-ACC cute Ken-NOM thought NMLZ COP
to kantigaisiteita. (=22)
   C misunderstood
   Lit. ‘I misunderstood it was Mari cute (that Ken thought).’
d. boku-wa itu Mari-ni Ken-ga-tt-au-no (da) I-TOP when Mari-DAT Ken-NOM meet NMLZ COP ka siranai. (= (24)) Q know.NEG Lit. ‘I don’t know when Mari (Ken will meet).’

e. Boku-wa sensei-ni ringo-o mittu Mari-ga-Naoya-ga-tt 1-TOP teacher-DAT apple-ACC three Mari-NOM tabeta to iiituketa-no (da) to omotteita. (= (26)) ate C told NMLZ COP C thought Lit. ‘I thought (it was) the teacher, three apples (that Mari told that Naoya ate).’

These examples are all fine with or without the ellipsis.\(^{15}\) Hence, the focus movement analysis naturally explains them and is superior to the cleft analysis.

7. Conclusion and Implications

It has been shown that the analyses of Japanese sluicing/stripping that crucially rely on clefting (Kuwabara 1996, Nishiyama \textit{et al.} 1996, Kizu 2005, Hiraiwa and Ishihara 2012) are incorrect: clausal ellipsis is not dependent on topicalization. It has also been shown that the analysis that takes sluicing/stripping to be derived by focus movement followed by the deletion of the complement of the Foc head (Kim 1997, Hiraiwa and Ishihara 2002) offers a straightforward account of all the data reviewed here.

The above discussion has interesting cross-linguistic implications. Aelbrecht and Haegeman (2012) show contra Johnson (2001) that VP ellipsis is not licensed by VP topicalization in English.\(^{16}\) Their conclusion about VP ellipsis extends directly to clausal ellipsis in Japanese. The observation seems to be that constituents targeted by ellipsis cannot simply undergo movement in general. This is exactly part of what Nakamura (2009:321) calls the Ellipsis Movement Generalization:
(36) *The Ellipsis Movement Generalization* (EMG)

If a certain category can undergo ellipsis, it cannot undergo movement except when it is phonologically null.

Nakamura (2009) argues that (36) covers Irish vP (see McCloskey 2004), English VP, and Japanese CP and that it can be derived by a revised notion of phase (Chomsky 2001, 2008).17 The present paper together with Aelbrecht and Haegeman 2012 provides further support for Nakamura’s (2009) claim and the phase-based deletion theory of ellipsis.

At the same time, the present paper prompts rethinking of the various analyses of ellipsis in the literature (Szczegielniak 2006 on Polish and Russian, Authier 2011 on French, and Funakoshi 2012 on English, to name a few), whereby constituents need to undergo syntactic movement before they undergo phonological deletion. I would like to take up this important task in future work.

Notes

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1. As a matter of fact, the case-marker on the *wh*-phase in the sluice can be dropped. Thus the dative case-marker *-ni* in (1) can be omitted, as shown (i).

(i) boku-wa dare (da) ka siranai.
I-TOP who COP Q know.NEG
‘I don’t know who.’

I will not be concerned with non-C(ase)-M(arked)-sluicing (Fukaya and Hoji 1999) such as (i) (as well as non-CM-stripping, see below), because it appears to have no bearing on the main question of the present paper: how clausal ellipsis is derived through syntactic movement. As has been pointed
out by Takahashi (1994), although CM-sluicing exhibits Subjacency effects, non-CM-sluicing (or stripping) does not, indicating that it does not involve movement of the focused phrase. See Takahashi 1994 for other differences between CM-sluicing and non-CM-sluicing.

The abbreviations used in the glosses are as follows:

ACC-accusative; C-complementizer; CL-classifier; COP-copula;
DAT-dative; EMPH-emphatic; NEG-negative; NMLZ-nominalizer;
NOM-nominative; PRT-particle; Q-question marker; TOP-topic

2. In the majority of examples examined in this paper, I will use dative-marked NPs in the focus position in order to avoid complications that arise with nominative and accusative NPs (see Koizumi 1995).

3. Throughout this paper, I indicate ellipsis by strikethrough.

4. The optionality of the copula *da* in (1) and (4) seems to be due to morphophonological factors. Hiraiwa and Ishihara (2012) suggest that it can be captured by assuming that ellipsis targets two different projections: when Foc(us)P is deleted, *da* gets erased, but when Fin(ite)P below FocP is deleted, *da* survives (see Hiraiwa and Ishihara 2012 for details). Their analysis cannot be correct, because the optionality of *da* is observed even in cases where no ellipsis is involved. Consider the following examples:

(i) a. Mari-wa sensei (da).
   Mari-TOP teacher COP
   ‘Mari is a teacher.’

   b. Boku-wa MARI-ga katu no *(da) to omou.
   I-TOP Mari-NOM win NMLZ COP C think
   ‘I think it is Mari that will win.’

   c. Boku-wa MARI-ga katu no (da) ka siranai.
   I-TOP Mari-NOM win NMLZ COP C know.NEG
   ‘I don’t know whether it is Mari that will win.’

In (ia) and (ic), the copula is optional. In (ib), on the other hand, it is obligatory. Comparing (ib) and (ic), one can notice that the *no-to* sequence
is banned, whereas the no-ka sequence is permitted. The observation is that
the phonological realization of the copula is optional in principle but is
required when its non-realization results in an illegitimate
morphophonological sequence. In sluicing and stripping, the nominalizer no
is deleted (see below) and thus the presence of the copula is only optional.

In some cited examples below, the optionality of da is not indicated.

5. Unless the ill-formedness associated with the source cleft is somehow
remedied by ellipsis (cf. Lasnik 2001, 2007). I will come back to this issue
in section 5.

6. I corrected an obvious error in their English translation.

7. The exact structure of a small clause in Japanese is still a matter of debate.
See Koizumi 2002 and Kawai 2008 for views different from the one

8. An exception to this observation is the combination of naze 'why and a

9. As pointed out by Takahashi (1994), Japanese sluicing fails to exhibit
island repair even when the remnant is a case-marked argument. See
Nakamura 2012 for an analysis of the crosslinguistic difference between
English and Japanese.

10. Merchant’s (2010) exact wording is: “All true cases of elliptical repair
reduce to predicted properties of strong features, internal to the ellipsis
site.”

Lasnik (2002) notes that examples like (i) are excluded, even though they
do not contain any islands.

(i) ??Mary claimed that John left for some reason, but I don’t know [CP why
[IP Mary claimed [that John left]]].

The extreme locality imposed on the adjunct remnant of sluicing can be
accounted for by combining Lasnik and Saito’s (1992) theory with Fox and
Lasnik’s (2003) proposal on parallelism.

12. The same line of argument can be based on (16c) and (17).
13. The same is true of (19c) and (20).

14. In this respect, small clauses contrast sharply with uncontroversial complex predicates such as *te miru ‘try,’ which can never be phonologically split, as shown in (i).

(i) a. Ken-ga sono mondai-o toite mita.
   Ken-NOM that problem-ACC solve saw
   ‘Ken tried to solve the problem.’

b. *Ken-ga mita yo, sono mondai-o toite.
   Ken-NOM saw PRT that problem-ACC solve
   (Lit. ‘Ken tried, to solve the problem.’)

15. When no ellipsis takes place, the presence of the copula *da is obligatory in (35b, c, e) for the reason mentioned in footnote 4. In that case, (35e) sounds somewhat degraded, due probably to some processing difficulty.

   As expected, the following examples containing the focused NPs with *koso and *sika are grammatical with or without ellipsis:

(i) Boku-wa Mari-ni-koso Naoya-ga t aubeki na no
   I-TOP Mari-DAT-EMPH Naoya-NOM should.meet COP NMLZ
   (da) to omotteita. (= (17))
   COP C thought
   ‘I thought (it is) Mari (that Naoya should meet).’

(ii) Boku-wa Yuki-ni-sika Ken-ga denwasi naka tta no
    I-TOP Yuki-DAT-only Ken-NOM called.NEG NMLZ
    (da) to omotteita. (= (20))
    COP C thought
    ‘I thought (it was) only Yuki (that Ken called).’

In (i) and (ii), as in (35b, c, e), *da cannot be omitted without ellipsis.

16. In an attempt to capture the similarities between VP-ellipsis and VP-topicalization, Aelbrecht and Haegeman (2012) suggest that they are both licensed by the same mechanism Agree.

17. See Holmberg 2001 for one of the initial attempts to tie ellipsis with
cyclic Spell-Out. See also Nakamura 2009 for evidence for the “except” clause in (36).

References


