

Counter Sluicing

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Abstract. Sluicing deletes everything but a wh-phrase. We observe a novel phenomenon in Japanese, what we call *counter sluicing*, in which everything but a wh-phrase (and what follows it) survives deletion. Thus, counter sluicing lacks an overt wh-phrase, but nevertheless functions as wh-question. We propose that both counter sluicing and sluicing share a cleft structure as their underlying structure. Counter sluicing is derived from applying argument ellipsis to the ForceP and this is exactly opposite to what happens in sluicing in Japanese, in which argument ellipsis applies to the topicalized FinP. We provide several pieces of evidence for our analysis (multiple foci, connectivity effects, clause-mate condition, and island-sensitivity).

1. Introduction

In sluicing, everything but a wh-phrase undergoes deletion (Ross 1969).

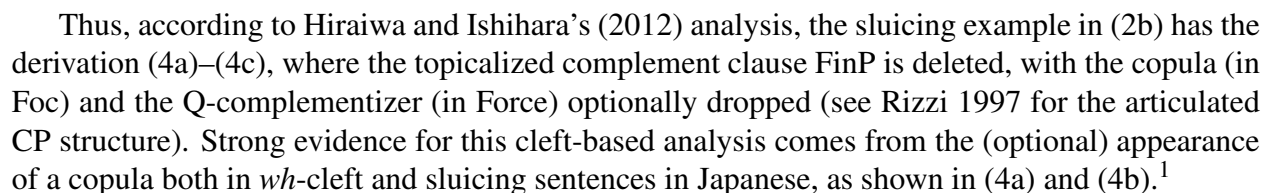
- (1) I heard that Hans J. Wegner designed a famous chair in 1949, but what chair ~~did he design in 1949?~~

Assuming that ellipsis is a shared mechanism of UG, Japanese, not surprisingly, also has sluicing-like ellipsis phenomena (see Inoue 1976, Takahashi 1994, Merchant 1998, 2001, van Craenenbroeck and I 2013, among others).

- (2) a. A: Hans J. Wegner-ga 1949-nen-ni aru yuumeena isu-o dezainsita n
Hans J. Wegner-NOM 1949-year-in certain famous chair-ACC designed c
desu yo.
COP SFP
'(You know) Hans J. Wegner designed a famous chair in 1949.'
- b. B: Nan-toiu isu-o (desu ka)↗?
what-called chair-ACC COP Q
'What chair (was it)?' (Sluicing)
- c. A: *The Chair* desu.
The Chair cop
'It was *The Chair*.'

A number of researchers (Nishiyama et al. 1995, Kuwabara 1997, Fukaya and Hoji 1999, Saito 2004, and Hiraiwa and Ishihara 2012, among others) have argued that what looks like sluicing in Japanese derives from a cleft structure in (3), by deleting the semantically given topicalized clause (FinP), which is nominalized with the complementizer *no*.

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- In this short article, we uncover an ellipsis phenomenon opposite to sluicing—what we call *counter sluicing*—, in which everything but a wh-phrase (and what follows it) *survives* deletion. We provide evidence that the syntactic structure of sluicing and counter sluicing is symmetrical and they are both derived through argument ellipsis.

There is a peculiar type of elliptical question in Japanese, which is quite frequently used, but has never been documented before. Consider the discourse in (5). Unlike sluicing in (2b), what is deleted in (5c) is not the topicalized FinP; rather, the *wh*-phrase, the *Q*-complementizer and the copula are deleted from the full cleft question in (5b). Nevertheless, example (5c) is interpreted as a *wh*-question, just as sluicing in (2b) is. Note that the surface output of counter sluicing example in (5c) does not contain any *wh*-expression, even though it functions as a *wh*-question.

- ¹A copula does not appear in normal *wh*-questions in Japanese, unlike in sluicing.

- This is the reason why sluicing in Japanese is considered to be derived from a cleft structure (see Nishiyama et al. 1995, Kuwabara 1997, Fukaya and Hoji 1999, and Hiraiwa and Ishihara 2012).

- ‘What chair (was it) that Hans J. Wegner designed?’
- c. B: [Hans J. Wegner-ga dezainsita no]-wa ~~nan-toiu~~ ~~isu-o~~ ~~-(desu ka)~~/?
 Hans J. Wegner-NOM designed C-TOP what-called chair-ACC COP Q
 Lit. ‘(What chair was it) that Hans J. Wegner designed?’ (Counter Sluicing)
- d. A: *The Chair* desu.
The Chair cop
 ‘It was *The Chair*.’

We will call this construction in (5c) *counter sluicing*, as what is deleted is opposite to well-known sluicing: the topicalized complement clause FinP survives, and it is the focused wh-part of the sentence that is deleted.

Note that in Japanese, just in all the other languages of the world, what makes a question a wh-question is the presence of a wh-phrase. Consider the minimal pair in (6). Example (6a) is unambiguously a wh-question. In contrast, example (6b), in the absence of the wh-phrase *itu* ‘when’, can never have the same interpretation as (6a). Rather, it is obligatorily interpreted as a yes-no question.

- (6) a. (Context: Speaker A is explaining when each of famous Danish chairs was designed and Speaker B asks)
 Zyaa, itu Hans J. Wegner-ga *The Chair*-o dezainsita no/?
 then when Hans J. Wenger-NOM *The Chair*-ACC designed c
 ‘Then, when was it that Hans J. Wegner designed *The Chair*?’
 (✓Wh-Q/*Yes-No Q)
- b. (Context: Speaker A is explaining each of famous Danish chairs and Speaker B asks)
 Zyaa, Hans J. Wegner-ga *The Chair*-o dezainsita no/?
 then Hans J. Wenger-NOM *The Chair*-ACC designed c
 ‘Then, was it Hans J. Wegner that designed *The Chair*?’ (*Wh-Q/✓Yes-No Q)

Now notice that the counter sluicing example in (7) is identical to (6b) except for the topic marker *-wa* at the right edge of the sentence. Nevertheless, example (7) is interpreted as a wh-question just as example (6a) is, and strictly disallows for a yes-no question interpretation.

- (7) (Context: Speaker A is explaining when each of famous Danish chairs was designed and Speaker B asks)
 Zyaa, Hans J. Wegner-ga *The Chair*-o dezainsita no-wa/?
 then Hans J. Wenger-NOM *The Chair*-ACC designed c-TOP
 Lit. ‘Then, (when was it) that Hans J. Wegner designed *The Chair*?’ (✓Wh-Q/*Yes-No Q)

This indicates that counter sluicing is not a pragmatic construction that freely derives an interpretation from the context. It is reasonable, therefore, to assume that a wh-phrase exists structurally in the derivation of counter sluicing, if not visible.

Counter sluicing is not completely symmetrical to sluicing, however. Unlike sluicing, it is limited to matrix clauses, as examples (8) show.

- (8) (Context: Speaker A is explaining when Hans J. Wegner designed *The Chair* and Speaker

B says)

- a. Boku-wa [Hans J. Wegner-ga *The Chair*-o dezainsita no-wa itu (da) ka]
 1SG-TOP Hans J. Wegner-NOM *The Chair*-ACC designed C-TOP when COP Q
 siranakatta.
 knew.not
 ‘I didn’t know when it was that Wegner designed *The Chair*.’ (Cleft)
- b. Boku-wa ~~[Hans J. Wegner-ga *The Chair*-o dezainsita no-wa itu (da) ka]~~
 siranakatta. (Sluicing)
- c. *Boku-wa [Hans J. Wegner-ga *The Chair*-o dezainsita no-wa ~~itu (da) ka~~]
 siranakatta.² (Counter Sluicing)

Thus, it may appear that counter sluicing is based on a mechanism that is distinct from that of sluicing, but we will demonstrate that it is not the case.

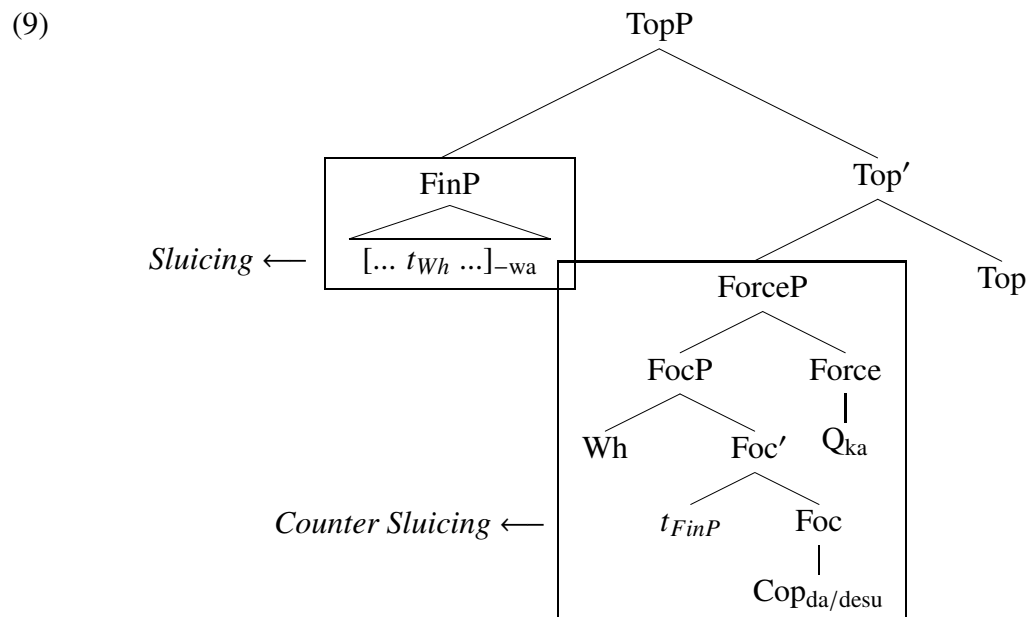
3. Proposal

Oku (1998) and Kim (1999) argue that what has been considered to be *pro*-drop is actually a result of nominal ellipsis applying to the entire DP, and this phenomenon has come to be called *argument ellipsis* (see Saito 2007 and Takahashi 2008). Saito’s (2004) and Hiraiwa and Ishihara’s (2012) analyses of sluicing in Japanese, explicitly or implicitly, assume that the semantically given topicalized FinP is deleted by argument ellipsis or a similar operation.

We propose that counter sluicing in Japanese also results from argument ellipsis.³ In the cleft structure in (9), if argument ellipsis applies to the topicalized FinP, we get (straight) sluicing (see Saito 2004 and Hiraiwa and Ishihara 2012). In contrast, if argument ellipsis applies to the remnant ForceP in (9), we get counter sluicing. The ambivalence solely reduces to which syntactic object argument ellipsis targets, FinP or ForceP. Both sluicing and counter sluicing are interpreted as *wh*-question at LF, because argument ellipsis is a PF operation.

²This sentence is grammatical with the factive complement interpretation ‘I didn’t know (the fact) that Hans J. Wegner designed *The Chair*’, which is irrelevant for us here.

³*Argument ellipsis*, as its name indicates, was originally proposed to account for argument *pro*-drop (Oku 1998, Kim 1999). Thus, in its original sense, argument ellipsis is limited to arguments. But it has been discovered later that some non-arguments can also be deleted and the term was extended to cover such cases (see, in particular, Saito 2004, 2007, Oku 2016, and Funakoshi 2016). Whether argument ellipsis is limited to arguments or not is still under debate and it is not our interest to go into this here. In this short article, following Saito 2004, 2007 and Oku 2016, we will use the term *argument ellipsis* in the “broad” sense (i.e. ellipsis of XP). But this should be taken as just for convenience. It will not affect our claim if it turns out that this broad interpretation of argument ellipsis is incorrect and the deletion operation in question is something else.



Crucially, as observed by Ikawa (2012) and Sugisaki (2013) among others, it is impossible to apply argument ellipsis to a *wh*-phrase alone and to retain the *wh*-question interpretation, as shown in (10).

- (10) *Boku-wa [Hans J. Wegner-ga [~~nan-toiu~~ ~~isu-o~~] dezainsita ka] siranakatta.
 1SG-TOP Hans J. Wegner-NOM what-called chair-ACC designed Q knew.not
 'I didn't know (what chair) Hans J. Wegner designed.'

This excludes all the analytical possibilities in which a *wh*-phrase is deleted independently of the *Q*-complementizer and the copula. It follows that what is deleted must be a larger constituent containing a *wh*-phrase, a copula, and a *Q*-complementizer—ForceP.

Examples (11b–e) provide further evidence. In counter sluicing, the *Q*-complementizer *ka* must be deleted together with the copula, even though that is usually optional in matrix questions and sluicing as we have seen in (2b). In fact, leaving the *Q*-complementizer and/or the copula undeleted will make the sentences ungrammatical, unlike the sluicing examples in (2).

- (11) a. A: [Arne Jacobsen-ga dezainsita no]-wa *Ant Chair* desu.
 Arne Jacobsen-NOM designed c-TOP *Ant Chair* cop
 'It was *Ant Chair* that Arne Jacobsen designed.' (Cleft =(5a))
 b. B: [Hans J. Wegner-ga dezainsita no]-wa ~~nan-toiu~~ ~~isu~~ ~~(desu ka)~~?
 Hans J. Wegner-NOM designed c-TOP what-called chair cop Q
 Lit. '(What chair was it) that Hans J. Wegner designed?'
 (Counter Sluicing =(5c))
 c. B: *Hans J. Wegner-ga dezainsita no wa ~~nan-toiu~~ ~~isu~~ desu ka/?
 d. B: *Hans J. Wegner-ga dezainsita no wa ~~nan-toiu~~ ~~isu~~ ~~desu~~ ka/?
 e. B: *Hans J. Wegner-ga dezainsita no wa ~~nan-toiu~~ ~~isu~~ desu ~~ka~~/?

It follows that counter sluicing in (5c)/(11b) cannot be derived by deleting the *wh*-phrase, the copula, and the *Q*-complementizer, independently. Rather, the data make a perfect sense if what is deleted in counter sluicing is the entire ForceP containing them.

There is also independent evidence that ForceP can be a target for ellipsis in Japanese. As example (12b) shows, the entire embedded wh-question (ForceP) in Japanese can undergo ellipsis, retaining the original meaning.

- (12) a. Ken-wa [_{ForceP} Hans J. Wegner-ga itu *The Chair*-o dezainsita ka](-o) sitteiru
 Ken-TOP Hans J. Wegner-NOM when *The Chair*-ACC designed Q-ACC know
 kedo,
 but
 ‘Ken knows when Hans J. Wegner designed *The Chair*, but ...’
 b. Boku-wa ~~[_{ForceP} Hans J. Wegner-ga itu *The Chair*-o dezainsita ka]~~(-o)
 1SG-TOP Hans J. Wegner-NOM when *The Chair*-ACC designed Q-ACC
 siranai.
 know.not
 ‘I don’t know (when Hans J. Wegner designed *The Chair*).’
 c. *Boku-wa sore-o siranai.
 1SG-TOP it-ACC know.not
 ‘I don’t know it (=when Hans J. Wegner designed *The Chair*).’

Note that the surface form in (12b) cannot be derived from a pro-drop of a pronoun referring to the embedded question, because such an overt pronoun is ungrammatical, as example (12c) shows. This corroborates the proposed analysis in (9), in which the entire constituent ForceP is deleted in counter sluicing.⁴

4. Symmetries between Sluicing and Counter Sluicing

Our proposal predicts that counter sluicing shows properties parallel to cleft, precisely because the former has the latter as the underlying structure. Indeed, counter sluicing allows a multiple wh-question interpretation, just as cleft and sluicing allow a multiple foci interpretation in Japanese (Nishigauchi 1998, Hiraiwa and Ishihara 2012).

- (13) a. Aru yuumeena dezainaa-ga mukasi *The Chair* toiu isu-o dezainsita
 certain famous designer-NOM long.time.ago *The Chair* called chair-ACC designed
 soo desu ga,
 I.hear COP but

⁴Similarly, the following fragmental question in (i) also functions as a wh-question, which is naturally analyzed as counter sluicing, in which argument ellipsis applies to the ForceP in-situ as shown in (ii) (thanks to an anonymous reviewer for directing our attention to this possibility).

- (i) (Context: Speaker A is explaining what chairs Arne Jacobsen designed and Speaker B asks)

Hans J. Wegner-wa/?
 Hans J. Wegner-TOP

Lit. ‘(What chair did) Hans J. Wegner (design)?’

- (ii) [_{TopP} Hans J. Wegner-wa_i ~~[_{ForceP} *t_i* nan-toiu isu-o dezainsita no desu ka/?]]?~~

Hans J. Wegner-TOP what chair-ACC designed c COP Q

Lit. ‘(What chair did) Hans J. Wegner (design)?’

‘I heard that some famous designer designed a chair called *The Chair* long time ago, but, ...’

- b. [*The Chair*-o *dezainsita no*]-wa dare-ga nan-nen-ni desu ka/?
The Chair-ACC designed c-TOP who-NOM what-year-in COP Q
 Lit. ‘Who, in which year was it that designed *The Chair*? (Cleft)
- c. ~~[*The Chair*-o *dezainsita no*]-wa~~ dare-ga nan-nen-ni desu ka/?
The Chair-ACC designed c-TOP who-NOM what-year-in COP Q
 Lit. ‘Who, in which year was it? (that designed *The Chair*)?’ (Sluicing)
- (14) a. A: Arne Jacobsen-wa 1952-nen-ni *Ant Chair*-o *dezainsita yo*.
 Arne Jacobsen-TOP 1952-year-in *Ant Chair*-ACC designed SFP
 ‘Arne Jacobsen designed *Ant Chair* in 1952.’
- b. B: Zyaa, [*The Chair*-o *dezainsita no*]-wa dare-ga nan-nen-ni desu ka/?
 then, *The Chair*-ACC designed c-TOP who-NOM what-year-in COP Q
 Lit. ‘Then, (who, in which year was it) that designed *The Chair*? (Cleft)
- c. B: Zyaa, [*The Chair*-o *dezainsita no*]-wa ~~dare-ga nan-nen-ni desu ka/?~~
 then, *The Chair*-ACC designed c-TOP who-NOM what-year-in COP Q
 Lit. ‘Then, (who, in which year was it) that designed *The Chair*? (Counter Sluicing)
- d. A: Hans J. Wenger-ga 1949-nen-ni da yo.
 Hans J. Wegner-NOM 1949-year-in COP SFP
 Lit. ‘It’s Hans J. Wegner, in 1949.’

Counter sluicing, sluicing, and cleft behave alike in that it cannot be uttered out of the blue, as all the examples of counter sluicing above show. This also supports our claim that they share the same underlying structure. Furthermore, the fact that an answer to counter sluicing can be a PP clearly shows that counter sluicing is also based on a cleft structure (see Hiraiwa and Ishihara 2012 for connectivity effects).

- (15) a. A: [Hans J. Wegner-ga dareka-no tameni *Peter’s Chair*-o *dezainsita soo*
 Hans J. Wegner-NOM someone-Gen for *Peter’s Chair*-ACC designed I.hear
 desu ga,
 COP but
 ‘I heard that Hans J. Wegner designed *Peter’s Chair* for someone but, ...’
- b. B: ~~[*Peter’s Chair*-o *dezainsita no*]-wa~~ [pp dare-no tameni] desu ka/?
Peter’s Chair-ACC designed c-TOP who-Gen for COP Q
 ‘(For who was it) that he designed *Peter’s Chair*?’ (Sluicing)
- (16) a. A: [Hans J. Wegner-ga *GE258*-o *dezainsita no*]-wa [pp kisyukusya-no
 Hans J. Wegner-NOM *GE258*-ACC designed c-TOP boarding.house-Gen
 tameni] desu.
 for COP
 ‘It is for a boarding house that Hans J. Wegner designed *GE258*.’ (Cleft)
- b. B: [*Peter’s Chair*-o *dezainsita no*]-wa ~~[pp dare-no tameni] desu ka/?~~
Peter’s Chair-ACC designed c-TOP who-Gen for COP Q
 ‘(For who was it) that he designed *Peter’s Chair*?’ (Counter Sluicing)

- c. A: [pp Børge Mogensen-no musuko-no tameni] desu.
 Børge Mogensen-Gen son-Gen for cop
 ‘For Børge Mogensen’s son.’

Furthermore, example (17b) shows that non-clausemate elements cannot undergo counter sluicing (as discussed for cleft and sluicing sentences in Japanese by Hiraiwa and Ishihara 2012).

- (17) (Context: Speaker A says that he/she mistakenly told someone that someone designed *Ant Chair* and Speaker B asks)

- a. *~~[Kimi-ga matigaete [t_i Ant Chair-o dezainsita to] t_j itta no]-wa~~ dare-ga_i
 2SG-NOM mistakenly Ant Chair-ACC designed c told c-TOP who-NOM
 dare-ni_j desu ka/?
 who-DAT COP Q
 Lit. ‘Who, to whom was it (that you mistakenly told that designed *Ant Chair*)?’
 (Sluicing)
- b. *[Kimi-ga matigaete [t_i Ant Chair-o dezainsita to] t_j itta no]-wa ~~dare-ga_i~~
 2SG-NOM mistakenly Ant Chair-ACC designed c told c-TOP who-NOM
~~dare-ni_j (desu ka)/?~~
 who-DAT COP Q
 Lit. ‘(Who, to whom was it) that you mistakenly told that designed *Ant Chair*?’
 (Counter Sluicing)

- (18) (Context: Speaker A says he/she mistakenly told Ken that Hans J. Wegner designed *Ant Chair*, but Speaker B says)

- *[Kimi-ga matigaete [t_i Ant Chair-o dezainsita to] t_j itta no]-wa
 3SG-NOM mistakenly Ant Chair-ACC designed c told c-TOP
 Børge Mogensen-ga_i Naomi-ni_j desu.
 who-NOM who-DAT COP

Lit. ‘It is Børge Mogensen, to Naomi that you mistakenly told that designed *Ant Chair*.’
 (Cleft)

These facts lend further support to our claim that a cleft structure underlies counter sluicing, while they exclude possible alternative analyses.

Superficially, both counter sluicing and cleft have a gapped topicalized FinP. One might wonder if the counter sluicing example in (5c)/(11b) is actually a specificational pseudo cleft sentence that consists of a relative clause headed by the pro-form *no* and a copula, interpreted as ‘Who is the one/thing that Hans J. Wegner designed?’. This is because *no* is ambiguous between a pro-form and a complementizer. But that possibility must be rejected, because it is well known that the pro-form *no* in Japanese cannot refer to humans (McGloin 1985, Kuroda 1992, Hiraiwa 2016).

- (19) (Context: Speaker A says that Arne Jacobsen designed *Ant Chair* and Speaker B asks)

- [*The Chair*-o dezainsita no]-wa?
The Chair-ACC designed c-TOP

Lit. ‘(Who is it) that designed *The Chair*?’ (Counter Sluicing)

Furthermore, it is also well known that multiple foci is disallowed with a specificational pseudo cleft sentence in Japanese (see Hiraiwa and Ishihara 2012), but it is allowed in counter sluicing as shown in example (14c).

Thus, the existence of complementizer *no* as well as a gap inside the nominalized clause require a movement analysis. And indeed, example (20c) shows island-sensitivity, whether or not counter sluicing applies. This is in a sharp contrast with example (20b), which does not involve an island-violating dependency.

- (20) a. Hans J. Wegner-ga [1960-nen-no daitooryoosen tooronkai-de J. F. Kennedy to
Hans J. Wegner-NOM 1960-year-Gen presidential debate-at J. F. Kennedy and
Richard Nixon-ga suwatta isu]-o dezainsita.
Richard Nixon-NOM sat.on chair-ACC designed
'Hans J. Wegner designed the chair which J. F. Kennedy and Richard Nixon sat on
in the 1960 presidential debate.'
- b. [Ken-ga [1960-nen-no daitooryoosen tooronkai-de t_i Hans J. Wegner-no
Ken-NOM 1960-year-Gen presidential debate-at Hans J. Wegner-Gen
isu-ni suwatta to] itteita no]-wa (~~dare-ga desu ka~~)/?
chair-DAT sat.on c said c-TOP who-NOM COP Q
'Who was it that Ken said sat on Hans J. Wegner's chair in the 1960 presidential
debate?' (Answer: J. F. Kennedy and Richard Nixon)
(Counter Sluicing)
- c. *[Hans J. Wegner-ga [1960-nen-no daitooryoosen tooronkai-de t_i suwatta
Hans J. Wegner-NOM 1960-year-Gen presidential debate-at sat.on
isu]-o dezainsita no]-wa (~~dare-ga desu ka~~)/?
chair-ACC designed c-TOP who-NOM COP Q
Lit. '(Who was it) that Hans J. Wegner designed the chair which t_{who} sat on in the
1960 presidential debate.' (Answer: J. F. Kennedy and Richard Nixon)
(Counter Sluicing)

That cleft and sluicing in Japanese show island-sensitivity has been established by Fukaya and Hoji (1999) and Hiraiwa and Ishihara (2012).⁵

- (21) a. *~~[Hans J. Wegner-ga [1960-nen-no daitooryoosen tooronkai-de t_i suwatta
Hans J. Wegner-NOM 1960-year-Gen presidential debate-at sat.on
isu]-o dezainsita no]-wa dare-ga desu ka~~)/?
chair-ACC designed c-TOP who-NOM COP Q
Lit. 'Who was it (that Hans J. Wegner designed [the chair [which t_{who} sat on in the
1960 presidential debate]])?' (Answer: J. F. Kennedy and Richard Nixon)

⁵In Japanese, it has been observed that island-sensitivity in cleft sentences related to case-marking: case-marked cleft/sluicing is island-sensitive, whereas non-case-marked cleft/sluicing is not. As an anonymous reviewer pointed out, the data in (20) is important in that island-sensitivity is not sensitive to whether or not case-marking is overt (as in cleft/sluicing) or unpronounced due to ellipsis (as in counter sluicing). This suggests that island-sensitivity is not morphological/phonological but rather syntactic. The reason why the derivation of example (20b) does not allow for a pseudo-cleft as its underlying structure suggests that pseudo-cleft sentences have quite distinct syntax, which would block application of counter sluicing, but we have to leave an investigation of pseudo-cleft structures for future research. We are grateful to the anonymous reviewer.

(Sluicing)

- b. *[Hans J. Wegner-ga [1960-nen-no daitooryoosen tooronkai-de t_i suwatta
 Hans J. Wegner-NOM 1960-year-Gen presidential debate-at sat.on
 isu]-o dezainsita no]-wa J. F. Kennedy to Richard Nixon-ga desu.
 chair-acc designed c-top J. F. Kennedy and Richard Nixon-NOM cop
 Lit. 'It was J. F. Kennedy and Richard Nixon (that Hans J. Wegner designed [the
 chair [which t_i sat on in the 1960 presidential debate]]).' (Cleft)

5. Asymmetries between Sluicing and Counter Sluicing

There are two striking asymmetries between sluicing and counter sluicing. One is that counter sluicing obligatorily deletes the Q-complementizer *ka*. The other is that counter sluicing is limited to matrix clauses. We will demonstrate that these asymmetries naturally follow from our analysis.

Let us consider the first asymmetry first. We have already seen that this results from applying argument ellipsis to the ForceP, deleting the Q-complementizer *ka* inside it. But it should be noted that the deletion of the Q-complementizer does not come for free. As examples (22b) and (22c) show, the rising question intonation must be retained in counter sluicing.

- (22) a. A: [Arne Jacobsen-ga dezainsita no]-wa *Ant Chair* desu.
 Arne Jacobsen-NOM designed c-top *Ant Chair* cop
 'It was *Ant Chair* that Arne Jacobsen designed.' (Cleft =(5a)/(11a))
- b. B: Hans J. Wegner-ga dezainsita no wa ~~nan-toiu~~ ~~isu~~ ~~-(desu ka)~~?
 Hans J. Wegner-NOM designed c top what-called chair cop q
 Lit. '(What chair was it) that Hans J. Wegner designed?'
 (Counter Sluicing =(5c)/(11b))
- c. B: *Hans J. Wegner-ga dezainsita no wa ~~nan-toiu~~ ~~isu~~ ~~-(desu ka)~~.
 Hans J. Wegner-NOM designed c top what-called chair cop q
 Lit. 'that Hans J. Wegner designed.'
 (Counter Sluicing)

Without the rising question intonation, the same string of words is necessarily interpreted as a declarative statement, which is gibberish.

This correlation is actually more general. As it has often been observed (see Yoshida and Yoshida 1996), in Japanese, the Q-complementizer *ka* can be dropped in matrix question, but again the rising question intonation is obligatory. The absence of rising question intonation fails to license the Q-complementizer drop, as example (23c) shows.

- (23) a. Otya-demo nomu ka/?
 tea-even drink q
 'Would you like some tea or something?'
- b. Otya-demo nomu ~~ka~~?/?
 tea-even drink q
 'Would you like some tea or something?'
- c. #Otya-demo nomu ~~ka~~.
 tea-even drink q
 '*Would you like some tea or something? '✓I will drink some tea or something.'

From these data, we can make the following generalizations.

- (24) a. Rising question intonation is limited to matrix question.
 b. Deletion of the Q-complementizer *ka* must be supported by rising question intonation.

We assume, following Cheng's (1991) Clausal Typing Hypothesis, that a question must be "typed". In Japanese, there are two ways to type a clause as a question: the Q-complementizer *ka* or rising intonation.

Thus, counter sluicing is fine even if the Q-complementizer is deleted, because it is a matrix question and can be compensated by the right question intonation. On the other hand, the fact that the Q-complementizer cannot be deleted in embedded sluicing, unlike matrix sluicing, also makes a good sense: this is due to the obligatory lack of the rising question intonation in embedded question in general.⁶

- (25) a. Boku-wa [otya-o nomu ka(*↗)] tazuneta.
 1SG-TOP tea-ACC drink Q asked
 'I asked whether he/she would like some tea.' (Sluicing)
 b. *Boku-wa [otya-o nomu ~~ka~~(↗)] tazuneta.
 1SG-TOP tea-ACC drink Q asked
 'I asked whether he/she would like some tea.' (Sluicing)

⁶This may explain why embedded sluicing in Japanese must retain the Q-complementizer, apparently posing a challenge for Merchant's Sluicing-COMP Generalization.

- (i) The Sluicing-COMP Generalization (Merchant 2001, 62)
 In sluicing, no non-operator material may appear in COMP.

Embedded sluicing requires Q-complementizer *ka* because it lacks rising question intonation that clause-types question.

- (ii) (Context: Speaker A is explaining when Hans J. Wegner designed *The Chair* and Speaker B says)
 Boku-wa [~~Hans J. Wegner-ga The Chair-o dezaitsita no-wa~~ itu da *(ka)] siranakatta.
 1SG-TOP Hans J. Wegner-NOM *The Chair*-ACC designed C-TOP when COP Q knew.not
 'I didn't know when it was that Wegner designed *The Chair*.' (Sluicing)

In contrast, Q-complementizer *ka* is optional in matrix sluicing. This may well be because in matrix sluicing, rising question intonation is available.

- (iii) (Context: Speaker A is explaining when Hans J. Wegner designed *The Chair* and Speaker B asks)
 [~~Hans J. Wegner-ga The Chair-o dezaitsita no-wa~~ itu desu (ka)↗
 Hans J. Wegner-NOM *The Chair*-ACC designed C-TOP when COP Q
 'When was it (that Wegner designed *The Chair*)?' (Sluicing)

One way to understand why rising question intonation is only available in root clauses is to think that it is located in the highest functional projection that is only present in root clauses, whatever its label is (cf. Haegeman 2012; see also Emonds 1970). Then, it will necessarily survive deletion of ForceP in counter sluicing. We will leave this possibility as a future issue.

Now, given these properties, the second asymmetry also follows naturally. Because counter sluicing requires rising intonation and rising question intonation is not available in embedded question in general, counter sluicing is doomed to crash as shown in (26).

- (26) (Context: Speaker A is explaining when each of famous Danish chairs was designed and Speaker B says)
- a. Boku-wa [Hans J. Wegner-ga *The Chair*-o dezainsita no-wa itu (da) ka(*^)]
 1SG-TOP Hans J. Wegner-NOM *The Chair*-ACC designed c-TOP when COP Q
 siranakatta.
 knew.not
 ‘I didn’t know when it was that Hans J. Wegner designed *The Chair*.’ (Cleft)
- b. *Boku-wa [Hans J. Wegner-ga *The Chair*-o dezainsita no-wa ~~itu~~ ~~(da)~~ ~~ka~~] sir-
 anakatta.⁷
- (Counter Sluicing)

Thus, the apparent asymmetries between sluicing and counter sluicing reduce to the fact that counter sluicing, unlike sluicing, deletes ForceP containing the Q-complementizer *ka* and as a result, prosodic clause-typing is required (cf. Cheng 1991).

6. Concluding Remarks

We have observed a novel phenomenon in Japanese, what we call *counter sluicing*, in which everything but a wh-phrase survives deletion. We have proposed that counter sluicing is built on cleft structure and is derived from applying argument ellipsis to the ForceP. This is exactly opposite to what happens in sluicing in Japanese, in which everything but a wh-phrase is deleted as a result of applying argument ellipsis to the topicalized FinP. Several pieces of evidence, multiple foci, island-sensitivity, and connectivity effects, support our analysis.⁸

It may be predicted that this kind of counter sluicing does not exist in languages that lack cleft-based sluicing or argument ellipsis (or constituent ellipsis not based on functional heads). Even though it goes beyond the scope of this article to discuss cross-linguistic data in detail, the prediction seems to be borne out. English, for example, allows TP-ellipsis (sluicing), VP-ellipsis, and NP-ellipsis, which, according to Lobeck 1991, 1995 and Lobeck and Sleeman 2017, must all be properly licensed by agreement on functional heads. But it does not allow argument ellipsis or counter sluicing.

- (27) a. A: Arne Jacobsen designed *Ant Chair*.
 b. B: *Then, ~~who was it~~ [_{FinP} that designed *The Chair*]?
 c. B: *Then, ~~who~~ designed *The Chair*?

Similarly, Buli and Kabiye (Mabia/Gur languages spoken in Ghana and Togo), which lack argument ellipsis, disallows counter sluicing.⁹

⁷See footnote 2.

⁸An anonymous reviewer asked whether there is any evidence that counter sluicing is surface anaphora. The island-sensitivity and the connectivity effect do show that counter sluicing, like sluicing, is surface anaphora, because they require an underlying syntactic structure (Hankamer and Sag 1976).

⁹We are grateful to Abdul-Razak Sulemana and Komlan Essizewa for confirming the Buli and the Kabiye data, to Chung-hye Han and Seunghun Lee for confirming the Korean data, and to an anonymous reviewer for requesting us

(28) (Context: Speaker A says Mary ate sushi and Speaker B asks)

a. Buli

*~~Ka~~ ~~bwa~~ ati John di?

Foc what c John ate

‘(What is it) that John ate?’

(Counter Sluicing)

b. Kabiye

*~~Abe~~(~~e~~) John dɔɔ?

what-Foc John ate

‘(What is it) that John ate?’

(Counter Sluicing)

In contrast, Korean, which has argument ellipsis and cleft-based sluicing, does allow counter sluicing (Kim 1997, Kim 1999, among others).

(29) Korean

a. (Context: Speaker A says John ate something and Speaker B asks)

~~[John-i mekun kes]-un~~ mwues-i-ni/?

John-NOM ate c-TOP what-COP-Q

‘What is it (that John ate)?’

(Sluicing)

b. (Context: Speaker A says Mary ate an apple and Speaker B asks)

[John-i mekun kes]-un ~~mwues-i-ni~~/?

John-NOM ate c-TOP what-COP-Q

‘(What is it) that John ate?’

(Counter Sluicing)

It remains to be seen what languages allow counter sluicing, and more generally, what can be deleted and what cannot be in natural languages, and how many different types of deletion are allowed in UG.¹⁰

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to test the prediction.

¹⁰Counter sluicing might be reminiscent of what is called quizmaster questions (Postal 1972, Authier 1993, Huddleston and Pullum 2002). Quizmaster questions in English typically allow wh-in-situ, and according to Authier 1993, have a flat or falling intonation and an conventional implicature that the answer is available to the speaker (see also Bolinger 1978). It should be emphasized, however, that counter sluicing in Japanese functions as a genuine wh-question and is not limited to quizmaster contexts with such a conventional implicature, either. Therefore, example (i) is perfectly felicitous, even in a monologue context where the speaker initially thought that he/she saw John, but it turned out later that it was not him, while example (ii) in English is not felicitous in the same context.

(i) Zyaa, [boku-ga ano toki mita no]-wa? Zenzen wakaranai.
then 1sg-NOM that time saw c-TOP at.all know.not
‘Lit. Then, (who was it) that I saw? I have no idea.’

(ii) #Then, I saw (~~who~~)? I have no idea.

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