

Japanese Sluicing as a Specificational Pseudo-cleft

Chizuru Nakao and Masaya Yoshida

UNIVERSITY OF MARYLAND, COLLEGE PARK

1. Introduction

This study attempts to reveal the structure of the construction that we will call Japanese Pronominal Sluicing (JPS) illustrated in (1a). In the literature, it is treated as “Japanese Sluicing”, together with a similar construction that is exemplified in (1b), which lacks the pronoun *sore*. We call the construction in (1b) Japanese Standard Sluicing (JSS) and separate it from JPS.

- (1) a. John-ga dareka-ni at-ta ga, watasi-wa **sore-ga** dare-ni
John-Nom someone-Dat meet-past but I-Top **it-Nom** who-Dat
(da) ka sira-nai.
(be) Q know-not
“John met someone, but I don’t know who (it is).”
- b. John-ga dareka-ni at-ta ga, watasi-wa dare-ni (da) ka
John-Nom someone-Dat meet-past but I-Top who-Dat (be) Q
sira-nai.
know-not
“John met someone, but I don’t know who.”

There have been controversies in analyzing the structure of Japanese Sluicing (Takashi 1993, 1994; Nishiyama et. al. 1996, among many others). It is sometimes assumed that Japanese Sluicing is an elliptical cleft (Kuwabara 1997;

Kizu 1997, 1999). In this paper, we propose that JPS is actually a different construction from JSS, and that, although JPS is best analyzed as a type of cleft, it cannot be an ellipsis of the simple cleft construction. Rather, JPS is an elided specificational pseudo-cleft. Furthermore, to capture the distribution of the pronoun *sore* in JPS, we will propose a new analysis of pronominalization.

In this paper, first we will summarize the basic properties of JPS (Section 2). Then we will review several proposed analyses of JSS and argue that none of the analyses can satisfactorily capture the properties of JPS (Section 3). We will propose an analysis of JPS that explains those properties (Section 4).

2. Properties of Pronominal Sluicing

In previous literature, JPS and JSS are treated uniformly as Japanese Sluicing. Here we advance a contrary view by demonstrating that these constructions exhibit different behaviors in several respects. Specifically, the pronoun *sore* in JPS has the properties of standard pronouns and the properties of complex structures at the same time.

There are two prominent properties of JPS that sharply distinguish it from JSS: (i) the possibility of binding connectivity and (ii) the impossibility of scrambling out of a sluiced constituent. The first property is illustrated by an example like (2).

(2) John₁-ga dareka-o seme-ta ga, watasi-wa *(sore-ga)

John-Nom someone-Acc blame-past but I-Top (it-Nom)

zibun-zisin₁-o kadooka sira-nai.

self-self-Acc whether know-not

‘John₁ blamed someone, but I don’t know whether it was himself₁.’

In (2), the local reflexive is coreferential with the subject of the first conjunct. Such a phenomenon is called the binding connectivity effect because the

reflexive is interpreted as if it is connected to some other position that is local to its antecedent (Hankamer 1974). The binding connectivity is, however, only seen when the pronoun *sore* appears in the sentence. Given a general assumption that reflexives require local c-commanding antecedents (Chomsky 1981), the binding connectivity effect exemplified by (2) strongly suggests that there is a hidden local antecedent, and thus some hidden structure in JPS. This must be so because the subject NP in the first conjunct cannot c-command the reflexive in the second conjunct. Since there must be a local c-commanding antecedent in the second conjunct, then there must be some hidden complex structure for the antecedent to appear in.

The second property, the impossibility of scrambling out of a sluiced constituent, is illustrated in the example (3).

- (3) John-wa [dono gakusei-ga **Smith sensei-ni** at-ta ka] sitteiru-ga
 John-Top which student-Nom **Smith prof.-Dat** meet-past Q know-but
 [**Brown sensei-ni-wa** (*sore-ga) dono gakusei-ga ka] sira-nai.
Brown prof.-Dat-Top (it-Nom) which student-Nom Q know-not
 “John knows which student met Prof. Smith, but (he) doesn’t know Prof. Brown, which student (it is).”

Intended meaning: “John knows which student met Prof. Smith, but he doesn’t know which student met Prof. Brown.”

In (3), the NP *Brown sensei-ni-wa* that is the object of the embedded verb *au*, “meet” is scrambled out of the embedded clause. As Takahashi (2004) observes, the scrambling of the NP out of a sluiced clause is not allowed when the pronoun *sore* is present. In this case the presence of the pronoun *sore* blocks the possibility of scrambling.

In general, it is not possible to extract something out of a pronoun, even if it can refer to a complex NP that allows extraction. For example, sometimes wh-

movement is allowed from a complex NP in English ((4a)). However, once the NP is replaced by a pronoun as in (4b), the extraction is not possible anymore. This is because the pronoun does not have the same complex structure as the one that it “replaces”.

- (4) a. Who₁ do you like [_{NP} a picture of t₁]?
b. *Who₁ do you like [_{NP} it]? (it = [_{NP} a picture of t₁])

Thus, the impossibility of scrambling in JPS appears to suggest that there is a genuine pronoun in JPS.

In summary, we have seen that there are two properties of JPS that distinguish it from JSS. The binding connectivity effect suggests the existence of complex structure in JPS. The impossibility of scrambling, on the other hand, suggests that the complex structure should not exist in the elided part of JPS. In the following sections, we will resolve this apparent contradiction.

3. Previous Analyses

Although there have been a few attempts to accommodate the presence of the pronoun in JPS (Nishiyama et. al. 1996; Kuwabara 1997), all the previous analyses fail to capture the differences between JPS and JSS outlined in Section 2. In this section, we will discuss two major trends in the analyses of Japanese Sluicing and point out that neither of these analyses can correctly capture the properties of JPS that differentiate it from JSS.

The first line of analyses of Japanese Sluicing is the “Wh-movement and IP-deletion” analysis (Takahashi 1993, 1994). The guiding intuition behind this analysis is that Japanese Sluicing is basically derived in the same way as the English sluicing construction, i.e., overt wh-movement followed by IP-deletion (Ross 1969; Merchant 2001). This is illustrated in (5a). According to this analysis, the example of JSS in (1b) is derived as shown in (5b).

- (5) a. John met someone, but I don't know [_{CP} who_i [_{IP} John met t_i]].
- b. John-ga dareka-ni at-ta ga, watasi-wa
 John-Nom someone-Dat meet-past but I-Top
 [_{CP} dare-ni [_{IP} John-ga at-ta]] ka sira-nai.
 who-Dat John-Nom meet-past Q know-not
 "John met someone, but I don't know who."

Takahashi cites various pieces of evidence in favor of this analysis. For example, the JSS example in (6) allows the sloppy reading (Ross 1969).

- (6) John₁-wa zibun₁-ga naze sikararetaka wakattei-nai-ga,
 John-Top self-Nom why be-scolded know-not-but
 Mary-wa naze-ka wakatteiru.
 Mary-Top why-Q know
 "John does not know why he was scolded, but Mary knows why
 (he (=John)/she (=Mary) was scolded)."

Takahashi argues that the availability of a sloppy reading is tightly connected to the deletion operation, and thus, Japanese Sluicing, which also shows a sloppy reading, must involve deletion. Takahashi (1993) argues for the existence of overt wh-movement in Japanese and concludes that Japanese Sluicing contains an overt wh-movement followed by an IP-deletion. Takahashi's analysis allows us to capture the availability of the sloppy reading in JSS without any new stipulations.

The other type of Japanese Sluicing analysis is the cleft analysis (Kuwabara 1997; Kizu 1999, among others), which analyzes Japanese Sluicing as an elliptical cleft. Under this analysis, the JSS example in (1b) has an underlying cleft structure in (7).

- (7) John-ga dareka-ni at-ta ga, watasi-wa
 John-Nom someone-Dat meet-past but I-Top
 [CP[IP John-ga t₁ at-ta] no]-ga [dare₁-ni (da)] ka] sira-nai.
 John-Nom meet-past C-Nom who-Dat (be) Q know-not
 “John met someone, but I don’t know who it was that John met.”

The cleft analysis has two advantages over the “wh-movement and IP-deletion” analysis. First, it can account for the optional existence of the copula in both JSS and JPS, which is shown in (8).

- (8) John-ga dareka-ni at-ta ga, watasi-wa (sore-ga) dare-ni (**da**)
 John-Nom someone-Dat meet-past but I-Top (it-Nom) who-da (**be**)
 ka sira-nai.
 Q know-not
 “John met someone, but I don’t know who (it is).”

If Japanese Sluicing is derived in the way illustrated in (5b), the copula should not appear because there is no copula in the underlying IP-structure. If we assume the structure of cleft as in (7), the presence of the copula can easily be accounted for. Under this analysis, the copula can show up in Japanese Sluicing because it originally exists in the underlying cleft structure.

Second, the cleft analysis can account for the existence of the pronoun *sore* in JPS. In the movement-and-deletion analysis illustrated in (5b), there is no position for this pronoun to be generated. The cleft analysis, on the other hand, can provide an account for the presence of the pronoun in the following way. The presuppositional clause in a Japanese cleft is headed by a complementizer *no*. In various places, it is argued that this complementizer works as a nominalizer. For instance, as (7) illustrates, this clause bears Case particles, e.g., *-ga* “-Nom” in (7), which is a property of nominals. Furthermore, it induces the

Nominative-Genitive Conversion. Inside the presuppositional clause, the subject NP can bear either Nominative Case or Genitive Case as in (9).

- (9) [CP [IP John-**ga/no** t₁ at-ta] no]-wa Mary₁(-ni) da.
 John-**Nom/Gen** meet-past C-top Mary(-Dat) be
 “It is Mary that John met.”

It is argued that the Nominative-Genitive Conversion is licensed in clauses dominated by NP such as relative clauses or complement clauses of a noun (Harada 1971, 1976). Thus, the availability of Nominative-Genitive conversion suggests that the presuppositional clause is nominalized or dominated by a nominal element (Sakai 1994). Given that the presuppositional clause is a nominalized clause, it is plausible to assume that this clause can be “replaced” by a pronoun, as Kuwabara (1997) argues. Thus, under the cleft analysis, the presence of the pronoun *sore* can be treated as the replacement of the nominalized presuppositional clause.

Moreover, the lack of animacy agreement in the pronoun *sore* in JPS is compatible with the assumption that the pronoun corresponds to the clause, rather than an entity. Note that there is a potential alternative treatment of the source of the pronoun in JPS. One could argue that the source of the pronoun in JPS is an indefinite expression in the first conjunct. For example, in the example (10), the object NP *dareka* “someone” could be treated as the source of the pronoun.

- (10) John-ga **dareka**-ni at-ta ga, watasi-wa **sore**-ga
 John-Nom **someone**-Dat meet-past but I-Top **it**-Nom
 dare-ni ka sira-nai.
 who-Dat Q know-not
 “John met someone, but I don’t know who (it is).”

This analysis, however, immediately faces a serious problem. As examples such as (11) show, the antecedent and the pronoun must share an animacy feature. The inanimate pronoun *sore* cannot refer to a person in the preceding context.

- (11) John-ga dareka₁-ni at-te, *sore₁-ni/sono hito₁-ni
John-Nom someone-Dat meet-past it-Dat/ the person-Dat
hanasikake-ta.
talk-to-past
“John met someone₁, and talked to *it₁/the person₁.”

Thus, we conclude that the source of the pronoun *sore* in JPS is not the indefinite expression in the first conjunct. If we assume instead that the source of the pronoun is the presuppositional clause, as proposed in the cleft analysis, this problem does not arise, because clauses never have an animacy feature.

The observations we have seen so far are nicely captured by the cleft analysis. However, even the cleft analysis is not free from problems. A major problem is that it is not clear how the mechanism of “replacement” of the presuppositional clause by a pronoun should work. Specifically, it is not clear if there is a syntactic operation that replaces the presuppositional clause with a pronoun, or whether a pronoun is base-generated in place of the presuppositional clause in the cleft construction. If we take the former option, we have to figure out which syntactic operation is responsible for the replacement by the pronoun. If we take the latter option, it is hard to capture the similarity between the JPS, JSS and the cleft construction, because JPS has a different underlying structure than JSS and a cleft. Also, if we do not assume the clausal underlying structure, it is hard to capture the connectivity effects seen in (2). In the literature this point has not been made clear. In the immediately following section we will propose an analysis that makes this point explicit.

So far, we have seen two major approaches to Japanese Sluicing, and

reviewed some advantages of the cleft analysis. However, one common problem for both of the approaches is that they cannot capture the differences between JPS and JSS since they treat JPS and JSS uniformly as Japanese Sluicing. In the following section, we will give an analysis of JPS that explains the properties of JPS reviewed in Section 2.

4. Proposals

In this section, we will provide a refined version of the cleft analysis for JPS. We will show that the construction that underlies JPS is a specificational pseudo-cleft, rather than a simple cleft. Further, we will give an analysis as to how the pronoun *some* in JPS is derived from the underlying pseudo-cleft construction. We claim that the pronoun *some* is derived from a definite D whose complement CP undergoes deletion. Under this mechanism of pronominalization, the properties of JPS are trivially derived.

4.1. Diagnosing Specificational Pseudo-cleft

In this subsection, we will review the properties of the specificational pseudo-cleft in English. We will see in the next subsection that these properties are shared with JPS.

English has two types of focus constructions, which are exemplified in (12): a cleft in (12a) and a pseudo-cleft in (12b).

- (12) a. It is a book that John bought.
b. What John bought is a book.

These two constructions have a similar function in that the DP *a book* is focused in both sentences. Pseudo-clefts are further classified into two subtypes: specificational pseudo-clefts and predicational pseudo-clefts. Consider (13).

(13) What John left was the dog's food.

The pseudo-cleft sentence in (13) is ambiguous between a specificational reading and a predicational reading (Akmajian 1970; Higgins 1979; den Dikken 2001). In the specificational reading, John was supposed to eat (or do something with) the dog's food, but he left it. The focused element *the dog's food* serves to identify the referent of *what John left*. In the predicational reading, on the other hand, what John left is unclear; it just describes the situation where whatever John left is for the dog to eat. Here, the focused element *the dog's food* describes the property that *what John left* would have.

There are a few diagnostics that separate specificational pseudo-clefts from predicational pseudo-clefts (den Dikken 2001, among others). First, the focused DP shows the binding reconstruction effect in specificational pseudo-clefts but not in predicational pseudo-clefts.

- (14) a. What John₁ treasures most is a book about himself₁. (Spec/*Pred)
b. What John₁ treasures most is a book about him₁. (*Spec/Pred)

If the focused DP contains the anaphor *himself*, as in (14a), it must be reconstructed as the object of treasure and take *John* as its antecedent; otherwise it would violate Condition A. In this case, only the specificational reading is allowed. On the other hand, in (14b), the focused DP contains the pronoun *him*, which does not allow reconstruction because of Condition B. This sentence only allows the predicational reading.

Second, the copula agrees with the pre-copular element in specificational pseudo-clefts, while it agrees with the post-copular element in predicational pseudo-clefts, as shown in (15).

- (15) a. What you have bought is fake jewels. (Spec/*Pred)

- b. What you have bought are fake jewels. (*Spec/Pred)

In (15a), the copula *is* agrees in number with the pre-copular element *what you have bought*. This pseudo-cleft sentence is necessarily interpreted as a specificational pseudo-cleft. On the other hand, in (15b), the copula agrees with the post copular element *fake jewels*, so it has the plural form *are*. This example only allows the predicational reading.

Third, unlike predicational pseudo-clefts, specificational pseudo-clefts are incompatible with negation.

- (16) a. *What John₁ is isn't important to himself₁. (Specificational)
b. What John₁ is isn't important to him₁. (Predicational)

(16a) involves an anaphor *himself* in the focused position, and thus is necessarily interpreted as a specificational pseudo-cleft. It is incompatible with negation. On the other hand, (16b) has a pronoun *him* in the focused position, and is interpreted as a predicational pseudo-cleft. The negation is possible in (16b).

These three diagnostics, (i) binding reconstruction effects, (ii) agreement with the pre-copular element, and (iii) incompatibility with negation, distinguish specificational pseudo-clefts from predicational pseudo-clefts. Among the three diagnostics, (i) and (ii) can also be applied to simple clefts, as shown in (17).

- (17) a. It is himself₁/*him₁ that John₁ blamed.
b. It is/*They are fake jewels that John bought.

(17a) shows that the focus of a cleft undergoes reconstruction into the presuppositional clause, as the focus of a specificational pseudo-cleft does. (17b) shows that the copula in a cleft is always the singular *is*, agreeing with the presuppositional clause rather than the focused element. This is parallel to the

fact that the copula in a specificational pseudo-cleft agrees with the pre-copular *what*-clause.

On the other hand, the third diagnostic, i.e., the incompatibility with negation, is only seen in specificational pseudo-clefts and not in simple clefts. The negative cleft sentence in (18) is totally acceptable.

(18) It is not himself₁ that John₁ blamed.

Thus, we would like to assume that, if a focus construction satisfies all of the above three diagnostics, it is a specificational pseudo-cleft, rather than a predicational pseudo-cleft or a simple cleft.

4.2. Pronominal Sluicing as a Specificational Pseudo-cleft

Recall that the cleft analysis assumes the string in (19b) for the JPS example (19a).

- (19) a. John-ga dareka-ni at-ta ga,
John-Nom someone-Dat meet-past but
watasi-wa sore-ga dare-ni (da) ka wakara-nai.
I-Top it-Nom who-Dat (be) Q know-not
“John met someone, but I don’t know who it is.”
- b. watasi-wa [[_{CP} [_{IP} John-ga at-ta] no]-ga dare-ni (da) ka]
I-Top John-Nom meet-past C-Nom who-Dat (be) Q
wakara-nai
know-not
“I don’t know who it is that John met.”

So far, we have assumed the string in (19b) to be a cleft construction. However, Japanese does not show the cleft/pseudo-cleft distinction; it only has one type of

focus construction, which is illustrated in (20).

- (20) [John-ga kat-ta no]-wa hon-o da.
John-Nom buy-past C-Top book-Acc be
“It is a book that John bought./ What John bought is a book.”

Thus, we cannot tell whether the construction in (19b) is a cleft or a pseudo-cleft just from its surface form. In this section, we would like to show that this cleft-like construction that underlies JPS has properties of specificational pseudo-clefts.

First, the fragment wh-phrase in JPS has an “identifying” function. For example, the wh-phrase *dare-ni* “who-Dat” in (19a) identifies who it is that John met in the first conjunct. This is parallel to the role of the focus phrase in specificational pseudo-clefts. Since it does not describe properties that whoever John met would have, this is different from predicational pseudo-clefts.

Second, a Case-marker can be attached to the wh-phrase in JPS, while Japanese predicational pseudo-clefts cannot have a Case-marker on its focus element, as shown in (21).

- (21) a. John-ga nokosi-ta no-wa inu-no esa da. (Spec/Pred)
John-Nom leave-past C-Top dog-Gen food be
“It is dog’s food that John left./ What John left is dog’s food.”
b. John-ga nokosi-ta no-wa inu-no esa-**o** da. (Spec/*Pred)
John-Nom leave-past C-Top dog-Gen food-**Acc** be

(21a) allows both the specificational and the predicational readings, just as English (13). However, if the focused element “dog’s food” has a Case-marker as in (21b), the sentence only allows the specificational reading. The wh-fragment in JPS can have a Case-marker, as shown in (19a). If it has an

underlying pseudo-cleft structure, it must be specificational rather than predicational.

Furthermore, JPS satisfies the three diagnostics for specificational pseudo-clefts that we reviewed in 4.1. First, as shown in (2) in Section 2, the *wh*-phrase in JPS shows the binding reconstruction effect.

Second, the copula in JPS shows honorificational agreement with the pre-copular element rather than the post-copular *wh*-phrase, as shown in (22a). We follow Boeckx and Niinuma (2003) and assume that honorification in Japanese is an agreement phenomenon. In our analysis, the underlying structure of the second conjunct of (22a) is (22b).

- (22) a. ?John-ga aru kata-ni oaisi-ta ga,
 John-Nom certain person-Dat meet(Obj.Hon.)-past but
 watasi-wa sore-ga dare-ni deirassyat-ta ka sira-nai.
 I-Top it-Nom who-Dat be(Subj.Hon.)-past Q know-not
 “John met(Obj.Hon.) a certain person, but I don’t know who it was(Subj.Hon).”
- b. watasi-wa [_{CP} [_{IP} John-ga t₁ oaisi-ta] no]-ga
 I-Top John-Nom meet(Obj.Hon.)-past C-Nom
 dare₁-ni deirassyat-ta ka sira-nai
 who-Dat be(Subj.Hon.)-past Q know-not
 “I don’t know who it was(Subj.Hon.) that John met(Obj.Hon).”

In JPS in (22a), *sore* “it” corresponds to the pre-copular element, and *dare* “who” corresponds to the post-copular element. The *wh*-word “who” does not have an honorificational feature, and also it is not in a subject position; it cannot agree with the subject honorificational copula in (22a). On the other hand, with the following assumptions, we can show that it is the pre-copular element that agrees with the copula. The presuppositional clause of a cleft underlies *sore* in

(22a), as shown in (22b). This clause is honorified because the trace of the cleft movement is in the object position, which is honorified by the object-honorificational verb *oaisuru* “see”. As the subject clause in (22b) is honorified, it agrees with the subject-honorificational copula. This is parallel to the example of specificational pseudo-cleft in (15a), where the pre-copular clause and the copula agree in number.

Third, JPS is not compatible with negation, as shown in (23).

- (23) *John₁-ga dareka-ni at-ta ga,
 John-Nom someone-Dat meet-past but
 watasi-wa sore-ga zibun₁-no hahaoya-ni de-**nai** kadooka sira-nai.
 I-top it-Nom self-Gen mother-Dat be-**not** whether know-not
 “John₁ met someone, but I don’t know whether it is not self₁’s mother.”

This third diagnostic crucially separates specificational pseudo-clefts from simple clefts, as shown in 4.1. Therefore, we conclude that JPS shows the properties of a specificational pseudo-cleft, rather than a simple cleft.

There is another property that Japanese (pseudo-)clefts and JPS share: the impossibility of inversion. Although English specificational pseudo-clefts allow the inversion of pre- and post-copular elements, as shown in (24a-b), Japanese ones do not, as shown in (24c-d).

- (24) a. What John bought is a book.
 b. A book is what John bought.
 c. [[John-ga kat-ta] no]-wa hon(-o) da.
 John-Nom buy-past C-Top book(-Acc) be
 d. *Hon-wa [[John-ga kat-ta] no] da.
 Book-Top John-Nom buy-past C be

Similarly, the subject *sore* and the copula in JPS cannot be inverted, as shown in (25). This parallelism further corroborates the analysis of JPS as a (pseudo-) cleft.

(25) *John-ga dareka-ni at-ta ga,
 John-Nom someone-Dat meet-past but
 watasi-wa **dare-ga sore** (da) ka sira-nai.
 I-Top **who-Nom it** (be) Q know-not

4.3. Analysis

In this subsection, we give an analysis to explain how the pronoun *sore* is derived from the underlying specificational pseudo-cleft. We would like to claim that *sore* in JPS is a residue of D whose complement CP undergoes deletion. Recall that we need to explain two sets of properties of *sore*. We have seen that *sore* shows connectivity effects and other properties of clauses, and that it corresponds to the presuppositional clause in a specificational pseudo-cleft. Yet it also shows properties of DPs, because it has a form of a pronoun and it is Case-marked (e.g., *sore-ga* “it-Nom” in (1a)). This dual nature of *sore* is an apparent puzzle.

In order to account for the dual nature of *sore*, we would like to propose the following structure for the JPS example in (1a).

(26) watasi-wa [DP sore [_{CP} [_{IP} ~~John-ga t_i-at-ta~~] — ~~no~~] D]-ga
 I-Top it John-Nom meet-past C D-Nom
 dare₁-ni (da) ka sira-nai
 who-Dat (be) Q know-not

(26) has a DP that takes a CP as its complement. This DP-CP combination naturally explains both the nominal nature and the clausal nature of *sore*. The

complement CP is headed by the nominalizer *no*. This CP undergoes deletion, leaving the definite determiner D. We analyze *sore* as the morphological realization of the definite determiner.

We speculate that the structure of (26) before CP-deletion is (27).

- (27) *watasi-wa* [_{DP} **sono** [_{CP} [_{IP} *John-ga t₁ at-ta*] *no*] D]-*ga*
 I-Top **the** John-Nom meet-past C D-Nom
dare₁-ni (da) ka sira-nai
 who-Dat (be) Q know-not
 “I don’t know who it is that John met.”

As shown in (27), a (pseudo-)cleft sentence can have a demonstrative *sono* on its subject clause. Under our analysis, the demonstrative in [Spec, DP] and the definite D head are transformed into the pronoun *sore* after the complement CP is deleted. This is presumably because of the morphophonological requirement that prohibits Japanese demonstratives to be stranded.¹

We further claim that the CP-deletion in specificational pseudo-clefts is licensed by identity requirement that is generally imposed on deletion. (See Marchant 2001, among others.) (28) is the configuration of (1a) after the quantified phrase *dareka* “someone” is QR’d.

- (28) [_{IP} *Dareka₁-ni* [_{IP} **John-ga t₁ at-ta**]] *ga, watasi-wa*
 someone-Dat John-Nom meet-past but I-Top
 [_{DP} *sore* [_{CP} [_{IP} ~~**John-ga t₂ at-ta**~~] ~~**no**~~] D]-*ga dare₂-ni (da) ka sira-nai*
 it John-Nom meet-past C D who-Dat (be) Q know-not

After this QR, the inside IP in the first conjunct has the same string as that in the subject of the pseudo-cleft in the second conjunct.² This licenses the deletion of the pseudo-cleft subject sentence in (28) (Nakao 2003).

This analysis makes an interesting prediction: as the identity requirement between the two clauses is met by the QR in the first conjunct, it follows that the QR is obligatory in JPS. This prediction is borne out in examples such as (29).³

- (29) Daremo-ga hutari-no sensei-ni at-ta ga,
 everyone-Nom two-Gen teacher-Dat meet-past but
 watasi-wa sore-ga dono hutari-no sensei-ni ka sira-nai. (*all>2, 2>all)
 I-Top it-Nom which two-Gen teacher-Dat Q know-not
 “Everyone met two teachers, but I don’t know which two teachers it is.”

In (29), *hutari-no sensei* “two teachers” in the first conjunct corresponds to the wh-phrase *dono hutari-no sensei* “which two teachers” in the JPS. It cannot be scoped over by another quantified element *daremo* “everyone”. In other words, (29) cannot have the meaning that the speaker does not know, for every person, which two teachers that person met. This shows that the QR of “two teachers” is obligatory in (29).

Elbourne (2001) gives a similar analysis for e-type pronouns such as *it* in (30). He claims that (30) is derived from (31a) through NP-deletion.

- (30) Every man who owns a donkey beats it.
 (31) a. Every man who owns a donkey beats [DP the [NP donkey]].
 b. Every man who owns a donkey beats [DP it [NP ~~donkey~~]].

After the NP *donkey* is deleted in (31a), the definite determiner *the* is turned into the pronoun *it*. This analysis is similar to our CP-deletion approach to *sore* in JPS, in that it involves a complement deletion and the generation of the pronoun out of a definite determiner.

Indeed, the pronoun in JPS shows similar properties with e-type pronouns. For example, its denotation apparently covaries with a non-c-commanding

antecedent in examples such as (32).

- (32) John-ga itumo tigau hito-ni au ga,
John-Nom always different person-Dat meet but
watasi-wa itumo sore-ga dare-ni (da) ka sira-nai.
I-Top always it-Nom who-Dat (be) Q know-not
“John is always meeting different people, but I always don’t know who it
is.”

Under our analysis, *sore* in (32) corresponding to “who it was that John met”, and its denotation depends on the value of *hito* “person” in the first conjunct. This relation between *sore* and “person” is parallel to the relation between *it* and *a donkey* in the e-type pronoun example (30). This parallelism suggests that it is promising to analyze e-type pronouns and the pronoun in JPS in similar ways.

4.4. Properties Explained

The properties of JPS we saw in Section 2 are naturally accounted for under the proposed analysis. First, the binding connectivity effect trivially follows from the analysis of JPS as a specificational pseudo-cleft. As we have seen in 4.1., specificational pseudo-clefts show the binding connectivity effect.

Second, the impossibility of scrambling out of the sluiced element shown in (3) is explained in terms of ban against scrambling out of DPs. Contrary to what was assumed in Section 2, the impossibility of scrambling does not necessarily mean that the pronoun does not have an underlying clausal structure, if we adopt the proposed analysis. Under our analysis, the underlying structure of the second conjunct in (3) is the pseudo-cleft sentence in (33), which will later undergo CP-deletion and generate *sore*.

- (33) Brown sensei₁-ni-wa [DP sono [CP [IP t₂ t₁ at-ta] no] D]-ga
 Brown Prof.-Dat-Top the meet-past C D-Nom
 dono gakusei₂-ga ka] sira-nai
 which student-Nom Q know-not
 “Prof. Brown₁, (he) doesn’t know which student₂ it was that t₂ met t₁.”

Brown sensei-ni “Prof. Brown-Dat” undergoes scrambling out of the presuppositional clause of the pseudo-cleft, which has a definite demonstrative *sono* on it. Scrambling out of definite DPs are generally prohibited in Japanese. (34) shows examples of relativized DPs.

- (34) a. [DP (sono) [CP Mary-ga John-ni t₁ syookaisi-ta] hito₁]
 (the) Mary-Nom John-Dat introduce-past person
 “the/a person who Mary introduced John”
 b. [DP John₂-ni [DP [CP Mary-ga t₂ t₁ syookaisi-ta] hito₁]]
 John-Dat Mary-Nom introduce-past person
 c. *[DP John₂-ni [DP sono [CP Mary-ga t₂ t₁ syookaisi-ta] hito₁]]
 John-Dat the Mary-Nom introduce-past person

The relativized DP in (34a) optionally has a demonstrative *sono*. Without this demonstrative, DPs inside it, e.g., *John-ni* “John-Dat” in (34b), can freely be scrambled out.⁴ On the other hand, if the relativized DP has *sono*, *John-ni* cannot be scrambled past the determiner, as shown in (34c). This shows that scrambling that crosses a definite determiner is banned. Under our analysis, the impossibility of scrambling in (33) is accounted for by the same constraint, as a definite DP with a demonstrative *sono* underlies *sore* in JPS.

In this way, both of the apparently conflicting properties, i.e., (i) binding connectivity effect and (ii) impossibility of scrambling out of a sluiced element, are naturally accounted for in our analysis.

5. Remaining Problems

Although our analysis successfully explains many properties of JPS, we have some remaining issues to explore.

Our analysis only deals with JPS, so how JSS, which does not have the pronoun *sore*, should be analyzed remains to be seen. We have seen in Section 2 that JSS is different from JPS in two respects: it does not show the binding reconstruction effect, and it allows scrambling out of the sluiced element. Our analysis explains that JPS shows the reconstruction effect because a specificational pseudo-cleft underlies it, and that JPS does not allow scrambling because it has a definite determiner head. (See 4.4.) Thus, we predict that JSS lack these properties. That is, JSS is not a specificational pseudo-cleft, and its configuration does not involve a definite D. Some other kind of (pseudo-)cleft construction might underlie JSS, or we might have to abandon the cleft approach altogether for JSS. We would like to leave these possibilities open.

Our analysis also does not treat JPS/JSS without Case-markers. The Case-marker on the *wh*-phrase in Japanese Sluicing is optional, as shown in (35).

- (35) John-ga dareka-ni at-ta ga,
John-Nom someone-Dat meet-past but
watasi-wa (sore-ga) **dare** (da) ka sira-nai.
I-Top (it-Nom) **who** (be) Q know-not

It is reported in literature that Case-marked clefts such as (36a) and Non-Case-marked clefts such as (36b) have different properties.

- (36) a. [[John-ga kat-ta] no]-wa hon-o da.
John-Nom buy-past C-Top book-Acc be
“It is a book that John bought./What John bought is a book.”

- b. [[John-ga kat-ta] no]-wa hon da.
John-Nom buy-past C-Top book be

Hoji (1990) claims that only Case-marked clefts involve movement and Non-Case-marked clefts are licensed by the “aboutness” condition between the presuppositional clause and the focused element; only Case-marked cleft shows island effects. If this distinction is real and both Case-marked sluicing and Non-Case-marked sluicing involves cleft constructions, we predict that Non-Case-marked sluicing shows different properties from Case-marked sluicing.⁵

6. Conclusion

This study examined the properties of Japanese Pronominal Sluicing (JPS). We have shown, contra previous studies, that JPS should be treated as an independent construction from JSS. We argued that the specificational pseudo-cleft construction underlies JPS. The pronoun *sore* in JPS is derived as a residue of definite D whose complement CP is deleted. This analysis naturally explains both the clausal and the nominal properties of *sore* in JPS, and also successfully accounts for some properties of JPS that distinguish it from JSS.

Notes

* We are grateful to the following people for the valuable comments and encouragement: Jun Abe, Ivano Caponigro, Tomo Fujii, Scott Fults, Takuya Goro, Norbert Hornstein, Koji Hoshi, Makoto Kadowaki, Hirohisa Kiguchi, Masatoshi Koizumi, Masakazu Kuno, Howard Lasnik, Jason Merchant, Phil Monahan, Miki Obata, Hajime Ono, Hiromu Sakai, Tetsuya Sano, Daiko Takahashi, Eri Takahashi, Asako Uchibori, Matt Wagers, Akira Watanabe, the audience of ECO5 Syntax Workshop 2005 at Harvard University, the audience of Syntax Lunch Meeting at University of Maryland, and the audience of TCP 2005. This research is supported by grants to Colin Phillips from NSF grant

#BCS-0196004 and Human Frontiers grant #RGY01342001.

1 Unlike English *this* and *that*, Japanese demonstratives *kono* “this”, *sono* “the”, and *ano* “that” cannot stand alone, as shown in (ia). (ib) shows that pronouns *kore* “this”, *sore* “it”, and *are* “that” are employed instead.

- (i) a. **Kono/Sono/Ano-wa pen da.* b. *Kore/Sore/Are-wa pen da.*
This/The/That-Top pen be This/The/That-Top pen be
“This/That is a pen.” “This/That is a pen.”

2 We would like to leave open the exact status of the nominalizer *no* here.

3 Without JPS, the surface scope reading is available, and actually it is more preferred than the inverse scope reading.

- (i) *Daremo-ga futari-no sensei-ni at-ta.*
Everyone-Nom two-Gen teacher-Dat meet-past
“Everyone met two teachers.” (all>2, ?2>all)

4 There is another possible structure for (34b), which is illustrated in (i); it involves CP-adjoining scrambling rather than DP-adjoining one. However, the structural ambiguity is irrelevant to our argument here. We will leave this possibility open.

- (i) [_{DP} [_{CP} John₂-ni [_{CP} Mary-ga t₂ t₁ syookaisi-ta] hito₁]]
John-Dat Mary-Nom introduce-past person

5 See Fukaya and Hoji (1999) and Hiraiwa and Ishihara (2002).

References

Akmajian, A. (1970) *Aspects of Grammar of Focus in English*. Ph. D.

Dissertation, Massachusetts Institute of Technology.

- Boeckx, C., and Niinuma, F. (2003) Conditions on Agreement in Japanese. *Natural Language and Linguistic Theory* 22, 453 - 480.
- Chomsky, N. (1981) *Lectures on Government and Binding*. Dordrecht: Foris.
- den Dikken, M. (2001) Specificational Copular Sentences and Pseudoclefts. *ms*, City University of New York.
- Elbourne, P. (2001) E-type Anaphora as NP-deletion. *Natural Language Semantics* 9, 241-288.
- Fukaya, T., and Hoji, H. (1999) Stripping and sluicing in Japanese and some implications. *Proceedings of West Coast Conference on Formal Linguistics* 18.
- Hankamer, J. (1974) On the Non-cyclic Nature of WH-Clefting. *CLS* 10, 221-233.
- Harada, S.-I. (1971) Ga-No conversion and idiolectal variations in Japanese. *Gengokenkyu* 60, 25-38.
- Harada, S.-I. (1976) Ga-No conversion revisited. *Gengokenkyu* 70, 23-38.
- Higgins, F. R. (1979) *The Pseudo-Cleft Construction in English*. New York: Garland Publishing.
- Hiraiwa, K., and Ishihara, S. (2002) Missing Links: Clefts, Sluicing, and "No da" Construction in Japanese. *MIT Working Papers in Linguistics* 43: *Proceedings of HUMIT 2001*, eds. Ionin, T., H. Ko and A. Nevins, Massachusetts, Cambridge MA: MITWPL, 35-54.
- Hoji, H. (1990) *Theory of Anaphora and Aspects of Japanese Syntax*. *ms*, University of Southern California.
- Kizu, M. (1997) Sluicing in Wh-in-situ Languages. *Proceedings of the Thirty-third Regional Meeting of the Chicago Linguistic Society*, 231-244.
- Kizu, M. (1999) *Unbounded Dependencies in Cleft Constructions*. Ph.D. Dissertation, McGill University.
- Kuwabara, K. (1997) On the properties of truncated clauses in Japanese. *Report*

(1) *Researching and Verifying an Advanced Theory of Human Language*, 61-84.

Merchant, J. (2001) *The Syntax of Silence: Sluicing, Islands, and the Theory of Ellipsis*. Oxford Studies in Theoretical Linguistics, Oxford: Oxford University Press.

Nakao, C. (2003). Japanese Pseudo-Sluicing and Quantifier Raising. *Linguistic Research* 20, Tokyo: University of Tokyo, 193-206.

Nishiyama, K., J. Whitman, and E.-Y. Yi (1996) Syntactic Movement of Overt Wh-Phrases in Japanese and Korean. *Japanese/Korean Linguistics* 5, 337-351.

Ross, J. R. (1969) Guess who? In *Papers from the Fifth Regional Meeting of the Chicago Linguistic Society*, ed. By R. I. Bennick, A. Davison, G. M. Green, and J. L. Morgan, Chicago Linguistic Society, University of Chicago, 252-286.

Sakai, H. (1994) Complex NP constraint and Case-conversions in Japanese. In *Current topics in English and Japanese*, ed. Masaru Nakamura. Tokyo: Hitsuji Shobo, 179-203.

Takahashi, D. (1993) Movement of Wh-phrases in Japanese. *Natural Language and Linguistic Theory* 11, 655-678.

Takahashi, D. (1994) Sluicing in Japanese. *Journal of East Asian Linguistics* 3, 265-300.

Takahashi, D. (2004) Extraction Out of Nothing. *Paper presented at Sendai Area Circle of Linguistics (SACL) 2004*

(cnakao@umd.edu (Nakao))

(masaya@wam.umd.edu (Yoshida))