

ELLIPSIS AND PRONOMINAL REFERENCE IN JAPANESE CLEFTS*

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1. Introduction

In this paper, I present an analysis of two controversial phenomena in Japanese as “concealed clefts.” One is the sluicing phenomenon examined in detail in Takahashi 1994 and the other is the short answers to Wh-questions discussed in Nishigauchi 1990. The analysis of the first as a “concealed cleft” is already proposed in a number of works including Nishiyama et al. 1996, Kuwabara 1997, and Kizu 1997. The purpose here is to make it more precise.

A typical example of Japanese cleft is shown in (1).

- (1) [_{CP} [_{TP} Doroboo-ga okane -o nusunda] no] -wa sono ginkoo-kara datta
thief -NOM money-ACC stole that-TOP that bank -from was

‘It was from that bank that a thief stole money’

The CP subject expresses the presupposition, and the phrase preceding the copula is the focus. The analysis to be presented in the following pages relies crucially on the fact that the CP subject can be pronominalized or missing, as in (2).

- (2) (Sore-wa) sono ginkoo-kara datta
it -TOP that bank -from was

‘It was from that bank’

It is proposed in Kim 1999 and Oku 1998 that Korean and Japanese allow argument ellipsis. This hypothesis predicts that (2) with a missing subject may be derived by the deletion of the CP in (1). I argue that this provides a solution for the widely discussed problems in the analysis of the Japanese sluicing construction. Further, I argue that the examination of examples like (2), with and without a pronominal subject, enables us to develop Nishigauchi’s analysis of short answers to Wh-questions and confirm his conclusion that they

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are constrained by Subjacency.

In the following section, I briefly go over the basic properties of Japanese clefts, introducing the analysis proposed in Hoji 1990 and Murasugi 1991. Then, in Section 3, I discuss the problems associated with the Japanese sluicing construction and present an alternative to Takahashi's 1994 analysis, adopting Kim and Oku's argument ellipsis hypothesis. In Section 4, I first consider a simple, straightforward analysis of short answers as concealed clefts. Then, I make the analysis more precise and discuss its implications. Section 5 concludes the paper.

2. The Basis Properties of Japanese Clefts

2.1. Subjacency Effects in Clefts

It is noted in Hoji 1990 that Japanese clefts have different properties depending on whether the focused phrase is a bare NP, as in (3a), or an NP accompanied by a Case marker or a postposition, as in (3b).

- (3) a. [_{CP}..... no]-wa NP da
 -TOP is
- b. [_{CP}..... no]-wa NP-Case/postposition da
 -TOP is

For example, Subjacency effects are observed with clefts of the form in (3b) but not with those of the form in (3a). (4a-b) illustrate this contrast.¹

- (4) a. [_{CP} [_{NP} e_i okane -o nusunda doroboo]-ga kinoo taihosareta no]-wa
 money-ACC stole thief -NOM yesterday arrested-was -TOP

 sono ginkoo_i da
 that bank is

 'It is that bank_i that [the thief that stole money e_i] was arrested yesterday'
- b. * [_{CP} [_{NP} e_i okane -o nusunda doroboo]-ga kinoo taihosareta no]-wa
 money-ACC stole thief -NOM yesterday arrested-was -TOP

 sono ginkoo-kara_i da
 that bank -from is

 'It is from that bank_i that [the thief that stole money e_i] was arrested yesterday'

¹ The "translations" in single quotes in (4) and many examples to follow are provided to show the rough structures of the sentences, and not meant to be the correct translations.

- b. [_{NP} Akai no] -o kudasai
 red one-ACC give-me

‘Give me a red one’

Given this, nothing prevents a bare NP cleft from having the structure in (8).

- (8) NP₁-wa NP₂ da
 -TOP is

‘NP₁ is NP₂’ or ‘As for NP₁, it is NP₂’

That is, a bare NP cleft may be a cleft sentence with a postposition or Case marker omitted, but it can also have an alternative structure and need not be a cleft sentence after all.

Murasugi 1991 focuses on one of the salient readings of (8), that is, the identity interpretation NP₁ = NP₂. This is possible with “bare NP clefts” when *no* is interpreted as a pronoun. (9a) is a clear example with this reading.

- (9) a. [_{NP} [_{TP} Taroo-ga e_i mottekita] no_i]-wa kore da
 -NOM brought one-TOP this is

‘The one that Taroo brought is this’

- b. [_{NP} [_{TP} Taroo-ga e_i mottekita] no_i]-ga itiban oisikatta
 -NOM brought one-NOM most delicious-was

‘The one that Taroo brought was the most delicious’

As shown in (9b), the pronoun *no* can be modified by a relative clause. Since the subject in (9a) should be able to receive the same interpretation as that in (9b), it is not surprising that the construal of (9a) as an identity statement is possible. And the absence of Subjacency effects is predicted straightforwardly under this interpretation. It is shown in Perlmutter 1972 that the gap in Japanese relative clauses can be *pro*, hence Japanese relativization exhibits no Subjacency effects. The following example confirms this point:³

- (10) [_{TP} [_{NP} *pro*_i okane -o nusunda doroboo]-ga kinoo taihosareta] ginkoo_i
 money-ACC stole thief -NOM yesterday arrested-was bank

‘the bank that [the thief who stole money from there] was arrested yesterday’

³ The observation that Japanese relativization lacks Subjacency effects is originally due to Kuno 1973. One of his celebrated examples is shown in (i).

- (i) [_{NP} [_{TP} [_{NP} [_{TP} e_i e_j kiteiru] yoohuku_j]-ga yogoreteiru] sinsi_i]
 wearing-is suit -NOM dirty-is gentleman

‘the gentleman_i who the suit that he_j is wearing is dirty’

Thus, when a “bare NP cleft” receives an identity interpretation, the absence of Subjacency effects follows from the nature of Japanese relative clauses.

Sentences of the form in (8) can actually have a wide range of interpretations, besides the identity reading, as illustrated in (11).

- (11) a. *Sinbun -wa tukue-no ue da*
 newspaper-TOP desk -GEN top is
 ‘The newspaper is on the desk’
- b. *Taroo-no syohyoo-wa huransugo-no hon da*
 -GEN review -TOP French -GEN book is
 ‘As for Taroo’s review, it is (on) a book in French.’

In these cases, no gap is required within NP₁. Hence, it is reasonable to suppose that when there is a gap, it can be *pro*. Thus, the absence of Subjacency effects in “bare NP clefts” is predicted as long as they can have the structure in (8) or its subcase in (12).

- (12) [_{NP} [_{TP} ... *pro* ...] no]-wa NP da
 -TOP is

The Subjacency effects observed in clefts with a PP or a Case-marked NP in the focus position imply that it is more difficult to interpret sentences of the form in (13).⁴

- (13) NP-wa NP-Case/postposition da
 -TOP is

This is clear in the case of the identity interpretation. For example, (14) simply cannot be interpreted as an identity statement.

- (14) **Sono ginkoo-wa Tookyoo Ginkoo-kara da*
 that bank -TOP -from is
 ‘That bank is (=) from the Bank of Tokyo’

Hence, Murasugi 1991 concludes that clefts with a PP or a Case-marked NP in focus must have CP subjects. Following Hoji 1990, she assumes that the postposition/Case-marker in the focused phrase needs to be licensed by virtue of coindexation with an empty operator in CP Spec. The representation of the ungrammatical (4b) is then as in (15).

⁴ There are grammatical examples of the form in (13). I will come back to them directly.

(20) a. Syukudai -wa 235-peezi-made da
 homework-TOP -page -up to is

‘The homework is up to p. 235’

b. Kaigi -wa ku-zi -kara da
 meeting-TOP 9 -hour-from is

‘The meeting is from 9 o’clock’

Thus, the fact is not that examples of the form in (13) are disallowed in general but that the examples in (4b) and (5b) somehow resist this structure.

Among the examples of the form in (13), the most interesting for our purpose here are those in which the subject NP is a pronoun that stands for a CP or refers to an event. An example of this kind is shown in (21B’).⁵

(21) A: Ginkoo-kara genkin-ga nusumareta rasii
 bank -from cash -NOM stolen-was seem

‘It seems that cash was stolen from a bank’

B: [_{CP} Op_i [_{TP} t_i genkin-ga nusumareta] no]-wa Tookyoo Ginkoo-kara desu ka
 cash -NOM stolen-was -TOP -from is Q

‘Is it from the Bank of Tokyo that cash was stolen’

B’: (Sore-wa) Tookyoo Ginkoo-kara desu ka
 it -TOP -from is Q

‘Is it from the Bank of Tokyo’

(21B) is a cleft sentence and is a natural sequel to the utterance in (21A). (21B’), which is also a natural sequel to (21A), has the pronoun *sore* ‘it’ in the subject position. As it can express the same meaning as (21B), the CP subject is apparently pronominalized, and as a result the example has the structure in (13).

(21B’) has a PP in the focus position. A similar example can be constructed with a Case-marked NP, as shown in (22B’).

(22) A: (Sono toki,) Yamada-sensei-ga dareka -o suisensita rasii
 that time -Prof. -NOM someone-ACC recommended seem

‘It seems that Prof. Yamada recommended someone (at that point)’

⁵ See Takahashi 1994 for additional similar examples.

B: [_{CP} Yamada-sensei-ga e suisensita no] -wa John-o daroo ka,
 -Prof. -NOM recommended that-TOP -ACC it would be Q

soretomo Bill-o daroo ka
 or -ACC it would be Q

‘Would it be John (ACC) or would it be Bill (ACC) that Prof. Yamada recommended’

B’: (Sore-wa) John-o daroo ka, soretomo Bill-o daroo ka
 it -TOP -ACC will-be Q or -ACC will-be Q

‘Would it be John (ACC) or would it be Bill (ACC)’

Again, (22B) is a cleft sentence, and the subject CP is apparently pronominalized in (22B’).

An interesting property of sentences like (21B’) and (22B’) is that they are grammatical even when the corresponding cleft sentences are ruled out by Subjacency. Thus, (23B’) contrasts sharply with (23B).

(23) A: Kinoo [_{NP} dokoka -no ginkoo-kara genkin-ga nusumareta to yuu
 yesterday somewhere-GEN bank -from cash -NOM stolen-was that

nyuusu]-o kikimasita
 news -ACC heard

‘I heard the news yesterday that cash was stolen from a bank somewhere’

B: * [_{CP} Op_i [_{TP} kinoo [_{NP} t_i genkin-ga nusumareta to yuu nyuusu]-o
 yesterday cash -NOM stolen-was that news -ACC

kiita] no]-wa Tookyoo Ginkoo-kara_i desyoo
 heard -TOP -from must-be

‘It must be from the Bank of Tokyo that you heard the news yesterday that cash was stolen’

B’: (Sore-wa) Tookyoo Ginkoo-kara desyoo
 it -TOP -from must-be

‘It must be from the Bank of Tokyo’

The cleft sentence (23B) is ruled out by Subjacency. On the other hand, (23B’) is fine with the same interpretation. This is not surprising, especially because pronominal coreference is deep anaphora in the sense of Hankamer and Sag 1976. It also confirms that Subjacency is a syntactic constraint on movement. I will capitalize on the contrast between (23B) and (23B’) in the discussion of short answers to Wh-questions in Section 4.

3. Japanese Sluicing as Cleft with an Elided CP

In this section, I discuss the phenomenon called Japanese sluicing and propose to analyze the relevant examples as clefts with an elided CP subject. I first discuss Takahashi's 1994 sluicing analysis in the following subsection. Then, in Section 3.2, I introduce the hypothesis by Kim 1999 and Oku 1998 that Korean and Japanese allow argument ellipsis and, based on it, present a cleft analysis of the phenomenon.

3.1. Takahashi's 1994 Sluicing Analysis

A typical example of the Japanese sluicing phenomenon is shown in (24).

- (24) John-ga dareka -kara tegami-o uketotta ga, boku-wa [dare-kara ka]
 -NOM someone-from letter -ACC received though I -TOP who-from Q
 wakaranai
 know-not

'John received a letter from someone, but I don't know from whom'

The issue is the analysis of the bracketed part, which consists only of a Wh-phrase and the question marker *ka* and yet has a sentential interpretation.

Takahashi 1994 considers two possibilities. The first is that it is an instance of sluicing or TP-deletion, like the English example in (25).

- (25) John bought something, but I don't know [_{CP} what_i [_{TP} he bought *t_i*]]

According to this analysis, the Wh-phrase in (24) is moved to the CP Spec and the remnant TP is deleted, stranding the Wh-phrase and the question marker in C. This is illustrated in (26).

- (26) [_{CP} dare-kara_i [_{C'} [_{TP} ~~kare-ga *t_i* tegami-o uketotta~~]] [_C ka]]]

The second possibility is that it is a "concealed cleft." The bracketed part of (24) can be represented in full as the cleft sentence in (27).

- (27) [_{CP} [_{IP} [_{CP} kare-ga tegami-o uketotta no] -ga dare-kara (da)] ka]
 he -NOM letter -ACC received that-NOM who-from is Q

'It is from whom that John received a letter'

As indicated in (27), the copula *da* is optional in this context. Further, the pronoun *sore* 'it' can be appear in place of the subject CP as pointed out in the preceding section. Since Japanese pronouns need not have phonetic content (i.e., the language has *pro*), (27) can be realized as in (28).

- (28) [CP [IP (sore-ga) dare-kara (da)] ka]
 it -NOM who-from is Q

‘it is from whom’

This yields the string of words that is identical to the bracketed part of (24).

The first analysis says that the bracketed part of (24) involves deletion, whereas the second implies that it has a pronominal subject. Then, the two possibilities can be distinguished by the availability (or unavailability) of sloppy interpretation. As is well known, the following example of VP-deletion is ambiguous:⁶

- (29) John_i loves his_i mother, and Bill does [_{VP} ~~love his mother~~], too

The second sentence of (29) can mean that Bill loves John’s mother, which is called the strict reading. But it also allows what is called the sloppy interpretation, where it means that Bill loves his own mother. The sloppy reading is available with deletion but not with pronouns. Thus, (30), where the pronoun *her* appears in place of *his mother*, has only the strict interpretation.

- (30) John_i loves his_i mother, and Bill loves her, too

That is, aside from the irrelevant reading where *her* refers to someone in the discourse context, the person that Bill loves must be John’s mother and not Bill’s.

Given this background, Takahashi 1994 goes on to examine whether examples like (24) allow sloppy interpretation. One of his crucial examples is shown in (31).

- (31) John-wa [zibun-ga naze sikarareta ka] wakatteinai ga, Mary-wa
 -TOP self -NOM why scolded-was Q know-not though -TOP

[naze ka] wakatteiru
 why Q know

‘John doesn’t know why he was scolded, but Mary knows why’

As Takahashi points out, this example allows both readings, strict and sloppy. Thus, what Mary knows may be why John was scolded or why she was scolded. This is predicted if the example is derived by deletion but not if it involves a null pronoun subject. Hence (31) constitutes evidence for the sluicing analysis.

This conclusion is confirmed by (32), which minimally differs from (31).

⁶ See, for example, Sag 1976 and Williams 1977 for detailed discussion on the interpretive properties of sentences with VP-deletion.

- (32) John-wa [zibun-ga naze sikarareta ka] wakatteinai ga, Mary-wa
 -TOP self -NOM why scolded-was Q know-not though -TOP
 [sore-ga naze (da) ka] wakatteiru
 it -NOM why is Q know

In this example, an overt pronoun *sore* ‘it’ appears as the subject in the bracketed part. And as expected, it allows only the strict reading. If (31) were identical in structure to (32) and had a *pro* subject, we would expect no interpretive difference between the two examples. Thus, Takahashi concludes that examples like (24) and (31) can indeed involve sluicing.

Takahashi’s argument is quite persuasive. At the same time, he notes some problems for his sluicing analysis. First, the following example, which also minimally differs from (31), allows the sloppy interpretation:

- (33) John-wa [zibun-ga naze sikarareta ka] wakatteinai ga, Mary-wa
 -TOP self -NOM why scolded-was Q know-not though -TOP
 [naze da ka] wakatteiru
 why is Q know

This example, like (31), does not have an overt pronoun *sore* ‘it’ in the subject position but has the copula *da*. The presence of this element is accounted for if the example is a cleft sentence with a null pronoun subject. However, there is no position for the copula if the example is an instance of sluicing. Hence, (33) looks like a concealed cleft despite the fact that it allows sloppy interpretation.

Second, there are similar examples like (34) that cannot be derived by sluicing.

- (34) John-ga dareka -kara tegami-o uketotta ga, boku-wa [Mary-kara
 -NOM someone-from letter -ACC received though I -TOP -from
 kadooka] wakaranai
 whether know-not

‘John received a letter from someone, but I don’t know whether it was from Mary’

As noted in Ross 1969, sluicing requires a Wh-phrase in CP Spec.⁷ Thus, (35) is ungrammatical although the deleted TP has a proper antecedent.

- (35) *John claims that he did the work, but I am not sure [_{CP} whether/that [_{TP} ~~he did the work~~]]

But (34) does not satisfy this requirement, as it contains no Wh-phrase. The English

⁷ See also Saito and Murasugi 1990 and Lobeck 1990 for detailed discussion on this requirement.

counterpart of (34), shown in (36), is in fact totally out.

(36) *John received a letter from someone, but I don't know whether from Mary

On the other hand, (34) receives a straightforward account as a cleft sentence with a pronominal subject, as illustrated in (37).

(37) John-ga dareka -kara tegami-o uketotta ga, boku-wa
 -NOM someone-from letter -ACC received though I -TOP

[(sore-ga) Mary-kara (da) kadooka] wakaranai
 it -NOM -from is whether know-not

Nishiyama et al. 1996 present more examples like (33) and (34) and argue convincingly that Takahashi's sluicing examples are best analyzed as clefts with a null pronoun subject. But then, the contrast between (32) and (31)/(33) on the availability of sloppy reading remains a mystery. According to the cleft analysis, the only significant difference between these examples is whether *sore* 'it' in the subject position is overt or not. Nishiyama et al. hypothesize that the sloppy reading is allowed with empty pronouns but not with overt pronouns. However, even if this is correct, the generalization itself requires an explanation. In the following subsection, I show that the argument ellipsis hypothesis of Kim 1999 and Oku 1998 provides a straightforward solution to this problem.

3.2. Argument Ellipsis in "Concealed Clefts"

The argument ellipsis hypothesis has developed out of Otani and Whitman's 1991 VP-deletion analysis of examples like (38).

(38) John-wa zibun-no tegami-o suteta; Mary-mo suteta
 -TOP self -GEN letter -ACC discarded -also discarded

'John threw out his letter, and Mary did, too'

The object is missing in the second sentence of (38). The standard analysis for this kind of missing argument was to assume that *pro* is present in its position. However, Otani and Whitman point out that sloppy interpretation is possible in (38). That is, what Mary discarded can be John's letter (strict reading) or her letter (sloppy reading). The availability of the sloppy reading is not predicted by the *pro* analysis, as discussed earlier, and suggests that (38) involves some sort of ellipsis.

Otani and Whitman, then, propose that (38) may involve VP-deletion, following Huang's 1987 analysis of similar examples in Chinese. The idea is that V raises to T overtly in Japanese, and hence, when VP-deletion applies, only the internal arguments are deleted, as

illustrated in (39).⁸

(39) [_{TP} NP [_{T'} [_{VP} ~~NP~~ _V] V+T]]

If (38) can be derived in this way, the availability of sloppy reading is automatically predicted.

Kim 1999 and Oku 1998 accept the conclusion that examples like (38) may involve ellipsis, but argue that there are similar cases that cannot be analyzed as instances of VP-deletion. One of Kim's arguments is based on the double-accusative construction in Korean, exemplified by (40a).⁹

(40) a. Mike-nun James-lul tali-lul ketechassta
 -TOP -ACC leg-ACC kicked

‘Mike kicked James on the leg’

b. *Mike-nun tali-lul James-lul ketechassta

One interesting property of this construction is that the order of the two accusative NPs is fixed; the inalienable possessor must precede the body part. Thus, (40b) is ungrammatical.

With this background, Kim points out that (41B) allows sloppy interpretation exactly as (38).

(41) A: Jerry-nun caki-uy ai -lul phal-ul ttayliessta
 -TOP self -GEN child-ACC arm-ACC hit

‘Jerry hit his child on the arm’

B: Kulena Sally-nun [e] tali-lul ttayliessta
 but -TOP leg-ACC hit

‘But Sally hit his/her child on the leg’

The first accusative NP is missing in (41B), and the example can mean that Sally hit Jerry's child on the leg (the strict reading) or that she hit her child on the leg (the sloppy reading).

⁸ It has been argued that languages differ with respect to the presence/absence of V-raising to T. Emonds 1976, for example, shows that main verbs move to T in French but not in English. Since Japanese is strictly head-final and does not even allow right-adjunction to VP, V-raising to T would be string-vacuous even if it occurs. Hence, the presence/absence of V-raising in the language cannot be examined based on word order.

⁹ The corresponding Japanese examples are marginal because the language prohibits two accusative-marked NPs within a simple clause. See Kuroda 1988 and the references cited there for detailed discussion on this point.

(41B), in distinction with (38), cannot be analyzed as an instance of VP-deletion. This is so because, if the first accusative NP is elided by VP-deletion, the second accusative NP should be as well, as illustrated in (42).

(42) [_{TP} NP [_{T'} [_{VP} ~~NP-ACC NP-ACC~~ *t_V*] V+T]]

That is, there is no way to delete the first accusative NP by VP-deletion without deleting the second accusative NP at the same time. Since the availability of sloppy interpretation indicates that (41B) can involve ellipsis, Kim concludes that Korean (and Japanese) allows NP-deletion or, more generally, argument deletion. (41B), then, can be derived by deleting the first accusative NP directly, as in (43).

(43) [_{TP} NP [_{T'} [_{VP} ~~NP-ACC~~ NP-ACC V] T]]

Oku 1998 independently reaches the same conclusion on the basis of Japanese examples such as (44).

(44) A: Mary-wa [zibun-no teian -ga saiyoosareru to] omotteiru
 -TOP self -GEN proposal-NOM be accepted that think

‘Mary thinks that her proposal will be accepted’

B: John-mo [[*e*] saiyoosareru to] omotteiru
 -also be accepted that think

‘John also thinks that her/his proposal will be accepted’

(44B) is also ambiguous and allows the sloppy interpretation, which is that John thinks his proposal will be accepted. The example is like (38) except that the missing argument is the subject in this case. As illustrated in (39), VP-deletion can elide the internal arguments but not the subject. Hence, this example also requires argument ellipsis.

Once it is established that Japanese (and Korean) allows argument deletion, the availability of the sloppy reading in (33) is straightforwardly explained. The example is repeated in (45).

(45) John-wa [zibun-ga naze sikarareta ka] wakatteinai ga, Mary-wa
 -TOP self -NOM why scolded-was Q know-not though -TOP

[naze da ka] wakatteiru
 why is Q know

‘John doesn’t know why he was scolded, but Mary knows why [he/she was scolded]’

The full cleft form of the second sentence is shown in (46).

- (46) Mary-wa [[_{CP} Op_i [_{TP} zibun-ga t_i sikarareta] no] -ga naze_i (da) ka] wakatteiru
 -TOP self -NOM scolded-was that-NOM why is Q know

As arguments can be deleted, the second sentence of (45) can be derived from (46) without substituting a pronoun for the subject CP. The CP can instead be simply deleted as in (47).

- (47) Mary-wa [~~_{CP} Op_i [_{TP} zibun-ga t_i sikarareta] no~~] -ga naze_i (da) ka] wakatteiru

Since this is a deletion operation, the availability of the sloppy reading is correctly predicted.

A small technical innovation is required to make this deletion analysis precise. The antecedent for the deletion in (47) is the embedded CP in the first sentence of (45), which is repeated in (48) with a slightly more detailed structure.

- (48) [_{CP} [_{TP} zibun-ga naze sikarareta] ka]
 self -NOM why scolded-was Q

‘why self was scolded’

This, as it stands, is not identical to the deleted CP in (47), but I will suggest directly that it is similar enough for the deletion operation to apply.

As is well known, examples like (49) are grammatical under the interpretation where *John* and *he* are coreferential.

- (49) Mary loves John’s_i mother, and he_i does, too

However, if deletion requires strict identity with the antecedent, the example should be a Condition C violation, as shown in (50).

- (50) Mary loves John’s_i mother, and he_i does [~~_{VP} love John’s_i mother~~], too

Given this problem, Fiengo and May 1994 suggest the operation of “vehicle change,” which turns a name into the corresponding pronoun in the antecedent. The rough idea is that deletion is licensed if the antecedent and the deleted phrase are identical after vehicle change.¹⁰ (49), then, can be analyzed as in (51).

- (51) Mary loves John’s_i mother, and he_i does [~~_{VP} love his_i mother~~], too

A similar analysis can be applied to (45). If a name can be turned into a pronoun, which contains less specific information, then it seems reasonable to suppose that a Wh-phrase can be changed to an empty operator in the antecedent CP. Then, vehicle change yields (52a) from (48).

¹⁰ Fiengo and May 1994 reject the PF-deletion theory of ellipsis and develop the LF-copying theory. But the choice between the two theories is not directly relevant to the discussion here.

- (52) a. [_{CP} [_{TP} zibun-ga Op sikarareta] no]
 self -NOM scolded-was that
- b. [_{CP} Op_i [_{TP} zibun-ga t_i sikarareta] no]
 self -NOM scolded-was that

After empty-operator movement, we obtain (52b), which is identical to the elided CP in (47). If *zibun* ‘self’ is construed as referring to the matrix subject *John*, the strict reading obtains for the deleted CP.¹¹ On the other hand, if it is construed as a variable bound by the matrix subject, then the second sentence in (45) receives the sloppy interpretation, as in (53).

- (53) Mary-wa_x [[_{CP} Op_i [_{TP} x-ga t_i sikarareta] no]-ga naze da ka] wakatteiru
 -TOP -NOM scolded-was -NOM why is Q know

Vehicle change can be employed in a similar way for the problematic (34), repeated in (54), and also for the similar example in (55).

- (54) John-ga dareka -kara tegami-o uketotta ga, boku-wa [Mary-kara
 -NOM someone-from letter -ACC received though I -TOP -from
 kadooka] wakaranai
 whether know-not

‘John received a letter from someone, but I don’t know whether it was from Mary’

- (55) Taroo-wa [kare-ga huzisan -ni nobotta to] itteiru ga, boku-wa
 -TOP he -NOM Mt. Fuji-on climbed that saying-is though I -TOP
 [huzisan -ni kadooka] wakaranai
 Mt. Fuji-on whether know-not

‘Taroo says that he climbed Mt. Fuji, but I don’t know whether it is Mt. Fuji that he climbed’

Let us consider (54) first. Deletion should apply in the second sentence, as in (56).

- (56) Boku-wa [~~[_{CP} Op_i [_{TP} John-ga t_i tegami-o uketotta] no]-ga~~ Mary-kara_i (da)
 I -TOP -NOM letter -ACC received that-NOM -from is
 kadooka] wakaranai
 whether know-not

‘I don’t know whether it is from Mary that John received a letter’

The antecedent clause for the deletion, shown in (57a), contains *dareka-kara* ‘from someone’.

¹¹ The strict reading has another source as well. If (45) is not derived by deletion but has a null pronoun subject, then the strict reading is the only possible interpretation.

Since this is a quantifier, it is likely that it can also be turned into an empty operator and moved to CP Spec, as in (57b).

- (57) a. [_{TP}John-ga dareka -kara tegami-o uketotta]
 -NOM someone-from letter -ACC received
 ‘John received a letter from someone’
 b. [_{CP}Op_i [_{TP}John-ga *t_i* tegami-o uketotta] (no)]

Then, we have the required antecedent for the CP-deletion in (56).

In (55), on the other hand, the deletion should take place as in (58).

- (58) Boku-wa [_{CP}Op_i [~~kare-ga *t_i* nobotta] no] ga huzisan-ni (da) kadooka]
 I -TOP he -NOM climbed that-NOM Mt.Fuji-on is whether
 wakaranai
 know-not
 ‘I don’t know whether it is Mt. Fuji that he climbed’~~

Huzisan ‘Mt. Fuji’ is clearly focused in the antecedent clause (59a), and I suspect that it too can be turned into an empty operator for this reason to yield a proper antecedent, as shown in (59b).

- (59) a. [_{CP} [_{TP}kare-ga huzisan -ni nobotta] to]
 he -NOM Mt. Fuji-on climbed that
 b. [_{CP}Op_i [_{TP}kare-ga *t_i* nobotta] (no)]

Thus, it seems quite plausible that the typical examples all satisfy the identity requirement with the antecedent.¹²

4. Wh-Question/Answer Pairs Reconsidered

I argued in the preceding section that the argument ellipsis hypothesis of Kim 1999 and Oku 1998 enables us to analyze “Japanese sluicing” as a cleft sentence with an elided subject CP and to solve the puzzles that arise with the construction. Although the proposed analysis is different from that of Takahashi 1994, it supports his claim that the construction instantiates a deletion phenomenon. In this section, I turn to short answers to Wh-questions and show that some of those cases should also be treated as concealed clefts. This leads to confirming evidence for Nishigauchi’s proposal that short answers reflect Subjacency effects. In the

¹² The identity requirement itself is undoubtedly more involved than implied by the discussion here. See, in particular, the discussion on sluicing in Chung et al. 1995 and Merchant 2001.

following subsection, I briefly discuss his original analysis. Then, in Section 4.2, I present a cleft analysis and examine its consequences.

4.1. Nishigauchi's 1990 Analysis

The full answer in (61a) and the short answer in (61b) are both appropriate for the Wh-question in (60).

(60) John-wa doko -kara sore-o mottekimasu ka
 -TOP where-from it -ACC bring Q

'John brings it from where'

(61) a. John-wa daidokoro-kara sore-o mottekimasu
 -TOP kitchen -from it -ACC bring

'John brings it from the kitchen'

b. Daidokoro(-kara) desu
 kitchen -from is

'It is (from) the kitchen'

Nishigauchi 1990 hypothesizes that the short answer reflects the LF of the question. More specifically, he proposes that the short answer corresponds to the element in CP Spec in the LF of the question sentence. For example, the LF of (60) may be as in (62).

(62) [_{CP} doko_i [_{TP} John-wa t_i-kara sore-o mottekimasu] ka]
 where -TOP -from it -ACC bring Q

In this case, *daidokoro* 'kitchen' in (61b) corresponds to the Wh-phrase in CP Spec.

Nishigauchi presents two facts in support of this hypothesis. The first is that short answers are generally allowed. For example, they are possible when the Wh-phrase is in the embedded clause, as in (63), and even for multiple-Wh questions, as in (64).

(63) A: Kimi-wa [_{CP} Tanaka-san-ga dare-ni atta to] omotteimasu ka
 you -TOP -NOM who-to met that think Q

'You think [that Mr. Tanaka met whom]'

B: Nakasone-san(-ni) desu
 -to is

'It is (to) Mr. Nakasone'

(64) A: Dare-ga doko -e ikimasita ka
 who -NOM where-to went Q

‘Who went where’

B: John-ga Boston-e, Bill-ga Amherst-e desu
 -NOM -to -NOM -to is

‘It is [John to Boston] and [Bill to Amherst]’

The second is that a short answer cannot contain elements other than what corresponds to the Wh-phrase. This is illustrated in (65).

(65) A: Suzuki-san-wa Satoo-san-ni nanzi -ni aimasita ka
 -TOP -to what time-at met Q

‘Mr. Suzuki met Mr. Satoo at what time’

B: (#Satoo-san-ni) ku-zi -ni desu
 -to 9 -hour-at is

‘It is (to Mr. Satoo) at 9’

Because *Satoo-san-ni* ‘to Mr. Satoo’ in (65A) is not part of the Wh-phrase, it cannot appear in the short answer, as shown in (65B).

If this hypothesis is correct, it has important consequences for the investigation of LF. For example, as Nishigauchi notes, it should be possible to find out what moves to CP Spec in the LF of Wh-questions by examining possible short answers. Suppose that a Wh-question has the following form:

(66) [_{CP} [_{TP} ... [_{Complex NP} ... Wh ...] ...] Q]

If it is possible to provide a short answer corresponding just to the Wh element, this indicates that the Wh-phrase can move out of the complex NP to the matrix CP Spec in LF. This would confirm Huang’s 1982 hypothesis that LF movement is not constrained by Subjacency. On the other hand, if this short answer is impossible, this would provide evidence that LF movement is subject to Subjacency.

Nishigauchi 1990 goes on to investigate this question and presents mixed results. For the question in (67A), both (67B) and (67B’) are possible short answers.

(67) A: Kimi-wa [_{NP} [_{TP} dare-ga kaita] hon]-o yomimasita ka
 you -TOP who-NOM wrote book-ACC read Q

‘You read [the book [that who wrote]]’

B: Austen desu
is

‘It is Austen’

B’: [_{NP} [_{TP} Austen-ga kaita] hon] desu
-NOM wrote book is

‘It is [the book [that Austen wrote]]’

(67B’) suggests that the whole complex NP containing the Wh-phrase can move to the matrix CP Spec at LF. On the other hand, (67B) indicates that LF Wh-movement can move a Wh-phrase out of a complex NP. Given examples like (67B’), Nishigauchi in fact concludes that “large-scale pied-piping” is allowed with LF Wh-movement. However, he argues that it is too hasty to conclude, based on (67B), that LF Wh-movement is not subject to Subjacency.

More specifically, he points out that (68B) and (68B’) are both possible replies to (68A).

(68) A: Sore-wa [_{NP} [_{TP} Austen-ga kaita] hon] desu ka
it -TOP -NOM wrote book is Q

‘Is it [a book [that Austen wrote]]’

B: Iie, Fielding desu
no is

‘No, it is Fielding’

B’: Iie, [_{NP} [_{TP} Fielding-ga kaita] hon] desu
no -NOM wrote book is

‘No, it is [a book [that Fielding wrote]]’

Here, (68B) can convey the meaning of (68B’) and hence can be considered its “truncated form.” Nishigauchi suggests that (67B) can be a truncated form of (67B’) in the same way.

He then discusses (69) as a more representative case.

(69) A: [_{NP} [_{TP} Dare-ga dare-ni kaita] tegami]-ga mitukarimasita ka
who -NOM who-to wrote letter -NOM found-was Q

‘[A letter [that who wrote to whom]] was found’

B: #Tanaka-san-ga Nakasone-san-ni desu
-NOM -to is

‘It is [Mr. Tanaka to Mr. Nakasone]’

cleft sentences. This is shown in (73).

- (73) a. It is *Smith's book* that I am reading / *It is *Smith* that I am reading 's book
 b. It is *to John* that I gave a book / It is *John* that I gave a book to

Then, short answers may be “concealed clefts.” I will not pursue this possibility for English in this paper but will argue in the following subsection that it holds up in Japanese.

4.2. A Reexamination of Short Answers

The simplest account that can be entertained is that short answers are cleft sentences with the CP subject elided. Let us consider again the example in (60), repeated here as (74).

- (74) John-wa doko -kara sore-o mottekimasu ka
 -TOP where-from it -ACC bring Q

‘John brings it from where’

The hypothesis is that the short answer in (75a) is derived by deletion, as in (75b).

- (75) a. Daidokoro-kara desu
 kitchen -from is

‘It is from the kitchen’

- b. [~~John-ga sore-o mottekuru no~~]-wa daidokoro-kara desu
 -NOM it -ACC bring that-TOP kitchen -from is

‘It is from the kitchen that John brings it’

As far as I can tell, this analysis successfully explains all the examples discussed in Nishigauchi 1990. In particular, it provides a straightforward account for the absence/presence of Subjacency effects in (67) and (69). Let us consider (69) first. The full cleft form of the short answer in (69B) is as in (76).

- (76) *_{[CP Op_i Op_j [_{NP} [_{TP} t_i t_j kaita] tegami]-ga mitukatta] no]-wa}
 wrote letter -NOM found-was that-TOP

[Tanaka-san-ga_i Nakasone-san-ni_j] desu
 -NOM -to is

‘It is [Mr. Tanaka to Mr. Nakasone] that [a letter that wrote] was found’

This is a Subjacency violation because the focused phrases are clefted out of a complex NP. Or more precisely, empty operators are moved out of the complex NP to the Spec position of the subject CP.

On the other hand, the full form of the short answer in (67) would be as in (77).

(77) [Boku-ga [[*e*_i kaita] hon]-o yonda no]-wa Austen_i desu
 I -NOM wrote book-ACC read -TOP is

‘It is Austen that I read [a book that wrote]’

(77) is somewhat awkward, but it is clearly better than (76).¹³ And this is exactly what we expect because (77) is a “bare NP cleft.” As discussed in detail in Section 2, a “bare NP cleft” need not be a cleft in the strict sense. It can be analyzed with the structure in (78), and consequently, it is not subject to Subjacency.

(78) [_{NP} [_{TP} ... pro ...] no]-wa NP da
 -TOP is

Although this simple analysis covers a wide range of data, what is actually going on with short answers seems a little more complicated. First, when a short answer consists of a bare NP, as in (67), it is not at all clear what the subject of the sentence is. (80a-b) are possible answers to (79).

(79) Kimi-wa [_{NP} [_{TP} dono sensei -kara moratta] tegami]-o nakusita no desu ka
 you -TOP which teacher-from received letter -ACC lost that is Q

‘You lost [the letter that you received from which teacher]’

(80) a. (Sore-wa) H-sensei desu
 it -TOP -Prof. is

‘It is Prof. H.’

b. (Sono sensei -wa) H-sensei desu
 that teacher-TOP -Prof. is

‘That teacher is Prof. H.’

This suggests that a bare NP answer of the form in (81) is possible.

(81) *pro* H-sensei desu
 -Prof. is

¹³ The awkwardness of (77), I believe, has nothing to do with syntax because there are perfect examples with the same structure. For example,

(i) [Boku-ga [[*e*_i okutte-kureta] tegami]-o nakusite-simatta no]-wa Yamada-san desu
 I -NOM send -gave letter -ACC lose -have -TOP is

‘It is Mr./Ms. Yamada that I have lost [the letter that (he/she) wrote me]’

Here, the *pro* may be a personal pronoun or the empty version of *sore* ‘it’ that refers to some sort of event. If this is correct, then whether a bare NP answer is possible depends on whether the sentence can be coherently interpreted with a *pro* subject.

This speculation is confirmed by (82).

(82) A: [_{NP}Dono ginkoo-kara okane -o nusunda doroboo]-ga taihosareta no
 which bank -from money-ACC stole thief -NOM arrested-was that

desu ka

is Q

‘[The thief that stole money from which bank] was arrested’

B: Tookyoo Ginkoo-kara desu
 -from is

‘It is from the Bank of Tokyo’

(82B) is a possible short answer to (82A). It is problematic for the simple cleft analysis because the corresponding PP cleft is out, as shown in (83).

(83) *_{[CP Op_i [_{NP} t_i okane -o nusunda doroboo]-ga taihosareta no]-wa}
 money-ACC stole thief -NOM arrested-was -TOP

Tookyoo Ginkoo-kara_i desu
 -from is

‘It is from the Bank of Tokyo_i that [the thief that stole money e_i] was arrested’

However, recall from the discussion in Section 2 that PP clefts of this kind become grammatical when the pronoun *sore* ‘it’ is substituted for the subject CP. The relevant example (23) is repeated here as (84).

(84) A: Kinoo [_{NP}dokoka -no ginkoo-kara genkin-ga nusumareta to yuu
 yesterday somewhere-GEN bank -from cash -NOM stolen-was that
 nyuusu]-o kikimasita
 news -ACC heard

‘I heard the news yesterday that cash was stolen from a bank somewhere’

B: *_{[CP Op_i [TP kinoo [NP t_i genkin-ga nusumareta to yuu nyuusu]-o kiita]}
 yesterday cash -NOM stolen-was that news -ACC heard

no]-wa Tookyoo Ginkoo-kara_i desyoo
 -TOP -from must-be

‘It must be from the Bank of Tokyo that you heard the news yesterday that cash was stolen’

B’: (Sore-wa) Tookyoo Ginkoo-kara desyoo
 it -TOP -from must-be

‘It must be from the Bank of Tokyo’

(84B) and (84B’) are possible sequels to (84A). The cleft sentence in (84B) is ruled out by Subjacency. On the other hand, (84B’) with the pronominal subject *sore* ‘it’ is acceptable and can convey the same meaning as (84B). Thus, it is predicted that (82B) is also grammatical with a *pro* subject corresponding to *sore* ‘it’. The acceptability of (82B) is in fact unaffected even if we make the subject overt, as in (85).

(85) Sore-wa Tookyoo Ginkoo-kara desu
 it -TOP -from is

‘It is from the Bank of Tokyo’

Note that this is consistent with the unacceptability of the short answer in (69B). The question-answer pair is repeated in (86).

(86) A: [_{NP} [_{TP} Dare-ga dare-ni kaita] tegami]-ga mitukarimasita ka
 who -NOM who-to wrote letter -NOM found-was Q

‘[A letter [that who wrote to whom]] was found’

B: #Tanaka-san-ga Nakasone-san-ni desu
 -NOM -to is

‘It is [Mr. Tanaka to Mr. Nakasone]’

This is so because (86B) resists a pronominal subject for some reason. Thus, the answer is still illicit even with an overt pronoun in the subject position, as shown in (87).

(87) #Sore-wa Tanaka-san-ga Nakasone-san-ni desu
 it -TOP -NOM -to is

‘It is [Mr. Tanaka to Mr. Nakasone]’

Thus, the possibility of a short answer correlates with whether the sentence can be interpreted properly with a pronominal subject. In particular, (82) shows that a short answer is

possible even when the corresponding cleft sentence is not, as long as it can have a pronoun in the subject position. Then, does this show that Nishigauchi's 1990 Subjacency account for (86B) has to be abandoned? It appears that the legitimacy of a short answer has nothing to do with Subjacency and depends solely on whether *pro* is allowed in the subject position. The answer, however, is negative. We know that (86B) is illicit with a *pro* subject, but the example has another possible representation. That is, nothing prevents it from being a cleft sentence with the subject CP elided, as in (88).

- (88) [_{CP} Op_i Op_j [_{NP} [_{TP} *t_i* *t_j* kaita] tegami] ga — mitukatta] no] wa
 wrote letter -NOM found-was that-TOP
 [Tanaka-san-ga_i Nakasone-san-ni_j] desu
 -NOM -to is

'It is [Mr. Tanaka to Mr. Nakasone] that [a letter that wrote] was found'

It was argued in Section 3, based on the examination of the sluicing phenomenon, that the subject CP in a cleft sentence can be deleted. Then, it should be possible to derive (86B) also from a cleft sentence by deleting the subject CP. It is thus necessary to exclude this derivation to complete the account for the illicitness of (86B). And this is accomplished by Subjacency. That is, the empty-operator movements in (88) violate Subjacency prior to CP-deletion. The only point that we depart from Nishigauchi's account is that Subjacency rules out the empty-operator movement in cleft formation and not necessarily LF Wh-movement.¹⁴

Then, short answers in general have two distinct sources: they may have a *pro* subject or they may be derived from a cleft sentence by deletion of the subject CP. When a *pro* subject is disallowed for some reason, CP-deletion becomes the only possible derivation. It is in this case that the Subjacency effects become visible. This conclusion predicts that Subjacency effects should be detected in "sluicing" in roughly the same way as in short answers. This is so because, according to the account proposed here, short answers and "sluicing" are both concealed clefts with a pronominal subject or an elided CP subject. Recall that the sluicing examples are ambiguous in this way, but sloppy interpretation is allowed only when they are derived by CP-deletion.

Takahashi 1994 maintains that Japanese sluicing is subject to Subjacency in general, but as far as I can see, the data are not straightforward. Thus, (89B), which roughly corresponds

¹⁴ It should be noted that there is a way to maintain Nishigauchi's account as such under the LF-copying theory of ellipsis. Suppose that the LF-copying proceeds as follows:

- (i) LF Wh-movement in the antecedent clause.
- (ii) Vehicle change to substitute an empty operator for the Wh-phrase in the CP Spec of the antecedent clause.
- (iii) Copying of the antecedent into the ellipsis site.

Then, what violates Subjacency in examples such as (86B) must be step (i), that is, LF Wh-movement.

to (82B), seems acceptable.

- (89) A: [_{NP} Dokoka -no ginkoo-kara okane -o nusunda doroboo]-ga
 somewhere-GEN bank -from money-ACC stole thief -NOM
 taihosareta sooda
 arrested-was I-heard
 ‘I heard that they arrested the thief that stole money from a bank somewhere’
- B: Demo, boku-wa [(sore-ga Tookyoo Ginkoo-kara kadooka]-wa siranai
 but I -TOP it -NOM -from whether -TOP know-not
 ‘But, I don’t know whether it is from the Bank of Tokyo’

On the other hand, (90B), the “sluicing counterpart” of (86B), sounds worse.

- (90) A: [_{NP} Dareka -ga dareka -ni kaita tegami]-ga mitukatta sooda
 someone-NOM someone-to wrote letter -NOM found-was I-heard
 ‘I heard that they found a letter that someone wrote someone’
- B: #Demo, boku-wa [(sore-ga Tanaka-san-ga Nakasone-san-ni kadooka]-wa
 but I -TOP it -NOM -NOM -to whether -TOP
 siranai
 know-not
 ‘But, I don’t know whether it was [Mr. Tanaka to Mr. Nakasone]’

The judgment for examples like (89B) and (90B) is subtle, and there is much individual variation.¹⁵ But (90B) seems degraded as a sequel to (90A), and if it is, it provides further evidence for the Subjacency account of (86B) suggested earlier. Its marginal status indicates that it resists a pronominal subject in the embedded clause for some reason. Further, when *sore-ga* ‘it-NOM’ is missing, its derivation by CP-deletion should be marginal at best and possibly worse. This follows from Subjacency because the empty operators move out of a complex NP prior to CP-deletion, as illustrated in (91).

¹⁵ Individual variation is not unexpected here because the acceptability of examples like (89B) and (90B) depends in part on whether a pronominal subject is allowed in the embedded clause, which in turn is undoubtedly based on factors independent of syntax. Nevertheless, it seems to me that (90B) is clearly better as a sequel to (i) than as a sequel to (90A).

- (i) Dareka -ga dareka -ni tegami-o kaita sooda
 someone-NOM someone-to letter -ACC wrote I-heard
 ‘I heard that someone wrote someone a letter’

- (91) *Demo, boku-wa [_{CP} [_{TP} [_{CP} Op_i Op_j [_{TP} [_{NP} [_{t_i} t_j kaita] tegami] ga — mitukatta] no] ga
 but I -TOP wrote letter -NOM found-was -NOM
 Tanaka-san-ga_i Nakasone-san-ni_j (da)] kadooka]-wa siranai
 -NOM -to is whether -TOP know-not

5. Conclusion and Further Issues

In this paper, I argued that the argument ellipsis hypothesis of Kim 1999 and Oku 1998 solves some old problems in Japanese syntax. First, it solves the apparent paradox with the sluicing phenomenon discussed in Takahashi 1994, which is that some examples are clearly concealed clefts and yet allow sloppy interpretation. Second, it enables us to sharpen Nishigauchi's 1990 analysis of Wh-question/answer pairs and pinpoint exactly where Subjacency effects are detected in short answers. If the arguments in this paper hold, they provide further support for the argument ellipsis hypothesis.

The analysis proposed in this paper, if correct, also raises fundamental theoretical issues. The first concerns the overall analysis of deletion phenomena in Japanese. The argument ellipsis hypothesis already casts doubts on whether the language has VP-deletion. Although there is no direct evidence against it, it is redundant. And the analysis of the sluicing phenomenon as concealed clefts raises similar doubts on sluicing. Thus, whether Japanese has VP-deletion and sluicing seems to be an open question at this point. Another question that the argument ellipsis hypothesis raises is why the phenomenon exists in Japanese (and Korean) but not in other languages such as English. Although tentative hypotheses are presented in Oku 1998 and Saito 2003, further investigation is clearly needed to address this question properly.

The second major issue has to do with the general relation of Subjacency and ellipsis. It has been observed since Ross 1969 that sluicing remedies Subjacency violations. (92) is one of his examples.

- (92) She kissed a man who bit one of my friends but Tom doesn't realize which one of my friends (*she kissed a man who bit)

In the second sentence of (92), *which one of my friends* moves out of a complex NP but sluicing makes the sentence grammatical. On the other hand, Fox and Lasnik 2003 argue that VP-deletion is constrained by a locality condition stronger than Subjacency when there is no Wh-movement in the antecedent. Thus, we have the contrast between (93a) and (93b).

- (93) a. *I know that John said that Mary read a certain book, but I don't know which one he did
 b. I know which book John said that Mary read, but YOU don't know which one he did

It is beyond the scope of this paper to get into this difference between sluicing and VP-deletion. I will instead simply refer the reader to the detailed discussion in Merchant 1999 and Fox and Lasnik 2003. But I would like to point out that if the analysis in this paper is correct, it provides additional data that are relevant to the issue. That is, unlike sluicing, argument deletion in Japanese does not salvage Subjacency violations. It seems then that there may be a three-way contrast among sluicing, VP-deletion, and argument deletion. This makes it more difficult to formulate the precise relation between Subjacency and deletion, but the facts of argument deletion, I hope, will provide a clue for the understanding of the nature of this relation.

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