Overtly Stranded but Covertly Not

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1. Introduction: Particle Stranding Ellipsis in Japanese

It has been observed that Japanese has a cross-linguistically unique phenomenon called Particle Stranding Ellipsis (henceforth, PSE), where ‘particles’ are stranded with their host DPs being phonologically null (cf. Hattori 1949, Yoshida 2004, Sato 2012, among others). (1) illustrates a typical case of PSE.

(1) A: [DP Mary]-ga John-ni at-ta-n da-kke?
   Mary-NOM John-DAT meet-PST COP.NPST-SFP
   ‘Did [DP Mary] meet with John?’

B: [DP ∆]-wa John-ni awa-nakat-ta-n da yo.
   [DP ∆]-TOP John-DAT meet-NEG-PST-NML COP.NPST SFP
   Lit. ‘[DP ∆] TOP did not meet with John.’ [Topic Marker]

With (1A) as its antecedent, (1B), where the topic marker -wa is stranded without its host DP Mary, is grammatical. The previous literature notes that the availability of PSE is not limited to the topic marker –wa, and that case particles (nominative, accusative, and dative), postpositions, and focus particles can also be stranded under PSE, as shown in (2)-(4) (cf. Sato and Ginsburg 2007, Goto 2012).

(2) A: [DP Mary]-ga John-ni at-ta-n da-kke?
   Mary-NOM John-DAT meet-PST-NML COP.NPST-SFP
   ‘Did [DP Mary] meet with John?’

B: [DP ∆]-ga awa-nakat-ta-n da yo.
   [DP ∆]-NOM meet-NEG-PST-NML COP.NPST SFP
   Lit. ‘[DP ∆] NOM did not meet with him.’ [Nominative Case Particle]

(3) A: [PP [DP 5-men]-kara]-ga kantan-na-n da yo ne?
   5-stage-from-NOM easy-NPST-NML COP.NPST SFP SFP
   Lit. ‘[PP From [DP the stage 5]] is easy, right?’

B: [PP [DP ∆]-kara]-ga muzukasi-i-n da yo.
   [DP ∆]-from-NOM difficult-NPST-NML COP.NPST SFP
   Lit. ‘[PP From [DP ∆]]-NOM is difficult.’ [Postposition]

(4) A: [DP [John-ga kai-ta] hon]-mo omosiro-i no?
   John-NOM write-PST book-also interesting-NPST Q
   ‘Is [DP the book [that John wrote]], also interesting?’

B: [DP ∆]-mo omosiro-i yo.
   [DP ∆]-also interesting-NPST SFP
   Lit. ‘[DP ∆]-also interesting.’ [Focus Particle]

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In (2B), the nominative case particle -ga is stranded without its host DP Mary; in (3B), the postposition -kara 'from' is stranded with its host DP 3-men 'stage 5' being phonologically silent; in (4B), the focus particle -mo 'also' is stranded without its host DP John-ga kai-ta hon 'the book that John wrote'.

In this paper, we investigate the syntactic nature of PSE on the basis of hitherto unnoticed data. Specifically, we claim that PSE is an instance of ellipsis, not silent proforms, and that PSE is best analyzed by LF-copying. In section 2, we argue for the ellipsis view on PSE, exploiting the well-known diagnostics for ellipsis. In section 3, we demonstrate that investigations into the interaction between PSE and the split QP phenomenon (cf. Nishigauchi 1990) lead us to conclude that LF-copying (cf. Williams 1977), not PF-deletion (cf. Sag 1976), should be adopted for implementing PSE. Section 4 concludes this paper.

2. PSE = Ellipsis

As far as we know, although PSE has been labeled as “ellipsis” in the literature, it has never been discussed whether it actually involves ellipsis. In this section, based on the previously established diagnostics for ellipsis, we will then investigate the nature of the PSE domain, arguing that PSE is in fact an instance of ellipsis, not silent proforms like empty pronouns (pro).

2.1. Linguistic antecedent

Since Hankamer and Sag (1976), it has been standardly assumed that there are two types of anaphora: surface anaphora (ellipsis) and deep anaphora (proform). For example, VP-ellipsis, e.g. (5a), and do it anaphora, e.g. (5b), are claimed to be an instance of surface and deep anaphora, respectively.

(5) a. John [VP kissed Mary], and Bill did [VP ∆], too. [VP-ellipsis: surface anaphora]
b. John [VP kissed Mary], and Bill [VP did it], too. [do it: deep anaphora]

Hankamer and Sag observe that surface anaphora exhibits a different behavior from deep anaphora in that only the former obligatorily requires an overt linguistic antecedent. Consider (6).

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1 PSE has much wider distribution than it has been observed in the previous literature. For example, PSE can take place even within nominal phrases, as the following examples demonstrate.

(i) A: Kimi-wa [DP [Possessor Chomsky]-no hon]-o yon-da no? you-TOP Chomsky-GEN book-ACC read-PST Q
   Lit. ‘Did you read [DP [Possessor Chomsky’s] book]?’
B: [DP [Possessor ∆]-no hon]-wa yon-de-nai yo. [Possessor ∆]-GEN book-TOP read-PERF-NEG SFP
   Lit. ‘[DP [DP ∆]-GEN book], I did not read.’ [Genitive Case Particle]

(ii) A: [BP [1st Conjunct Mary]-to dare]-ga ki-ta-n da-kke?
    Mary-& who-NOM come-PST-NML COP.NPST-SFP
    Lit. ‘[AP [1st Conjunct Mary]-& who] came?’
B: [BP [1st Conjunct ∆]-to John]-ga ki-ta-n da yo. [1st Conjunct ∆]-& John-NOM come-PST-NML COP.NPST SFP
    Lit. ‘[AP [1st Conjunct ∆]-& John] came.’ [Conjunction Marker]

(iii) A: [BP [1st Conjunct Mary]-ka Bill]-ga ki-ta-n da-kke?
    Mary-or Bill-NOM come-PST-NML COP.NPST-SFP
    Lit. ‘[BP [1st Conjunct Mary]-or Bill] came, right?’
B: [BP [1st Conjunct ∆]-ka Tom]-ga ki-ta-n da yo. [1st Conjunct ∆]-or Tom-NOM come-PST-NML COP.NPST SFP
    Lit. ‘[AP [1st Conjunct ∆]-or Tom] came.’ [Disjunction Marker]

In (i)-(iii), the genitive case particle -no, the conjunction marker -to ‘and’, and the disjunction marker -ka ‘or’ are stranded under PSE, respectively. See also Abe (2008) for an observation that complementizers such as to ‘that’ and kadooka ‘whether’ can be stranded in a similar way to the cases discussed above.
Under the pragmatic context in (6), the use of deep anaphora, e.g. *do it* anaphora, can be licensed as in (6b), while the use of surface anaphora, e.g. VP-ellipsis, cannot as in (6a), which leads to the conclusion that only deep anaphora can be pragmatically controlled.

What is important for us here is that PSE cannot be pragmatically controlled, unlike overt pronouns and *pro*: PSE requires an overt linguistic antecedent as surface anaphora does, as in (7).

2.2. Extraction

The second diagnostic to distinguish surface anaphora from deep anaphora that we adopt to investigate PSE comes from the possibility of extraction out of anaphora sites. It has been claimed that the difference between surface anaphora and deep anaphora involves the presence and absence of internal structure. Consider (8).

The grammaticality of (8a) shows that *wh*-movement is possible out of a VP-ellipsis site, and the ungrammaticality of (8b) shows that such movement is impossible out of a *do it* site. The contrast in (8a) and (8b) has been taken to support the claim that only surface anaphora involves internal structure, thus being able to accommodate an appropriate position for traces (see Depiante 2000, Johnson 2001, Merchant 2013, among many others). (9) confirms this claim.

Although only the surface scope interpretation is available in the *do it* case (9b), both the surface scope and the inverse scope interpretations can be obtained in the VP-ellipsis case (9a). The absence of the inverse scope reading in (9b) follows if the *do it* site is structurally ‘poor’ so that it cannot hold an appropriate place for the origin of QR; the presence of the inverse scope interpretation in (9a) can also be accounted for in light of the presence of internal structure in the VP-ellipsis domain in question.
In light of the above discussion, we then predict extraction to be possible out of a PSE domain. Kikuchi (1994) (see also Ogawa 2001 and Funakoshi 2017) provides a context where we can test the prediction in question. Specifically, Kikuchi claims that inalienable possessor constructions like (10a) can involve covert raising of a genitive possessor out of the object DP, as in (10b).²

(10) a. John-underscore [DP Mary-underscore no underscore tume]-o kit-underscore ta-
     John-NOM yesterday Mary-GEN nail-ACC cut-PST
     Lit. ‘John clipped [DP Mary’s nail] yesterday.’

b. John-underscore yesterday Mary-GEN [DP Mary-underscore GEN nail]-ACC cut-PST

Covert Possessor Raising

Kikuchi bases his argument on an observation regarding Floating Numeral Quantifiers (FNQs) (cf. Miyagawa 1989, Nakanishi 2008). Consider the following examples.

(11) a. Taroo-underscore wa kuruma-underscore o 2-underscore dai kowasi-underscore ta-
     Taro-TOP car-ACC 2-CL break-PST
     ‘Taro broke 2 cars.’

b. *Gakusei-tati-underscore ga [PP [DP kuruma]-underscore de]- underscore 2-underscore dai ki-underscore ta-
     student-PL-NOM car-in 2-CL come-PST
     ‘Students came in 2 cars.’ (Miyagawa 1989:31)

In (11a), the FNQ 2-underscore dai is associated with the DP kuruma ‘car’, and the sentence is grammatical. In (11b), the relevant FNQ is intended to be associated with the DP kuruma ‘car’, which is embedded within the PP, and the sentence is ungrammatical. The contrast in (11a) and (11b) is generally attributed to the condition on FNQs in (12).

(12) An FNQ or its trace must be c-commanded by a DP which it predicates of.
    (Kikuchi 1994:81 with a slight modification)

Under (12), the grammaticality of (11a) and the ungrammaticality of (11b) follow. Specifically, in (11a), the FNQ is c-commanded by its associate DP, while in (11b) the FNQ is not c-commanded by its associate DP embedded within the PP. Therefore, under the condition (12), the contrast in (11a) and (11b) concerns the issue of whether the FNQs are c-commanded by their associate DPs.

Building on the above observations, Kikuchi (1994) claims that possessors within inalienable possessum nominals and the ones within simple nominals behave differently regarding the licensing of FNQs. Consider the following data.

(13) a. *John-underscore ga [DP tomodati-underscore no kuruma]-underscore o 3-underscore nin norimawasi-underscore ta-
     John-NOM friend-GEN car-ACC 3-CL drive.around-PST
     ‘John drove his friend’s 3 cars around.’ [Simple Nominal]

² Whether overt extraction is possible out of a PSE domain is hard to check due to the fact that PSE is possible only in the ‘string-initial’ position (cf. Yoshida 2004, Shibata 2015; but see Nasu 2012). Consider (i).

(i) A: Mary-underscore wa [DP Bill]-underscore ni at-underscore ta-n da-underscore kke-
     Mary-TOP Bill-DAT meet-PST-NML COP.NPST-SFP
     ‘Did Mary meet [DP Bill]?’

B: pro [DP ∆]-underscore ni awa-nakat-underscore ta-n da-underscore yo.
     she [DP ∆]-DAT meet-NEG-PST-NML COP.NPST SFP
     Lit. ‘pro did not meet [DP ∆]-DAT.’

B’: *Kanozyo-underscore wa [DP ∆]-underscore ni awa-nakat-underscore ta-n da-underscore yo.
     she-TOP [DP ∆]-DAT meet-NEG-PST-NML COP.NPST SFP
     Lit. ‘She did not meet [DP ∆]-DAT.’

With (iA) as its antecedent, PSE is allowed in (iB), where the stranded dative particle -ni is located in the ‘string-initial’ position, while it is disallowed in (iB’), where the particle in question is phonologically preceded by the overt pronoun kanozyo ‘she’. It then follows that (left-ward) overt movement out of a PSE site would be independently excluded by whatever accounts for the contrast in (iB) and (iB’). We leave this matter for future research.
b. Hanako-wa [DP kodomo-tati-no tume]-o 3-nin kit-ta.
Hanako-TOP child-PL-GEN nail-ACC 3-CL cut-PST
‘Hanako clipped 3 children’s nails.’ [Inalienable Possessum Nominal]
(Kikuchi 1994:82)

In (13a), the genitive possessor within the simple nominal does not c-command the relevant FNQ, and
the sentence is ungrammatical, which falls under (12). What Kikuchi (1994) observes is that if the host noun of genitive phrases is an inalienable possessum noun, FNQs are licensed by genitive possessors, as (13b) demonstrates. Given the c-command condition on FNQs in (12), Kikuchi claims that genitive possessors within inalienable possessum nominals can undergo covert possessor raising out of inalienable possessum nominals. (13b) is then analyzed as in (14) under Kikuchi’s analysis.


Given the derivation in (14), the c-command condition in (12) can be satisfied covertly, i.e. the genitive possessor is covertly located in a position where it can c-command the relevant FNQ, so the grammaticality of (13b) can be captured.

Given that covert possessor raising can be involved in inalienable possessum constructions, the following sentences indicate that the relevant covert movement is possible out of a PSE site.

(15) A: Taroo-wa [DP nezumi-no me]-o 50-piki sirabe-ta-n da yo ne?
Taro-TOP mouse-GEN eye-ACC 50-CL examine-PST-NML COP.NPST SFP SFP
‘Did Taro examine 50 mice’s eyes?’
B: a. [DP ∆]-o 100-piki sirabe-ta-n da yo.
[DP ∆]-ACC 100-CL examine-PST-NML COP.NPST SFP
‘He examined 100 mice’s eyes.’
b. *[DP Sore]-o 100-piki sirabe-ta-n da yo.
it-ACC 100-CL examine-PST-NML COP.NPST SFP
Int. ‘He examined 100 mice’s eyes.’

In (15A), the DP nezumi ‘mouse’ is located inside of the inalienable possessum nominal, but it can license the FNQ 50-piki, which indicates that it is located outside of the relevant nominal covertly, after covert possessor raising. With (15A) as its antecedent, (15B-a), which involves covert possessor raising out of the PSE domain since the FNQ 100-piki is licensed, is grammatical. The grammaticality of (15B-a) thus constitutes evidence that covert possessor raising is possible out of a PSE site, which in turn indicates that PSE is an instance of ellipsis not pro since the latter is by definition an instance of deep anaphora, which uniformly excludes extraction out of its domain (note that covert possessor raising becomes impossible if the PSE site is replaced by an overt pronoun sore ‘it’ as in (15B-b), which demonstrates that covert possessor raising is in fact disallowed out of a deep anaphora site).

3. PSE = LF-copying

In this section, we argue for a particular ellipsis analysis of PSE. Specifically, we show that investigations into the interaction between PSE and the split QP phenomenon lead us to conclude that PSE is best analyzed by LF-copying, not PF-deletion.

In Japanese, the focus particle -mo is generally interpreted as ‘also’ as in (16a). However, when it is associated with wh-phrases, the universal quantificational force is obtained as in (16b).

John-NOM write-PST book-MO interesting-NPST
‘[The book [that John wrote]] is also interesting.’
b. [[Dare-ga kai-ta] hon]-mo omosiro-i.
   who-NOM write-PST book-MO_v interesting-NPST
   ‘[The book [that everybody wrote]] is interesting.’ (cf. Nishigauchi 1990)

In (16b), the focus particle -mo is associated with the wh-phrase dare ‘who’ and yields the universal quantificational force (call this type of configuration the split QP phenomenon). What has gone unnoticed in the previous literature is that the focus particle -mo which is associated with a wh-phrase cannot be stranded under PSE as in (17B’), unlike the particle in question not associated with a wh-phrase as already noted in (4).

(17) A: [DP [Dare-ga kai-ta] hon]-mo omosiro-i no?
   who-NOM write-PST book-MO_v interesting-NPST Q
   ‘Is [DP the book [that everybody wrote]] interesting?’
B: [DP [Dare-ga kai-ta] hon]-mo omosiro-i yo.
   who-NOM write-PST book-MO_v interesting-NPST SFP
   ‘[DP The book [that everybody wrote]] is interesting.’
B’: *[DP ∆]-mo omosiro-i yo.
   [DP ∆]-MO_v interesting-NPST SFP
   Lit. ‘[DP ∆]-MO_v is interesting.’

We claim that the contrast in (4B) and (17B’) regarding the strandability of the focus particle -mo under PSE would not be expected under the PF-deletion analysis. Specifically, if PSE involves PF-deletion, (17B’) is derived as illustrated in (18).

b. PF: [DP [who-NOM write-PST] book]-MO_v interesting-NPST SFP

Under the PF-deletion analysis, the PSE domain involves internal structure in both overt syntax and LF, but its phonological features get deleted in PF so that the domain in question is phonologically null. We would then wrongly predict (4B) and (17B’) to have the same grammatical status on the basis of the assumption that PF does not matter for the relation between the focus particle -mo and its associates, i.e. wh-phrases.3

Let us now turn to the LF-copy analysis, which analyzes (17B’) as illustrated in (19).

(19) a. Overt Syntax: [DP ∆]-MO_v interesting-NPST SFP
b. PF: [DP ∆]-MO_v interesting-NPST SFP

Under the LF-copy analysis, an ellipsis domain does not involve internal structure in overt syntax and PF, but it does in LF via LF-copying of its antecedent. We claim that the LF-copy-based derivation in (19) provides us with a principled explanation of the ungrammaticality of (17B’) in concert with Takahashi’s (2002) analysis of the particle MO_v (the particle -mo associated with a wh-phrase).

Takahashi claims that the particle MO_v is base-generated with its associate wh-phrase, undergoing overt movement to its landing site. For example, under Takahashi’s analysis, (16b), repeated here as (20a), is derived as illustrated in (20b).

(20) a. [[Dare-ga kai-ta] hon]-mo omosiro-i.
   who-NOM write-PST book-MO_v interesting-NPST
   ‘[The book [that everybody wrote]] is interesting.’

3 One might wonder if (17B’) would be independently excluded on the basis of the fact that one of the ‘amalgam’, i.e. the wh-phrase dare ‘who’, is elided with its associate particle -mo being phonologically unaffected. However, the grammaticality of (4B) indicates that such a phonological reduction is possible: in (4B), the particle -mo phonologically survives with its associate DP being elided. Therefore, the contrast in (4B) and (17B’) still calls for an explanation.
b. (i) Overt Syntax (i): $[[who-MO_{\gamma}\text{-NOM write-PST}] \text{book}] \text{interesting-NPST}$
(ii) Overt Syntax (ii): $[[who-t1\text{-NOM write-PST}] \text{book}] \text{-MO}_{\gamma} \text{interesting-NPST}$

In (20b-i), the particle $MO_{\gamma}$ is base-generated with the $wh$-phrase $dare$ ‘who’. In (20b-ii), the relevant particle undergoes overt movement, being ‘attached’ to the head noun $hon$ ‘book’.

Given Takahashi’s analysis of the particle in question, we can capture the ungrammaticality of (17B’) under the LF-copy analysis of PSE (cf. (19)). Specifically, as mentioned above, the LF-copy analysis provides an ellipsis domain with internal structure only in LF, so that it would be expected that nothing can be extracted out of the relevant domain in overt syntax due to the absence of internal structure: if extraction is possible, there must be something to be extracted (cf. Sakamoto to appear). If the current perspective is on the right track, it follows that (17B’) is ungrammatical because the relevant PSE site does not involve any internal structure in overt syntax, so the particle $MO_{\gamma}$ cannot be extracted out of it as in (21).4

(21) Overt Syntax: $[\text{DP } \Delta]\text{-MO}_{\gamma} \text{interesting-NPST SFP}$ [cf. (19a)]

The LF-copy analysis of PSE allows us to capture not only the ungrammaticality of (17B’) but also the possibility of covert possessor raising out of a PSE site as noted in (15), the relevant parts of which are repeated here as (22).

(22) A: Taroo-wa [DP $nezumi$-$no$ me]-o 50-piki sirabe-ta-n da yo ne?
   ‘Did Taro examine 50 mice’s eyes?’
   B: [DP $\Delta$]-o 100-piki sirabe-ta-n da yo.
   ‘He examined 100 mice’s eyes.’ [cf. (15)]

What was crucial is that, in (22B), the genitive possessor $nezumi$ ‘mouse’ within the PSE site has undergone covert possessor raising out of it, licensing the FNQ 100-piki. Under the LF-copy analysis of PSE, (22B) can be derived as in (23).

(23) a. Overt Syntax: $[\text{DP } \Delta]\text{-ACC 100-CL examine-PST-NML COP.NPST SFP}$
   b. LF ①: $[\text{DP mouse-GEN eye}-\text{ACC 100-CL examine-PST-NML COP.NPST SFP}$
      LF-copying
   c. LF ②: $\text{mouse-GEN }[\text{DP mouse-GEN eye}-\text{ACC 100-CL examine-PST-NML COP.NPST SFP}$
      Covert Possessor Raising ① c-command

In overt syntax, the PSE domain is empty (cf. (23a)). In LF, the domain in question first becomes fully-structured via LF-copying of its antecedent DP (cf. (23b)). Then, the genitive possessor within the copied domain is covertly raised out of it, c-commanding/licensing the relevant FNQ (cf. (23c)). Therefore, if we assume that PSE involves LF-copying, we can obtain a principled account for the possibility of covert possessor raising out of a PSE domain as well as the non-strandability of the particle $MO_{\gamma}$ under PSE.

4. Conclusion

In this paper, we first tackled the question of whether PSE is an instance of ellipsis or proforms, showing that it is an instance of the former on the basis of the observations that PSE requires an overt linguistic antecedent and that covert possessor extraction is possible out of a PSE site. Then, we provided

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4 See Takahashi (2002) for arguments against the non-movement analysis of the particle $MO_{\gamma}$. 
the hitherto unnoticed data on the interaction between PSE and the split QP phenomenon, taking them to indicate that PSE is best analyzed in terms of LF-copying, not PF-deletion.

References


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