### Particle-Stranding Ellipsis in Japanese, Phase Theory and the Privilege of the Root

#### 1. Introduction

This squib analyzes a new type of ellipsis in Japanese, which I dub Particle-Stranding Ellipsis/PSE. This elliptic pattern, first documented by Hattori (1949, 1960), has been occasionally discussed in subsequent work (Arita 2009; Hayashi 2001; Sato 2008; Sato and Ginsburg 2006, 2007; Vance 1993; Yoshida 2004), but has not received due attention in the generative literature. PSE has emerged recently in Japanese grammar as a truncated reply pattern in colloquial dialogues under informal contexts, as shown in (1).

(1) Speaker A: Tanaka-kun wa?

Tanaka-TIT TOP

'How about Tanaka?'

Speaker B: Wa ne, kaisha-o yameta yo.

TOP TAG company-ACC quit EXCL

'Oh, (he) quit (his) company!'

(Hattori (1960, p. 452), as cited in Vance (1993, p. 20))

In this dialogue, as a response to Speaker A's question, which introduces *Tanaka-kun* 'Tanaka' as the topic of discourse, Speaker B starts his/her reply with the non-contrastive topic-marker –*wa* without the accompanying NP. In PSE, the topic marker is typically followed by an intonational boundary, which is realized as comma intonation (Selkirk 1984).

Rizzi (2005a) proposes within Phase Theory that the edge of the root clause may remain unpronounced while still being accessible to discourse interpretation and applies this approach ("the Privilege of the Root"/PoR) to topic drop in German (Ross 1982). Importantly, topic drop in German patterns with PSE. Accordingly, I propose to analyze PSE as another instance of the PoR phenomenon. PSE arises when a phase head may optionally be Spelled-Out at the end of the phase it defines, along with its complement domain for phonetic interpretation at PF, while the entire syntactic structure is transferred to LF for semantic interpretation. This result supports the recent theory of non-simultaneous phases (Marušič 2005) whereby the structure built at a phase can be transferred only to PF while being still accessible to syntactic derivation and semantic interpretation.

## 2. Particle-Stranding Ellipsis in Japanese

Yoshida (2004) observes that PSE has three distributional properties. Firstly, it can apply only to a sentence-initial topic element, as the comparison between (2a) and (2b, c) shows.

#### Speaker B:

a. Ø-wa, Mary-ni daigaku-de a-tteiru ne.
 TOP Mary-DAT university-LOC meet-TEIRU TAG
 'Intended: Ø (=John) is meeting Mary at a university.'

- b. \* Mary-ni Ø-wa, daigaku-de a-tteiru ne.
   Mary-DAT TOP university-LOC meet-TEIRU TAG
   'Intended: Ø (=John) is meeting Mary at a university.'
- c. \* Mary-ni daigaku-de ∅-wa, a-tteiru ne.

  Mary-DAT university-LOC TOP meet-TEIRU TAG

  'Intended: ∅ (=John) is meeting Mary at a university.'

Secondly, PSE is a root phenomenon, as shown in (3a). Note that (3a) becomes grammatical with *Taroo-wa* in the embedded CP, as in (3b). This contrast shows that (3a) is bad not because there is an embedded topic but because the embedded topic is null.

(3) Speaker A: John-wa sono-toki Taroo-o dare-ga korosita-to omotta no?

John-TOP that-time Taro-ACC who-NOM killed-COMP thought Q

'Who did John think at that time that killed Taro?'

#### Speaker B:

- a. \* John-wa sono-toki [ $_{\text{CP}} \varnothing$ -wa, Mary-ga korosita-to] omotta yo. John-TOP that-time TOP Mary-NOM killed-COMP thought TAG 'Intended: John thought at that time that  $\varnothing$  (=John), Mary killed.'
- b. John-wa sono-toki [CP Taroo-wa, Mary-ga korosita-to] omotta yo.

  John-TOP that-time Taro-TOP Mary-NOM killed-COMP thought TAG

  'Intended: John thought at that time that John, Mary killed.'

((3b) adopted from Yoshida (2004, p. 297) with modifications)

Finally, PSE can occur only once in a clause, as shown by the contrast between (4a) and (4b).

(4) Speaker A: Suzuki-sensei-wa Takahasi-kun-o doko-ni suisensuru-tumori-na-no?

Suzuki-TTT-TOP Takahasi-TTT-ACC where-DAT recommend-intend-COP-Q

'Where does Prof. Suzuki intend to recommend Takahasi?'

## Speaker B:

a. \* Ø-wa-ne, Ø-wa MIT-ni suisensuru-tumori-mitai-da-ne.
 TOP-TAG TOP MIT-to recommend-intend- seem-COP-TAG
 'Intended: It seems that Prof. Suzuki intends to recommend Takahashi to MIT.'
 b. ? Ø-wa-ne, Takahashi-kun-wa MIT-ni suisensuru-tumori-mitai-da-ne.
 TOP-TAG Takahashi-TTT-TOP MIT-to recommend-intend-seem-COP-TAG
 'Intended: It seems that Prof. Suzuki intends to recommend Takahashi to MIT.'

PSE is different from Argument Ellipsis/AS in Japanese, which has been a matter of considerable research in recent generative studies (Kim 1999; Oku 1998; Saito 2004, 2007; Takahashi 2006, 2008). AE exhibits none of the properties that we saw thus far to hold for PSE. First, AE can target a non-sentence initial element, as shown in (5b, c).

(5) Speaker A: John-wa kyoo nani-o si-teiru no?

John-TOP today what-ACC do-TEIRU Q

'What is John doing today?'

## Speaker B:

Ø daigaku-de a. Mary-ni a-tteiru ne. Mary-DAT university-LOC meet-TEIRU **TAG** 'Intended: Ø (=John) is meeting Mary at a university.' Ø daigaku-de b. Mary-ni a-tteiru ne. Mary-DAT university-LOC meet-TEIRU **TAG** 'Intended: Ø (=John) is meeting Mary at a university.' Mary-ni daigaku-de Ø a-tteiru c. ne. Mary-DAT university-LOC meet-TEIRU TAG

Notice that the surface order in (5b, c) does not conclusively tell whether the ellipsis indeed occurs in the positions indicated by  $\emptyset$  because Japanese is a free word order language. Unless evidence to the contrary is presented, I assume that the ellipsis of an NP occurs in the surface position it would occupy when it were pronounced. The variants of (5b, c) with an overt pronoun in the gap positions are grammatical, as shown in (6b, c).

'Intended: Ø (=John) is meeting Mary at a university.'

(6) Speaker A: John-wa kyoo nani-o si-teiru no?

John-TOP today what-ACC do-TEIRU Q

'What is John doing today?'

# Speaker B:

- a. Kare-wa Mary-ni daigaku-de a-tteiru ne.
   he-TOP Mary-DAT university-LOC meet-TEIRU TAG
   'He is meeting Mary at a university.'
- Mary-ni kare-wa daigaku-de a-tteiru ne.
   Mary-DAT he-TOP university-LOC meet-TEIRU TAG
   'He is meeting Mary at a university.'
- c. Mary-ni daigaku-de kare-wa a-tteiru ne.

  Mary-DAT university-LOC he-TOP meet-TEIRU TAG

  'He is meeting Mary at a university.'

Second, AE is not a root phenomenon. It can occur in an embedded clause, as in (7).

- (7) Speaker A: John-wa sono-toki Taroo-o dare-ga korosita-to omotta no?

  John-TOP that-time Taro-ACC who-NOM killed-COMP thought Q

  'Who did John think at that time that killed Taro?'
  - Speaker B: John-wa sono-toki [ $_{\text{CP}}\varnothing$  Mary-ga korosita-to] omotta yo.

    John-Top that-time Mary-Nom killed-Comp thought TAG

    'Intended: John thought at that time that Mary killed  $\varnothing$  (=Taro).'

Finally, AE can occur more than once in a single clause, as illustrated in (8).

(8) Speaker A: Suzuki-sensei-wa Takahasi-kun-o doko-ni suisensuru-tumori-na-no?

Suzuki-TTT-TOP Takahasi-TTT-ACC where-DAT recommend-intend-COP-Q

'Where does Prof. Suzuki intend to recommend Takahasi?'

Speaker B: Ø, Ø MIT-ni suisensuru-tumori-mitai-da-ne.

MIT-to recommend-intend- seem-COP-TAG

'Intended: It seems that Prof. Suzuki intends to recommend Takahashi to MIT.'

The afore-mentioned works have argued that null argument constructions in Japanese are best analyzed as involving ellipsis (e.g., LF copy) rather than *pro*'s. The distributional differences between PSE and AE suggest that the former needs a different explanation.

## 3. German Topic Drop, Phase Theory and the Privilege of the Root

I propose to analyze PSE as an instance of the PoR phenomenon. Rizzi (2005a) proposes that Phase Theory allows for an intriguing account of the optional non-pronunciation of linguistic material at the edge of the root and applies this proposal to German topic drop. Within the standard version of Phase Theory (Chomsky 2000, 2001, 2004; Nissenbaum 2000), Spell-Out applies to the complement of a phase head. Rizzi argues that the PoR phenomenon obtains when elements in the specifier of the topmost phase head escapes Spell-Out to PF. Let us see how the PoR theory applies to German topic drop, illustrated in (9b, c).

(9) Ich hab' a. ihn schon gesehen. I have him already seen 'I saw him already.' b. Ø Hab' ihn schon gesehen. have him already seen  $'\emptyset$  (=I) saw him already.' Ø hab' ich schon gesehen. c. I have already seen 'I saw Ø(=him) already.' (Huang (1984, p. 546))

In (9b, c), a topic undergoes overt movement into [Spec, ToP] in the left periphery. "Topic drop" arises when the phase head Top Spells-Out its complement, leaving the topic inaccessible for pronunciation. Crucially, as first pointed out by Yoshida (2004), German topic drop exhibits the same distributional patterns with PSE. First, it can only occur in the sentence-initial position. Examples (10a, b) illustrate.

Second, as observed by Cardinalletti (1990) and Rizzi (1994, 2005b), German topic drop is a root phenomenon. A null topic cannot occur in an embedded clause even when it occupies the clause-initial topic position. This point is illustrated in (11a, b).

'Hans believes that I bought  $\varnothing$  (=it) yesterday.'

((11a) from Rizzi (2005b, p. 14); (11b) from Yoshida (2004, p. 296))

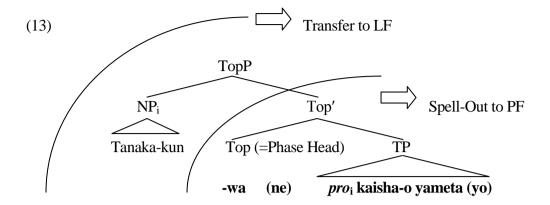
Finally, German topic drop can occur only once in the root clause, as shown in (12).

(12) \* 
$$\varnothing$$
 hab'  $\varnothing$  schon gekannt.

have already known

' $\varnothing$  (=I) already knew  $\varnothing$  (=him).' (Huang (1984, p. 548))

I propose within a minimum modification of the standard Phase Theory that PSE obtains when the phase head Top headed by the non-contrastive topic-marker –*wa* may optionally be sent to Spell-Out at the end of the phase it defines, together with its complement TP.<sup>2</sup> The proposed analysis is schematically illustrated in (13).



In (13), the non-contrastive topic -wa occupies the Top phase head (see Kayne 1994 and Whitman 1997 for arguments for the clause-particle analysis of -wa). The size of the syntactic structure sent to the two interfaces is different in this derivation. The topic head and its complement are Spelled-Out to PF for phonetic realization whereas the entire structure including the specifier of Top is transferred to LF for semantic interpretation.

Our analysis provides a straightforward account for the three properties of PSE. First, PSE can only occur in the sentence-initial position because there is a dedicated functional projection TopP for the non-contrastive topic element. Second, PSE is a root phenomenon because TopP occurs at the leftmost periphery of the syntactic derivation. Finally, it applies only once because there is only one topic position to host the topic. Our analysis also correctly predicts that no element should be able to intervene between the sentence-initial topic NP and the topic-marker, as shown by the ill-formedness of (14).

<sup>&#</sup>x27;Intended: Tanaka quit his company yesterday!'

Interestingly, PSE is not restricted to an NP. The complement NP of a PP may also be elided under PSE, as shown in (15) (see also Sato and Ginsburg 2007, 2008).<sup>3</sup>

(15) Speaker A: Aomori Tokyo-kara-wa tooi-no?

Aomori Tokyo-from-TOP far-Q

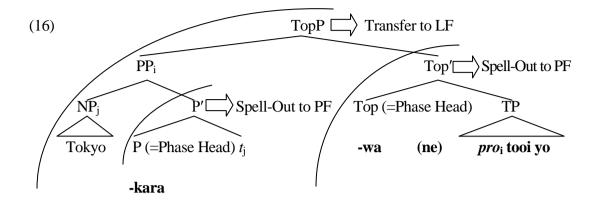
'Is Aomori far from Tokyo?'

Speaker B: Ø-kara-wa ne, tooi yo.

from-TOP TAG far EXCL

'It is far from Tokyo!'

Following Abels (2003), van Riemsdijk (1978) and Drummond et al. (2010), let us suppose that PPs are strong phases. Since strong phases are associated with the EPP-feature, the NP complement of the P is moved to [Spec, P]. (The story remains unaffected if PPs take the split p-P configuration and the NP complement moves to the specifier of p.) Then, the surface string  $\emptyset$ -kara-wa obtains when Spell-Out applies to the head of the PP (i.e., kara 'from') in [Spec, TopP] as well as to the Top head + its TP complement in the main derivational cascade. The relevant derivation is shown in (16).



Note that this analysis is possible only if we assume that different layers of the syntactic structure are accessible to LF and PF. Accordingly, this analysis provides support for a recent theory of non-simultaneous phasal transfers, as argued for in Marušič (2005).

#### 4. Conclusions

This squib has argued that PSE in Japanese is an instance of the PoR phenomenon. The stranding of the topic-marker –*wa* arises when the phase head Top and its complement are Spelled-Out to PF while the entire syntactic structure including the topic element is transferred to LF. This result supports the theory of non-simultaneous transfer whereby the two interface components target different parts of the derivational structure at a phase level.

#### References

- Arita, Setsuko. 2009. 'Hadaka no wa' nituite no oboegaki (Notes on 'bare wa'). Reports of the Osaka Shoin Women's University Japanese Language Research Center 16, 95-106.
- Abels, Klaus. 2003. Successive cyclicity, anti-locality and adposition stranding.

  Doctoral dissertation, University of Connecticut, Storrs.
- Cardinallletti, Anna. 1990. Subject/object asymmetries in German null topic constructions and the status of SpecCP. In *Grammar in progress*, ed. by Joan Mascaro and Marina Nespor, 75-84. Dordrecht: Foris.
- Chomsky, Noam. 2000. Minimalist inquiries: The framework. In *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, ed. by Roger Martin, David Michaels and Juan Uriagereka, 89-155. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2001. Derivation by phase. In *Ken Hale: A life in language*, ed. by Michael Kenstowicz, 1-52. Cambridge, MA: MIT Press.
- Chomsky, Noam. 2004. Beyond explanatory adequacy. *Structures and beyond: The cartography of syntactic structures, vol. 3*, ed. by Adriana Belletti, 104-131. Oxford: Oxford University Press.
- Drummond, Alex, Norbert Hornstein and Howard Lasnik. 2010. A puzzle about P-stranding and a possible solution. Linguistic Inquiry 41: 689-692.
- Hattori, Shiro. 1949. Gutaiteki Gengo tan'i to chuusyooteki gengo tan'i (Concrete linguistic units and abstract linguistic units). *Kotoba* 2: 16-27.
- Hattori, Shiro. 1960. Gengogaku to hoohoo (Linguistics and methodology). Tokyo: Iwanami.

- Hayashi, Makoto. 2001. Postposition-initiated utterances in Japanese conversation. In *Studies in interactional linguistics*, ed. by Margaret Selting and Elizabeth Couper-Kuhlen, 317-343. Amsterdam/Philadelphia: John Benjamins.
- Huang, C.-T. James. 1984. On the distribution and reference of empty pronouns. Linguistic Inquiry 15: 531-574.
- Kayne, Richard. 1994. The antisymmetry of syntax. Cambridge, MA: MIT Press.
- Kim, Soowon. 1999. Sloppy/strict identity, empty object and NP ellipsis. *Journal of East Asian Linguistics* 8: 225-284.
- Marušič, Franc. 2005. *On non-simultaneous phases*. Doctoral dissertation, State University of New York at Stony Brook.
- Nissenbaum, Jon. 2000. Investigations of covert phrasal movement. Doctoral dissertation, MIT.
- Oku, Satoshi. 1998. *A theory of selection and reconstruction in the minimalist perspective*. Doctoral dissertation, University of Connecticut, Storrs.
- Van Riemsdijk, Henk. 1978. A case study in syntactic markedness: The binding nature of prepositional phrases. Dordrecht: Foris.
- Rizzi, Luigi. 1994. Early null subjects and root null subjects. In *Syntactic theory and first language acquisition: Cross-linguistic perspectives*, ed. by Barbara Lust, Gabriella Hermon and Jaklin Kornfilt, 249-272. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Rizzi, Luigi. 2005a. Phase theory and the privilege of the root. In *Organizing grammar:*Linguistic studies in honor of Henk van Riemsdijk ed. by Hans Broekhuis, Norbert

  Cover, Riny Huybregts, Ursula Kleinhenz and Jan Koster, 529-537. Berlin:

  Mouton de Gruyter.

- Rizzi, Luigi. 2005b. On the grammatical basis of language development: A case study. In *Oxford handbook of comparative syntax*, ed. by Guglielmo Cinque and Richard Kayne, 70-109. New York: Oxford University Press.
- Ross, John R. 1982. Pronoun deleting processes in German. Paper presented at the Annual Meeting of the Linguistic Society of America. San Diego, California.
- Saito, Mamoru. 2004. Ellipsis and pronominal reference in Japanese clefts. *Nanzan Linguistics* 1: 21-50.
- Saito, Mamoru. 2007. Notes on East Asian argument ellipsis. Language Research 43: 203-227.
- Sato, Yosuke. 2008. Case-stranding nominal ellipsis in Japanese: A preliminary sketch. Snippets 17: 9-10.
- Sato, Yosuke and Jason Ginsburg. 2006. A new type of nominal ellipsis in Japanese: Further evidence for the LF copy analysis. In *Proceedings of the 8th Seoul international conference on generative grammar: Minimalist views on language design*, ed. by Changguk Yim, 293-300. Seoul: The Korean Generative Grammar Circle.
- Sato, Yosuke and Jason Ginsburg. 2007. A new type of nominal ellipsis in Japanese. In *Formal approaches to Japanese linguistics: Proceedings of FAJL 4*, ed. by Yoichi Miyamoto and Masao Ochi, 197-204. Department of Linguistics and Philosophy: MITWPL
- Selkirk, Elisabeth. 1984. *Phonology and syntax: The relation between sound and structure*. Cambridge, MA: MIT Press.
- Takahashi, Daiko. 2006. Apparent parasitic gaps and null arguments in Japanese. *Journal* of East Asian Linguistics 15: 1-35.

- Takahashi, Daiko. 2008. Noun phrase ellipsis. In *The Oxford handbook of Japanese linguistics*, ed. by Shigeru Miyagawa and Mamoru Saito, 394-423. New York: Oxford University Press.
- Vance, Timothy. 1993. Are Japanese particles clitics? *Journal of the Association of Teachers of Japanese* 27: 3-33.
- Whitman, John. 1997. Kayne: p. 143, fn. 3. In *The minimalist parameter*, ed. by Galina Alexandrova and Olga Artunova, 77-100. Amsterdam/Philadelphia: John Benjamins.
- Yoshida, Tomoyuki. 2004. Syudai no syooryaku gensho: Hikaku toogoron teki koosatu (The phenomenon of topic ellipsis: a comparative syntactic consideration). *Nihongo kyooikugaku no siten* (Perspectives on Japanese language pedagogy), ed. by The Editorial Committee of Annals, 291-305. Tokyo: Tokyodo Publishers.

<sup>1</sup> The following abbreviations are used in this paper: ACC, accusative; COMP, complementizer; COP, copula; DAT, dative; EXCL, exclamation; LOC, locative; NOM,

nominative; Q, question; TAG, tag; TIT, title; TOP, topic.

<sup>&</sup>lt;sup>2</sup> I thank an anonymous reviewer for suggesting this analysis.

<sup>&</sup>lt;sup>3</sup> I thank an anonymous reviewer for pointing out this observation.