

# Syntactic and Prosodic Topicalization in Japanese

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## 1 Introduction

Saito (1984) and Hoji (1985) convincingly argue that unlike NP topicalization, PP topicalization in Japanese (1) must involve *syntactic* movement:

- (1) [<sub>PP</sub> **Mary-ni**]-wa John-ga [Bill-ga gakkoo-de *e* atta to]  
      **Mary-to-Top** John-Nom Bill-Nom school-at met C  
      omoikondeiru  
      think  
      Lit. ‘Mary, John thinks that Bill met *e* at school.’

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In (1), the PP *Mary-ni* ‘Mary-Dat’, which is base-generated in the object position of *atta* ‘met’, undergoes topicalization to the sentence initial position. This paper deals with multiple PP topicalization, which until now has received little attention (cf. Takeda 1999). In multiple PP topicalization (2), the two PPs *gakkoo-de* ‘school-at’ and *Mary-ni* ‘Mary-to’ are topicalized, being marked by the topic marker *wa*. We propose that multiple PP topicalization should be derived not by *syntactic* movement but by movement in phonology of a phonological constituent, what we call *prosodic topicalization*:

- (2) ((**Gakkoo-de**) (**Mary-ni**))-**wa** John-ga [Bill-ga *e e* *atta* to]  
       **school-at** **Mary-to-Top** John-Nom Bill-Nom met C  
       omoikondeiru  
       think  
       Lit. ‘At school, Mary, John thinks that Bill met *e e*.’

The organization of this paper is as follows. Section 2 presents evidence against a syntactic movement analysis of multiple PP topicalization. It is shown that our analysis is supported by the fact that multiple PP topicalization neither obeys syntactic constraints nor has LF effects. Section 3 proposes multiple PP topicalization should be derived by movement in phonology via *prosodic topicalization*, which accounts for the immunity of multiple PP topicalization from syntactic constraints and LF effects. Section 4 makes some concluding remarks.

## 2 Against a Syntactic Movement Analysis of Multiple PP Topicalization

This section presents evidence to show that multiple PP topicalization is not derived by *syntactic* movement, being blind to syntactic constraints and lacking LF effects.

### 2.1 Island Constraints

First, single PP topicalization obeys syntactic island constraints like the Complex NP constraint and the Adjunct Condition as shown in (3a, 4a) (see, among others, Saito 1984; Hoji 1985). Multiple PP topicalization, on the other hand, does not exhibit any syntactic island constraints as shown in (3b, 4b):

- (3) a. \*?Mary-ni-wa John-ga [gakkoo-de *e* atta] hito-o sitteiru  
**Mary-to-Top** John-Nom school-at met person-Acc know  
 Lit. ‘Mary, John knows the person who met *e* at school.’  
 b. [**Gakkoo-de Mary-ni**]-wa John-ga [*e e* atta] hito-o sitteiri  
**school-at Mary-to-Top** John-Nom met person-Acc know  
 Lit. ‘At school, Mary, John knows the person who met *e e*.’
- (4) a. \*?Suzy-ni-wa Mary-ga [John-ga gakkoo-de *e* atta kara]  
**Suzy-to-Top** Mary-Nom John-Nom school-at met because  
 okotteiru  
 be.angry  
 Lit. ‘Suzy, Mary is angry because John met *e* at school.’  
 b. [**Gakkoo-de Mary-ni**]-wa Suzy-ga [John-ga *e e* atta kara]  
**school-at Mary-to-Top** Suzy-Nom John-Nom met because  
 okotteiru  
 be.angry  
 Lit. ‘At school, Mary, Suzy is angry because John met *e e*.’

In (3b), *gakkoo-de* ‘at school’ and *Mary-ni* ‘to Mary’ undergo multiple PP topicalization out of the complex NP. In (4b), they undergo multiple PP topicalization out of the adjunct. Both (3b) and (4b) are acceptable. If multiple PP topicalization were syntactic, (3b) and (4b) should be worse than (3a) and (4a), where only one constituent undergoes PP topicalization out of an opaque domain. The result, however, is the opposite of what any syntactic analysis of multiple right dislocation predicts. This immunity to island constraints indicates multiple PP topicalization does not undergo *syntactic* movement.

## 2.2 Idiom Chunks

Second, when part of an idiom chunk undergoes single PP topicalization, it loses its idiomatic meaning as shown in (5a). In (5a), the idiomatic meaning of *te-ni hairu* ‘get’ is lost. Under multiple PP topicalization, however, the idiomatic reading is maintained as shown in (5b):

- (5) a. \*?Te-ni-wa John-ga [zyoohoo- kantanni  
**hand-to-Top** John-Nom information-Nom easily  
 netto-kara *e* hairu to] itta  
 network-from come.in C said

- b. [Netto-kara te-ni]-wa John-ga [zyoohoo-ga  
network-from hand-to-Top John-Nom information-Nom  
kantanni *e e* hairu to] itta  
easily come.in C said  
'John said that we can get information from the network  
easily.'

This contrast indicates that unlike single PP topicalization, multiple PP topicalization lacks LF effects. Multiply topicalized PPs are interpreted *in-situ* at LF; the idiom chunk remains intact for the purposes of LF interpretation.

### 2.3 Reconstruction Effects with Condition C

The third piece of evidence against a syntactic movement analysis of multiple PP topicalization comes from an argument/adjunct asymmetry involving reconstruction effects with Binding Condition C. As pointed out by, among others, van Riemsdijk and Williams (1981), Lebeaux (1988), Chomsky (1995), and Ishii (1997), there is an argument/adjunct asymmetry regarding reconstruction effects with Binding Condition C in English *wh*-movement as exemplified by (6):

- (6) a. \*?[Which pictures of **John**<sub>1</sub>] do you think that **he**<sub>1</sub> likes *t* best?  
b. [Which pictures near **John**<sub>1</sub>] do you think that **he**<sub>1</sub> likes *t*  
best?

While *John* and the pronoun *he* can be coreferential in (6b), they cannot be coreferential in (6a). The difference between (6a) and (6b) resides in the fact that while *John* is the complement of the noun in (6a), it is within the adjunct modifying the noun in (6b). Although there are various approaches to this argument/adjunct asymmetry with reconstruction effects, we assume the late Merge approach to adjuncts advocated by, among others, Lebeaux (1988) and Ishii (1997) for expository purposes. Under the late Merge approach to adjuncts, *John* in (6a), which is the argument of *pictures*, is merged when *pictures* is introduced. The copy of *John* is visible in the base position of the *wh*-phrase, which results in a Condition C violation. In (6b), on the other hand, *John* is within the adjunct modifying *pictures*. *John* may be late-merged after *wh*-movement has taken place. Due to late Merge of *John*, there is no Condition C violation.

Such an argument/adjunct asymmetry with reconstruction effects also appears with single PP topicalization as shown in (7). While *John* and *kare* 'he' can be coreferential in (7b), they cannot be in (7a). The R-expression *John* is

an argument of the noun *hihan* ‘criticism’ in (7a), whereas it is within the adjunct modifying *hihan* ‘criticism’ in (7b).

- (7) a.\*[**Minna-kara-no John<sub>1</sub>-no hihan**]-ni-wa **kare<sub>1</sub>-ga everyone-from-Gen John-Gen criticism-to-Top he-Nom**  
 [Suzy-ga *e* kaigi-de hantai sitekureta to] omoikondeiru  
 Suzy-Nom meeting-at objected C think  
 Lit. ‘Everyone’s criticism of **John<sub>1</sub>**, **he<sub>1</sub>** thinks that Suzy objected to *e* at the meeting.’
- b. [[**John<sub>1</sub>-ni abiserareta**] **hihan**]-ni-wa **kare<sub>1</sub>-ga** [Suzy-ga *e*  
**John-to faced.with criticism-to-Top he-Nom** Suzy-ga  
 kaigi-de hantai sitekureta to] omoikondeiru  
 meeting-at objected C think  
 Lit. ‘The criticism that **John<sub>1</sub>** was faced with, **he<sub>1</sub>** thinks that Suzy objected to *e* at the meeting.’

The contrast in (7) can be accounted for under the late Merge approach to adjuncts. In (7a), [*minna-kara-no John-no hihan*]-ni ‘to everyone’s criticism of John’ undergoes single PP topicalization. Since *John* is the argument of *hihan* ‘criticism’, it is merged when *hihan* ‘criticism’ first appears. The copy of *John* is visible in the base position, which results in a Condition C violation. In (7b), on the other hand, [*John-ni abiserareta hihan*]-ni ‘to the criticism that John was faced with’ undergoes single PP topicalization. Since *John* is within the adjunct modifying *hihan* ‘criticism’, it may be late-merged after PP topicalization has taken place; there is no Condition C violation.

Such an asymmetry, however, disappears with multiple PP topicalization as shown in (8):

- (8) a.\*?[[**Minna-kara-no John<sub>1</sub>-no hihan**]-ni **kaigi-de**]-wa  
**kare<sub>1</sub>-ga** [Suzy-ga *e e* hantai sitekureta to] omoikondeiru  
**he-Nom** Suzy-Nom objected C think  
 Lit. ‘Everyone’s criticism of **John<sub>1</sub>**, at the meeting, **he<sub>1</sub>** thinks that Suzy objected to *e e*.’
- b.\*?[[**John<sub>1</sub>-ni abiserareta hihan**]-ni **kaigi-de**]-wa **kare<sub>1</sub>-ga**  
**John-Dat** **faced.with criticism-to meeting-at-Top he-Nom**  
 [Suzy-ga *e e* hantai sitekurata to] omoikondeiru  
 Suzy-Nom objected. C think  
 Lit. ‘The criticism that **John<sub>1</sub>** was faced with, at the meeting, **he<sub>1</sub>** thinks that Suzy objected to *e e*.’

In (8b), *John-ni abiserareta hihan-ni* ‘to the criticism that John was faced with’ undergoes multiple PP topicalization with *kaigi-de* ‘at the meeting’. Although *John* is within the adjunct, *John* and *kare* ‘he’ cannot be coreferential. This indicates that the multiply topicalized PPs are interpreted *in-situ* at LF, which cannot be accounted for by any syntactic movement analysis of multiple PP topicalization.

## 2.4 Parasitic Gaps

Finally, while single PP topicalization can license a parasitic gap (PG), multiple PP topicalization cannot. Abe and Nakao (2009) and Abe (2011) claim that although Japanese does not seem to have parasitic gaps at first sight, there are instances of real parasitic gaps in Japanese as exemplified by (9):

- (9) [[**PG**<sub>1</sub> mita [subete-no hito]<sub>2</sub>]-ga [Mary<sub>3</sub>-ga *e*<sub>1</sub> kiniitteiru to] saw every-Gen person-Nom Mary-Nom like C itta no]-wa [**zibun**<sub>2/\*3</sub>-no **onna syasin-o**]<sub>1</sub> desu ka said Comp-Top self-Gen what picture-Acc be Q  
Lit. ‘[What kind of pictures of self<sub>2/\*3</sub>]<sub>1</sub> was it that everyone<sub>2</sub> [who saw *e*<sub>1</sub>] say that Mary<sub>3</sub> liked *e*<sub>1</sub>.’ (Abe 2011: 206)

(9) is an instance of a subject PG in the cleft construction with a case-marked focused element, which has been assumed to involve empty operator A'-movement, as argued by, among others, Hoji (1985). In (9), the reflexive pronoun *zibun* ‘self’ can refer to *subete-no hito* ‘everyone’ but not to *Mary*. In other words, (9) allows Condition A reconstruction into the parasitic gap but not into the real gap.

Abe and Nakao present the following evidence for their claim that (9) is an instance of PG. First, the Condition A reconstruction pattern is also observed in the English subject PG construction as shown in (10).<sup>1</sup> While *himself* can refer to *every boy* in (10a), *herself* cannot refer to *Mary* in (10b) (Munn 1994: 407):

- (10) a. [Which picture of **himself**<sub>1</sub>] did [every boy<sub>1</sub> who saw *e*] say Mary<sub>2</sub> liked *t*?  
b. \*[Which picture of **herself**<sub>2</sub>] did [every boy<sub>1</sub> who saw *e*] say **Mary**<sub>2</sub> liked *t*?

<sup>1</sup> There is some speaker variation, however, with respect to the availability of the reading in (10a), as observed by Agbayani and Ochi (2023).

Second, such cases as (9) show the case-matching effect, which is one of the properties of the PG construction. In (9), both the real and parasitic gaps carry accusative Case, since *miru* ‘see’ and *kiniiru* ‘like’ both require accusative objects. When the Case of the parasitic gap matches that of the real gap, PG is available (9). (11), however, is ruled out by the Case-matching requirement (Abe 2011: 207):

- (11)\*?[[**PG**<sub>1</sub> mita [subete-no hito]<sub>2</sub>]-ga [Mary-ga *t*<sub>1</sub> kiskusita to] itta  
 saw every-Gen person-Nom Mary-NOM kiss C said  
 no]-wa **zibun**<sub>2</sub>-no **onna syasin-ni**<sub>1</sub> desu ka  
 C-Top **self-Gen what picture-Dat** be Q  
 Lit. ‘[What kind of pictures of self<sub>2</sub>]<sub>1</sub> was it that everyone<sub>2</sub> [who saw  
*e*<sub>1</sub>] say that Mary kissed *t*<sub>1</sub>?’

In (11), the parasitic gap carries accusative Case, since the predicate *miru* ‘see’ requires an accusative object. The real gap, on the other hand, carries dative Case, since the predicate *kisusuru* ‘kiss’ requires a dative object. The Case of the parasitic gap does not match that of the real gap, so (11) is deviant.

Adopting Abe and Nakao’s view that examples like (9) are parasitic gap constructions in Japanese, (12) indicates that single PP topicalization can license a parasitic gap:

- (12) [**Zibun**<sub>2/\*3</sub>-no **zyoosi-ni**]<sub>1</sub>-wa [hazimete kaisya-de **PG**<sub>1</sub> atta  
**self-Gen boss-to-Top** first.time firm-at met  
 [subete-no hito]<sub>2</sub>]-ga [zinzitantoosya<sub>3</sub>-ga sonoba-de *e*<sub>1</sub>  
 every-Gen person-Nom recruiter-Nom there  
 syookaisitekureru to] omotteiru  
 be.introduced C think  
 Lit. ‘[To self<sub>2/\*3</sub>’s boss]<sub>1</sub>, everyone<sub>2</sub> [who met **PG**<sub>1</sub> at the firm for  
 the first time] thinks that the recruiter<sub>3</sub> will introduce her/him *e*<sub>1</sub>  
 there.’

Multiple PP topicalization, on the other hand, cannot license a PG as shown in (13). (13) cannot have the PG interpretation, *i.e.*, ‘[everyone who met her/his boss at the firm for the first time] thinks that the recruiter will introduce her/him to her/his boss at the firm’:

- (13)\*?[Kaisya-de<sub>2</sub> [zibun<sub>2/3</sub>-no zyoosi-ni]<sub>1</sub>]-wa [hazimete *PG*<sub>2</sub> *PG*<sub>1</sub>  
**firm-at. self-Gen boss-to-Top** first.time  
 atta [subete-no hito]<sub>2</sub>]-ga [zinzitantoosya<sub>3</sub>-ga *e*<sub>2</sub> *e*<sub>1</sub>  
 met every-Gen person-Nom recruiter-Nom  
 syookaisitekureru to] omotteiru  
 be.introduced C think  
 Lit. ‘At the firm, [To self<sub>2</sub>/\*<sub>3</sub>’s boss]<sub>1</sub>, everyone<sub>2</sub> [who met *PG*<sub>1</sub> at  
 the firm for the first time] thinks that the recruiter<sub>3</sub> will introduce  
 her/him *e*<sub>1</sub> there.’

Given that a parasitic gap is licensed by overt syntactic movement, the unacceptability of (13) indicates that multiple PP topicalization does not involve syntactic (A-bar) movement. It should be noted that PP can license a PG in Japanese, as pointed out by Takahashi (2006). It should also be noted that multiple parasitic gaps are allowed in Japanese as shown in (14) (cf. Nissenbaum 2000):

- (14) [[[*PG*<sub>1</sub> seirisiteiru utini] *PG*<sub>1</sub> kizutukerareru maeni] *e*<sub>1</sub>  
 filing while being.damaged before  
 jukudokusitai no]-wa **sono kobunsho-o** da  
 want.to.peruse C-Top **that ancient.manuscript-Acc** be  
 Lit. ‘It is that ancient manuscript that I want to peruse *e* [before  
*PG* being damaged [while filing *PG*]].’

### 3 A Proposal

Hoji (1985) argues that unlike NP topicalization, PP topicalization always involves a contrastive interpretation. Since a topic cannot occur in a relative clause, (15) with an NP topic is deviant with normal intonation. (15) only becomes acceptable when the NP topic is interpreted as contrastive with heavy stress on the topic marker *wa*. In (15), the double underline represents heavy stress. In contrast, (16) with a PP topic is acceptable even with normal intonation; the PP topic is always contrastive, changing Information Structure (Hoji 1985: 147):

- (15) John-ga [[Bill-WA/\*-wa Mary-ga sasotta] baa]-e itta  
 John-Nom Bill-Top Mary-Nom invited bar-to went  
 Contrastive interpretation: ‘John went to the bar where Mary invited **Bill**.’  
 Topic interpretation: \*‘John went to the bar where, as for Bill, Mary invited him.’



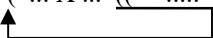
- (16) John-ga [[Bill-ni-wa Mary-ga koe-o kaketa] baa]-e itta  
 John-Nom Bill-to-Top Mary-Nom approached bar-to went  
 Contrastive interpretation: ‘John went to the bar where Mary  
 approached **Bill**.’

We argue that the effects induced by Information Structure in (multiple) PP topicalization are not limited to syntax but apply in phonology as well. Material for (multiple) PP topicalization is targeted/marked within syntax and moved either in syntax or phonology. We then propose the following: (i) if the target of topicalization is a *single syntactic XP*, it undergoes *syntactic topicalization*; (ii) if the targeted material is not a *single syntactic XP*, then that material is packed into a *prosodic constituent* and undergoes *prosodic topicalization* to the left edge of an intonational phrase  $\iota$  in phonology. It then follows that *syntactic topicalization* bleeds *prosodic topicalization*, which is given a principled account if syntax derivationally precedes and feeds phonology, and Topicalization is subject to the derivational principle of Earliness (17) (Pesetsky 1989):

- (17) Earliness Principle  
 Satisfy principles as early as possible on the hierarchy of levels  
 (DS) > SS > LF > LP.

Note that our proposal works only in a theory where there is a one-way feeding relation from syntax to phonology, and where information from phonology does not flow back into the syntax (contrary to Richards 2016).

We argue that the targeted prosodic constituent is a Major Phrase (MP), consisting of multiple phonological phrases  $\Phi$ s (*cf.* Itô and Mester 2013). Multiple PP topicalization (2) is analyzed in (18):

- (18) a. ... X ... [school-at]<sub>PP</sub> [Mary-to]<sub>PP</sub> ... Y... (Syntax)  
 b. ( ... X ... (( ..... ) $\Phi$  ( ..... ) $\Phi$  )<sub>MP</sub> ... Y... ) <sub>$\iota$</sub>  (Phonology)
- 

In (18a), suppose that the two PPs are targeted/marked for topicalization within syntax. Since they do not form a single syntactic XP, they cannot undergo *syntactic topicalization*. In the phonology, the PPs are mapped to  $\Phi$ s, and the two  $\Phi$ s are packed into a Major Phrase, a single phonological constituent.<sup>2</sup> It is this Major Phrase which undergoes *prosodic topicalization* (18b), which is blind to syntactic constraints and lacks LF interpretive effects.

<sup>2</sup> Agbayani, Golston and Ishii (2015) show that tonal downstep occurs within the fronted constituent, consistent with general observations for MPs noted by Martin 1952, McCawley 1968, Poser 1984, and Selkirk and Tateishi 1988. Itô and Mester (2013) argue that this prosodic domain

## 4 Conclusion

This paper has proposed that multiple PP topicalization should be derived not by *syntactic* movement but by phonological movement via *prosodic topicalization*. We have argued that our analysis is supported by the fact that unlike single PP topicalization, multiple PP topicalization neither obeys syntactic constraints nor has LF effects.

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should be analyzed as a recursive phonological phrase. We note that our analysis only requires that the material undergoing multiple topicalization forms some prosodic constituent.

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