

# The Nature of Focus Movement: A View from the Scope Interactions of Focus Particle Phrases in Japanese

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## Abstract

This paper explores the syntax of focus particle phrases (FPPs) in Japanese, namely NPs (or PPs) suffixed by focus particles, such as additive *mo* ‘also,’ contrastive *wa* ‘at least’, and negative-concord *sika* ‘only’. In the literature, Rizzi (1997) proposes that focused constituents must undergo movement to the left periphery of a clause in order to satisfy the Focus Criterion, regardless of whether the movement is overt or covert. Given that the LF criteria are universal, it is predicted that Japanese FPPs must satisfy the Focus Criterion by moving to [Spec, FocP] overtly or covertly, because they contain focused constituents. This paper claims that this prediction is false. In order to support this claim, this paper reveals that each FPP has a different LF relation to the position of Neg, and thus has a fixed LF relation to each other. In light of these findings, this paper shows that the FPP movement cannot be criterion-driven movement in the sense of Rizzi (1997), and that it is merely an instance of scrambling (Saito 1985, 1989, 1994), which must be overt and can be undone at LF.

## 1. Introduction

This paper explores the syntax of focus particle phrases (FPPs) in Japanese, namely NPs (or PPs) suffixed by focus particles, such as additive *mo* ‘also,’ contrastive *wa* ‘at least’, and negative-concord *sika* ‘only’. According to Rooth (1992), a focus  $\alpha$  denotes a subset of the set of alternatives to  $\alpha$ , which are contextually given elements of the same semantic type as  $\alpha$ . Given this, we assume that a focus particle takes (part of) its sister as a focus, and specifies how the predicate applies to the alternatives to the focus. For instance, the FPPs headed by *mo*, *wa*, and *sika* (i.e., MoP, WaP, SikaP) determine the truth of the predicate for the alternatives in different ways; MoP expresses its additivity, WaP expresses the speaker’s ignorance about it (e.g., Hara 2006), and SikaP expresses its negation, as shown in (1). Thus, under Rooth’s alternative semantics of focus interpretation, we presuppose that an FPP contains what we agree to define as a focus or a focused constituent.

- (1) a. *John-ga piza-mo tabe-ta.* (MoP)  
       John-Nom pizza-also eat-Past  
       ‘John ate pizza, too.’

**Meaning:**  $\text{eat}(\text{John}, \text{pizza}) \wedge \exists x.[x \neq \text{pizza} \wedge \text{eat}(\text{John}, x)]$

- b. *John-ga piza-wa tabe-ta.* (WaP)  
       John-Nom pizza-Cont eat-Past

‘John ate pizza, at least.’

**Meaning:**  $\text{eat}(\text{John}, \text{pizza}) \wedge \text{unclear}(\exists x.[x \neq \text{pizza} \wedge \text{eat}(\text{John}, x)])$

c. *John-ga pizza-sika tabe-nakat-ta.* (SikaP)

John-Nom pizza-only eat-Neg-Past

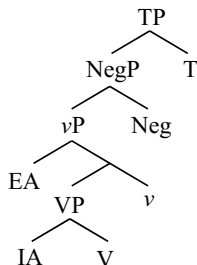
‘John ate only pizza.’

**Meaning:**  $\text{eat}(\text{John}, \text{pizza}) \wedge \neg \exists x.[x \neq \text{pizza} \wedge \text{eat}(\text{John}, x)]$

In the literature, some proposals have been made on the syntactic distribution of focused constituents. Among others, Rizzi (1997) proposes that they must undergo movement to the left periphery of a clause. Specifically, under his split-CP hypothesis, the traditional CP is articulated into several functional categories, and all kinds of A'-movements are motivated by interpretive criteria that must be met by the syntactic level of LF (or at the interface with the semantic component). Relevant for our discussion is the Focus Criterion (Rizzi 1997: 282, 287), which requires a focused constituent to move to the projection of a focus head (FocP), regardless of whether the movement is overt or covert. Given that the LF criteria are universal, we then predict that Japanese FPPs must satisfy the Focus Criterion by moving to [Spec, FocP] overtly or covertly, because they contain focused constituents. The question is whether or not this prediction holds empirically.

In this paper, we claim that the prediction is false; more specifically, it is not the case that FPPs must be moved to criterial positions at the left periphery, such as [Spec, FocP]. In order to argue for our position, we investigate where MoP, WaP, and SikaP appear at LF, from the following two perspectives: (i) the scope principle (e.g., May 1977), which states that, for any two scope-bearing elements ( $SE_1$ ,  $SE_2$ ),  $SE_1$  takes scope over  $SE_2$  iff  $SE_1$  includes  $SE_2$  in its sister at LF (i.e., c-command), and (ii) the scope of the negative morpheme *nai* ‘not’, which we assume projects its own phrase NegP between  $v$ P and TP (e.g., Miyagawa 2001), as shown in (2).

(2) Clause structure with negation (NB, EA = external argument, IA = internal argument)



Importantly, these perspectives help us to reveal that each FPP has a different LF relation to the position of Neg, and thus has a fixed LF relation to each other. In light of these findings, we show that,



ject, it can fall under the scope of Neg; this is illustrated in (5). Accordingly, the scope fact in (4) should be attributed to some inherent property of MoP, because it is syntactically possible to interpret an object inside the scope of Neg.

- (5) *John-ga 5-mai-izyo-no-piza-o tabe-nakat-ta.* m.t. 5 > Neg, Neg > m.t. 5  
 John-Nom 5-Cl-over-Gen-pizza-Acc eat-Neg-Past  
 ‘John did not eat more than 5 pizzas.’

Second, Kobayashi (2009) argues that MoP must move out of  $vP$  in negative clauses. She makes this point in terms of the distribution of manner adverbials (e.g., *fooku-de* ‘with a fork’), which she assumes is limited to the interior of  $vP$ . In fact, this assumption is empirically supported by considering the predicate-fronting construction, which we assume is derived by movement of  $vP$  (e.g., Takano 1995, 2000). That is, we point out that manner adverbials can be placed inside fronted  $vP$  constituents, as shown in (6b), but not outside, as shown in (6c). This contrast shows that manner adverbials can only appear within  $vP$  and mark the lowest edge of  $vP$ . Thus, if an element  $\alpha$  follows a manner adverbial Adv, it means that  $\alpha$  is contained in  $vP$  (whereas if  $\alpha$  precedes Adv, it does not follow that  $\alpha$  is out of  $vP$ , because it is assumable that  $\alpha$  is still at a higher edge of  $vP$ .)

- (6) a. *John-ga* [ <sub>$vP$</sub>  *sushi-o* *fooku-de* *tabe*]-*sae-si-ta.*  
 John-Nom sushi-Acc fork-with eat-even-do-Past  
 ‘John even ate sushi with a fork.’
- b. [ <sub>$vP$</sub>  *Sushi-o* *fooku-de* *tabe*]-*sae John-ga si-ta.*  
 sushi-Acc fork-with eat-even John-nom do-Past  
 ‘Even eat sushi with a fork, John did.’
- c. \* [ <sub>$vP$</sub>  *Sushi-o* *tabe*]-*sae John-ga* *fooku-de* *si-ta.*  
 sushi-Acc eat-even John-nom fork-with do-Past  
 ‘Even ate sushi, John did with a fork.’

Given this, Kobayashi observes that MoP cannot follow a manner adverbial in the presence of Neg, as shown in (7b) (cf. Kobayashi 2009: 124), thus suggesting that MoP cannot remain inside  $vP$  in negative clauses.

- (7) a. *John-ga piza-mo* [ <sub>$vP$</sub>  *fooku-de* *tabe*]-*nakat-ta.*  
 John-Nom pizza-also fork-with eat-Neg-Past  
 ‘John did not eat pizza with a fork, too.’
- b.?? *John-ga* [ <sub>$vP$</sub>  *fooku-de* *piza-mo* *tabe*]-*nakat-ta.*

John-Nom fork-with pizza-also eat-Neg-Past  
 ‘John did not eat pizza with a fork, too.’

Importantly, she also notes that MoP can appear within  $\nu$ P in principle, because it can follow a manner adverbial in the absence of Neg, as shown in (8b). Accordingly, the contrast between (7b) and (8b) suggests that the presence of Neg forces MoP to move out of  $\nu$ P.

- (8) a. *John-ga pizza-mo* [ $\nu$ P *fooku-de tabe*]-*ta*.  
 John-Nom pizza-also fork-with eat-Past  
 ‘John ate pizza with a fork, too.’
- b. *John-ga* [ $\nu$ P *fooku-de pizza-mo tabe*]-*ta*.  
 John-Nom fork-with pizza-also eat-Past  
 ‘John ate pizza with a fork, too.’

We now argue for the hypothesis in (3), which states that MoP may not be c-commanded by Neg in the same clause at LF. First, (3) is entailed by the fact observed by Hasegawa (1991), because the scope principle ensures that MoP does not take scope under Neg iff MoP is not c-commanded by Neg at LF. Second, (3) entails the fact observed by Kobayashi (2009), because, if MoP may not be c-commanded by Neg at LF, then it follows from the scope principle that MoP may not be dominated by  $\nu$ P at LF in the presence of Neg. Thus, given the scope principle, we conclude that the hypothesis in (3) is empirically valid.

## 2.2. Contrastive *Wa* Phrase

We then consider the LF relation between  $WaP_{\forall}$  and Neg. Of particular interest here is an instance of  $WaP_{\forall}$  whose internal complement is a universal quantifier (UQ) (i.e.,  $WaP_{\forall}$ ). Focusing on  $WaP_{\forall}$ , we claim that its LF relation to Neg must be fixed as stated in (9).

- (9) Hypothesis 2: LF relation between  $WaP_{\forall}$  and Neg  
 $WaP_{\forall}$  must be c-commanded by Neg in the same clause at LF.

In the following, we argue for this hypothesis by showing that  $WaP_{\forall}$  must take scope under Neg, which is observed by Hara (2006), and that  $WaP_{\forall}$  can stay inside  $\nu$ P in negative clauses.

First, Hara (2006) points out that  $WaP_{\forall}$  can only occur in negative clauses, but not in affirmative clauses; this is illustrated by the contrast between (10a) and (10b). Importantly, if  $WaP_{\forall}$  is acceptable at all, it can only give rise to a partial negation reading, as shown in (10b). In other words,  $WaP_{\forall}$  must take scope under Neg, which is not the case with the bare UQ without *wa* in (10c).

- (10) a. \* *John-ga zenbu-wa tabe-ta.*  
 John-Nom all-Cont eat-Past  
 ‘John ate all (of them).’
- b. *John-ga zenbu-wa tabe-nakat-ta.* \*all > Neg, Neg > all  
 John-Nom all-Cont eat-Neg-Past  
 ‘John did not eat all (of them).’
- c. *John-ga zenbu-o tabe-nakat-ta.* all > Neg, Neg > all  
 John-Nom all-Acc eat-Neg-Past  
 ‘John did not eat all (of them).’

Note that it is not true that *wa* always requires its entire projection to be interpreted inside the scope of Neg. For example, let us take the phrase that *wa* forms with an existential quantifier (EQ) (i.e.,  $\text{WaP}_{\exists}$ ).  $\text{WaP}_{\exists}$  can occur in both affirmative and negative clauses, as shown in (11a) and (11b), but it cannot take scope under Neg, thus patterning with a bare EQ without *wa*, as shown in (11b) and (11c). Thus, the combination of UQ and *wa* as a whole (i.e.,  $\text{WaP}_{\forall}$ ) is required to take scope under Neg.

- (11) a. *John-ga nanika-wa tabe-ta.*  
 John-Nom something-Cont eat-Past  
 ‘John ate something.’
- b. *John-ga nanika-wa tabe-nakat-ta.* some > Neg, \*Neg > some  
 John-Nom something-Cont eat-Neg-Past  
 ‘John did not eat something.’
- c. *John-ga nanika-o tabe-nakat-ta.* some > Neg, \*Neg > some  
 John-Nom something-Acc eat-Neg-Past  
 ‘John did not eat something.’

Second, we point out that  $\text{WaP}_{\forall}$  can stay within  $\nu\text{P}$  in negative clauses. The point can be made by considering the distribution of manner adverbials; recall that they mark the lowest edge of  $\nu\text{P}$ , so that, if  $\alpha$  follows a manner adverbial, it holds that  $\alpha$  is contained in  $\nu\text{P}$ . The point is that  $\text{WaP}_{\forall}$  can follow a manner adverbial, as shown in (12b).

- (12) a. *John-ga zenbu-wa* [ $_{\nu\text{P}}$  *fooku-de tabe*]-*nakat-ta.*  
 John-Nom all-Cont fork-with eat-Neg-Past  
 ‘John did not eat all (of them) with a fork.’

- b. *John-ga* [<sub>VP</sub> *fooku-de zenbu-wa tabe*]-*nakat-ta*.  
 John-Nom fork-with all-also eat-Neg-Past  
 ‘John did not eat all (of them) with a fork.’

In this respect,  $WaP_{\forall}$  and  $WaP_{\exists}$  are different; the latter cannot follow a manner adverbial, as shown in (13b). Thus, the contrast between (12a) and (13b) suggests that only  $WaP_{\forall}$  can stay within  $\nu P$  in negative clauses.

- (13) a. *John-ga nanika-wa* [<sub>VP</sub> *fooku-de tabe*]-*nakat-ta*.  
 John-Nom something-Cont fork-with eat-Neg-Past  
 ‘John did not eat something with a fork.’  
 b.?? *John-ga* [<sub>VP</sub> *fooku-de nanika-wa tabe*]-*nakat-ta*.  
 John-Nom fork-with something-Cont eat-Neg-Past  
 ‘John did not eat something with a fork.’

We now argue for the hypothesis in (9), which states that  $WaP_{\forall}$  must be c-commanded by Neg in the same clause at LF. First, (9) is entailed by the fact observed by Hara (2006), because the scope principle ensures that  $WaP_{\forall}$  takes scope under Neg iff  $WaP_{\forall}$  is c-commanded by Neg at LF. Second, (9) is compatible with the fact that  $WaP_{\forall}$  can stay within  $\nu P$  in negative clauses, because, if  $WaP_{\forall}$  must be c-commanded by Neg at LF, then it follows from the scope principle that  $WaP_{\forall}$  must be dominated by  $\nu P$  at LF in the presence of Neg. Thus, the scope principle allows us to maintain that the hypothesis in (9) is supported on empirical grounds.

### 2.3. Negative-concord *Sika* Phrase

Finally, let us consider the LF relation between *SikaP* and Neg. We claim that they must be ordered at LF as stated in (14).

- (14) Hypothesis 3: LF relation between *SikaP* and Neg  
*SikaP* must c-command Neg in the same clause at LF.

In what follows, we support this hypothesis in light of two facts; one is the well-known fact that *SikaP* must co-occur with Neg in the same clause, while the other is noted by Yoshimoto (1998), who argues that *SikaP* cannot remain within  $\nu P$ .

First, it is well-established that *SikaP* can appear in negative clauses, but not in affirmative clauses. This is shown by the contrast in (15).

- (15) a. \* *John-ga piza-sika tabe-ta.*  
 John-Nom pizza-only eat-Past  
 ‘John ate only pizza.’
- b. *John-ga piza-sika tabe-nakat-ta.*  
 John-Nom pizza-Cont eat-Neg-Past  
 ‘John ate only pizza.’

This is not a precise description of the distribution of SikaP, though. More precisely, it must co-occur with Neg in the same clause, as illustrated by the contrast in (16).

- (16) a. *Mary-wa [CP kinoo John-ga piza-sika tabe-nakat-ta-to] omotteir-u.*  
 Mary-Top yesterday John-Nom pizza-only eat-Neg-Past think-Pres  
 ‘Mary thinks that John ate only pizza yesterday.’
- b. \* *Mary-wa [CP kinoo John-ga piza-sika tabe-ta-to] omottei-na-i.*  
 Mary-Top yesterday John-Nom pizza-only eat-Past think-Neg-Pres  
 ‘Mary thinks that John ate only pizza yesterday.’

Second, Yoshimoto (1998) points out that SikaP cannot follow a manner adverbial. For example, let us consider the contrast in (17). Given that manner adverbials indicate the lowest edge of *vP*, the degraded status of (17b) suggests that SikaP cannot remain within *vP*.

- (17) a. *John-ga piza-sika [<sub>vP</sub> fooku-de tabe]-nakat-ta.*  
 John-Nom pizza-only fork-with eat-Neg-Past  
 ‘John ate only pizza with a fork.’
- b.?? *John-ga [<sub>vP</sub> fooku-de piza-sika tabe]-nakat-ta.*  
 John-Nom fork-with pizza-also eat-Neg-Past  
 ‘John ate only pizza with a fork.’

We now argue for the hypothesis in (14), which states that SikaP must c-command Neg in the same clause at LF. First, (14) explains the fact that SikaP must co-occur with Neg in the same clause; the former entails the latter. Second, (14) also explains the fact shown by Yoshimoto (1998), namely that SikaP cannot remain with *vP*, because it requires SikaP to c-command Neg at LF, thus preventing it from being interpreted under the scope of Neg. Thus, the hypothesis in (14) is empirically motivated in that it derives the two facts at the same time.



## 2.4. Theorems

Up to this point, we have examined the LF relations that MoP, WaP<sub>∇</sub>, and SikaP have to Neg. The relevant LF relations are reproduced in (18).

- (18) LF relations of MoP, WaP<sub>∇</sub>, and SikaP to Neg
- a. MoP may not be c-commanded by Neg in the same clause at LF.
  - b. WaP<sub>∇</sub> must be c-commanded by Neg in the same clause at LF.
  - c. SikaP must c-command Neg in the same clause at LF.

Note that each FPP must include a designated structural relationship to Neg. Thus, our three hypotheses jointly lead to the theorems that the interactions of the FPPs in a clause are somewhat limited. In the following, we argue for this type of theorems.

The theorems that we expect to follow from (18) are that, when occurring with WaP<sub>∇</sub> or SikaP in the same clause, MoP must be placed in positions c-commanding the other FPP at LF. The schematic representations of the theorems are given below:

- (19) Theorems: Well-formed c-command relations at LF (NB, '>' = 'c-command')
- a. MoP > Neg > WaP<sub>∇</sub>
  - b. MoP > SikaP > Neg

As illustrated below, these theorems are empirically correct.

- (20) a. *John-mo zen'in-ni-wa awa-nakat-ta.*  
 John-also everyone-Dat-Cont meet-Neg-Past  
 'John also did not meet everyone.'
- b. \* *Zen'in-wa John-ni-mo awa-nakat-ta.*  
 everyone-Cont John-Dat-also meet-Neg-Past  
 'Everyone did not meet John, too.'
- (21) a. *John-mo Mary-ni-sika awa-nakat-ta.*  
 John-also Mary-Dat-only meet-Neg-Past  
 'John also met only Mary.'
- b. \* *John-sika Mary-ni-mo awa-nakat-ta.*  
 John-only Mary-Dat-also meet-Neg-Past  
 'Only John met Mary, too.'

Given that the subject c-commands the object in a clause, (20b) indicates that MoP cannot be in the

c-commanding domain of  $\text{WaP}_{\forall}$ , whereas (21b) indicates that it also cannot be in the c-commanding domain of SikaP. Thus, these facts lead us to conclude that the theorems in (19) are empirically motivated.

At this point, one might cast doubt on this conclusion, since, although it is clear that (18a) and (18b) jointly entail (19a), it is not ensured that (19b) follows from (18a) and (18c). In particular, why is it impossible for SikaP to c-command MoP? One theoretical way to answer this question is to extend Watanabe's (2004) view for negative-concord items in the following way:

(22) Negation force of negative-concord items

Negative-concord *sika* lexically encodes a negation force.

We take this assumption to entail that the scope of SikaP is the one to which the negation force applies. Given this, MoP must get out of the c-commanding domain of SikaP, thus giving a theoretical basis for the theorem in (19b) that MoP must c-command SikaP at LF.

In sum, the LF properties of MoP, WaP and ShikaP jointly lead to the theorems in (19). As seen so far, this conclusion is empirically correct and partially motivated on some theoretical grounds (i.e., Watanabe 2004). Importantly, the theorems in (19) set the stage for discussing what properties FPPs exhibit when they move, which is the topic of the next section.

### 3. Claim: The Nature of the FPP Movement

The primary aim of this section is to explore the identity of the movement of FPPs to the left periphery (hereafter, the FPP movement). First, we utilize the theorems made in the previous section in order to demonstrate that the FPP movement occurs overtly and has reconstruction effects. Then, we claim that the FPP movement should be identified with scrambling in the sense of Saito (1985, 1989, 1994), mainly because it is purely optional in not involving any syntactic requirements.

#### 3.1. Properties of the FPP Movement

Given the possibility that the syntactic computation may employ both overt and covert types of movement (e.g., May 1977), let us begin by questioning whether the FPP movement can be covert or not. Here, we utilize the theorems for the LF interactions of FPPs, repeated as (23), in order to provide some leading predictions.

(23) Theorems: Well-formed c-command relations at LF (NB, '>' = 'c-command')

- a.  $\text{MoP} > \text{Neg} > \text{WaP}_{\forall}$
- b.  $\text{MoP} > \text{SikaP} > \text{Neg}$

The first leading prediction that has to do with the question here is that, if MoP begins at a position that  $WaP_V$  or  $SikaP$  c-commands and no more thing happens, the configuration results in ungrammaticality. As illustrated in the previous section, this is the case:

- (24) a. \* *Zen'in-wa*      *John-ni-mo*      *awa-nakat-ta.*  
           everyone-Cont    John-Dat-also      meet-Neg-Past  
           ‘Everyone did not meet John, too.’
- b. \* *John-sika*      *Mary-ni-mo*      *awa-nakat-ta.*  
           John-only      Mary-Dat-also      meet-Neg-Past  
           ‘Only John met Mary, too.’

The second relevant prediction is that, if the ‘overt’ movement of MoP to the left periphery has no effects on scope interpretation, it does not improve the grammatical status of (24a) and (24b). As expected from the consensus that movement has such effects, the movement of MoP results in a grammatical improvement, which is shown in (25).

- (25) a. *John-ni-mo*      *Zen'in-wa*       $t_{MoP}$       *awa-nakat-ta.*  
           John-Dat-also    everyone-Cont      meet-Neg-Past  
           ‘John, too, everyone did not meet.’
- b. *Mary-ni-mo*      *John-sika*       $t_{MoP}$       *awa-nakat-ta.*  
           Mary-Dat-also    John-only      meet-Neg-Past  
           ‘Mary, too, only John met.’


Now, the most relevant prediction is that, if the FPP movement can be covert, MoP can be c-commanded by  $WaP_V$  or  $SikaP$  in overt syntax. However, the empirical inadequacy of this prediction is obvious, since we have already seen that (24a) and (24b), in which MoP is c-commanded by the other FPP in overt syntax, are ungrammatical. Thus, the conclusion is that the FPP movement cannot be covert, or must be overt.

Let us turn to a question about reconstruction effects, on which a syntactic object that moves up can be still interpreted in its original position at LF. Given that it is often argued that A-movement (e.g., to [Spec, TP]) induces no reconstruction effects (e.g., Miyagawa 2001), it is worth questioning whether the FPP movement exhibits reconstruction effects or not. Again here, we utilize the theorems made in the previous section. In particular, we examine what results when MoP is overtly moved over by the other FPP that it originally c-commands, as schematized below:


(26) What results from the overt movement of WaP<sub>∇</sub>/SikaP over MoP?

- a. WaP<sub>∇</sub> > MoP > Neg > t<sub>WaP</sub>
- b. SikaP > MoP > t<sub>SikaP</sub> > Neg

Two predictions arise for (26). First, if the moved FPP (i.e. WaP<sub>∇</sub>/SikaP) cannot be reconstructed, the sentence should be ungrammatical, since WaP<sub>∇</sub> must be c-commanded by Neg at LF whereas SikaP may not c-command MoP at LF. Second, if the moved FPP can be reconstructed, the sentence should be grammatical, since the reconstructed position of the FPP is appropriate for its interpretation at LF. We argue that the second prediction is right. Let us begin with the case of WaP<sub>∇</sub>; the FPP-movement in (27b) results in a grammatical sentence and it still carries only a partial negation reading.

- (27) a. *John-mo zen'in-ni-wa awa-nakat-ta.* Neg > every, \*every > Neg  
 John-also everyone-Dat-Cont meet-Neg-Past  
 'John also did not meet everyone.'
- b. *Zen'in-ni-wa John-mo t<sub>WaP</sub> awa-nakat-ta.* Neg > every, \*every > Neg  


The same is the case with movement of SikaP:

- (28) a. *John-mo dezaato-sika tabe-nakat-ta.* \*only > also, also > only  
 John-also dessert-only eat-Neg-Past  
 'John also ate only the dessert.'
- b. *Dezaato-sika John-mo t<sub>SikaP</sub> tabe-nakat-ta.* \*only > also, also > only  


To confirm the scope fact reported above, consider a context in which you (Y) and John (J) went to a restaurant for dinner and ordered a three-course meal that included soup, meat and dessert. As shown below, Situation 1 can be described by both of the readings [only > also] and [also > only], but Situation 2 can only be described by the former:

- (29) Situation 1: only > also, also > only      Situation 2: only > also, \*also > only

soup	meat	dessert		soup	meat	dessert
		<b>eat</b>	↑ ↑	<b>eat</b>	<b>eat</b>	<b>eat</b>
*	*	Y J		Y	Y	Y J

Note that both of (28a) and (28b) can be uttered only under Situation 1, suggesting that SikaP is in-

terpreted in its original position at LF. Thus,  $WaP_{\forall}$  and  $SikaP$  can be reconstructed and it is an empirical conclusion that the FPP movement has reconstruction effects.

In sum, we have elucidated some properties of the FPP movement from the viewpoint of the theorems made in the previous section. As a result, it has become clear that the FPP movement should be characterized as stated in (30).

(30) Properties of the FPP movement

- a. The FPP movement occurs in overt syntax.
- b. The FPP movement has reconstruction effects.

### 3.2. Type of FPP Movement

Let us discuss what type of operation the FPP movement is. We argue that the FPP movement is not triggered by any grammatical requirements and thus is purely optional in syntax. On these lines of argument, we suggest that the FPP movement is merely an instance of scrambling in the sense of Saito (1985, 1989, 1994).

One argument that the FPP movement is optional is found in the examples in (27) and (28). Note that each (a) example has no difference from its counterpart (b) example in grammaticality. This fact suggests that the FPP movement, especially to the left periphery, is not required by any syntactic principles such as the Spec-head requirement. It is certainly the case that the FPP movement has effects on scope interpretation, as indicated by the examples in (25), which one might take to mean that the FPP movement is caused by semantic considerations in syntax. However, we do not take the existence of interpretation effects as such, since, if always semantically driven, the FPP movement could not show reconstruction effects, which undo the outputs of movement operations for semantic interpretation. Thus, the conclusion that we draw here is that the FPP movement is an optional syntactic operation.

Now, it should be questioned whether the FPP movement is a novel type of optional movement. When it comes to the Japanese grammar, the answer can be no, since Japanese has been given a theory of its relative freedom for word order. More specifically, it has been established that such a property of Japanese is derived by a movement operation called scrambling, which Saito (1985) assumes to involve no syntactic requirements and thus to be optional. Of course, it is controversial under the Minimalist Program whether scrambling is purely optional in terms of syntactic principles such as feature checking. Some researchers have proposed that scrambling is not strictly optional; for example, Miyagawa (2001) claims that some instances of scrambling can be reduced to the movement satisfying the EPP-feature on T, which is a syntactic requirement. However, these proposals must admit that they assume scrambling as optional in introducing it into the syntactic computation, since it is implied that other instances of scrambling are not driven, say, by the EPP-feature


on T. Thus, it should be concluded that the core of the grammar does not employ scrambling (or any device that leads to freedom for word order) to satisfy the syntactic principles that always work to derive legitimate structures. From this perspective, it follows that the Japanese grammar should define scrambling as an optional operation, and thus that the FPP movement, which is taken here to be optional, can be identified with scrambling.

In fact, the hypothesis that the FPP movement is scrambling can capture its empirical properties in (30); first, the FPP movement occurs overtly, since scrambling must be overt, by nature; second, the FPP movement has reconstruction effects, since scrambling can be undone at LF (Saito 1989). According to Saito (1994), the reconstruction effects of scrambling can be captured under the Copy theory of Movement (Chomsky 1995); they are understood as the LF deletion of all the copies created by scrambling, as schematized below:

(31) Reconstruction under the Copy theory

Overt: [ <Copy1> [ <Copy2> ] ] Scrambling

LF: [ ~~<Copy1>~~ [ <Copy2> ] ] Deletion of <Copy1> and Interpretation of <Copy2>



Note that this theory of reconstruction eliminates LF-lowering, which is a covert movement operation, thus fitting into the picture that the FPP movement is limited to overt syntax.

In sum, we have argued that the FPP movement is purely optional in syntax and that it should be subsumed in the scrambling operation in the sense of Saito (1985, 1989, 1994). Some advantages of this hypothesis are in the fact that it can capture the empirical properties of the FPP movement.

#### 4. Conclusion

In this paper, we have elucidated the syntax of Japanese FPPs such as the phrases headed by additive *mo*, contrastive *wa* and negative-concord *sika*. The syntactic theories of FPPs that we have proposed are summarized as stated in (32).

(32) Syntax of FPPs

- a. Well-formed c-command relations between FPPs and Neg at LF  
MoP > ShikaP > Neg > WaP<sub>v</sub>
- b. Properties of the FPP movement to the left periphery
  - (i) Overttness
  - (ii) Reconstruction effects
- c. Type of the FPP movement to the left periphery  
= Optional movement that involves no syntactic requirements  
= Scrambling in the sense of Saito (1985, 1989, 1994)

Note that this study has some theoretical implications. The one that we put emphasis on is that the inherently focused elements in Japanese (i.e., FPPs) pose a potential challenge to the Focus Criterion of the Split-CP hypothesis (Rizzi 1997), which induces movement of XP with a focus into [Spec, FocP] at the left periphery and licenses it in a Spec-head configuration. Then, it is predicted that the Focus Criterion should obligatorily regulate the FPP movement in Japanese, since FPPs are inherently endowed with foci that lead to focus semantics. However, this prediction is not satisfactory, mainly because the FPP movement is optional in that it is not driven in order to satisfy any syntactic principles. Furthermore, it exhibits reconstruction effects, and this fact is not consistent with the spirit of LF criteria. The question is, why can the FPP movement be undone at LF if it is triggered to ensure an appropriate interpretation at LF? As long as the Split-CP hypothesis does not provide a reasonable answer to this question, it must be reconsidered in a critical way. Thus, this study as a whole casts doubt on the universality of criteria-driven movement.

Of course, we could assume that focus particles encode the type of focus features that is invisible to Rizzi's (1997) LF criteria. If so, however, we must clarify what type of focus is relevant to syntactic principles, bearing in mind that any intuitive definition of focus must be excluded. We hope that the discussions held here will stimulate future studies in focus-coding.

#### Notes

\* This paper is a revised version of the presentation given at the 37th meeting of the Kansai Linguistic Society held at Konan Women's University on June 2-3, 2012. I am grateful to Kazuya Kudo, Akihiro Maeda, Kenta Mizutani, Koichiro Nakamura, Yukio Oba, Sadayuki Okada, Koji Shimamura, Yuta Tatsumi, and Yusuke Yoda for their critical comments and useful suggestions. The usual disclaimer applies.

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## 焦点移動の性質： 日本語における焦点助詞句の作用域関係からの視点

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### 要 旨

本稿の関心は、追加「も」、対照「は」、否定一致「しか」のような日本語焦点助詞にあり、特に、それらが NP/PP を補部にとって投射する焦点助詞句の統語論にある。先行研究では、Rizzi (1997) が焦点要素の統語的分布に関して分裂 CP 仮説を提案しており、焦点要素は、Focus Criterion という LF 原理を満たすために、顕在的か非顕在的に関わらず、節の左方周縁部に移動すると主張している。この主張が普遍的に正しいとすると、焦点要素を含む焦点助詞句も Focus Criterion を満たすための移動を行わなければならないという予測が成り立つ。本稿の目的は、この予測が経験的に妥当ではなく、焦点助詞句の移動が Saito (1985, 1989, 1994) によって提案されている「顕在的・再構築可能なかき混ぜ移動」の一種に過ぎないという主張を行うことである。特に、その根拠として、焦点助詞句の否定辞に対する LF 関係と、焦点助詞句同士の LF 関係に関して経験的に妥当な仮説を提供し、Rizzi 流の焦点移動へのアプローチを批判的に再考する。