

# Toward a Better Understanding of Japanese Scramblings: What Makes Long-distance Scrambling of Subject (Im)possible?

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## 1 Introduction

The main aim of this paper is to demonstrate that, contra Saito's (1985) classic and wide-spread claim, subjects can undergo (long-distance) scrambling in Japanese. In so doing, I argue that Japanese scrambling in general is subject to a version of minimality/superiority effect.<sup>1</sup>

## 2 Subjects are Subject to Scrambling in Japanese

### 2.1 Scrambling of Subject Impossible: Saito 1985

Saito 1985 is usually credited for the observation that subjects in Japanese are not subject to scrambling (see Muraki 1979, Tonoike 1980 for the same claim). For ease of reference, I will refer to Saito's (1985) wide-spread claim as ban on scrambling of subject (BOSS).<sup>2</sup>

(1) **Ban on Scrambling of Subject (BOSS):**

“Subject NPs are not subject to [long-distance scrambling (LDS)].” (Saito 1985: p.186)

(2) is a typical (and an uncontroversial) instance of impossible scrambling of subject (SoS).<sup>3</sup>

Scrambling of a Nominative animate subject crossing a Nominative animate subject

(2) (~Saito 1985:Ch.3, p.190, (46), slightly modified)

(see also S. Kuno 1980a, b, Oku 1998, Takahashi 2008, a.o. (see Fn.6))

\* [Bill-ga; John-ga [CP t<sub>i</sub> gakkoo-de Mary-ni kisushita to] omotteiru].  
B.-NOM J.-NOM school-at M.-DAT kissed C think  
'[Bill(NOM)<sub>i</sub>, John(NOM) thinks [CP that t<sub>i</sub> had kissed Mary at school]].'

There are other (which, however, is controversial; see Section 2.2) examples Saito provides to show that SoS is banned in principle.

Scrambling of a Nominative inanimate subject crossing a Nominative animate subject

(3) (~Saito 1985:Ch.3, p.185, (42b), with his judgment)

(but see Harada 1977, S. Kuno 1980a, b, Mihara 1994, Kasai 2002, a.o.)

\* [Sono hon-ga; John-ga [CP t<sub>i</sub> yoku ureteiru to] omotteiru].  
that.book-NOM J.-NOM well selling C think  
'[[That book](NOM,-ANI)<sub>i</sub>, John(NOM,+ANI) thinks [CP that t<sub>i</sub> is selling well]].'

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<sup>1</sup>Hereafter, I use “minimality” rather than “superiority.” The choice of the term, however, does not have any theoretical significance.

<sup>2</sup>Throughout this paper, I will concentrate on LDS. Saito (1985) also argues that Nominative subject cannot undergo clause-internal scrambling. But see Ko (2005, 2007), Miyagawa and Arikawa (2007) and Miyagawa (2010) for arguments that Nominative subject can undergo clause-internal A'-scrambling.

<sup>3</sup>All the Japanese examples are transcribed in the modified Hepburn ('Hebon')-system Romanization. Most of the examples cited in this paper are modified, but in a way that does not distort the intention of the original data. I use the mark '~' when the cited data are not exactly the same (even if it is a slight modification). The translations are provided to illustrate the rough structures of the examples and are not meant to be 'correct' English translations.

Scrambling of a *Nominative animate subject* crossing a *Topic-marked animate subject*

- (4) (~Saito 1985:Ch.3, p.190, (45), slightly modified, with his judgment)  
(but see Miyara 1982a, b)

?? [Bill-ga<sub>i</sub> John-wa<sub>i</sub> [CP t<sub>i</sub> gakkoo-de Mary-ni kisushita to] omotteiru].  
B.-NOM J.-TOP school-at M.-DAT kissed C think  
'[Bill(NOM)<sub>i</sub>, John(TOP) thinks [CP that t<sub>i</sub> had kissed Mary at school]].'

(2) is completely ungrammatical (for anyone). (3), (4), and the similar examples treated as grammatical by Haig (1976), Harada (1977), S. Kuno (1980), and Miyara (1982a, b) are (i) considered as ungrammatical by Saito (1985) and/or (ii) the reported grammatical judgment is claimed to involve operations other than LDS of subject; it involves either "base-generation" of the embedded Nominative subject or "down-grading" of the matrix Topic-marked subject into an embedded clause crossing the embedded Nominative subject which surfaces as a sentence-initial constituent.<sup>4</sup>

## 2.2 Scrambling of Subject Possible

Despite Saito's (1985) BOSS, many people have claimed that it is not always the case that subject is forbidden to undergo LDS and argued that it is indeed possible in Japanese (and Korean). The licit instances of SoS are amply documented in the past literature, both before and after Saito 1985 (See e.g., Haig 1976, Harada 1977, S. Kuno 1980a, b, Miyara 1982a, b, Naito 1992, Mihara 1994, Oku 1998, Kasai 2002, M. Kuno 2003, Fujii 2004; for Korean, see Sohn 1994). In fact, except for a case involving LDS of a Nominative animate subject crossing a Nominative animate subject (2), many examples which Saito (1985) took not to involve LDS of subject and/or considered as ungrammatical are judged to be grammatical.<sup>5,6</sup> The following are representative examples:<sup>7</sup>

Scrambling of a *Nominative inanimate subject* crossing a *Nominative animate subject*

- (5) (Mihara 1994:Ch.3, p.100, (6b), Oku 1998:Ch.5, p.183, (47); see also Kasai 2002 (cited in M. Kuno 2003:p.67, (40)), M. Kuno 2003; contra Saito 1985:Ch.3, p.185, (42))

[XP-SUB<sub>{NOM,-ANI}</sub> YP-SUB<sub>{NOM,+ANI}</sub> [CP t<sub>XP</sub> ...]]  
? [LGB-ga<sub>i</sub> || Sanseido-no hito-ga || [CP t<sub>i</sub> Forisu-no hon-no nakadewa yahari  
LGB-NOM Sanseido-GEN person-NOM Foris-GEN book-GEN among surely  
dantotsu-no besuto-seraa da to] itteita-yo]. ("||" = pause)  
by.far-GEN best-seller COP C was.saying-SFP  
'[LGB(NOM,-ANI)<sub>i</sub>, [a person from Sanseido](NOM,+ANI) was saying [CP that t<sub>i</sub> is surely by far the best-seller among the books by Foris]].'

Scrambling of a *Nominative animate subject* crossing a *Topic-marked animate subject*

- (6) (cf. (4)/Saito 1985:Ch.3, p.190, (45), without *Aya-ni*)

[XP-SUB<sub>{NOM}</sub> YP-SUB<sub>{TOP}</sub> [CP t<sub>XP</sub> ...]]  
[Bill-ga<sub>i</sub> John-wa<sub>i</sub> Aya-ni [CP t<sub>i</sub> gakkoo-de Mary-ni kisushita to] tsutaeta].  
B.-NOM J.-TOP A.-DAT school-at M.-DAT kissed C told  
'[Bill(NOM)<sub>i</sub>, John(TOP) told Aya [CP that t<sub>i</sub> had kissed Mary at school]].'

<sup>4</sup>Down-grading, an idea due to Muraki (1979) and Tonoike (1980), is an operation like lowering.

<sup>5</sup>I should hasten to note here that, for the sake of fairness, there are also people who follow Saito's observation and essentially treat all the instance of LDS of Nominative subject as ungrammatical (Shibatani 1990:p.261), Tanaka (2001:pp.569–570), Agbayani et al (2009:p.5), a.o.).

<sup>6</sup>It is interesting to note that, in discussing the ungrammatical instance of SoS in Japanese, Oku (1998: Ch.5, pp.183–184, (46)), M. Kuno (2003:p.66, Fn.28, (i)) and Takahashi (2008:p.413, (65)) used the example where the embedded Nominative animate subject undergoes LDS crossing the matrix Nominative animate subject (see also S. Kuno 1980a, b). In fact, Oku and M. Kuno claim that SoS is in principle possible in Japanese, and a parsing/processing difficulty yields the ungrammatical status (see also Mihara (1994:Ch.3, pp.100–101)).

<sup>7</sup>Since Saito's (1985) discussion concentrates on LDS of Nominative subject, I will only deal with Nominative subject here. But it should be noted that other types of subject (i.e., non-Nominative subject, e.g., Dative subject, PP subject) can also undergo LDS (see, e.g., M. Kuno 2003:p.66, Fn.28, (ii)).

Scrambling of a *Nominative* subject crossing a *Dative* subject

- (7) (~Fujii 2004:p.10, (16))  
 [XP-SUB<sub>{NOM}</sub>      YP-SUB<sub>{DAT}</sub>      [CP t<sub>XP</sub> ... ]]  
 [Mari-ga<sub>i</sub> Ken-ni(-wa)] [CP t<sub>i</sub> sushi-o      tabeta to] omo-e-ta].  
 M.-NOM K.-DAT(-TOP)      sushi-ACC      ate      C think-can-TNS  
 ‘[Mari(NOM)<sub>i</sub>, Ken(DAT)] thought [CP that t<sub>i</sub> ate sushi].’

Building on these kinds of examples, quite a number of works argued that (i) when the animacy is different as in (5), and (ii) when the particle attached to the subject is different as in (6) and (7), LDS of Nominative subject is fine. Note also here that the “down-grading” strategy, which according to Saito (1985) involves lowering of the matrix Topic-marked subject into an embedded clause crossing the embedded Nominative subject, is unlikely to be applicable for these cases. (5) does not involve the presence of the matrix Topic-marked subject, so the down-grading strategy is inapplicable to begin with. For (6), the matrix Topic-marked subject may be subject to down-grading, but there is no reason for the matrix indirect object to lower into an embedded clause. For (7), although the Dative subject can be marked with a Topic-marker, it need not. At least in the case when the Topic-marker is not attached to the matrix subject, there is no reason for the matrix Dative subject to lower into an embedded clause. Thus, it is reasonable to conclude that LDS of a Nominative subject takes place in these cases to derive the word order.

### 2.3 Scrambling of Subject is Scrambling

One may still cast doubts on the claim that LDS of a Nominative subject is possible following Saito’s (1985) claim that it may involve “base-generation.” I will provide a simple yet strong argument that LDS of a Nominative subject is possible by demonstrating that LDS of a Nominative subject shows the same properties with scrambling of non-subject; it shows the radical reconstruction effect (Saito 1989, et. seq.).

The hallmark property of Japanese scrambling is that it shows the radical reconstruction effect. Here, I will concentrate on Saito’s (1989) argument involving the LDS of Wh-phrase.<sup>8</sup> First of all, let us assume the following simple condition on the licensing of Wh-phrases in Japanese (which is based on Harada’s (1972:p.186, (13)) Wh-Q Binding Rule; see also Saito 1987, 1989).

- (8) Condition on Wh-question Formation in Japanese:  
 Wh-phrases must be c-commanded by a Q-particle.

Given this condition, the grammatical difference between (9) and (10) is naturally explained.

- (9) \* [Ken-ga dare-ni [CP Mari-ga wain-o tanonda ka] shirabe-saseta-yo].  
 K.-NOM who-DAT M.-NOM wine-ACC ordered Q made.investigate-SFP  
 ‘[Ken made *who* investigate [CP Q [Mari ordered wine]]].’
- (10) [Ken-ga Aya-ni [CP Mari-ga nani-o tanonda ka] shirabe-saseta-yo].  
 K.-NOM A.-DAT M.-NOM what-ACC ordered Q made.investigate-SFP  
 ‘[Ken made Aya investigate [CP Q [Mari ordered *what*]]].’

(9) is ungrammatical because the matrix Wh-phrase is not c-commanded by an embedded Q-particle whereas (10) is grammatical because the embedded Wh-phrase is c-commanded by an embedded Q-particle.

The crucial example which motivates the radical reconstruction effect is the following example where the Wh-phrase in (10) has undergone LDS.

<sup>8</sup>See Saito 1989, et. seq. and references cited therein for the detailed discussion of radical reconstruction effect. See also Yamashita 2007 for a caveat regarding the nature of radical reconstruction effect.

- (11) [Nani-o<sub>i</sub> Ken-ga Aya-ni [<sub>CP</sub> Mari-ga t<sub>i</sub> tanonda ka]shirabe-saseta-yo].  
 what-ACC K.-NOM A.-DAT M.-NOM ordered Q made.investigate-SFP  
 ‘[What<sub>i</sub>, Ken made Aya investigate [<sub>CP</sub> Q [Mari ordered t<sub>i</sub>]]].’

Although the LDSed Wh-phrase ends up appearing outside the c-command domain of an embedded Q-particle which licenses it, (11) is grammatical on a par with its unscrambled counterpart in (10). As argued in Saito (1989, et. seq.), (11) satisfies the condition in (8) because the LDSed Wh-phrase is radically reconstructed to the position c-commanded by the embedded Q-particle.

Now consider the LDS of a Nominative subject Wh-phrase. As shown in (12b), it is grammatical, on a par with its unscrambled counterpart in (12a).

- (12) a. [Ken-ga [<sub>CP</sub> dare-ga wain-o tanonda ka]Aya-ni shirabe-saseta-yo].  
 K.-NOM who-NOM wine-ACC ordered Q A.-DAT made.investigate-SFP  
 ‘[Ken made Aya investigate [<sub>CP</sub> Q [who ordered wine]]].’  
 b. [XP-SUB<sub>{NOM, +wh}</sub> YP-SUB<sub>{NOM}</sub> [<sub>CP</sub> t<sub>XP</sub> ... ] ]  
 ? [Dare-ga<sub>i</sub> Ken-ga [<sub>CP</sub> t<sub>i</sub> wain-o tanonda ka]Aya-ni shirabe-saseta-yo].  
 who-NOM K.-NOM wine-ACC ordered Q A.-DAT made.investigate-SFP  
 ‘[Who<sub>i</sub>, Ken made Aya investigate [<sub>CP</sub> ... Q [t<sub>i</sub> ordered wine]]].’

That (12b) is not ungrammatical unlike (9) and patterns with (11), concretely shows that the LDS of subject shows radical reconstruction effect, a hallmark property of Japanese scrambling (Saito 1989, et. seq.). Hence, LDS of subject is indeed scrambling, and not base-generation.

To sum up, despite Saito’s (1985) BOSS, I have shown that LDS of Nominative subject is possible, and it is indeed a usual instance of LDS since it shows radical reconstruction property.

### 3 What Makes Scrambling of Subject in Japanese (Im)Possible?

So far, we have seen that there are ample evidence that show SoS is possible. But one type of the example – scrambling of a Nominative animate subject crossing a Nominative animate subject ((2)) – is completely ungrammatical. The immediate question, then, is “What makes SoS in Japanese (im)possible?” To answer this question, it is instructive to see the patterns of impossible and possible SoS we have seen above which is listed in (13).

- (13) a. **Impossible SoS:**  
 Scrambling of a Nominative animate subject crossing a Nominative animate subject  
 b. **Possible SoS:**  
 Scrambling of a Nominative inanimate subject crossing a Nominative animate subject  
 Scrambling of a Nominative animate subject crossing a Topic-marked animate subject  
 Scrambling of a Nominative subject crossing a Dative subject  
 Scrambling of a Nom. subject Wh-phrase crossing a Nom. subject non-Wh-phrase

Given the list, we can provide a descriptive generalization in (14). And the grammatical features playing the roles are classified in (15).

#### (14) Descriptive Generalization

- a. SoS is impossible when the moving element and the intervening element have the same set of grammatical features.  
 b. SoS is possible when the moving element and the intervening element do not have the same set of grammatical features.
- (15) a. Case differences (M. Kuno 2003, Fujii 2004)  
 b. Case vs. Topic (Harada 1977, Miyara 1982a, b) (contra Saito 1985)  
 c. animacy (Mihara 1994, Oku 1998, Kasai 2002, M. Kuno 2003) (contra Saito 1985)  
 d. Wh-phrase, NPI, (subject) honorification (S. Kuno 1980a, Yamashita 2012a)  
 Building on the descriptive generalization in (14), I argue that, basically following Rizzi’s

(2004) formulation (16), the Feature-based Minimality Condition in (17) is at work in regulating impossible and possible SoS in Japanese.<sup>9</sup>

- (16) a. In the structure “X ... Y ... Z”, scrambling/LDS of Z to X is blocked if Y intervenes between X and Z, and both X/Z and Y have non-distinct grammatical features.  
 b. Y intervenes between X and Z iff Y c-commands Z and Y does not c-command X.

(17) **The Feature-based Minimality Condition (FMC):**

The configuration “[XP ... YP ... t<sub>XP</sub> ...]” results in a deviant output when all the grammatical features (GF) associated with XP and YP are the same.

FMC (but not Crossing-over Constraint; see Fn.9) dictates that *if there is one distinct GF not shared by XP and YP, then the output will be non-deviant, and if all the GF are shared by XP and YP, then the output will be deviant*. (18) and (19) depicts the schema where SoS is impossible and possible under the FMC. Together with the list in (13), it is not difficult to understand how the impossible and possible SoS examples provided above neatly falls under the FMC.<sup>10</sup> Crucially, the impossible SoS is due to the violation of FMC. Then, it is reasonable to conclude that SoS is in principle possible in Japanese, contra Saito’s (1985) BOSS.<sup>11</sup>

(18) FMC-violating schema → Impossible SoS

[XP<sub>{α,β,γ}</sub> ... YP<sub>{α,β,γ}</sub> [ t<sub>XP</sub> ... ]]  
 → \* because all the GFs are the same.

(19) FMC-immune schemata → Possible SoS

- a. [XP<sub>{α,β,γ}</sub> ... YP<sub>{α,β,δ}</sub> [ t<sub>XP</sub> ... ]]  
 → OK because XP and YP have a different GF {γ}, {δ}.
- b. [XP<sub>{α,β,-γ}</sub> ... YP<sub>{α,β,+γ}</sub> [ t<sub>XP</sub> ... ]] b’. [XP<sub>{α,β,+γ}</sub> ... YP<sub>{α,β,-γ}</sub> [ t<sub>XP</sub> ... ]]  
 → OK because XP and YP have a different GF {-γ}, {+γ} (or {+γ}, {-γ}).
- c. [XP<sub>{α,β,δ}</sub> ... YP<sub>{α,β}</sub> [ t<sub>XP</sub> ... ]] c’. [XP<sub>{α,β}</sub> ... YP<sub>{α,β,δ}</sub> [ t<sub>XP</sub> ... ]]  
 → OK because XP (or YP) has an additional distinctive GF {δ}.

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<sup>9</sup>S. Kuno (1980a, b) puts forth a functional approach which he calls Crossing-over Constraint as an anti-ambiguity device (i), which applies at the performance level.

- (i) [T]he greater the likelihood of ambiguous interpretation, the more difficult it is to switch the word order of two NPs marked with the same grammatical formative (e.g., particles).  
 (S. Kuno 1980b:p.175)

In a nutshell, Crossing-over Constraint is calculated based (solely) on the types of particles involved, and it does not take into the featural content of NP to which particles are attached to (see S. Kuno 1980b). Mihara (1994:Ch.3, pp.100–101) and Oku (1998:Ch.5, pp.182–184) proposes a similar but different account, where they argue that the impossible SoS is due to a parsing difficulty.

<sup>10</sup>How the FMC is implemented requires careful and further examination, and it is tempting to incorporate it into Saito’s (2001, 2003, 2005) derivational feature decomposition analysis of scrambling (though Saito explicitly seeks an analysis of scrambling that is not feature-driven), but I leave the task for future research.

<sup>11</sup>Note in passing that subject can undergo (long-distance) right dislocation (RD) in Japanese. It is worth noting here that the impossible and possible RD of subject parallels with that of SoS in that it is regulated by the FMC. This provides further confirmation that RD is an instance of scrambling, and the derivation of RD involves sentential repetition, scrambling, and sluicing (Tanaka 2001, Yamashita 2011, a.o.). It is also important to note that the fact that (long-distance) RD violating the FMC is impossible is in line with the well-known observation that minimality violation is not repaired under sluicing.

#### 4 Reconsidering Scrambling in General: Scrambling is Subject to FMC

To the extent that the (im)possibility of SoS is regulated by the FMC, and SoS is a usual instance of scrambling in the sense that it shows radical reconstruction effect, we are lead to conclude that scrambling in general is subject to the FMC. This is obviously a challenging claim, given the long-standing consensus that scrambling (of objects) in Japanese is minimality-free, which, to the best of my knowledge, had not been seriously challenged by anyone. I will show that Japanese-type scrambling in general is subject to the FMC.<sup>12</sup>

Despite the long-standing consensus that scrambling in Japanese is minimality-free (Abe 1993, Takano 1995, Saito and Fukui 1998, among many others), that scrambling in Japanese is not completely minimality-free is sporadically mentioned in the literature. (20) is the typical and representative example.<sup>13, 14</sup>

##### Scrambling of a Dative animate IO crossing a Dative animate IO

- (20) (~S. Kuno 1980a:p.154, (11b)/S. Kuno 1980b:p.183, (14b), ~Miyara 1982b:p.545, (37c), ~Oku 1998:Ch.5, p.184, (49), ~Richards 2002:p.242, (40a))

[XP-OBJ<sub>{DAT}</sub> ... YP-OBJ<sub>{DAT}</sub> [CP ... t<sub>XP</sub> ... ] ]  
 [Yumi-ni<sub>i</sub> Ken-ga (\*Aya-ni) [CP Mari-ga t<sub>i</sub> atteita to] hookoku-shita-yo].  
 Y.-DAT K.-NOM A.-DAT M.-NOM was.meeting C report-TNS-SFP  
 ‘(intended) [Yumi(DAT)<sub>i</sub>, Ken reported to Aya(DAT) [CP that Mari was meeting t<sub>i</sub>]].’

(20) shows that otherwise possible LDS of a Dative indirect object (IO) becomes ungrammatical when it crosses a matrix Dative IO (S. Kuno 1980a, b, Miyara 1982a, b; see also Oku 1998, Richards 2002). Note that the LDSed embedded IO and the intervening matrix IO share the same set of GFs. Then why (20) is ungrammatical (when the matrix IO intervenes) is not surprising at all. It is just an instance of FMC-violation. We then predict that when either the LDSed embedded IO or the matrix IO bears distinct GFs, the FMC-effect in question disappears. This prediction is in fact borne out; when the moving element and the intervening element differs in animacy (as in (21)), and/or when the moving element or the intervening element has additional features (as in (22) and (23)), the FMC-effect is absent.

##### Scrambling of a Dative *animate* IO crossing a Dative *inanimate* IO

- (21) [XP-OBJ<sub>{DAT,+Ani}</sub> ... YP-OBJ<sub>{DAT,-Ani}</sub> [CP ... t<sub>XP</sub> ... ] ]  
 ? [Yumi-ni<sub>i</sub> Ken-ga *keisatsu-ni* [CP Mari-ga t<sub>i</sub> atteita to]  
 Y.-DAT K.-NOM police-DAT M.-NOM was.meeting C  
 hookoku-shita-yo].  
 report-TNS-SFP  
 ‘(intended) [Yumi(DAT,+ANI)<sub>i</sub>, Ken reported to the police(DAT,-ANI) [CP that Mari was meeting t<sub>i</sub>]].’

##### Scrambling of a Dative animate IO *Wh*-phrase crossing a Dative animate IO

- (22) [XP-OBJ<sub>{DAT,+Wh}</sub> ... YP-OBJ<sub>{DAT}</sub> [CP ... t<sub>XP</sub> ... Q] ]  
 [Dare-ni<sub>i</sub> Ken-ga Aya-ni [CP Mari-ga t<sub>i</sub> atteita ka]  
 who-DAT K.-NOM A.-DAT M.-NOM was.meeting Q  
 hookoku-shita-yo].  
 report-TNS-SFP  
 ‘[Who(DAT,+WH)<sub>i</sub>, Ken reported to Aya(DAT) [CP Q Mari was meeting t<sub>i</sub>]].’

<sup>12</sup>See Yamashita 2012b for a detailed discussion, including multiple scrambling.

<sup>13</sup>I will only discuss the indirect object marked with Dative Case *-ni* here, but the same effect carries over to PP object (e.g., *-kara*) as well.

<sup>14</sup>Adjuncts can undergo scrambling in Japanese (see Bošković and Takahashi 1998, Boeckx and Sugisaki 1999, and Sugisaki 2001; contra Saito 1985), and it shows the minimality effect (see Saito 1985: Ch.3, pp.188–189 for the relevant discussion). As far as I can tell, the FMC-based analysis is able to capture the effect.

Scrambling of a Dative animate IO *NPI* crossing a Dative animate IO<sup>15</sup>

- (23) [XP-OBJ<sub>{DAT,+NPI}</sub> ... YP-OBJ<sub>{DAT}</sub> [CP ... t<sub>XP</sub> ... Neg] ]  
 [Yumi-ni-*shika*<sub>i</sub> Ken-ga Aya-ni [CP Mari-ga t<sub>i</sub> awa-*nakat*-ta to]  
 Y.-DAT-NPI K.-NOM A.-DAT M.-NOM meet-NEG-TNS C  
 hookoku-shita-yo].  
 report-TNS-SFP  
 ‘[Only Yumi(DAT)](NPI)<sub>i</sub>, Ken reported to Aya(DAT) [CP that Mari (NEG) met t<sub>i</sub>].’

To sum up, I have shown in this section that, contrary to the long-standing claim, Japanese scrambling in general is subject to a version of minimality effect, and the impossible and possible scrambling of object are regulated by the FMC.

## 5 FMC and the Nature of Japanese Syntax

So far, I have shown that SoS is in principle possible in Japanese, and not only SoS but all the instances of scrambling in Japanese to a FMC, a version of minimality. There is an apparent exception to the FMC. That is, despite the FMC imposed on Japanese scrambling, not all the cases involving different grammatical features lead to a licit scrambling. Consider (24), discussed in Miyara 1982a, b. In this example, the embedded and the matrix subject differs in person, but it is nonetheless ungrammatical.

Scrambling of a Nominative 3<sup>rd</sup> person subject crossing a Nominative 1<sup>st</sup> person subject

- (24) (~Miyara 1982b:p.545, (37a), slightly modified)  
 [XP-SUB<sub>{NOM,3<sup>rd</sup>}</sub> YP-SUB<sub>{NOM,1<sup>st</sup>}</sub> [CP t<sub>XP</sub> ...] ]  
 \* [Mari-ga<sub>i</sub> watashi-ga [CP t<sub>i</sub> Ken-o (jitsu-wa) aishiteiru to] kizuita].  
 M.-NOM I-NOM K.-ACC in.fact loves C found.out  
 ‘(intended) [Mari(NOM,3<sup>rd</sup>)<sub>i</sub>, I(NOM,1<sup>st</sup>) found out [CP that t<sub>i</sub> (in fact) loves Ken]].’

But this does not undermine the FMC analysis. What it implies is that the differences with respect to person/gender/number do not ameliorate LDS of subject, suggesting the agreement-defective nature of Japanese, which is accepted in one form or other.<sup>16</sup>

In fact, a closer scrutiny reveals that this kind of example can also be ameliorated by the procedures used above. When a different feature is involved and/or an additional feature is attached, LDS of subject becomes possible, which further gives credence to the FMC.

Scrambling of a *Nom.* 3<sup>rd</sup> person subject crossing a *Topic*-marked 1<sup>st</sup> person subject

- (25) (~S. Kuno 1980b:p.182, (11b), ~Miyara 1982b:pp.543–544, (33b))  
 [XP-SUB<sub>{NOM,3<sup>rd</sup>}</sub> YP-SUB<sub>{TOP,1<sup>st</sup>}</sub> [CP t<sub>XP</sub> ...] ]  
 ? [Mari-ga<sub>i</sub> watashi-wa [CP t<sub>i</sub> Ken-o (jitsu-wa) aishiteiru to] kizuita].  
 M.-NOM I-TOP K.-ACC in.fact loves C found.out  
 ‘(intended) [Mari(NOM)<sub>i</sub>, I(TOP) found out [CP that t<sub>i</sub> (in fact) loves Ken]].’

Scrambling of a *Nom.* 3<sup>rd</sup> person subject crossing a (*Top.*-marked) *Dat.* 1<sup>st</sup> person subject

- (26) [XP-SUB<sub>{NOM,3<sup>rd</sup>}</sub> YP-SUB<sub>{DAT,1<sup>st</sup>},{TOP}</sub> [CP t<sub>XP</sub> ...] ]  
 ? [Mari-ga<sub>i</sub> watashi-ni(-wa) [CP t<sub>i</sub> Ken-o (jitsu-wa) aishiteiru to]  
 M.-NOM I-DAT-TOP K.-ACC in.fact loves C  
 kizuk-e-ta].  
 found.out-can-TNS  
 ‘(intended) [Mari(NOM)<sub>i</sub>, I(DAT) was able to find out [CP that t<sub>i</sub> (in fact) loves Ken]].’

<sup>15</sup> *Shika*-NPIs are subject to a virtually same condition as Wh-phrases in that it must once be c-commanded by a NEG-head (see Yamashita 2008 and references cited in).

<sup>16</sup> See Fukui 1986, Kuroda 1988, Fukui and Sakai 2003, Obata 2010 and the relevant related works cited there for the discussion regarding the agreement-defective nature of Japanese.

- Scrambling of a *Nom.* 3<sup>rd</sup> person subject *Wh*-phrase crossing a *Nom.* 1<sup>st</sup> person subject
- (27) [XP-SUB<sub>{NOM,3rd,+Wh}</sub> YP-SUB<sub>{NOM,1st}</sub> [CP t<sub>XP</sub> ...] ]  
 ? [*Dare-ga, watashi-ga* [CP t<sub>i</sub> Ken-o (jitsu-wa) aishiteiru *ka*] Aya-ni  
 who-NOM I-NOM K.-ACC in.fact loves Q A.-DAT  
 shirabe-saseta-yo].  
 made.investigate-SFP  
 ‘(intended) [Who(NOM,WH)<sub>i</sub>, I(NOM) made Aya investigate [CP ... Q [t<sub>i</sub> (in fact) loves Ken]]].’

- Scrambling of a *Nom.* 3<sup>rd</sup> person subject crossing a *Dative* 1<sup>st</sup> person subject *NPI*
- (28) [XP-SUB<sub>{NOM,3rd}</sub> YP-SUB<sub>{DAT,1st,NPI}</sub> [CP t<sub>XP</sub> ...] Neg]  
 ? [*Mari-ga, watashi-ni-shika* [CP t<sub>i</sub> Ken-o (jitsu-wa) aishiteiru to]  
 M.-NOM I-DAT-NPI K.-ACC in.fact loves C  
 kizuk-e-*nakat*-ta].  
 found.out-can-NEG-TNS  
 ‘(intended) [Mari(NOM)<sub>i</sub>, I(DAT,NPI) was (NEG) able to find out [CP that t<sub>i</sub> (in fact) loves Ken]].’

## 6 Beyond Japanese Scrambling: A (Preliminary) Cross-linguistic Consideration

Having established that Japanese scrambling are in general subject to a FMC, I would like to turn to a cross-linguistic consideration by considering Boeckx and Jeong’s (2003:p.33) claim that “[a] detailed featural characterization would incorrectly rule [(29)] in if it required featural identity as the cause of intervention.”

- (29) (Boeckx and Jeong 2003:p.33, (2))  
 \* Who<sub>i</sub> did you say [CP that [to Sue]<sub>j</sub> Bill introduced t<sub>i</sub> t<sub>j</sub>]?  
 cf. Who<sub>i</sub> did you say [CP that Bill introduced t<sub>i</sub> [to Sue]]?

Here, it is reasonable to assume that the embedded topicalization of *to Sue* blocks *Wh*-movement. But note that “[a] detailed featural characterization” is exactly what is involved in the FMC, governing scrambling in Japanese, but should not be governing A’-movement interaction in English. I would like to suggest that the apparent parametric difference between English and Japanese is resolved by Feature-Splitting Parameter (FSP), which is an extension of Feature-Splitting analysis of Internal Merge (i.e., movement) developed in Obata (2010).<sup>17</sup>

- (30) **Feature-Splitting Parameter:**  
 Languages equipped with “non-defective” agreement is subject to the “usual” Feature-Splitting (which splits A’- and A-features of a single lexical item), while languages equipped with “defective” agreement is subject to the “radical” Feature-Splitting (which can split not only A’- and A-features of a single lexical item, but also allows to split within A’- and A-features).

(31) illustrates the parametric differences in which a given XP is subject to a Feature-Splitting.

- (31) Illustrations of Feature-Splitting Parameter:  
 a. English(-type languages): XP[A’-features(Wh, Top, NPI)], [A-features(Case, Phi)]  
 b. Japanese(-type languages): XP[Wh], [NPI], [Case], [Animacy], [+Hon], etc.

Given the “usual” setting of Feature-Splitting in English, Boeckx and Jeong’s example and concern can be properly handled., Or put the other way around, since Japanese allows the “radical” Feature-Splitting (which perhaps is linked to its unique property being a “defective/weak” agreement language), that makes it possible to evade the English-type minimality effects.

<sup>17</sup>See Obata (2010) and the relevant related works cited there for the details of Feature-Splitting.



## 7 Conclusion

To conclude, I have shown that, by gathering evidence from the past literature and by presenting new evidence, subjects can undergo scrambling in Japanese, arguing against Saito's (1985) Ban on Scrambling of Subject (BOSS), which has been a classic and wide-spread claim. In so doing, I have argued that Japanese scrambling in general is subject to a version of minimality/superiority effect, a Feature-based Minimality Condition (FMC). I have also suggested that apparent difference between the applicability of FMC in Japanese and the inapplicability of FMC in English is due to Feature-Splitting Parameter. Although much work is still necessary, I hope that present study contributes not only to the better understanding of Japanese scramblings, but also to the general mechanisms of movement properties human language exhibits.

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