On Japanese Scrambling and Its Focus Relations*
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1. Introduction

This paper is concerned with the pragmatics of some particular sentences where so-called left-peripheral positions are involved.[1] It is assumed that certain left-peripheral positions are closely connected with discourse functions such as topic and focus. However, what discourse effects are related has not been well-established. In this paper, I try to elucidate some aspect of pragmatic nature at the left periphery by observing scrambling and (seemingly) non-scrambling sentences in Japanese.

First, observe the following question-answer pair:

(1) Q: Taroo$_i$-ga   nani-o   sita   no?
     Taro-NOM   what-ACC   did   Q
     'What did Taro do?'

   A: Taroo$_i$-ga   [$_{VP}$hon-o   katta]   yo
     Taro-NOM   book-ACC   bought   I-TELL-YOU
     'Taro bought a book'

The first occurrence of *Taroo* will serve as an antecedent for the second, and thus the answer cannot have the sentence-focus (or, presentational/thetic) interpretation. Technical details aside (see section 2), in the answer clause in (1), the main stress falls on the object DP *hon*, but not on the subject DP *Taroo*. The speaker in (1Q) asks what Taro did, and thus in the answer, the whole VP should be focused. In this case, since the subject DP is not focused, it can be reasonably assumed that the subject is associated with given information.

The fact that the subject of predicational sentences can be marked with the nominative case marker *ga* is not a trivial matter.[2] In the majority of cases, the expression mentioned in prior discourse can be marked by the particle *wa* (which indicates the expression has a definite referent); or (because Japanese is a pro-drop language, i.e., the subject can be null) it can be simply omitted, with the topic left understood. Accordingly, the question in (1) will be answered most naturally with the utterance where the subject *Taroo* is omitted, or marked with *wa* as in (2) (The bracket indicates the subject may be explicated):

(2) (Taroo-wa) hon-o   katta   yo
     Taro-TOP   book-ACC   bought   I-TELL-YOU
     'Taro bought a book'

Generally, as in (2), it is assumed that in predicational sentences, the subject is marked with *wa*. This is quite plausible because *wa* typically attaches to a topical material,

and the predicate is in focus and the subject is within presupposed portions. Nevertheless, as seen in (1), the second occurrence of *Taroo* which seems to bear the same index with *Taroo* in the question can in fact be marked with *ga*, which will require an explanation.[3]

It has been sometimes pointed out in the literature that *ga* may be used when the subject phrase does not express 'new' information in the sense that it is not referred in prior discourse.   For example, Iori (1997), observing the distributions of the *kono*-DP "this-DP" and the *sono*-DP "that-DP", suggests that *wa* is preferred when DPs that denote 'definite information' are marked with *kono*, and *ga* is likely to attach to the *sono*-DP that represents 'definite information'. 'Definite information' is defined roughly as follows (cf. Iori (1997:133)):

(3)   A DP expresses definite information when it is *reintroduced* into discourse.

Iori notes that definite information is not equivalent to rather general notion 'definite.' For example, generic DPs are definite in nature, but they cannot be seen as representing definite information unless they are used repeatedly (cf. Iori (1997:133)):

(4)   sake-ni-wa   hyaku-gai-ga   aru.
      alcoholic beverage-DAT-TOP   hundred-evel-NOM   exist

      ga,   ningen-wa   sono   sake-ga   yame-rare-nai
      but   human-beings-TOP   that   alcoholic beverage-NOM   stop-can-NEG
      'Drinking is destructive.   But we cannot stop (drinking)'

Since *sake* is a generic expression, it must be definite.   But, according to (3), only the second occurrence of it, i.e., *sono sake* represents definite information.[4]   In this paper, I will simply call Iori's definite information (DPs) 'second occurrence' expressions.

Examples such as (1) and (4) show that we cannot simply say that *ga* attaches to 'non-presupposed' expressions.   With respect to this point, Iori (1997:128) claims that the subject *sono*-DP-*ga* is preferentially used, when two situations or events are described in a single text, but at the same time, they are treated as incompatible with each other (or their relatedness is not obvious), and thus will not be anticipated to be connected.   Following de Beaugrande and Dressler (1981), Iori calls such a relation the 'contrajunction' relation.   For illustration, consider (5) (cf. Iori (1997:129)):

(5) a.   Jyunko-wa   anata   naside-wa   iki-rare-nai   to
         Jyunko-TOP   you   without-TOP live-can-NEG   COMP
         it-tei-ta.
         say-STAT-PAST
         'Jyunko has been said, "I can't live without you"'

   b.   sono   Jyunko-ga/#wa   ima-wa   hokano otoko-no
        that   Jyunko-NOM/TOP   now-TOP   other   man-of

kodomo-o   futari-mo   un-deiru.

child-ACC   2-CL-even   bear-STAT   (CL = classifier)

'(But) now Jyunko has two children by some other man'

When we hear the utterance in (5a), we do not expect that *Jyunko* will marry some other man.   Accordingly, that *Jyunko* has children by some other man is unexpected situation from the situation described in (5a).   Though both sentences in (5) occur in the same text, because of their incongruity, they will not be connected directly.   These two sentences are in relation of contrajunction.   Iori claims that, in such cases, (the second occurrence) subject DPs are marked with the nominative case marker *ga*, and in spite of their given status, a topic marker *wa* is not usually used.[5]

There seems to be, however, some other factors that determine the acceptability of sentences involving the *ga*-marking of the second occurrence subject DPs.   If the responsibility for the *ga*-marking of second occurrence expressions lay solely on the contrajunction relation, it follows that the example in (6b) must also be accepted. This is not the case, however:

(6) a. Taroo-wa   imamadeni simekiri-o   mamotta-koto-ga   nai

Taro-TOP   so far   deadline-ACC   meet-NL-NOM   not

'Taro has never met the deadline'   (NL = nominalizer)

b. #rombun-o   sono Taroo-ga   ikkagetu   mae-ni   teisyutu-sita

b'. sono   Taroo-ga   rombun-o   ikkagetu   mae-ni   teisyutu-sita

that   Taro-NOM   article-ACC one-month before-on   submitted

'Taro submitted his paper a month before the deadline'

In (6b), the object DP is scrambled to the sentence initial position; and as a result, the sentence cannot be uttered naturally.   The two sentences in (6a, b) are in the contrajunction relation, but, as the unacceptability of (6b) indicates, the use of *ga* is not allowed when the object is scrambled to the initial position.   (See (6b') for a natural answer where the subject DP occurs sentence-initially.)   Since the contrajunction relation holds in this text, it seems to be plausible that the scrambling word order has a certain pragmatic effect, which causes marginality in (6b).

It is widely held that Japanese scrambling is a semantically vacuous operation (cf. Saito (1989)).   In contrast to this, Ishihara (2000), building on Cinque (1993), has shown that focus structure of the sentence is somehow changed by scrambling, and thus scrambling has certain effects on output.   For Reinhart (1995), much like for Ishihara, optional operations such as scrambling is motivated only when the intended focus relations are otherwise unavailable (cf. also Chomsky (1999:26ff.)).   However, whether or not the semantic/pragmatic contribution is due to scrambling *per se* is a matter that requires careful considerations.   Ishii (2001:19f.), for example, claims that

the seemingly semantic effects are not caused by scrambling, but by a certain pragmatic role assigned to an element in the sentence-initial position.

To see what kind of semantic effects involved with the (non-)scrambling sentences, or how the focus structures are affected by word order, I am also concerned with phonological aspects observed in the scrambling order. Intuitively, the interpretation of (1A) (repeated below as (7a)) is reminiscent of that of its scrambling counterpart in (7b) (at least if they are uttered out-of-the-blue):

(7) a. Taroo-ga   hon-o   katta   yo
        Taroo-NOM   book-ACC   bought   I-TELL-YOU
        'Taro bought a book'

    b. hon-o   Taroo-ga   katta   yo
        book-ACC   Taroo-NOM   bought   I-TELL-YOU
        'Taro bought a book'

The sentence in (7b) can be naturally uttered to a question like "Who bought a book?" In such a case, *hon*, which is marked with the accusative case, is 'anaphorically recoverable' in the sense of Halliday (1967), and thus will not be accented. If we take (7b) as an answer to a question like "What happened?" *hon* is 'textually or situationally non-derivable information' (cf. Halliday (1967)). In the latter discourse, the entire sentence is focused, though, in this case again, the main stress will not fall on the left-peripheral material *hon*.

In section 2, I briefly see the sentential stress assignment and its interaction with focus, proposed by Reinhart (2003) and Ishihara (2000). Based on their observation, I will consider the semantic/pragmatic effects of scrambling and seemingly non-scrambling cases in Japanese in section 3. As we will see, whether second occurrence expressions can be marked with *ga* is related to not only the contrajunction relation, but word order. I examine scrambling and non-scrambling cases, and see, in some cases, the subject DP is also scrambled to the left edge position string-vacuously. Section 4 summarizes this paper.

2. Free Word Order and Focus Relations

2.1. *How Focus Relations Are Restricted*

In languages with rather unrestricted word order like Japanese, focus relations can be expressed phonologically, morphologically, and syntactically. This subsection sees, as background, the analysis of sentential stress outlined in Reinhart (2003) (cf. also Reinhart (1995, 1996), Neeleman and Reinhart (1998), Reinhart (2005)). Reinhart suggests that the information needed for semantic interface is obtained through PF. She, building on Cinque (1993), then, defines focus as follows, from

Neeleman and Reinhart (1998:333):

(8) Focus Rule

The focus set of IP consists of the constituents containing the main stress of IP.

Reinhart defines focus as a set of possible foci, i.e., a set of constituents that can serve as the focus of the derivation in a given context. Here, along the line with Cinque (1993), it is assumed that the main stress is put on *the most deeply embedded element in a phrase.* In simple terms, in both VO and OV languages, the most deeply embedded element is the object, as the bracketing below shows. (Throughout, an element bearing the main stress is indicated with boldface.):

(9) Main Stress Rule

  a. VO type:

$[_{IP}$ Subject $[_{VP}$ V $[_{DP}$ **Object**$]]]$

$[_{IP}$ $[_{DP}$ John$]$ $[_{VP}$ bought $[_{DP}$ a **book**$]]]$

  b. OV type:

$[_{IP}$Subject $[_{VP}$ $[_{DP}$ **Object**$]$ V$]]$

$[_{IP}$ $[_{DP}$ John-ga$][_{VP}$ $[_{DP}$ **hon-o**$]$ katta$]]$

    John-NOM   hon-ACC   bought

Given that the main stress falls on the object in both structures in (9), the focus set for both type is defined by (8), as follows:

(10) Focus set: {IP, VP, Object}

For illustration, consider the sets of utterances in (11). In (11a-c), the main stress equally falls on the object. Since the IP, the VP and the object contain the main stress, they can serve as focus, according to the rule in (8). But, in any of the following contexts, the focus selected in answer clauses cannot be the same. (F-bracketed constituents indicate the focus.):

(11) a. What happened? $[_F$ John bought a **book**$]$

    b. What did John do?   John $[_F$ bought a **book**$]$

    c. What did John buy?   John bought $[_F$ a **book**$]$

The examples in (11) show that elements that appear on the left of the main stress can be interpreted as either given or focus. (See section 3.1 for Japanese cases.)

Before seeing how the focus set is defined in Japanese scrambling cases, two more stress operations developed by Reinhart are in order here.[6] First, as the examples below indicate, an utterance is inappropriate if some constituent other than the one in (10) is used as an actual focus:

(12) a. Did John borrow a book?   #No, John $[_F$ bought$]$ a **book**

    b. Who bought a book?   #$[_F$ John$]$ bought a **book**

As we saw in (10), since the main stress falls on the object, the possible focus is the IP, the VP, or the object. In (12), however, as the bracketing shows, the focused material should be the verb in (12a), and the subject in (12b). Since the verb and the subject are not the possible foci (when the object DP *book* is stressed), the utterances in (12) sound unnatural.

For these cases, Reinhart assumes that a special stress shifting operation applies. The answer in (12a) can be felicitous if an extra stress is assigned to the verb. By assigning an extra stress, the main stress falls on *bought*, and thus the verb can be in the focus set. This is illustrated in (13):

(13) (Did John borrow a book?)

    a.   John bought a **book** ==>   (stress shifting)

    b.   John **bought** a book

Note that the focus set in (13b) is limited to the verb after the stress shift. Let us consider why. Reinhart calls the result in (13b) 'marked' stress. This is 'marked' because its derivation is more complex than the Main Stress Rule in (9a) which defines default stress. Such a (marked) stress shifting operation is not free, but allowed only when it is needed. Assume that the focus set of (13b) is {IP, VP, Verb, Object}. But, we already have an option in (13a) to focus the IP, the VP or the object. If the speaker wants the IP (the VP, or the object) to be focused, he can use (13a) to obtain such a focus structure. Consequently, there is no need to shift the main stress to obtain the same result as (13a). Hence, the stress shift can be motivated only when the verb needs to be focused. In other words, (13b) can only be used with the verb as focus. (See Reinhart (2003:26ff.).[7])

Another operation is called '(anaphoric) destressing.' According to Reinhart (2003:16) (cf. also Neeleman and Reinhart (1998:334) and Reinhart (2005:18)), this is an operation independent of the focus set. It is suggested in Reinhart (2005:18) that this operation applies to any anaphoric constituent at the word level, prior to the Main Stress Rule in (9). Consider the sentence involving an anaphoric expression such as a pronoun, and how it interacts with focus structures. Whether a DP is anaphoric or not depends on prior discourse. Since pronouns are mainly used anaphorically, they are almost obligatorily destressed. Suppose that the object is anaphorically destressed. In such cases, the object does not receive the main stress when the Main Stress Rule applies, as in (14a), where the location of stress is marked by an asterisk (cf. Reinhart (2005:18)):

(14) a. anaphoric destressing: *   *

                             Max   saw   her

b. Main Stress Rule: *

          Max   **saw**   her

Here the most embedded star is on the verb, and thus when the Main Stress Rule applies, the verb will carry the main stress.

By virtue of anaphoric destressing, the result in (14b) is virtually identical to (13b) where the main stress falls on the verb through main stress shifting. As we saw in (13), it is generally assumed that the focus obtained by shifted the main stress is narrow. Hence, elements other than a stressed phrase are interpreted as 'given' in the sense of Schwarzschild (1999).[8] As we saw, (13b) can be used only when the verb needs to be focused. On the other hand, in the case of (14) where the main stress is obtained by the Main Stress Rule, the focus set can contain the verb itself, and the VP and the IP which contain the verb. This shows that potential focus sets are not defined by the consequent stress patterning, but associated with how they are derived via stress assignment.

So far, we have seen the sets of possible focus relations are restricted by sentential stress assignment. Let us see how the stress operations outlined here work in Japanese (non-)scrambling cases in the next subsection.

2.2. Scrambling, Givenness, and Anaphoric Deaccenting in Japanese

In this subsection, I first describe succinctly some basic properties of Japanese scrambling sentences in view of sentential stress assignment, especially according to Ishihara (2000). In particular, we will see how a focus domain is constrained by what Ishihara calls Additional Stress Assignment: as we will see below, Additional Stress Assignment imposes a narrow focus reading. After seeing how the narrow focus reading is derived, I will see the similar stress patterning can be obtained by anaphoric destressing, in much the same manner as the English cases.

Basically, the position of the main stress does not shift in scrambling sentences:

(15) a.   non-scrambling case

Taroo-ga	**hon**-o	katta
Taro-NOM	book-ACC	bought

     b.   scrambling case

hon-o	**Taroo**-ga	katta
book-ACC	Taro-NOM	bought

'Taro bought a book'

As defined in (9b), the object *hon* receives the main stress in (15a), and the most deeply embedded phrase *Taroo* bears the main stress in (15b).[9] As we saw with Reinhart (2003) (cf. (13)), however, the position of the main stress can be changed by assigning an extra stress. Ishihara (2000:148) notes that such extra stresses exhibit

much higher, more prominent peaks than the main stress assigned by (9). He calls such an operation Additional Stress Assignment. For example, consider (16): (Additional stresses are indicated by uppercases.)

(16) a   [$_{IP}$ Taroo-ga   [$_{VP2}$ kyoo   [$_{VP1}$ [$_{DP}$ **hon**-o]   [katta]]]]

    b.   [$_{IP}$ Taroo-ga   [$_{VP2}$ [$_{ADV}$ KYOO]   [$_{VP1}$[$_{DP}$ hon-o]   [katta]]]]

      Taro-NOM   today   book-ACC   bought

Ishihara observes that Additional Stress Assignment is used when a narrow focus reading is needed. Thus, in (16b), the phrase that can be focused is the adverb only. By contrast, the main stress in (16a) is not assigned additionally, and a broad focus reading is available, i.e., the focus set for (16a) is {IP, VP2, VP1, Object}.

Ishihara further points out that in the case of Additional Stress Assignment, the elements that follow the stressed phrase are prosodically weakened, or deaccented: (Deaccented materials are indicated by small italics.)

(17) a.   Taroo-ga   KYOO   *hon-o*   *katta*

      Taro-NOM   today   book-ACC bought

    b.   HON-o   *Taroo-ga*   *kyoo*   *katta*

      hon-ACC   Taro-NOM   today   bought

In much the same way as Reinhart's stress shift operation, Ishihara supposes that this Additional Stress Assignment and deaccenting operation never take place when no semantic effect is required by the discourse. According to Ishihara, deaccented constituents always receive a given interpretation. Thus, if (17b) (repeated below as (18b)) is taken as an answer to a question like (18a), it can no longer be a felicitous answer because the new information *Taroo(-ga)* is deaccented:

(18) a.   dare-ga   hon-o   katta   no?

      who-NOM   book-ACC   bought Q

      "Who bought a book?"

    b.# HON-o   *Taroo-ga*   *kyoo*   *katta*

      hon-ACC   Taro-NOM   today   bought

Notice that deaccented materials always denote given information, but given information is not always deaccented. For example, in (19), since the adverb *kyoo* is additionally stressed, the lower VP *hon-o katta* is deaccented (Ishihara (2000:162)):

(19) a.   [$_{IP}$ Taroo-ga   [$_{VP}$[$_{ADV}$ KYOO] *hon-o*   *katta*]]]

      Taro-NOM   today   book-ACC bought

    b.   Focus set: {ADV} (not VP, IP)

In this case, both the VP and the IP contain the deaccented constituent, and hence they are incompatible with the focus interpretation. As a result, the possible focus is the adverb only. Ishihara assumes accordingly that elements that appear on the left of the

stressed phrase may be interpreted as given without deaccenting. In (19), *Taroo* is on the left of the stressed phrase, and in this case, *Taroo* cannot be focused. In order for *Taroo* to be focused, the IP must be focused; but this is prohibited by the deaccenting of the (lower) VP.

In this way, Additional Stress Assignment restricts the potential focus set to the stressed phrase. This is because elements on the right of the stressed phrase are deaccented and such elements are interpreted as given. Because of deaccenting of the right of the main stress, the left of the main stress is interpreted as given without deaccenting.[10] From these, with Ishihara (2000:166), we can say scrambling allows a phrase to be interpreted as given by locating it to the left of the main stress of the sentence. Since in Japanese any phrases other than the verb can be scrambled, it is possible in principle to apply this operation to any phrases except the verb.

Next, let us consider the stress shifting with anaphoric destressing (= deaccenting). Anaphoric destressing is based on the following generalization in Neeleman and Reinhart (1998:338):

(20) A DP is destressed if and only if it is D-linked to an accessible discourse entity.

This generalization says that a DP is destressed if it is appropriately D(iscourse)-linked (in the sense of Pesetsky (1987)), and a DP is not (fully) destressed if it is not D-linked. To see how it works, and how the deaccenting interacts with focus relations, compare the following examples (Neeleman and Reinhart (1998:339)):

(21) a. Max likes **cars**
    a' Focus set: {IP, VP, Object}
    b. Max **likes** her
    b' Focus set: {IP, VP, V}

As we have already seen in (14), the main stress is assigned after anaphoric destressing applies to the object. This stress assignment is not an additional one, and hence focus may project up to the entire IP. The only difference between the two is that (21a) allows the object to be focused, and (21b) allows the verb to be focused. Importantly, in (21b), stress shifting by anaphoric deaccenting does not block focus projection. (Recall that, in contrast with this, Additional Stress Assignment blocks focus projection.)

With this in mind, let us consider the Japanese cases. In the following question-answer pair, the object is used anaphorically, as indicated by *sono* 'that':

(22) a. dare-ga   sono   rombun-o   kaita   no?
     who-NOM   that   article-ACC   wrote   Q
     'Who wrote that article?'

b.(#)[$_{IP}$ [$_F$ **Taroo**-ga] [$_{VP}$ [$_{DP}$ sono   rombun-o]   kaita]]

            Taro-NOM   that   article-ACC   wrote

       'Taro wrote that article'

b'.   (out-of-the-blue)

     [$_{IP}$ Taroo-ga [$_{VP}$ [$_{DP}$ **sono rombun-o**] kaita]]

     Focus Set: {IP, VP, Object}

If the answer in (22a) is uttered out-of-the-blue as in (22b'), the possible foci are the IP, the VP, and the object. However, none of these foci can be used with the context in (22a-b). This is because it is the subject phrase that is expected to be focused in (22b). Thus, the main stress should fall on the subject *Taroo*. Although the most deeply embedded phrase is the object *sono rombun*, it will be anaphorically destressed because of the D-linking.[11, 12] In this case, because of the anaphoric destressing, the subject seems to be narrowly focused without stressing additionally. (As will appear below, (22b) will be most naturally uttered with the IP as focus. In this respect, I suppose that (22b) is distinguished from the case where an extra stress falls on the subject. See section 3.2 and 3.3.)

Scrambling order can also constitute a narrow focus domain without Additional Stress Assignment. Let us see what happens to potential focus sets when the object is scrambled to the left of the subject:

(23)   a.   [$_{IP2}$ sono rombun-o [$_{IP1}$ [$_F$ **Taroo**-ga] [$_{VP}$ [$_V$ kaita]]]]

      b.   Focus Set: {IP2, IP1, Subject }

Since the object is scrambled to a sentence-initial position, the VP does not contain the main stress. Consequently, the VP is not a potential focus domain. Instead, the subject receives the main stress and it can be the focus domain by itself. Suppose that (23a) is used as an answer to a question like 'Who bought the book?' In this case, the subject *Taroo* is used to replace the *wh* in the presupposed question, and thus it will receive a narrow focus reading (cf. footnote 12). In another context, since the IP1 and IP2 contain the main stress, they can serve as potential foci. When the IP2 serves as a focus domain, it represents the same focus domain as the IP of the non-scrambling case in (22b'). Notice, however, that the VP is not the potential focus domain in (23a). In other words, it must be interpreted as given. If so, then how the IP2 (and IP1) can serve as a focus domain when they contain the given phrase? Looking at this another point of view, we can say that the object DP is scrambled not to assign the main stress. This must be so, because if we want the object to be focused, we can obtain such a result by using non-scrambling word order. Viewed in this light, the scrambled object DP must be D-linked. In the next section, I will consider how the IP-focus interpretation is maintained when the IP contains D-linked phrases.

3. The Interpretations of (Non-)Scrambling Sentences

3.1. Seemingly Non-Scrambling Cases

At the end of the previous section, I discussed that when the object is scrambled to the left of the stressed phrase, it will be seen as given (even when Additional Stress Assignment is irrelevant). Since the object is scrambled out of the stressed position, it is plausible to assume that the scrambled object denotes a D-linked reading. But if we simply assume that the sentence initial phrase is 'given', one might wonder if the sentence in (23a) can be construed with the IP as focus in the sense that the sentence-focus structure receives a thetic reading; because in the sentence-focus structure, the subject and the predicate are both in focus. An apparent contradiction arises between the givenness of the sentence initial DP and the possibility of IP-focus/ thetic interpretation. Thus, simply:

(24) Scrambling order cannot receive a thetic reading.

By this statement, I am not saying that a sentence involving scrambled phrases can never be used to answer a question with forms of the sentence-focus structure. Thus, contrary to the generally accepted view, (24) indicates that we have sentence-focus constructions that do not express thetic propositions. For example, in the following context, we can answer a question like 'What happened?' by using a scrambling order:

(25) Context: John and Mary serve as treasurers of their class, and have kept money to go on holiday. When Taro, one of their classmates, met Mary, she looked so upset. And Taro asked her, 'What happened?' She answers:

[$_F$ ano okane-o **John**-ga tukatte-simatta] no
that money-ACC John-NOM spend-PAST I-TELL-YOU
'John spent that money'

Here, the sentence is presented as having the sentence-focus structure. Notice, however, that in (25) the object phrase is modified by the demonstrative *ano* 'that.' In Japanese, *ano* indicates that the speaker assumes that the hearer also knows about the referent in question (cf. Iori (2000:304) and the reference cited therein). In this case, by the use of *ano*, what is evoked is 'the money that John and Mary have kept'. Sentence-focus constructions usually express thetic propositions: however, in (25), the speaker's attention first directs to the money, and then the predicate is connected to it, hence the absence of a thetic reading.

With non-scrambled word order, a thetic reading is allowed. For example, consider the following examples:

(26) a. nani-ga atta no?
     what-NOM happened Q

'What happened?'

b. [F Taroo-ga   **hon**-o   katta]

   Taro-NOM   book-ACC   bought

   'Taro bought a book'

(27) a. Taroo-ga   nani-o   sita   no?

      Taro-NOM   what-ACC   did   Q

      'What did Taro do?'

b. Taroo-ga [F **hon**-o katta]

In the context in (26), the IP should be selected as focus, and the sentence expresses a thetic proposition. If we slightly modify the context as (27), the VP is the intended focus. The main stress in (27b) is not an extra stress, and hence it does not block focus projection. Since the IP contains the main stress, it is a potential focus domain. Of course, the IP cannot be used as an actual focus with the context in (27). Since the question posed in (27) requires information about the subject DP *Taroo*, the answer clause should be used with the selection of the VP as focus. Notice that, although the subject DP *Taroo* has already occurred in the question, it is used with the *ga*-marking. It is generally held that in simple clauses, the subject is marked with *ga*, and it is interpreted as 'new.' But this is not so in the case of (27). The fact that the *ga*-marked phrase can serve as a topic of the sentence shows that the *ga*-marked phrase is taken out of the focus domain, and hence a thetic reading is not available.

We have already seen in (23) that, if the object is excluded from the focus domain, it can overtly move to the left of the stressed phrase; and hence the scrambling word order. I suppose that the same applies to the case in (27). The subject DP in (27a) is the antecedent for the subject DP in (27b). As we saw, the intended focus domain is the VP, and *Taroo* in the subject position in the SOV order is counted as being outside the focus domain. In this case, I suppose that the subject may be scrambled to some left edge position, possibly, to serve as topic. (I examine what kind of pragmatic effect follows from the subject scrambling in the next subsection.)

In fact, if the subject phrase is clearly D-linked, it should be placed sentence-initially, and scrambling other phrases over the subject is not allowed. Consider the following text:

(28) a. Taroo-wa   umarete   konokata   byooki-o

      Taro-TOP   be-born   through-long   disease-ACC

      sita-koto-ga   nai

      did-NL-NOM   *neg*

      'Taro has never got sick all his life'

b.# kaze-de gakkoo-o   sono   Taroo-ga   kesseki-sita no-da

b'. sono   Taroo-ga   kaze-de   gakkoo-o   kesseki-sita no-da

that   Taro-NOM   cold-with   school-ACC   absence-did NL-COP

'Taro was absent from school with a cold'

Since *Taroo* is linguistically introduced in (28a), *(sono) Taroo* in (28b, b') can be seen as a repeat of it, i.e., the second occurrence. Here, the relation between (28a) and (28b, b') is the one of contrajunction (see section 1). That is, *Taroo* in (28b, b') is introduced into discourse with a certain textual meaning such that 'he has never got sick,' and then is connected with the predicate which represents an unexpected proposition. In (28b), the adverbial phrase and the object phrase are scrambled over the subject phrase, and thus these phrases will be seen as given. Since this text has a contrajunction relation, the adverbial and the object must be in focus. The word order in (28b) is ruled out because the inappropriate scrambling operation is applied. A possible sequence is the one in (28b') where *sono Taroo-ga* is placed sentence-initially. Importantly, as I mentioned just above, *Taroo* does not simply represent a proper noun, but added some extra meaning textually (i.e., he has never got sick). In this sense, though *Taroo* is repeated here, these two *Taroo*s are not identical: the one in (28a) may refer to a man named *Taroo*, but the other one in (28b') is *Taroo* uniquely determined only in this text (linguistically). The subject phrase *sono Taroo(-ga)* can be seen as 'new' in that disjoint reference is intended between these DPs. However, as shown in (29a), since this sentence cannot have a thetic structure, the subject phrase must be seen as being placed outside the focus domain. This is possible if we assume that the subject DP is scrambled to some higher position string-vacuously, where phrases receive a given interpretation:

(29) a.   sono Taroo-ga [$_F$ kaze-de **gakkoo-o** kesseki-sita]

      b.   [$_{XP}$ [$_{DP}$ sono Taroo-ga]$_i$ [$_{IP}$ ___$_i$ kaze-de gakkoo-o kesseki-sita]]

3.2. Subject Scrambling, and Its Semantic Effect

The idea that the subject DP can be scrambled is in direct opposition to the widely held view that the subject in Japanese cannot be scrambled (cf. Saito (1985)). I do not go into any details about syntactic derivation here (for the relevant issue, see Miyagawa and Arikawa (2004) in particular); but, as we will see below, the subject scrambling does have certain pragmatic effect which is not available in the non-scrambling cases.

To start with, consider the following situation depicted in (30):

(30) Context: A man meets one of his classmates after his study abroad experience, and starts talking with her. He wanted to catch up on their classmates' news, and asks how *Taroo*, one of his classmates, is doing. She replies:

a. #Taroo-ga   eiken   1-kyuu-o   totta   yo
   Taro-NOM   STEP   1st grade-ACC pass   I-TELL-YOU
b. (Taroo-wa)   eiken   1-kyuu-o   totta   yo
   Taro-TOP   STEP   1st grade-ACC pass   I-TELL-YOU
   'Taro passed STEP 1st grade' (STEP=Society for Testing English Proficiency)

Taroo is a topic here. As the contrast in (30a, b) shows, the thematic subject *Taroo* is naturally marked by the topic marker *wa*, but the nominative case marking gives rise to marginality. Since the focus domain is the VP in (30a), *Taroo* is excluded from it. In this case, the sentence cannot receive a thetic reading. Since the thetic reading always indicates that the entire IP is an expected focus of the sentence, the subject phrase must be located at some higher position than the original (spec-IP) position. When the subject is marked with *ga*, I have had the following two possible interpretations in mind. One is the construal with the IP as focus (i.e., non-scrambling, thetic interpretation), and the other is the construal with the VP as focus (i.e., string-vacuous subject scrambling, categorical interpretation). (The third reading where the stressed object itself is a focus of the sentence (i.e., a narrow focus reading) is not at issue here.)

From the unnaturalness of (30a), I tentatively characterize the tendency of the subject scrambling:

(31) The subject scrambling causes marginality.

What then is the cause of the marginality in the subject scrambling cases? It is useful to see Ishii's (2001) claim that there is a pragmatic effect of the surface-linear order that results from the scrambling. Ishii suggests that the sentence-initial DP bears a certain pragmatic role. Though its exact nature remains unsettled, he proposes that the sentence-initial DP is used to indicate that it is not just presupposed but it introduces a new topic or a new point of view. Consider the following example (cf. Ishii (2001:18)):

(32) Context: Someone stole some money.

a. **dare**-ga   *okane-o*   *nusunda*   *no?*
b.# Okane-o   **dare**-ga   *nusunda*   *no?*
   money-ACC   who-NOM   stole   Q
   'Who stole the money?'

The object *okane* 'money' is available from the preceding discourse. In this sense, it is presupposed or D-linked. In this situation, it is inappropriate to present it as an indefinite as in (32b). The presupposed DP must be made definite by adding *sono* 'that':

(33) sono okane-o **dare**-ga *nusunda no*?

The D-linked status of the object indicates that a topic of the sentence shifts to the DP. Then, what about the sentence in (30a)? The subject DP is a presupposed portion of the utterance, and in the question, it is also used as a topic of the sentence. If the scrambling order is used to indicate topic-shift,[13] we can say that the marginality of (30a) is due to a lack of topic-shift interpretation:

(34) Subject scrambling causes marginality unless the subject DP indicates topic shift.

The sentence in (30a) can also be felicitously uttered when we add *ano* 'that' to the subject DP:

(35) (In the situation depicted in (30))

ano Taroo-ga **eiken 1-kyuu**-o totta yo

Strictly speaking, the demonstrative *that* 'ano' in (35) does not refer to the first occurrence of *Taroo*. Rather, it is used to *deny* some presupposed properties which *Taroo* has, and indicates that what the speaker is saying is unexpected from what the speaker and hearer know about *Taroo*. In a sense, *Taroo* is 'given' because it is D-linked. In another sense, it is presented as 'new', and thus it must receive some kind of focus, because the subject DP in scrambling sentence (35) is not just repeated but is used to focus on non-presupposed portion of *Taroo*. While maintaining a coreference relation between the subject and a topic in prior discourse, in the claimed subject scrambling, the subject is aggressively dissociated from its antecedent candidate. Such phrases are, thus, set sentence-initially as if it were a new topic. I shall call this *a newly established topic*.

In short, a newly established topic is set via *the denial of the speaker's (and/or hearer's) presupposition*. In many cases, when the (thematic) subject are used as if it were new (e.g., by marking with *ga*), what Gary (1978) calls, the counter-expectation is reflected. For example, reconsider (27), repeated below:

(27) a. Taroo-ga   nani-o   sita   no?
        Taro-NOM   what-ACC   did   Q
        'What did Taro do?'

    b. Taroo-ga [ᵣ **hon**-o katta] yo

Here it is quite natural to assume that the speaker answers the question by implicating that it is unexpected that Taro bought a book. In this way, when what I call here the second occurrence DPs are concerned, the most natural interpretation should reflect what is contrary to expectation in a given situation. Recall that contrajunction relations are based on incongruity of two sentences in a text. In my terms, such incongruity arises from the denial of the presupposition.

The denial of the presupposition has largely to do with what kind of predicate the subject is connected to. Needless to say, the subject of the predication must be specified in advance. Notice, however, that I am not simply saying that the scrambled phrases should be made definite. For illustration, consider the following examples:

(36) (In the situation described in (30))

#kare-ga	**eiken 1-kyuu**-o		totta	yo
he-NOM	STEP 1st grade-ACC		pass	I-TELL-YOU

'Taro passed STEP 1st grade'

(37) (In the situation described in (32))

#sore-o	**dare**-ga	nusunda	no?
it-ACC	who-NOM	stole	Q

'Who stole it?'

Let us assume that in (36) the subject is scrambled, and in (37) the object is scrambled to the initial position. As the prefixed unnaturalness sign shows, however, these sentences do not fit into their context. In both examples, the initial phrases are clearly D-linked, and hence the utterances do not sound natural because of a lack of topic-shift interpretation (cf. (34)).

In the next subsection, I will briefly consider how the subject scrambling cases observed here and the sentences in which the subject is assigned an extra stress are distinguished.

3.3. Subject Scrambling, and Additional Stress Assignment: Their Focus Domain

I have mentioned in (22a-b) and footnote 12 that the prosodic pattern in (22b) is distinct from Additional Stress Assignment. (22a-b) is repeated below as (38a-b). Bear in mind that the answer in (38b) is not perfectly acceptable:

(38) a.

dare-ga	sono	rombun-o	kaita	no?
who-NOM	that	article-ACC	wrote	Q

'Who wrote that article?'

b.(#)[$_{IP}$ [$_F$ **Taroo**-ga] [$_{VP}$ [$_{DP}$ sono rombun-o] kaita]]

Taro-NOM		that	article-ACC	wrote

'Taro wrote that article'

The stress is assigned by the Main Stress Rule in (9), and thus the focus can project. The materials in the VP are used anaphorically, and hence it seems that a possible candidate for the focus domain is the subject. This seems to be plausible because the question in (38a) requires the subject be focused. If so, (38b) receives a narrow focus reading.

Since an extra stress always denotes a narrow focus, one might suppose that the following prosodic patterning is preferentially used (cf. Ishihara (2000:158)):

(39) (#)[$_{IP}$[$_F$ TAROO-ga] [$_{VP}$[$_{DP}$*sono rombun-o*] *kaita*]]

In this case, the focus domain is the subject, and elements on the right of the subject are deaccented because of an extra stress on the subject. Even if we use (39), however, the acceptability of this sentence as an answer to (38a) is not largely improved. (See footnote 11 for the marginality of this sentence.)

Interestingly, (38b) will become perfectly acceptable if the subject is replaced by *ano Taroo* 'that Taro':

(40) a. [$_{IP}$ **ano Taroo**-ga [$_{VP}$[$_{DP}$ sono rombun-o] kaita]]

  b. [$_F$ ano Taroo-ga sono rombun-o kaita]

Assume that Taro is a very lazy student. In such a situation, the sentence in (40a) does not only assert Taro wrote the article, but, for example, the speaker's surprise about it. Though the subject DP is introduced into discourse for the first time, as the use of *ano* indicates, it must be the case that both the speaker and hearer know Taro. In this sentence, Taro is first introduced into the discourse, and then the VP *sono rombun-o kaita* is used to predicate of it. In this sense, the *ga*-marked subject is set as a topic of the sentence. In other words, the subject is introduced as a newly established topic. In this case, the focus domain for (40a) is not the subject itself, but as in (40b) the entire IP.[14] This is because the speaker describes e.g., his surprise based on a contrajunction relation, and such counter-expectation is expressed by the whole sentence, but not the subject DP. (38b) will also be accepted with such a reading.

If the point I made here is on the right track, there are some cases where a D-linked phrase is involved in a focus domain. In the case of (40a), the VP is anaphorically used, and thus it is expected that the VP is excluded from a focus domain. But, in fact, the sentence can be naturally interpreted with the D-linked VP as focus by virtue of the newly established topic.

4. Summary

In this paper, I have suggested that in some cases (when required by pragmatics), the subject can also be scrambled, and serve as a newly established topic. This kind of topic is always D-linked. But at the same time, the 'newness' of the subject DP is claimed based on the context which requires the subject be dissociated from its antecedent candidate. These properties of the subject DP ensures that the *ga*-marking for the DP in predicational sentences. Without topic-marking (by *wa*), reintroducing presupposed phrases into the ongoing discourse causes marginality. But the marginality is resolved if we give proper focus structure to the sentence. In doing so, we can use the left peripheral position to set a new topic by using scrambling word

order. If I am on the right track, Neeleman and Reinhart's (1998) Focus Rule given in (8) will be required some modification; that is, if the subject can be located in a certain position higher than the IP, possibly, in the C-domain, the focus set must be defined in terms of the CP constituents, which requires further research.

NOTES

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[1] The notion of 'peripheral position' has been explored in the area of syntax. Broadly speaking, the position is regarded as a θ'-position/A'-position (cf. Adger, de Cat and Tsoulas (2004) and the papers therein); given that the subject position indicates the IP-boundary, pre-subject elements are in the CP-domain. I claim, however, the subject can occupy some higher position than the IP.

[2] Throughout, I call the (non-specificational) sentences which have a Subject-Predicate structure in the sense of Kuroda (1972) 'predicational' sentences. When uttered out of the blue, most of them would sound natural with thetic interpretation (possibly because of the *ga*-marking of subject DPs). Empirically, however, the *ga*-marking for theticity is necessary but not sufficient (see Heycock and Doron (2003), Hirota (2004) for existence of a 'categorical' subject in Japanese).

[3] Noda (1985:25) notes that when the subject phrase denotes the same referent with the one previously mentioned in prior discourse, the subject phrase is marked with *wa*:

(i) mukasi   aru   tokoro-ni   oziisan-ga   arimasita.
     once   certain place-LOC   old man-nom   existed

     oziisan-wa/#ga   yama   e   sibakari   ni
     old man-TOP/NOM   mountain   to   gathering firewood to

     ikimasita
     went

     'Once there lived an old man at a certain place. He went to the mountain to collect firewood'

[4] Iori's definite information corresponds to (old) information which is "textually evoked" in the sense of Prince (1981) (see also Iori (1995)).

[5] See Iori (1995), (1997), (2000) for detailed discussions.

[6] For the precise argumentation and theoretical elaboration, see Reinhart (2003), in particular.

[7] Neeleman and Reinhart (1998:340) generalize this point as below:

(i) Economy entails that strengthening applies only to derive foci not already in the focus set.

[8] Based on a rule provided by Selkirk (1996) that an accented word is F(ocus)-marked, Schwarzschild (1999:8) assumes the following GIVENness Constraint:

(i) Non-F-marked constituents must be GIVEN.

[9] In (15b), since the object moves up to a higher position, the most deeply embedded phrase

seems to be the VP where the only element that has a phonological content is the verb *katta*. To explain the fact that the main stress falls on *Taroo*, but not the verb, Ishihara assumes, following Miyagawa (2001, 2003) , that V moves to T. By virtue of overt V-raising, the most deeply embedded phrase is the subject, which bears the main stress. In this paper, I do not deal with the syntactic aspects of scrambling, and simply assumes that the stress will fall on the phrase immediately preceding the verb. See Ishihara (2000) for discussion.

[10] Recall that when a phrase receives stress via the Main Stress Rule, elements on the left of the stressed phrase can be interpreted as either given or focus (cf. (11), (16a)).

[11] I prefixed the marginality sign to (22b). Since the object is presented as given, it is preferred to use the pronoun *sore* 'it.' In this case too, however, the answer sounds (a little) unnatural. Probably, this is because Japanese has other options to answer the question in (22):

    (i)   (Q: dare-ga sono hon-o kaita no?)

        a. [$_F$ **Taroo**]   desu

            Taro   cop   'It is Taro'

        b. [$_F$ **Taroo**-ga] kaita   yo

            Taro-NOM   wrote   I-TELL YOU   'Taro wrote'

The VP is not pronounced at all in (ia), and after deleting the whole anaphoric VP, main stress then assigned to the subject *Taroo*. Notice that we have another option in (ib) where the object is deleted, but the verb can be pronounced. I suppose that the (slight) unnaturalness of (22b) lies in some more general pragmatic factor. Consider the following switch-reference structure:

    (ii)   First John$_i$ hit **Bill**, and then Mary hit **him**$_i$

In (ii), the pronoun *him* takes *John* as its antecedent. This interpretation is possible if a marked stress is assigned to the pronoun (otherwise, it refers to *Bill*). This additional stress on the pronoun is thus required by the given context. In (22b), the VP did not have to be explicated (as in (i)). But here, the object is pronounced even when it is allowed to delete it (or the whole VP). I tentatively assume that the marginality of the answer is caused by the use of the deletable expression *sono ronbun-o/sore-o*. In fact, as I will see in section 3, such seemingly uninformative use does affect focus relations.

[12] According to Ishihara's (2000:158) survey, sentences like (22b) are sometimes judged as inappropriate for a narrow focus reading. In other words, in the case of (22b), the subject should be clearly stressed, i.e., an extra stress must fall on the subject to receive a narrow focus reading. I, however, assume that the prosodic pattern in (22b) is also allowed. I will consider in section 3 that the prosodic pattern in (22b) and the one with an extra stress are not totally the same.

[13] Actually, Ishii (2001) claims that such a pragmatic effect is not caused by the scrambling itself, but it is assigned to sentence-initial elements.

[14] More precisely, I am assuming that the subject DP is placed somewhere higher than the IP position via the subject scrambling:

(i) [$_{XP}$[$_{DP}$ ano Taroo-ga]$_i$ [$_{IP}$ ___$_i$ [$_{VP}$ ...]]]

As indicated in (40b), (40a) will receive a sentence-focus construal; but on the other hand, the nominative case marked subject is used topically.

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