Some Notes on Extraction from Noun Phrases

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1. Introduction

In the present paper I will discuss some cases of extraction from NPs, the focus being placed on Japanese. A typical example of extraction from NP is rightward movement of, say, a relative clause in English:

(1)　　a. John gave [a book [that he wrote]] to Mary.

　　　　b. John gave [a book *t*] to Mary [that he wrote].

As a Japanese counterpart, I take up the case like the following, in which the prenominal sentential modifier is extracted leftwards from the NP:

(2)　　a. Taroo-wa Hanko-ni [[zibun-ga kaita] hon]-o ageta.

　　　　Taro-Top Hanako-Dat [[self-Nom wrote] book]-Acc gave

　　　　'Taro gave the book that he wrote to Hanako.'

　　　　b. *?[zibun-ga kaita] Taroo-wa Hanko-ni [*t* hon]-o ageta.

　　　　[self-Nom wrote] Taro-Nom Hanako-Dat [*t* book]-Acc gave

The resulting representation is, however, hardly acceptable in Japanese. This state of affairs appears curious at first glance, because Japanese exhibits, when compared with English, more freedom with respect to the ordering of constituents. A typical example that substantiates this is scrambling, which will be taken up shortly below. The present work tries to shed some light on this peculiar nature of leftward movement in Japanese.

　　　　This paper is organized as follows: In section 2, I introduce the idea presented by Fukui (1993, 2006) concerning the directionality of movement operations. Section 3 demonstrates that extraction from NP is not allowed in Japanese, in contrast to the rightward extraction from NP or extraposition in English. In section 4, I deal with other cases of "optional" movement operations in Japanese, taking the relevant morphological markings also into consideration, and point out that the ban on extraction from NP in

Japanese is a remarkable phenomenon. In section 5, I summarize the hitherto discussion with generalizations and give some concluding remarks.

2. Directionality of movement

In this section I present the idea proposed by Fukui (1993, 2006) with respect to the directionality of movement from a cross-linguistic perspective. The aim of this section is to motivate the assumption that the Japanese counterpart of the extraposition from NP in English, (1b), is the leftward extraction demonstrated as (2b) and not, say, the (supposed) rightward movement which is often dubbed "right dislocation" (see below).

Fukui (1993) maintains, first of all, that the value of the head parameter is fixed locally on the basis of available data:

(3)　　a. English:　　　　　[[eat] [an apple]]　　　　$\rightarrow$　　　$V^0 > XP$

　　　　b. Japanese:　　　　[[ringo-o] [taberu]]　　　$\rightarrow$　　　$XP > V^0$

　　　　　　　　　　　　　　[[apple-Acc] [eat]]

A verb selects its argument rightwards in English and leftwards in Japanese, respectively. Fukui calls this parameter value "canonical precedence relation" (CRR). Now the important claim of Fukui is represented by his following statement:

(4)　　The parameter value preservation (PVP) measure:

　　　　A grammatical operation (Move α, in particular) that creates a structure which is inconsistent with the value of a given parameter in a language is costly in the language, whereas one which produces a structure consistent with the parameter value is costless. (Fukui 2006: 70)

In order to understand what is meant by "costly" or "costless" here, we need to shortly recapitulate the idea from the minimalism (cf. Chomsky 1995) that movement operations should be driven by some feature and is therefore applied obligatorily. Typical examples of such obligatory movement include *wh*-movement as well as Case-driven A-movement in English: If the movement does not take place, the resulting representation is excluded as ungrammatical. This is the case of the "costly" operations in the sense of Fukui. There are, at the same time, movement operations whose suppression does not render the sentence ungrammatical, i.e. whose application is syntactically optional. In the following, I use the term "optional (movement/operation)" in this sense. Among instances of such movement are extraposition in English, (1),

and scrambling in Japanese, (5):

(5)　　a. John-ga [sono hon]-o katta.

　　　　John-Nom [the book]-Acc bought

　　　　'John bought the book.'

　　　　b. [sono hon]-o John-ga *t* katta.

According to Fukui, these "optional" movement operations are "costless" because they are not driven by features but are applied freely.

　　　　With this background, let us return to Fukui's PVP measure as introduced in (4). As demonstrated below, the "optional" operations mentioned above conform to the cases of "costless" operations defined there:

(6)　　$\underline{\text{XP}}$　YP　*t*　($\leftarrow$)　V　(Scrambling in Japanese)

(7)　　V　($\rightarrow$)　[$_{NP}$　N　($\rightarrow$)　*t*]　YP　$\underline{\text{XP}}$　(Extraposition in English)

Actually, Fukui (1993, 2006) considers the directionality of selection only of verbal heads in each language. As we will see, however, in the case of movement out of NPs, the position of the head N proves to constitute a relevant factor. I therefore added the directionality of N-head in schema (7). In any case, both in (6) and (7), the movement preserves the relative ordering of the relevant head and the moved element, and is thus regarded as optional or "costless" in Fukui's sense.[1]

　　　　At this point, it should have become clear that the Japanese counterpart of the optional rightward movement in English, like extraposition (7), is leftward movement, as shown in (8), and not the one in (9), which is often called "right dislocation" in the literature. (10) is an example of it:

(8)　　$\underline{\text{XP}}$　YP　[$_{NP}$　*t*　($\leftarrow$)　N]　($\leftarrow$)　V

(9)　　YP　[$_{NP}$　*t*　($\leftarrow$)　N]　($\leftarrow$)　V　$\underline{\text{XP}}$

(10)　　a. Taroo-wa Hanko-ni [[zibun-ga kaita] hon]-o ageta yo. (cf. (2a))

　　　　Taro-Top Hanako-Dat [[self-Nom wrote] book]-Acc gave Part

　　　　'Taro gave the book that he wrote to Hanako.'

　　　　b. Taroo-wa Hanko-ni [_ hon]-o ageta yo, [zibun-ga kaita].

In this paper, I do not go into the discussion on the right dislocation construction (cf. Kuno 1978: Ch. 1.6,

Endo 1989, Takami 1995: Ch. 5, Sells 1999, Kato 2010, etc.). If one follows the idea of Sells (1999) and assumes that no movement (or at least no syntactic rightward movement) is involved here, it does not make much sense to syntactically compare the extraposition in English, (1), and the "right dislocation" in Japanese, (10). This assumption is furthermore compatible with Fukui's idea introduced above: If the "right dislocation" were an instance of syntactic movement, it would have to be triggered, for example by Case requirement or spec-head agreement, because the operation would destroy the canonical precedence relation of the language. It seems, however, highly unlikely that the "right dislocation" is triggered by this kind of syntactic features.

3. Extraction from NPs in Japanese

In the preceding section we got acquainted with Fukui's idea of the PVP measure, according to which the nature of movement is sensitive to its directionality relative to the head parameter in a given language. This leads us to the assumption that the Japanese counterpart of the extraposition in English is leftward movement in this consistently head-final language. As mentioned in section 1, however, the corresponding operation in Japanese leads to unacceptability:[2]

(11) *?[zibun-ga kaita] Taroo-wa [*t* hon]-o Hanko-ni ageta. (= (2b))
      [self-Nom wrote] Taro-Nom [*t* book]-Acc Hanako-Dat gave
      'Taro gave the book that he wrote to Hanako.'

(12) *[orinpikku-no tiketto]-o utta keisatu-wa [*t* okoto]-o sagasiteiru.
      [Olympics-Gen ticket]-Acc sold police-Top [*t* man]-Acc searches
      'The police searches the man who sold the tickets for the Olympic Games.'

This ban on extraction from NPs in Japanese is not restricted to the relative clause corresponding to the case in English. Prenominal elements in general seem to resist this kind of leftward extraction (see also Kato 2007):

(13) *?[Mary-no] John-ga kinoo [*t* hon]-o kata. (Kikuchi 1994: 80)[3]
      [Mary-Gen] John-Nom yesterday [*t* book]-Acc bought
      'John bought Mary's book yesterday.'

(14) a. *?[otto-ga hanzai-o okasita to-iu] tootoo kanojo-wa [*t* jijitu]-o sirasareta.
      [husband-Nom crime-Acc committed Comp] finally she-Top [*t* fact]-Acc informed-was
      'Finally, she was informed of the fact that her husband committed a crime.'

b. *[otto-ga hanzai-o okasita] tootoo kanojo-wa [*t* jijitu]-o sirasareta.

The acceptability does not ameliorate even when the element extracted from NPs can be regarded as landing within the VP:

(15)　*?Taroo-wa [zibun-ga kaita] Hanko-ni [*t* hon]-o ageta.　(cf. (2b))

　　　Taro-Nom [self-Nom wrote] Hanako-Dat [*t* book]-Acc gave

(16)　*keisatu-wa [orinpikku-no tiketto]-o utta kinoo-kara [*t* okoto]-o sagasiteiru.　(cf. (12))

　　　police-Top [Olympics-Gen ticket]-Acc sold yesterday-since [*t* man]-Acc searches

　　　'The police searches the man since yesterday who sold the tickets for the Olympic Games.'

(17)　*?John-ga Mary-no kinoo [*t* hon]-o kata.　(cf. (13))

　　　John-Nom Mary-Gen yesterday [*t* book]-Acc bought

(18)　*?boku-wa [Hanako-ga kekkon siteiru to-iu] Naomi-ni [*t* uwasa]-o osieta.

　　　I-Top [Hanako-Nom married-is Comp] Naomi-Dat [*t* rumor]-Acc told

　　　'I told Naomi the rumor that Hanako is married.'

In addition to the prenominal elements discussed above, adjectives can also appear prenominally to modify the head noun in Japanese. These adjectives cannot be extracted from the NP, either:

(19)　*?John-wa utukusii kinoo [*t* shoojo]-ni koi-o sita.

　　　John-Top beautiful yesterday [*t* girl]-in love-Acc did

　　　'John fell in love with a beautiful girl yesterday.'

Some authors have argued that the adjectives or the adjectival phrases that appear prenominally and modify the head noun can be regarded as relative clauses (cf. Shibatani 1978: 156ff). Hoshi (1997, 2001) and Namai (2002) also present evidence for this claim independently of each other. Along this line, I henceforth include the adjectival modification of the noun within the cases of modification by the relative clause.

　　　The data presented so far might remind us of the Left Branch Condition (LBC) proposed by Ross (1986: 127f):

(20)　No NP which is the leftmost constituent of a larger NP can be reordered out of this NP by a

　　　transformational rule.

This condition should account for the ill-formedness of the examples in (23) (Ross 1986: 128):

(21)　We elected [$_{NP1}$ [$_{NP2}$ [$_{NP3}$ the boy's] guardian's] employer] president.

(22)　the boy [$_{NP1}$ [$_{NP2}$ [$_{NP3}$ whose] guardian's] employer] we elected *t* president

(23)　a. *the boy [$_{NP2}$ [$_{NP3}$ whose] guardian's] we elected [$_{NP1}$ *t* employer] president

　　　b. *the boy [$_{NP3}$ whose] we elected [$_{NP1}$ [$_{NP2}$ *t* guardian's] employer] president

In the original formulation of the LBC, (20), Ross solely mentions the extraction of *NPs* and not of other categories, although the data he deals with include the extraction of *how* from an adjectival phrase.[4] Some authors now regard this constraint to be applicable, for some languages, to the extraction of prenominal elements in general (cf. Bošković 2005). As for Japanese, Kato (2007) presents relevant data and claims that the leftward extraction out of NPs, which he calls left branch extraction, is impossible. As for the assessment of data, I follow this standpoint.

　　　As a descriptive observation it now seems safe to conclude that the optional leftward extraction out of NPs leads to unacceptability in Japanese, in contrast to the extraposition in English, although both of them observe the PVP measure of Fukui (1993, 2006).

3.1. Excursus

We have above gone through the data that demonstrate the impossibility of extraction from NPs in Japanese. In this excursus I mention some cases that apparently seem to attest this type of movement and argue that they do not falsify the generalization reached above.

　　　Yatabe (1993: 178) gives examples like the following and argues that extraction out of NPs is allowed in Japanese:

(24)　a. [Tanaka-ga koko-ni kita] sore-ga jitu-wa [*t* hontoo-no riyuu] nanoda.

　　　[Tanaka-Nom here-Dat came] that-Nom actually [*t* real reason] is

　　　'Actually that is the real reason why Tanaka came here.'

　　　b. [[sono mondai]-nituite kakareta] osoraku kore-ga [*t* mottomo juuyoona ronbun] desu.

　　　[[that issue]-over written-was] probably this-Nom [*t* most important paper] is

　　　'This is probably the most important paper that has ever been written concerning that issue.'

Interestingly, independently of Fukui (1993, 2006), Yatabe dubs the movement operation at work here "extraposition" and considers it parallel to the prevalent case of extraposition in English like (1b).[5]

I surely agree with Yatabe (1993) that the cases like (24) correspond to the extraposition from NPs in English, which does justice to the PVP measure advocated by Fukui (1993, 2006). As for the assessment of empirical data, however, I object to Yatabe and claim that extraction from NP is in principle prohibited in Japanese. I instead argue that the cases such as (24) do not involving leftward movement and are exceptionally ruled in given appropriate pragmatic factors.

The claim is that the representations in (24) result from "down-grading" of the relevant matrix element, as proposed by Muraki (1979) and Saito (1985):[6]

(25) *t* [Tanaka-ga koko-ni kita] <u>sore-ga</u> jitu-wa hontoo-no riyuu nanoda. (cf. (24a))

　　　t [Tanaka-Nom here-Dat came] <u>that-Nom</u> actually real reason is

However clumsy this assumption might appear theoretically, there are some reasons to support it and to cast doubt on the leftward extraction out of the NP from the viewpoint of the adequate description of observed data. First, we have so far seen and will still see ample examples in which the extraction in question is not permitted. Yatabe (1993: 178) himself admits, without going further into it, that "prenominal expressions can be easily extraposed out of an NP *only when* the NP is predicative" (emphasis by me; J.I.). If the movement in question were a principally admissible operation in Japanese in the same sense as the rightward extraposition from NPs in English, it remains curious that it results in well-formed representations only in such a restricted case as Yatabe notes.

Second, it seems to be the element to be down-graded in our sense and not the one undergoing leftward movement in Yatabe's sense that plays a crucial role in assessing the acceptability of the constructions in question. For example, when the down-graded element in (24) becomes "heavy" information-structurally, the acceptability deteriorates considerably:

(26) a. *[Tanaka-ga koko-ni kita] <u>[uwaki-o siteiru to-iu koto]-ga</u> jitu-wa hontoo-no riyuu nanoda.

　　　[Tanaka-Nom here-Dat came] <u>[affair-Acc do Comp thing]-Nom</u> actually real reason is

　　　'Actually the fact that Tanaka has an affair with another woman is the real reason why he came here.'

　　　b. *?[[sono mondai]-nituite kakareta] osoraku <u>[Yamada-kyooju-no 2000-nen-no hon]-ga</u> mottomo juuyoona bunken desu.

　　　[[that issue]-over written-was] probably <u>[Yamada-professor-Gen 2000-year-Gen book]-Nom</u> most important literature is

　　　'The book by Professor Yamada published in 2000 is probably the most important literature that has ever been written concerning that issue.'

Given this state of affairs, it seems more plausible to assume that the underlined elements above are actually down-graded, the operation being subject to some pragmatic or information-structural conditions imposed on them.

In this excursus I cannot go into the details of the down-grading at issue here. In any case, it seems to be a performance-driven rule outside the domain of the syntax. Saito (1985: 189), for example, considers that the phenomenon is "more appropriately characterized as a parenthetical usage of a topic" while leaving the exact status of this rule unclarified. From the theoretical point of view, this kind of lowering operation is anything but common within the current framework and seems to hardly belong to the core syntax. Empirically, the following data show that the operation in question, whether called extraction from NP or down-grading, does not essentially affect the LF-relevant semantic interpretation:

(27)　minasan-wa [[hutari-no sensei]-kara-no suisenjoo]-o teishutu sinakereba narimasen.

　　　you-all-Top [[two-Gen teacher]-from-Gen letter-of-recommendation]-Acc submission must-do

　　　'All of you have to submit letters of recommendation by two professors.'

　　　(all>two, *two>all)

(28)　[[hutari-no sensei]-kara-no suisenjoo]-o$_i$ minasan-wa t_i teishutu sinakereba narimasen.

　　　(scrambling; all>two, two>all)

(29)　? t_i [hutari-no sensei]-kara-no minasan-wa$_i$ suisenjoo-o teishutu sinakereba narimasen.

　　　(down-grading; all>two, *?two>all)

If (29) were to be derived by way of leftward movement, it would be natural to expect the kind of scope inversion as observed with scrambling (28). The actual state of affairs with (29) lends rather support to the view that what is happening here is some operation of a purely stylistic nature that sometimes takes shape of a syntactically unexpected form.

If the discussion so far is on the right track, we can conclude that the apparent cases of extraction from within NPs in Japanese are better analyzed as down-grading.

4. Extraction and morphological markings

We have seen so far that extraction out of NPs is not permitted in Japanese. This is, however, a rather unexpected observation: First of all, the corresponding operation in English is well-formed, given that the relevant locality constraints are observed. According to Fukui's (1993, 2006) PVP measure, the operations in both languages observe the canonical precedence relation and should thus be optionally applicable, i.e. an option made available by the Universal Grammar:

(30) Japanese: * <u>XP</u> YP [$_{NP}$ t ($\leftarrow$) N] ($\leftarrow$) V

(31) English: ^{OK} V ($\rightarrow$) [$_{NP}$ N ($\rightarrow$) t] YP <u>XP</u> (cf. (7))

Second, Japanese is otherwise regarded as a language with relatively free word order, especially as compared with languages such as English. Scrambling is a typical case in point. As already mentioned in section 2, scrambling in Japanese, an instance of optional movement, retains the canonical precedence relation of the language. Japanese furthermore allows for long distance scrambling; a constituent can be scrambled out of the clause it originates from and be raised into the higher clause (cf. e.g. Saito 1989):

(32) [sono hon]-o [John-ga [$_S$ Mary-ga t yonda to] itta.

      [that book]-Acc John-Nom [$_S$ Mary-Nom t read Comp] said

      'John said that Mary read that book.'

This attests the relatively high freedom of word order variation, as compared not only with English but also with German, another scrambling language, which allows clause-internal but not long-distance scrambling (cf. Grewendorf & Sabel 1999 for relevant data and discussion). Third, let us turn to the islandhood of NPs with respect to *wh*-movement, whether overt or covert. Here, English obeys the complex NP constraint, while Japanese is more tolerant of it:[7]

(33) *<u>Who</u> does John know [$_{NP}$ the rumor [that Mary killed t]] ?

(34) a. John-wa [$_{NP}$ [Mary-ga <u>dare-o</u> korosita to-iu] uwasa]-o sitte-iru no?

         John-Top [$_{NP}$ [Mary-Nom <u>who-Acc</u> killed Comp] rumor]-Acc know Q

         b. <u>Dare-o</u> John-wa [$_{NP}$ [Mary-ga t korosita to-iu] uwasa]-o sitte-iru no?

         c. <u>Bill-o</u> John-wa [$_{NP}$ [Mary-ga t korosita to-iu] uwasa]-o kiita.

         <u>Bill-Acc</u> John-Top [$_{NP}$ [Mary-Nom t killed Comp] rumor]-Acc heard

         'John heard the rumor that Mary killed Bill.'

These states of affairs render the ban on extraction from NP in Japanese, (30), all the more curious, for which a principled explanation is called for. So far as I see, however, this issue has not been investigated thoroughly in the literature.

As a starting point, let us approach the problem by comparing the Japanese and the English case, (30) vs. (31) above. I repeat the relevant examples, (1b) and (2b), below:

(35)　John gave [a book *t*] to Mary [that he wrote].

(36)　*?[zibun-ga kaita] Taroo-wa [*t* hon]-o Hanko-ni ageta.

　　　[self-Nom wrote] Taro-Nom [*t* book]-Acc Hanako-Dat gave

As (35) and other cases show, the extraposed relative clause in English is a CP, either with a relative pronoun or a complementizer.[8] When neither of them is present overtly, the extraposition becomes degraded (Weisler 1980):[9]

(37)　a. John gave a book [(that) he wrote] to Mary.

　　　b. John gave a book *t* to Mary [*(that) he wrote].

Weisler (1980) actually regards the relative clause without an overt complementizer as an S (= TP). Whether this assumption is on the right track or not, the generalization seems to be that the relative clause needs a subordination marker in order for it to be dislocated. That is, it appears that the relative pronoun or the complementizer helps identify the base position of the dislocated relative clause.

　　　Let us next turn to the Japanese case, (36). In opposition to the more standard assumption that the Japanese relative clause is a CP as in English, involving movement of a null operator (cf. e.g. Ishii 1991), some authors argue that it is rather of a smaller category. Murasugi (1991, 2000, 2008), for example, maintains that the relative clause in Japanese, involving no operator movement, is just a sentential modifier, its categorical status being a simple S (= TP) and not a CP. In the following examples from Murasugi (2000: 213), in which the clause-final predicates show the form typically used in relative clauses, it is hard to assume an operator-gap dependency as is found in the relative clauses in English:

(38)　a. [sakana-ga yakeru] nioi

　　　[fish-Nom grilled-is] smell

　　　'the smell of a fish being grilled'

　　　b. [doa-ga simaru] oto

　　　[door-Nom shut] sound

　　　'the sound of a door shut'

Fukui & Takano (2000: 235f) also argue that relative clauses in Japanese are not CPs but TPs. At the basis of this claim is their thesis that, in Japanese, functional categories are present only if they are actually needed.[10] In any case, the Japanese sentential modifiers that correspond to the relative clauses in English

(can) lack subordination markers altogether, which presumably prevents them from being dislocated.

As a descriptive generalization it seems plausible to assume, then, that elements can be more easily dislocated when they bear some marking which help identify their base position or reestablish the underlying dependency relation. In this sense, the availability of scrambling in Japanese might well be related to the overt Case-marking on the argument in question, possibly realized as KP (cf. Bayer et al. 2001).

Haider & Rosengren (2003) and Haider (2010) claim that scrambling is permitted only in head-final projections. From this perspective, let us now take a look at the constituent order variation within NPs in Japanese:

(39)   a. [boku-ga kinoo totta] Mary-no shasin
       [I-Nom yesterday took] Mary-Gen photo
       'Mary's photo that I took yesterday'
       b. (?)Mary-no [boku-ga kinoo totta] shasin

One of the prenominal modifiers here is a nominal (KP) marked with genitive, and the other a clause that corresponds to the relative clause in English but lacks a subordination marker. (39a) sounds more natural than (32b), partly because a heavier element occurs initially, preceding a lighter one (cf. Hawkins 1994), partly because (39a), rather than (39b), reflects the "underlying structure", the "argument" being closer to the head than the modifier.

Let us next consider a case in which two sentential prenominal elements occur. The head noun below, *jijitu* 'fact', is one of the nominals that do not require its complement clause to be introduced by *to-iu* (see below), which will be glossed as "Comp" just for the sake of simplicity in this paper:

(40)   [Taro-ga hanzai-o okasita (to-iu)] jijitu
       [Taro-Nom crime-Acc committed (Comp)] fact
       'the fact that Taro committed a crime'

A relative clause can now be added to the left of this prenominal clause. Here, the variant without *to-iu* seems to be less well-formed, although still acceptable:

(41)   a. [boku-ga guuzen kiita] [Taro-ga hanzai-o okasita to-iu] jijitu
       [I-Nom by-chance heard] [Taro-Nom crime-Acc committed Comp] fact
       'the fact that I happened to hear that Taro committed a crime'

　　　b. (?)[boku-ga guuzen kiita] [Taro-ga hanzai-o okasita] jijitu

Now, if we change the order of the two prenominal sentential elements, the variant without *to-iu* becomes apparently less acceptable:

(42)　a. [Taro-ga hanzai-o okasita <u>to-iu</u>] [boku-ga guuzen kiita] jijitu

　　　　[Taro-Nom crime-Acc committed <u>Comp</u>] [I-Nom by-chance heard] fact

　　　　'the fact that I happened to hear that Taro committed a crime'

　　　b. ??[Taro-ga hanzai-o okasita] [boku-ga guuzen kiita] jijitu

Following the thesis of Fukui (1995, 2006), I once argued (Inaba 2007) that *to-iu* in Japanese is not a complementizer in the same sense as the English *that*, the latter being a functional category. The data seem to tell us, however, that *to-iu* is functioning at least as a subordination marker signaling the semantic relation of the clause in question to its host. In other words, *to-iu*, originally a citation marker followed by the verb *say* in its adnominal form, has been grammaticalized as a subordination marker. The degraded acceptability of (42b) can thus be traced back to the perceptual difficulty of relating the first clause with its host noun. Otherwise we can say that dislocation of noun-dependent elements within the NP in question is an option in Japanese, as predicted by Haider & Rosengren (2003) and Haider (2010) and attested by empirical data.

　　　As opposed to that, in the case of extraction from NP, the presence of a marker as discussed above might perhaps help improve the acceptability to some extent, but does not do so remarkably. Along with the ill-formed sentence in (14a) with the subordination marker *to-iu*, the following data make the same point:

(43)　a. *?[Ken-ga rikon-sita to-iu] sensei-wa kekkyoku min'na-ni [NP *t* jijitu]-o kakusite-ita.

　　　　[Ken-Nom divorce-did Comp] teacher-Top after-all everybody-Dat [NP *t* fact]-Acc concealed

　　　　'After all, the professor concealed the fact from everyone that Ken got divorced.'

　　　b. *[Ken-ga rikon-sita] sensei-wa kekkyoku min'na-ni [NP *t* jijitu]-o kakusite-ita.

(44)　*?[Taro-ga Hanako-o sukida to-iu] kurasumeito-wa min'na [NP *t* uwasa]-o hitei-sita.

　　　　[Taro-Nom Hanako-Acc like Comp] classmate-Top all [NP *t* rumor]-Acc denied

　　　　'All the classmates denied the rumor that Taro likes Hanako.'

In the modern Japanese, the verbal predicates of the prenominal modifiers (*rentai-kei*) in principle have the

same form as in the root clause (*shushi-kei*). This is reflected in the fact that the sentential modifiers in Japanese that correspond to the relative clauses in English have the verbal ending of the same form as the sentence-concluding one. An exception to this generalization is the auxiliary verb *besi* ('should'), which is the sentence-ending form and sounds to our ears somewhat archaic. But it has a morphologically different prenominal form *beki*, which is used as an auxiliary verb quite normally also in the present day Japanese:[11]

(45)　a. #Taro-wa rikon su-besi.

　　　Taro-Top divorce do-should

　　　'Taro should get divorced.'

　　　b. #/?Taro-wa rikon su-beki.

(46)　a. [Taro-ga rikon su-beki] riyuu

　　　[Taro-Nom divorce do-should] reason

　　　'the reason for which Taro should get divorced'

　　　b. *[Taro-ga rikon su-besi] riyuu

That is, when a constituent ending with *beki* appears, it is expected, at least more strongly than in the case of the other clause-final predicates, that a nominal head on which the *beki*-clause is dependent follows. With this background, let us first see the word order variation of two prenominal sentential modifiers, one of which ends with *beki*, within an NP:

(47)　[Hanako-ga siteki sita] [Taro-ga rikon su-beki] riyuu

　　　[Hanako-Nom pointing-out did] [Taro-Nom divorce do-should] reason

　　　'the reason that Hanako pointed out that Taro should get divorced'

(48)　?[Taro-ga rikon su-beki] [Hanako-ga siteki sita] riyuu

The degraded status of (48) might be attributed to the fact that the "complement clause" appears farther from the head noun than the "adjunct clause", obviating from the "underlying order". The representation itself is grammatical, parallel to the above discussed cases of word order variation within the NPs (cf. (42a)).

　　Let us next turn to the case of extraction from NP with the same sentential element. For me, this operation deteriorates the acceptability of the whole sentence considerably:

(49)　?*[Taro-ga rikon su-beki] imooto-tati-wa min'na [*t* riyuu]-ni nattoku-sita.

　　　[Taro-Nom divorce do-should] sister-Pl-Top all [*t* reason]-Dat consent-did

　　　'All of his sisters were convinced of the reason why Taro should get divorced.'

Here, too, as in the case of *to-iu* (cf. (43/44)), the marker of sentential subordination does not crucially enhance the acceptability of the representation when extraction out of an NP takes place.

5. Discussion

Let us now summarize the observations we have made thus far concerning the extraction or, more generally, the word order variation in Japanese:

(50)　N-dependent prenominal elements cannot be extracted out of the NP, even if they are accompanied by a marker.

(51)　N-dependent or prenominal elements can be scrambled within the NP (if they are accompanied by a marker).

(52)　V-dependent arguments, which are Case-marked KPs, can be extracted out of an NP and an S.

For the purpose of a better illustration, I schematize these results as below:

(53)　optional extraction from NP:

　　　* [$_S$ $\underline{XP}$ YP [$_{NP}$ *t* ($\leftarrow$) N] ($\leftarrow$) V]　(cf. (11-19), etc.)

(54)　"scrambling" within NP:

　　　$^{OK/??}$ [$_{NP}$ $\underline{XP}$ YP *t* ($\leftarrow$) N]　(cf. (39/41/42), etc.)

(55)　(clause-internal) scrambling:

　　　^{OK} [$_S$ $\underline{XP}$ YP *t* ($\leftarrow$) V]　(cf. (6))

(56)　long-distance scrambling:

　　　^{OK} [$_{S1}$ $\underline{XP}$ YP [$_{S2}$ *t* ($\leftarrow$) V$_2$] ($\leftarrow$) V$_1$]　(cf. (32))

(57)　extraction from complex NP:

　　　^{OK} [$_{S1}$ $\underline{XP}$ YP [$_{NP}$ [$_{S2}$ *t* ($\leftarrow$) V$_2$] ($\leftarrow$) N] ($\leftarrow$) V$_2$]　(cf. (34))

As mentioned throughout this paper, what appears peculiar is the observation described as (53). This constitutes a rather sharp contrast to the availability of the other movement operations, namely the relatively high flexibility in word order variation, in Japanese.

In the present paper, I cannot provide a full theoretical account for the question raised here, but would like to put forth the following generalization:

(58)   In Japanese, there is a crucial difference between the V-dependent element and the N-dependent element; the latter seems to resist movement more strongly than the former.

(58) is the main finding of this paper. The question is how this can be derived from the specific properties of Japanese in interaction with the principles of the Universal Grammar. I would like to leave this problem for further research.

Concerning the functional categories, the discussion in this paper has supposedly lead us to the following assumptions:

(59)   In Japanese, functional categories or projections can be absent in the C-domain (above S/TP), but present in the nominal domain as KPs, which contribute to the morphological marking of the nominals.

(60)   If Japanese possesses functional categories at all, morphological markings are reflected in them.

As for (59), a series of Fukui's (2006) theses are at the basis of the first half of this statement: In Japanese, functional categories are absent or inert (cf. sec.4), and they are present only when they are needed. If we regard the Case-marking particles in Japanese as a functional category, often analyzed as $K(ase)^0$ in the literature (cf. Bayer et al. 2001 etc.), they would be a case in point. (60) is a stronger hypothesis related to (59), which is in need of further verification.

Summing up, the present paper has concentrated on the extraction phenomena in Japansese and shown that the ban on extraction from NP, when compared with other constructions in Japanese as well as with corresponding constructions in English, is an unexpected observation. The data seem to have revealed that there is a crucial difference between the V-dependent elements and the N-dependent elements in Japanese. During the work presented here, I have essentially drawn on the assumptions by Fukui (2006) concerning the directionality of movement and the nature of the functional categories in Japanese. If the discussion in this paper is on the right track, it should also lend further support to Fukui's theses.

Notes

[1]   It should be noted that the "costless" or "optional" operations in the sense used here are not necessarily semantically vacuous. Both extraposition in English and scrambling in Japanese (as well as in German)

include cases that do bring about LF-relevant semantic effects (cf. Inaba 2007 and the literature cited there).

2　In these and the relevant examples that follow, the "underlying" representations in which the extracted element stands in its base position marked by the "trace" are unobjectionably acceptable.

3　Kikuchi (1994: 80) shows that for some nominals, the extraction of covert operators is permitted:

i)　?Toyota-wa [$_{NP}$ OP [Honda-ga [*t* seisan]-o kimeta] yorimo] ookuno sinsha-no seisan-o kimeta.

Toyota-Top [$_{NP}$ OP [Honda-Nom [*t* production]-Acc decided] than] more new-cars-Gen production-Acc decided

'Toyota decided the production of more new cars than Honda.'

I do not go into the covert movement in this paper.

4　One of the relevant examples is (i) below (p.130):

i)　*How is Peter [*t* sane] ?

ii)　[How sane] is Peter *t* ?

In order to include this kind of data in condition (20), Ross assumes that "*how* is analyzed as deriving from an underlying NP, and the adjective *sane* [… is] dominated by NP at the stage of the derivations at which questions are formed."

5　Cf. Yatabe (1993: 178): "Examples like those in [(24)], whose resemblance to familiar English extraposition constructions is evident, lend support to the view that extraposition in Japanese shifts expression to the left."

6　Supposedly, Yatabe makes use of an adverbial to the right of the "extracted" element in order to make it clear that the extraction out of the NP has actually taken place in each example, the adverbial functioning as a matrix element. It seems possible to me, however, to interpret the adverbial in each case as being related to the prenominal modifier of the N-head (i.e. *[jitu-wa hontoo]-no riyuu* 'actually real reason') and thus stemming from within the NP in question.

7　See, however, Ishii (2008) and the literature cited there for the data that show that empty operator movement exhibits (strong) island effects also in Japanese.

8　For a GB-theoretic treatment of the relative pronoun *which* and the complementizer *that*, see e.g. Rizzi (1990: 65ff).

9　Something similar applies to the complement clauses (Nakajima 1996: 144):

i)　I am sure, because I have been at home, [that he's awake].

ii)　*I am sure, because I have been at home, [he's awake].

10　Fukui (1995, 2001, 2006, etc.) formulates the situation somewhat, but not essentially differently: In Japanese, functional categories are absent, or are inert if they exist at all. As for a series of syntactic differ-

ences in relative clauses between English and Japanese, Fukui & Takano (2000: 228ff) maintain that they can be derived by a single parameter; the nominal head moves to SpecDP overtly in English (cf. also Fukui & Takano 1998 for the mechanism of head-to-spec movement), while it stays in situ in Japanese, which lacks D at all. See, however, also Hoshi (2001) for problems of this approach.

[11] As commented, (45a) sounds archaic, but is perfectly grammatical. (45b) becomes completely acceptable when the auxiliary verb of assertion *da* appears at the end of the sentence. The crucial point here is the clear-cut contrast in (46).

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Zur Extraktion aus Nominalphrasen

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In der vorliegenden Arbeit wird die Extraktion aus Nominalphrasen im Japanischen behandelt. Als Ansatzpunkt soll zunächst die Extraposition im Englischen, ein typischer Fall von sog. „optionaler" Bewegung, angeführt werden:

(1)　　John gave [a book *t*] to Mary [that he wrote].

Fukuis (1993) *parameter value preservation measure* zufolge sollten die Bewegungsoperationen, die die kanonische Rektionsrichtung der Sprache bewahren, „kostenlos", d.h. frei anwendbar sind bzw. nicht von Merkmalen getrieben werden. Beispiele hierfür sind die rechtsgerichtete Bewegung im Englischen (kopfinitial) sowie die linksgerichtete Bewegung im Japanischen (kopffinal):

(2)　　V (→) *t* YP <u>XP</u>　(Engl.)

(3)　　<u>XP</u> YP *t* (←) V　(Jp.)

Anders als die Extraposition im Englischen, einer optionalen Bewegung aus einer NP, ist die Fukui zufolge entsprechende Operation im Japanischen jedoch kaum zulässig:

(4)　　*?<u>[zibun-ga kaita]</u> Taroo-wa Hanko-ni [*t* hon]-o ageta

　　　　[self-Nom wrote] Taro-Nom Hanako-Dat [*t* book]-Acc gave　(vgl. (1))

(5)　　*?<u>[Taro-ga Hanako-o sukida to-iu]</u> kurasumeito-wa min'na [_{NP} *t* uwasa]-o hitei-sita

　　　　[Taro-Nom Hanako-Acc like Comp] classmate-Top all [_{NP} *t* rumor]-Acc denied

　　　　'All the classmates denied the rumor that Taro likes Hanako.'

Dies scheint zunächst unserer Erwartung zu widersprechen, da das Japanische sonst als eine Sprache mit einer relativ freien Wortstellung angesehen wird, die u.A. (langes) Scrambling sowie eine Extraktion aus einer komplexen NP im Prinzip zulässt. Außerdem können N-abhängige Elemente innerhalb der NP frei umgestellt werden, solange ein angemessener Marker (z.B. *to-iu*) vorhanden ist. Im Falle der Extraktion aus einer NP wird jedoch die Wohlgeformtheit der Repräsentation durch die Präsenz eines Subordinationsmarkierers dieser Art kaum verbessert (vgl. (5)). Somit stellt sich die Unzulässigkeit der Bewegung aus NPs in der japanischen Syntax als eine erklärungsbedürftige Beobachtung dar.

　　　In dieser Arbeit wird darauf hingewiesen, dass die An- bzw. Abwesenheit von funktionalen Kategorien im Japanischen (vgl. Fukui 2006) für das vorliegende Problem eine Rolle spielen kann. Es wird dabei auch die Generalisierung aufgestellt, dass im Japanischen zwischen V-abhängigen und N-abhängigen Elementen ein entscheidender syntaktischer Unterschied besteht. Wie dies im betreffenden theoretischen Rahmen sowie sprachübergreifend begründet bzw. erklärt werden kann, stellt ein weiteres Forschungsdesiderat dar.