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The Adnominal Form in Japanese as a Relativization Strategy

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This article focuses on two aspects of relative clauses in Japanese: its syntactic structure and the special form ("adnominal form") that the embedded predicate must take. It has been assumed that Japanese relative clauses are base-generated and are D-IP structures (Murasugi 2000a,b). I will argue on the contrary that they are D-CP structures, that are derived by raising of the head. This argument is supported on three accounts: (i) a reconsideration of reconstruction effects with respect to the reflexive interpretation of *zibun*; (ii) the manifestation of the weak crossover phenomenon; (iii) the existence of sentential modifiers with CP elements. Then, I will show that Japanese has a requirement on sentential modifiers in general, namely that the embedded predicate must be in a special form called the "adnominal form". On the basis of the Clausal Typing Hypothesis (Cheng 1991), I will propose that the role of the adnominal form (and the particle *no*) is to enable clausal typing of the embedded clause.[*]

1. The base-generation analysis of relative clauses in Japanese

One of the major analyses of head-initial relative clauses is the raising analysis (Vergnaud 1974) revised by Kayne (1994), where the relative CP is assumed to be the complement of D:

(1) $[_{DP}$ the $[_{CP}$ $[_{NP}$ picture] [that $[_{IP}$ Bill saw [e]]]]]

Relative clauses in Japanese differ from those in English in that they are head-final and lack complementizers and relative pronouns:

(2) [Soko-ni _ at-ta] jisho
there-Loc be-Pst dictionary[1]
'the dictionary that was there'

It has been claimed that they are not derived by raising of the head, because it is possible to extract an element from within the relative clause in violation of the Complex NP Constraint (CNPC, see Kuno 1973):

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[1] A list of abbreviations used in this article is as follows: Nom=nominative, Acc=accusative, Dat=dative, Gen=genitive, Loc=locative, Obl=oblique, Pst=past, Comp=complementizer, Pt=particle, Top=topic, Int=interrogative, Adn=adnominal, Cnc=conclusive

(3) [[_j _i kite-iru] fuku$_i$-ga yogorete-iru] sinsi$_j$
wear-is clothes-Nom dirty-is gentleman
'a gentleman who the clothes that (he) is wearing are dirty'

Furthermore, reconstruction effects with respect to binding are allegedly absent, meaning that there is no A-bar movement involved (Hoji 1985):

(4) *[John$_i$-ga taipusi-ta] [zibun$_i$-no ronbun]
John-Nom type-Pst self-Gen paper
'self's paper that John typed'

Kayne (1994) proposes that head-final relative clauses are derived in the same way as head-initial ones but involve an extra step, namely, fronting of the embedded clause:

(5) $[_{DP}\ [_{IP}\ \ldots t_i \ldots]_j\ D\ [_{CP}\ NP_i\ [C\ t_j]]]$

However, Murasugi (2000a,b) argues from theoretical and acquisitional (Murasugi 1991) points of view that Japanese does not have "relative clauses" altogether and that what appears to be relative clauses are "pure complex NPs" of the structure, D-IP:

(6) $[_{DP}\ [_{IP}\ \ldots]\ [_{D'}\ D\ [_{NP}\ \ldots [_{N'}\ N \ldots]]]]$

According to her analysis, the embedded clause is generated at Spec-DP and the head noun, as the complement of D. The gap inside the embedded clause is occupied by a null pronoun (cf. Perlmutter 1972). The embedded clause is licensed under an aboutness relation with the head noun (cf. Kuno 1973). Additional support for her analysis comes from the fact that Japanese also has "gapless relatives":

(7) [sakana-ga yakeru] nioi
fish-Nom be-baked smell
'smell of fish being baked'

2. The raising analysis of relative clauses in Japanese

2.1 Reconsideration of the evidence

However, I would like to propose that a closer examination of the arguments above suggests that, contrary to what has been said, Japanese relative clauses involve A-bar movement and have D-CP structures.

First, since Inoue (1976) and Hasegawa (1981), it has been known that the environment in which the CNPC can be violated is restricted: (i) the relativized NP must be the subject of the inner relative clause and (ii) the head of the inner relative must serve as the subject of the outer relative. Furthermore, Ishizuka (2009) adds that (iii) there must be a genitive relation between the two heads and (iv) the predicate of the outer relative must be of the unaccusative-type. Thus, the non-violation of the CNPC does not mean that the construction lacks movement.

Second, Hoji's (1985) example (4) is in fact acceptable for many native speakers (cf. Hoshi 2004). The problem lies in that the nominal expression *zibun* is both reflexive and pronominal. When it behaves like a reflexive, it needs to be locally bound and it generally requires the subject to be its antecedent:

(8) Takasi$_i$-ga jousi$_j$-ni zibun$_{i/*j}$-o suisensi-ta.
Takasi-Nom boss-Dat self-Acc recommend-Pst
'Takasi$_i$ recommended self$_{i/*j}$ to boss$_j$.'
(Motomura 2001)

When it behaves like a pronoun, it allows long-distance binding:

(9) Takasi$_i$-ga [Kenzi$_j$-ga zibun$_{i/j}$-o suisensita-to] omot-ta.
Takasi-Nom Kenzi-Nom self-Acc recommended-Comp think-Pst
'Takasi$_i$ thought that Kenzi$_j$ recommended self$_{i/j}$.'
(Motomura 2001)

So, in order to test the existence of reconstruction effects, it is necessary to create an environment where *zibun* is unambiguous. In this regard, observe the following:

(10) [John$_i$-no titioya]$_j$-ga tuini zibun$_{*i/j}$-no sakuhin-o happyoosi-ta.
John-Gen father -Nom finally self-Gen work-Acc present-Pst
'John's father finally presented work of self.'

In this example, the antecedent of *zibun* can be *John-no titioya* 'John's father' which c-commands it, but it cannot be the possessor, *John*. Since it is locally bound, it is anaphoric. When we relativize the object, the result is grammatical:

(11) [[John$_i$-no titioya]$_j$-ga tuini happyoosi-ta] [zibun$_{*i/j}$-no sakuhin]-ga
John-Gen father -Nom finally present-Pst self-Gen work-Nom
syoo-o uke-ta.
prize-Acc receive-Pst
'the work of self that John's father finally presented received a prize.'

This means that reconstruction occurs in Japanese relative clauses, because if (11) were base-generated, *zibun* would be ruled out for the lack of a c-commanding antecedent. The following Japanese version of Schachter's (1973) examples on reconstruction illustrates the same point:

(12) a. [$_{DP}$[[John to Mary]$_i$-ga t$_j$ mise-ta] [$_{DP}$ otagai$_i$-e-no kansin]$_j$]-wa
John and Mary-Nom show-Pst each other-Obl-Gen interest-Top
honmono dat-ta.
real be-Pst
'The interest in [each other]$_i$ that [John and Mary]$_i$ showed was real.'
b. *[$_{DP}$[Otagai$_i$-ga t$_j$ mise-ta] [$_{DP}$ [John to Mary]$_i$-e-no kansin]$_j$]-wa
each other-Nom show-Pst John and Mary-Obl-Gen interest-Top
honmono dat-ta.
real be-Pst
*'The interest in [John and Mary]$_i$ that [each other]$_i$ showed was real.'

Another piece of evidence for A-bar movement comes from the weak crossover (WCO) phenomenon. Lasnik & Stowell (1991) propose the following condition to apply at LF after Quantifier Raising:

(13) In a configuration where a pronoun P and a trace T are both bound by a quantifier Q, T must c-command P.

Consider the following examples:

(14) a. [every boy_i]$_j$ that [t_j supports his_i father]
b. ??[every boy_i]$_j$ that [his_i father supports t_j].

(14a) complies with the above condition: *his* and the trace are bound by the quantifier *every boy* and the trace c-commands *his*. (14b), on the other hand, is marginal because the trace does not c-command *his* and produces a WCO effect.

The following are parallel examples in Japanese[2]. They show the same pattern as the English examples:

(15) a. [t_j $zibun_i$-no titioya-o ouensuru] [subete-no $otokonoko_i$]$_j$
he-Gen father-Acc supports all-Gen boy
'all boys that support father of self' (=14a)
b. *[$zibun_i$-no titioya-ga t_j ooensuru] [subete-no $otokonoko_i$]$_j$
he-Gen father-Nom supports a ll-Gen boy
'all boys that father of self supports' (=14b)

Again, if Japanese relative clauses were base-generated, the ungrammaticality of (15b) would be unexpected.

Thus, the above facts show that Japanese relative clauses are derived by A-bar movement of the head to its surface position. Furthermore, the fact that their behavior patterns with English despite their difference in head-directionality suggests that their syntactic structures are basically the same, as suggested in Kayne (1994).

Finally, relative clauses in Japanese can include CP-elements such as the focus particle, *dake* 'only':

(16) [*pro* sio-de t_i azituke-ta-dake-no] $suteeki_i$
salt-Obl flavor-Pst-only-Pt steak
'steak that is only flavored with salt'

In the above example, *dake* is attached to the embedded verb *azituke-ta* 'flavored'. Note that in this case, the particle *no* must be inserted. We will come back to this point in the next section.

Similarly, relative clauses can include interrogative markers, although the context in which these are acceptable is limited:

(17) Konkai-no-wa [[zyuu-nen-ni ichi-do _ okiru-kadouka-no] daizisin dat-ta.
this.time-Pt-Top ten-years-Obl one-time happen-whether-Pt big-earthquake be-Pst
'This time's was a big earthquake that whether happens once in ten years.'

Nominal complements are perfectly compatible with interrogative markers:

(18) [[kare-ga nan-zi-ni kuru-ka-no] mondai
he-Nom what-hour-Obl come-Int-Pt question
'question that/of what time he will come'

[2] *Zibun* 'self' is used instead of the overt pronoun *kare* 'he' because overt pronouns in Japanese cannot be construed as variables, but *zibun* can be (see Saito 1981, Hoji 1982, Saito & Hoji 1983).

Thus, contrary to Murasugi (2000a,b), Japanese complex NPs cannot all be D-IPs.

2.2 Interim summary

Japanese relative clauses have been assumed to be D-IP structures that are base-generated because extraction from them is possible and they do not exhibit reconstruction effects. However, a closer examination shows that the extraction is subject to certain restrictions and that reconstruction effects are observed. The existence of the WCO effect gives further support for the raising analysis of Japanese relative clauses. Furthermore, Japanese complex NPs can include focus particles such as *dake* or interrogative markers (*kadouka* 'whether', *ka*), which are elements of the complementizer system. Thus, Japanese relative clauses and more generally, complex NPs, must include the CP projection. This is also in accordance with the view that relative clauses are universally D-CP structures (Kayne 1994, De Vries 2002).

3. The adnominal form and the Clausal Typing Hypothesis

A distinct characteristic of Japanese sentential modifiers including relative clauses is that the predicate appears in a special form called the adnominal form (*rentaikei*)[3]. Japanese distinguishes the "adnominal form", which marks that the predicate is an attribute, from the "conclusive form", which marks the end of the sentence[4]. The two forms are identical in modern Japanese due to a phonological merger that took place during the 13th century (see Kinsui 1995). However, there are two exceptions: the present tense of nominal adjectives[5] and the copula *da*. They tell us that the adnominal form is effective in modern Japanese and that the embedded predicate of sentential modifiers must be in this form:

(19) Kore-wa [_ benri-na / *benri-da] zisho da.
this-Top useful-Adn useful-Cnc dictionary is
'This is a useful dictionary.'

(20) [18-sai no /*da] gakusei-ni kii-ta.
18-years-old be-Adn be-Cnc student-Dat ask-Pst
'(I) asked a student that is 18 years old.'

In the literature, the adnominal form has been analyzed as being related to the complementizer system (see Whitman & Kaplan 1995, Kinsui 1995, Hiraiwa 2001). I propose that its role and relation with the CP-system can be captured straightforwardly under the Clausal Typing Hypothesis (Cheng 1991):

[3] Cleft constructions also require that the embedded predicate take the adnominal form.
[4] The inflectional paradigm in Japanese consists of six forms: *mizenkei* (suppositional), *renyookei* (continuative), *syuusikei* (conclusive), *rentaikei* (adnominal), *kateekei* (conditional), and *meereekei* (imperative).
[5] Adjectives in Japanese are considered to have clausal structures because they are inflected for tense (see Kuno 1973, Whitman 1981, among others).

(21) Clausal Typing Hypothesis
Every clause must be typed.
In the case of typing a *wh*-question, either a *wh*-particle in C^0 is used or else fronting of a *wh*-word to the Spec of C^0 is used, thereby typing a clause through C^0 by Spec-head agreement.
(Cheng 1991:29)

The basic idea is that sentential modifiers should be typed as "adnominal", just as *wh*-questions are typed as interrogative. The question is how. Let us assume a rich CP-system, as proposed in Rizzi (1997, 1999):

(22) ForceP … Int(errogative)P ... Top(ic)P … Foc(us)P … Fin(ite)P … IP

ForceP is the highest projection that expresses the illocutionary content of the clause (e.g. declarative, interrogative, etc.). This information is used in the selection process (e.g. *ask* selects for an interrogative clause). Following Moscati (2006), let us assume that clausal types are expressed by "typing features" that are hosted in $Force^0$. These features need to be checked by agreement, much in the same way as functional features are. In the case of *wh*-questions, $Force^0$ hosts the typing feature, [+wh], and the latter is checked off by a *wh*-particle or a *wh*-word that has the same typing feature.

In the case of sentential modifiers in Japanese, suppose that ForceP hosts the typing feature, say [+adn], that needs to be checked, and the adnominal form inherently possesses the same feature. Since Japanese is an agglutinative language, the verb will raise successive cyclically from its base position, picking up the affixes (tense, aspect, or modality) and will finally check off the [+adn] feature on $Force^0$ [6].

Recall from the previous section that when the sentential modifier contains a focus particle or an interrogative particle, *no* must be inserted (cf. (16)-(18)). The examples are partially repeated below, in contrast with when such particles are absent:

(23) a. [... azituke-ta-dake-no] suteeki
flavor-Pst.Adn-only-Pt steak
'steak that is only flavored ...'
b. [... azituke-ta (*no)] suteeki
flavor-Pst.Adn steak
'steak that is flavored ...'

(24) a. [... okiru-kadouka-no] daizisin
happen.Cnc-whether-Pt big-earthquake
'a big earthquake that whether happens ...'
b. [... okiru (*no)] daizisin
happen.Adn big-earthquake
'a big earthquake that happens ...'

(25) a. [kare-ga nan-zi-ni kuru-ka-no] mondai
he-Nom what-hour-Obl come.Cnc-Int-Pt question
'question that/of what time he will come'

[6] I leave open the question of whether the predicate moves into $Force^0$ or feature checking is done at distance, in the sense of Chomsky (1999, 2000).

b. [kare-ga ichi-zi-ni kuru (*no)] mondai
he-Nom one-hour-Obl come.Adn question
'question that he will come at one o'clock'

No in these cases is reminiscent of the same particle that appears in the same position in sentential complements and head-internal relative clauses (see Kuno 1973, Kuroda 1974), where it has been assumed to be a nominalizing complementizer. What would be the reason for its presence in (23a), (24a), and (25a)?

Again, a possible account can be given by the Clausal Typing Hypothesis. That is, in (23a), the predicate in the adnominal form picks up the focus particle at FocP.[7] Force^0 hosts the typing feature [+adn] that must be checked, but the corresponding feature on the predicate is no longer "visible" because the focus particle has been attached. If so, we may interpret the presence of *no* as a last resort to enable clausal typing. This in turn means that *no* also possesses the typing feature [+adn]. Similarly, in (24a) and (25a), the predicate picks up the interrogative particle at IntP. But this time, the [+adn] feature is absent because the predicate is in the conclusive form. Again, *no* is inserted as a last resort. In contrast, in (23b), (24b), and (25b), the embedded verbs are in the adnominal form and there is no intervening element, so *no* is not necessary.

Furthermore, if the proposed account is on the right track, it is in accordance with the Principle of Economy of Derivation (Chomsky 1989), discussed in Cheng (1991). For example, in *wh*-questions, clausal typing by *wh*-particles is more economical and thus preferred over that by *wh*-words. That is why languages that have *wh*-particles do not have overt *wh*-movement. Likewise, the different strategies for adnominal clause-typing are ordered: clausal typing by the adnominal form is the most economical one. That is why in the unmarked case, the adnominal form is obligatory. The next economical option is a bound morpheme (e.g. *no*). Finally, languages that lack either option achieve clausal typing by inserting a free morpheme, such as a complementizer. This would be the case of English.

5. Conclusion

Contrary to previous analyses, a reexamination of reconstruction effects with respect to binding and the manifestation of the WCO effect in Japanese relative clauses suggest that they are derived by A-bar movement. Furthermore, the fact that complex NPs in general can include CP-elements such as focus particles or interrogative particles shows that they are CP structures, not IPs. On the other hand, the embedded predicate in relative clauses as well as that in other sentential modifiers must appear in the adnominal form, or in certain circumstances, be accompanied by the particle *no*. A straightforward account of this requirement can be given by the Clausal Typing Hypothesis. Namely, the adnominal form and the particle *no* (when the former is not available) play the role of typing the embedded clause as adnominal.

[7] Alternatively, one could assume that *dake* is already attached to the predicate and only feature checking takes place at FocP.

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