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Abstract	日本語の名詞句に関しては，既にFukui(1986，1988，1995a)等によって，一致現象と修飾現象等に関する日・英語の統語的振る舞いの違いを根拠に，「日本語には機能範疇が存在しない」という仮説が提案されているが，未だ研究者間で完全な合意には至っていないのが実情である。本論文では，日・英語に於ける名詞修飾構造に焦点を置きながら，比較統語論の観点から機能範疇のパラメータ化の問題を取り上げ，Fukuiの当該仮説を支持する新たな根拠を提出する。具体的には，Kayne(1994)流のD-CP構造を仮定する名詞修飾構造分析が基本的に妥当だとすると，日本語には機能範疇Dが存在しないという結果が導かれることを示す。特に，日本語のいわゆる「形容詞」による名詞修飾構造が時制節を含む関係節構造を成している点を確認し，当該言語の膠着的性質による形態論上の理由から，日本語の名詞修飾構造の存在と機能範疇Dの存在は両立しえないことを指摘する。
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The Kaynean Analysis of Nominal Modification and Its Parametric Implications

Koji Hoshi

1. *Introduction*

It has often been implicitly or explicitly assumed in the literature that Japanese noun phrases are DPs just like in English (but see Fukui 1986, 1988, 1995 a for notable exceptions), although their exact identity is far from being determined. In this connection, it is interesting to note that Fukui (1986, 1988, 1995 a) and Fukui (1995 b), for instance, hold slightly different positions with respect to the status of the functional category D in Japanese. The former claim that Japanese lacks the functional category D altogether, while the latter alleges that the language possesses the functional category D without “Agreement” features within itself. This reflects the fact that it is quite difficult to obtain solid evidence to pin down the exact syntactic status of noun phrases in Japanese with respect to the nominal functional category D.

Within the minimalist approach to linguistic theory, Chomsky (2000, 2001) adopts the (conventional) assumption that language acquisition involves selection of a subset of features [F] from the universal set of features that are made available in UG and the lexicon of each particular language L is constructed by assembling the features in [F]. Thus, under this assumption, it is quite naturally expected that in principle there are languages which lack functional elements in the lexicon.

The main purpose of this article is to pursue its parametric implications of the Kaynean analysis of nominal modification and argue that the D-CP structure analysis leads us to the conclusion that Japanese lacks the nominal functional category D unlike English, as originally claimed by Fukui (1986, 1988, 1995 a) on different grounds.¹⁾ Therefore, if our arguments in the present article turn out to be valid, Fukui’s (1986, 1988, 1995 a) position will be buttressed over Fukui’s (1995 b) position. Furthermore, it will be claimed that some typological implicational universals are to be teased out from our analysis with regard to the struc-

tures of adjectival nominal modification in natural languages.

This article is structured as follows. Section 2 briefly introduces the Kaynean analysis of nominal modification, which provides our theoretical assumptions throughout the ensuing discussions, and tease out some parametric typological prediction of the analysis. In Section 3, we consider Murasugi's (2000) treatment of N-final relatives in Japanese, which denies the validity of Kayne's (1994) analysis of relatives in Japanese, while pointing out some problems of Murasugi's analysis. Section 4 looks at the nature of prenominal adjectival element in Japanese and sees that the parametric typological prediction in Section 2 is basically borne out. In Section 5, we closely re-examine Yamakido's (2000) argument against a relative clausal analysis of prenominal attributive adjectivals in Japanese and claims that her conclusion is not decisive enough. Section 6 provides some evidence in favor of a relative clausal analysis of prenominal attributive adjectivals in Japanese. Section 7 concludes this article.

2. *The Kaynean Analysis of Nominal Modification* **(*Kayne 1994* ; *Bianchi 1999, 2000*)**

2.1. *The D-CP Structure*

The hypothesis that we will adopt here in analyzing nominal modification is the raising analysis in Kayne (1994), which revives Vergnaud's (1979, 1982) idea under the theory of antisymmetry of syntax (cf. also Bianchi 1999, 2000).²⁾ The Kaynean analysis assumes that the relative clause structure as in (1) and the attributive prenominal adjectival structure (including the reduced relative clause) as in (3) both involve the underlying D-CP configuration admitted by UG, as illustrated in (2) and (4), respectively :³⁾

- (1) the picture that Bill saw
- (2) [DP the [CP [picture]_i [C' that [IP Bill saw t_i]]]] (nominal head raising to [Spec, CP])
- (3) the yellow book
- (4) [DP the [CP [yellow]_j [C [IP book t_j]]]] (attributive adjective raising to [Spec, CP])

In (2) and (4), an NP *picture* and an AP *yellow* have been raised to [Spec, CP] from within the IP to satisfy the selectional feature of the topmost external D, i.e.,

[_[+N]] (the property of taking a nominal element to constitute a legitimate nominal projection) by entering its minimal domain (cf. Bianchi 2000).^{4), 5)}

Notice that the Kaynean analysis of nominal modification takes the D-CP underlying structure, which is allowed to the extent that some “nominal” element comes in the “minimal domain” of the functional category D. Alternatively, we might reinterpret this situation as follows. Since it is commonly assumed that the functional category D (uniquely) selects a nominal element as its sister, it might be assumed that the D-CP underlying structure is permitted as long as the CP is somehow “nominalized.”⁶⁾ Thus, we might regard those elements which move to [Spec, CP] as a kind of “nominalizer” which turns the CP into a nominal element under feature-checking or agreement. Thus, a nominal feature of C is checked/satisfied by raising of a [+N] element NP or AP to [Spec, CP], which guarantees a “nominalized” status of CP which is to be merged with D.

Note that this assumption accounts for the fact that the NP or AP must move overtly to its “surface” position, satisfying cyclicity.

2.2. *Parametric Typological Prediction of the Kaynean [D-CP] Analysis*

If the Kaynean analysis of nominal modification is on the right track, it will yield some interesting typological prediction both in the theoretical and empirical domains in the context of comparative-parametric syntax.

First of all, notice that the Kaynean analysis of nominal modification assumes that at least the English-type language always involves an underlying structure in which the external D takes a CP complement. Here the specific property of the functional category D plays an important role to generate the English-type nominal modification structures.

Therefore, if a language has the functional category D, it should, in principle, be able to generate the underlying D-CP structure for relatives and attributive adjectives, displaying some characteristic properties of relativization and adjectival modification of the English-type language, as long as it also has the functional category C. Specifically, if Japanese has indeed functional categories such as D and C, the nominal modification in Japanese could in principle involve (part of) the same derivations as (2) and (4) in English.

On the other hand, if a language lacks the functional category D, then it would be expected to lack the D-CP Kaynean structure and to employ a different strategy to implement the nominal modification, displaying quite different syntactic properties.⁷⁾ Japanese might be a case in point. In the next section, we will ex-

amine this prediction by looking at the empirical domain of nominal modification in Japanese.

3. *Murasugi's (2000) Analysis of N-final Relatives in Japanese*

Within the theory of antisymmetry of syntax, Kayne (1994) proposes to analyze the N-final relative such as (5) in Japanese as involving the configuration schematically represented in (6) below :

- (5) [[Taroo-ga yonda] hon]
 Taroo-NOM read book
 'the book that Taroo read'
- (6) [DP [IP ... t_i ...]_j [D' D [CP NP_i [C' C t_j]]]]

It is assumed that in general the relative construction has the D-CP structure whether it is an N-initial or N-final relative. In (6), the relative head NP has been raised to [Spec, CP] from within the IP, which in turn has been moved to [Spec, DP], giving rise to the surface order of the N-final relative.

Working within Kayne's (1994) anisymmetry theory, Murasugi (2000) reaches the conclusion that Japanese does not have a relative clause as in (6), which has the D-CP underlying structure with the relative "head" raised to [Spec, CP], and she claims that the so-called "relative clauses" in Japanese are pure sentential modifiers making up pure complex NPs with the following configuration in (7).⁸⁾

- (7) [DP [IP ...][D' D [NP ...[N' N ...]]]]

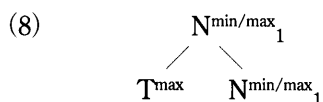
Murasugi provides convincing explanations for why Japanese cannot possibly allow for the D-CP structure in (6) in terms of the non-movement property (no Subjacency effects) originally observed by Kuno (1973) and further discussed by Hoji (1985) and Murasugi (1991) among others, the Proper Binding Condition, and facts concerning the overgeneration of the complementizer *no* in child Japanese (see also Fukui and Takano 2000 for arguments against the derivation in (6)).

All in all, we agree with Murasugi's arguments for the claim that Japanese

does not have a relative structure in the sense of English. Although the structure in (7) is free from the problems Kayne (1994) is faced with, it seems to pose some different sorts of problems. Notice that (7) still assumes that Japanese possesses the functional category D as in Kayne (*ibid.*). As far as syntax is concerned, there is no motivation for postulating D and its projection in (7). In the case of (6), Kayne assumes that D triggers movement of IP to its Spec, thus D has at least a role in syntax. In contrast, D does not play such a role in (7). IP is just “base-generated” (or directly merged) at [Spec, DP].

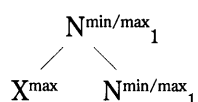
In terms of semantics, D is usually assumed to be the locus of a “definiteness” operator (or iota-operator) which semantically closes off the meaning of a noun phrase. Notice that in (7) D does not c-command IP, so IP is outside the scope of D. This means that only the non-restrictive interpretation should be available for Japanese relatives, contrary to fact, as long as you assume a structure as in (7). This kind of criticism does not seem to carry over to Kayne’s original analysis in (6), since at LF the trace/copy of IP can be taken to be c-commanded by D. All these considerations point to the conclusion that the functional category D is to be removed from (7) (see also Takeda 1999 for detailed arguments for non-necessity of D in Japanese).⁹⁾

In conclusion, although we are in line with Murasugi (2000) in taking that Japanese does not have a relative clause with D-CP underlying structure, we will not take the configuration in (7) as a correct one. Instead, we will adopt the analysis of the Japanese “relative clause” by Fukui and Takano (2000) in (8) below, which is in fact basically in line with Murasugi (1991) in spirit :



This structure is free from any of the above-mentioned criticisms against Murasugi (2000).¹⁰⁾ Considering that Fukui and Takano’s (*ibid.*) proposal on the structure of Japanese “relatives” in (8) is on the right track, we will generalize it into the structure of nominal modification in Japanese as follows :

(9) Japanese Nominal Modification :



In (9), as long as an XP serves as an appropriate modifier, it will enter into the configuration of nominal modification in Japanese in contrast to English, which always involves the D-CP structure canonically due to the presence of the functional category D in that language.

Before concluding this section, it may be in order to say something about linearization of elements within a nominal structure in English and Japanese. We assume that Takano (1996) and Fukui and Takano (1998, 2000) are basically correct with respect to their linearization process via Demerge after Spell-Out. It is still possible to maintain the essence of the Kaynean D-CP analysis for nominal modification in English within their framework (see Takano *ibid.* and Fukui and Takano *ibid.* for detailed discussions on their linearization mechanism in connection with word order facts in English and Japanese.)

4. Prenominal Adjectival Element in Japanese

4.1. “Nominal” Nature of Prenominal Attributive Adjectives in English

Recall from Section 2 the Kaynean analysis of adjectival nominal modification in (4) involving the underlying D-CP structure, which is repeated as (10) below:

- (10) [DP the [CP [yellow]_j [C [IP book t_j]]]] (attributive adjective raising to [Spec, CP])

Note that Bianchi (1999, 2000) assumes that the attributive adjective such as *yellow* is raised to [Spec, CP] to satisfy the selectional property of the topmost D, i.e., [_u +N] (the property of taking a nominal element in the minimal domain) as in the case of relative clauses. Here, it is crucial that the attributive adjective has a nominal feature as a whole to be a candidate for raising. Alternatively, the element to be moved to [Spec, CP] in [D-CP] structure must be a [+N] element to serve as a “nominalizer” of the CP (see n.8). Note in passing that since the Kaynean analysis assumes that the attributively modified nominal head occurs at [Spec, IP] underlyingly, it is in principle impossible to move the entire IP to [Spec, CP] leaving the nominal head behind in the first place.

4.2. *Relative Clausal/Predicative Nature of Prenominal Adjectival Element in Japanese*

Since the Japanese counterpart of (10) also involves a prenominal adjectival nominal modification as in (11) and at least Japanese-speaking children overgenerate the complementizer *no* as in (12) (cf. Murasugi 1991: 13 and references therein), the analysis in (10) seems to be able to carry over to Japanese at first blush :

- (11) [[kiroi] hon]
yellow book
'the yellow book'
- (12) [[aoi] no buubuu]
blue COMP car
'the blue car'

However, there is a piece of evidence which indicates that the prenominal (attributive) adjectives in English and Japanese are categorically different in the first place. In fact, it has been implicitly or explicitly assumed in the literature that what looks like an AP in Japanese is in fact IP (or TP), because Japanese "adjectives" bear temporal morphemes (cf. Kuno 1973, Whitman 1981, and Nishiyama 1998, 1999 *inter alia*). Observe the following paradigm :

- (13) a. [[aka-i] ringo]
red-NONPAST apple
'the red apple/the apple that is red'
- b. [[aka-katta] ringo]
red-PAST apple
'the apple that was red'

Note that the prenominal adjectives in Japanese are associated with tense unlike those in English. In the current principles and parameters approach, adjectives are assumed to have such formal features as (·interpretable) ϕ -features and a categorial feature, but tense does not enter into them in general. Thus, in this respect, as the translations of (13) indicates, the prenominal adjectives in Japanese have the same property as the postnominal relative clauses in English, as illustrated below :

- (14) a. the apple [that **is** red]
 b. the apple [that **was** red]

Given this, it is natural to conclude that the identity of the prenominal adjectives in Japanese is prenominal relative clauses rather than bare adjectival projections. In this article, we will follow Nishiyama (1998, 1999) and Aoyagi (2001) in assuming that Japanese adjectival modification involves an IP (or TP) projection which embeds an AP along with verbal projections.¹¹⁾

Given that Japanese “adjectives” per se are categorically IP (TP) unlike English, they could not be raised to the putative [Spec, CP] which should be selected by the topmost external D for the following reasons. First, if we try to extract a bare adjective stem out of the IP (or TP) projection, it would end up leaving the inflectional affix for tense dangling, which would violate the morphological requirement of adjacency condition on affixes in the sense of Siegel (1977). In fact, this kind of “excorporation” is illicit in general (cf. Baker 1988, Roberts 1991).

Second, even if we try to move the whole “adjective” IP (or TP) projection to the putative [Spec, CP] in the hypothesized D-CP structure in Japanese, it could not satisfy the selectional property of the topmost external D or the nominal feature of C, which requires a nominal element in its minimal domain. Thus, if an NP is then preceded by an adjectival IP (or TP) in Japanese, which is by definition a non-nominal projection, the category which hosts it in its Specifier position cannot be nominal. This implies that an ADJ-N sequence cannot function as an “extended nominal domain” in Japanese and cannot be selected by D, which by definition selects for a projection endowed with a nominal feature rather than a temporal feature.

Accordingly, to the extent that a language has “inflectional adjectives” as Japanese, it cannot have the D-CP structure available in principle due to their incompatibility. This seems to be the reason why Japanese has to resort to a different strategy for “adjectival” nominal modification as illustrated in (9). Thus, this seems to further support the idea that Japanese-type languages lack the functional category D in the lexicon (cf. Fukui 1986, 1988, 1995 a). This conclusion has a more general typological ramification, as formulated below in terms of an implicational universal :

- (15) If a language employs an agglutinative system, then it cannot make use of the D – CP structure for adjectival nominal modification.

Namely, agglutinative languages, which require morphological merger of tense and verbal/adjectival stems, cannot employ the D-CP structure for adjectival nominal modification, even if they possess D and C in the lexicon. In order to verify or falsify this typological prediction, it is necessary to conduct a cross-linguistic scrutiny of a wide range of languages, which is beyond the scope of this article.

5. Re-examination of Yamakido's (2000) Analysis of Prenominal Adjectives in Japanese

In this section, we will re-examine Yamakido (2000), who claims that Japanese prenominal attributive “adjectives” are not (all) relative clauses, contra Kuno (1973), Whitman (1981), and Nishiyama (1998, 1999), by looking into the tense properties of Japanese attributive “adjectives.” It will be shown that her arguments are not conclusive enough, advancing an alternative analysis of her relevant paradigms and new evidence concerning tense properties in support of our conclusion in the foregoing sections.

Yamakido (2000) argues that Japanese “prenominal attributive adjectives” are not (all) copular relative clauses, contra Kuno (1973), Whitman (1981), Teramura (1982, 1984, 1991), and Nishiyama (1998, 1999), based on the differences of behavior in intersective interpretation and temporal interpretation between relative clauses and prenominal attributive adjectives.

5.1. Intersective vs. Non-intersective Interpretation

First, consider the following paradigm :

<Intersective vs. Non-intersective Interpretation of Attributive Adjectives>

- (16) a. Peter is an old friend.
 - b. Peter is a friend [who is old]. (cf. Peter is a friend [who is aged].)
 - c. Peter has been a friend for a long time.
- (17) a. The unexpected visitor came by.
 - b. The visitor [who was unexpected] came by.
 - c. Unexpectedly, a visitor came by.
- (18) a. Max is a complete fool.
 - b. *Max is a fool [who is complete].

c. Max is completely foolish.

Following Bolinger (1967), Yamakido notes that while relative clauses are always interpreted as intersective modifiers as in (16 b) and (17 b), some attributive adjectives such as *old* in one sense, *unexpected*, and *complete* can be understood as non-intersective (often adverbial) modifiers as in (16 c), (17 c), and (18 c), respectively. She resorts to a criterion to the effect that an intersective reading follows the following entailment pattern.

(19) Intersective Interpretation :

(a) NP is a N Mod \rightarrow NP is a N & NP is Mod

(b) NP is a Mod N \rightarrow NP is Mod & NP is a N

Thus, if Peter is a friend who is old, then Peter is a friend and Peter is old. Likewise, on intersective reading, if Peter is an old friend, then Peter is old and Peter is a friend.

With this much in mind, Yamakido observes the following paradigm in Japanese :

(20) a. Peter-ga koorei na tomodachi da. (Intersective reading)

Peter-NOM old friend be

'Peter is an aged friend.'

b. Peter-ga huru-i tomodachi da. (Non-intersective reading)

Peter-NOM longtime friend be

'Peter has been a friend for a long time.'

Note that the two meanings of old in English are expressed by two different adjectival forms in Japanese, as illustrated in (20 a, b). She claims that *huru-i* 'long-time' is truly non-intersective and thus it cannot be analyzed as involving in a copulative relative clause based on the fact that (21) sounds awkward :

(21) #Peter-ga huru-i, sosite Peter-ga tomodachi da.

Peter-NOM long-duration and Peter-NOM friend be

#'Peter is longtime and Peter is a friend.'

However, notice Yamakido herself does not put an asterisk to (21). In fact, (21)

sounds strange, but is not totally gibberish. This seems to be attributable to the fact that (21) can be analyzed as involving an underlying representation similar to (22) except that *tukiai-ga* ‘association-Nom’ is a zero pronominal :

- (22) Peter-ga [[tukiai-ga] huru-i] tomodachi da
Peter-NOM [association-Nom] longtime friend be
‘Peter has been a friend for a long time.’

If it is possible to analyze (20 b) as in (22), we can maintain the position that (20) has a copulative relative clause structure with intersective interpretation of relative clause. Note in passing that if we put *tukiai-ga* ‘association-Nom’ in (21) overtly, the sentence becomes perfect, as illustrated below :

- (23) Peter-ga tukiai-ga huru-i, sosite Peter-ga tomodachi da.
Peter-NOM long-duration and Peter-NOM friend be
#‘Peter is longtime and Peter is a friend.’

Furthermore, Yamakido observes the following paradigm :

- (24) a. Omoigakena-i kyaku-ga kita.
unexpected visitor-NOM came
‘An unexpected visitor came.’
b. Omoigakena-ku, kyaku-ga kita.
Unexpectedly, visitor-NOM came
‘Unexpectedly, a visitor came.’
c. #Ano kyaku-ga omoigakena-i.
that visitor-NOM unexpected-be

Basically, we agree with her judgments in (24). However, her observation seems to be incomplete. First of all, the utterance in (24 c) seems to be pragmatically inappropriate rather than ungrammatical. Thus, if we embed the sequence in (24 c) in the following way, it becomes perfect :

- (25) kono kyaku zyanakute, ano kyaku-ga omoigakenai no da.
this visitor rather-than that visitor-NOM unexpected that be
‘It is that visitor rather than this visitor that is unexpected.’

Potentially problematic is her paradigm in (26) :

- (26) a. Max-ga kanzen na baka da.
 Max-NOM complete fool be
 ‘Max is a complete fool.’
 b. #Max-ga kanzen da, sosite Max-ga baka da.
 Max-NOM complete be and Max-NOM fool be

(26 a) might be a case of direct merger of a non-IP [*kanzen na*] to a projection of N, yielding a genuine case of non-intersective interpretation, as indicated by (26 b). Nevertheless, semantically, the sequence [*kanzen na baka*] can be understood as something like “a fool the degree of which is complete as a fool.” Thus, although “non-intersective” interpretation is imposed, we could assume that (26 a) involves a Japanese relative clause counterpart corresponding to [which is complete as a fool] with the portion as a fool deleted or generated as being phonologically null.

5.2. Temporal Interpretation

Yamakido (2000) concludes that Japanese attributive adjectives marked with *-i* and *-na* can have the general possibilities of time reference which can be observed with English attributive adjectives rather than English and Japanese relative clauses. However, there are several problems in her arguments.

Let us first turn to Ogihara’s (1996) observation that just like English, the present tense in the relative clause cannot be interpreted as referring to the intermediate time between the speech time and the matrix event time, as illustrated below :

- (27) *Taroo-wa [eki-de kinoo nai-te i-ru otoko]-o
 Taroo-TOP station-at yesterday cry-PROG-PRES man-ACC
 ototoi mise-de mi-ta.
 the-day-before store-at see-PAST
 [Intended] ‘The day before yesterday Taroo saw at the store the man
 who was crying at the station yesterday.’

On the basis of Ogihara’s observation, she makes the point that, in contrast to (27), attributive adjectives in Japanese can refer to an intermediate time based on the following paradigm :

- (28) a. Hanako-wa [kinoo-no oisi-i keeki]-o
 Hanako-TOP yesterday-GEN delicious cake-ACC
 ototoi yai-ta
 the-day-before bake-PST
 'Hanako baked yesterday's delicious cake the day before yesterday.'
- b. [Kinoo-no subarasi-i konsaato]-wa sakunen NY-de
 yesterday-GEN terrific concert -TOP last year NY-in
 dai-ninki da-tta.
 very-popular be-PAST
 'Yesterday's terrific concert was very popular in NY a year ago.'
- (29) a. Taroo-wa [kinoo-no hen na hito]-o
 Taroo-TOP yesterday-GEN strange man-ACC
 ototoi dinner-ni syootai-si-ta.
 the-day-before dinner-to invite-do-PST
 'Taroo invited yesterday's strange man to dinner the day before yesterday.'
- b. [Kinoo-no ma-kkuro na otoko-no-ko]-wa
 yesterday-GEN completely-black man-GEN-child-TOP
 mi-kka-mae-wa ma-ssiro da-tta.
 3-day-ago-TOP completely-white be-PAST
 'Yesterday's tanned boy was completely pale three days ago.'

What she should have also looked at is the following paradigm :

- (30) a. *Hanako-wa [kinoo oisi-i keeki]-o
 Hanako-TOP yesterday delicious cake-ACC
 ototoi yai-ta
 the-day-before bake-PST
 (Intended) 'Hanako baked the cake the day before yesterday
 which was delicious yesterday.'
- b. *[Kinoo subarasi-i konsaato]-wa sakunen NY-de
 yesterday terrific concert -TOP last year NY-in
 dai-ninki da-tta.
 very-popular be-PAST
 (Intended) 'The concert which was terrific yesterday was very popular
 in NY a year ago.'

- (31) a. *Taroo-wa [kinoo hen na hito]-o
 Taroo-TOP yesterday strange man-ACC
 ototoi dinner-ni syootai-si-ta.
 the-day-before dinner-to invite-do-PST
 (Intended) 'Taroo invited the man who was strange yesterday
 to dinner the day before yesterday.'
- b. *[Kinoo makkuro na otoko-no-ko]-wa
 yesterday completely-black man-GEN-child-TOP
 mi-kka-mae-wa ma-ssiro da-tta.
 3-day-ago-TOP completely-white be-PAST
 (Intended) 'The boy who was tanned yesterday was completely pale
 three days ago.'

Crucially, unlike in (28)–(29), all the examples in (30)–(31) are unacceptable just like the relative clause example in (27), which suggests that it is possible to accommodate the “attributive adjective” cases in (30)–(31) as copular relative clauses in Japanese. The surface difference between (28)–(29) and (30)–(31) lies in the presence of the genitive-marker in the former and the lack thereof in the latter. Note that in (28)–(29) the genitive marked phrase *kinoo-no* ‘yesterday-GEN’ modifies the head noun *keeki* ‘cake,’ *konsaato* ‘concert,’ *hito* ‘man,’ *otoko-no-ko* ‘boy,’ respectively, rather than the following adjectives. On the other hand, in (30)–(31), and for that matter, in (27), the adverb *kinoo* ‘yesterday’ modifies the embedded predicates in the present tense form. This difference seems to be responsible for the relevant interpretive difference between (29)–(30) and (31)–(32). Therefore, it seems to be possible to maintain that the “attributive adjective” paradigm in (28)–(29) involves copular relative clauses in Japanese, contrary to Yamakido (2000). Incidentally, if we replace *kinoo* ‘yesterday’ with *kinoo-no* ‘yesterday-Gen’ in (27), the sentence becomes acceptable, as illustrated below :

- (32) Taroo-wa [kinoo-no eki-de nai-te i-ru otoko]-o
 Taroo-TOP yesterday-GEN station-at cry-PROG-PRES man-ACC
 ototoi mise-de mi-ta.
 the-day-before store-at see-PAST
 [Intended] 'The day before yesterday Taroo saw at the store the man
 who was crying at the station yesterday.'

6. Evidence for the Relative Clausal Status of Prenominal Adjectives in Japanese

6.1. Lack of Ambiguity of Prenominal Adjectival in Japanese

Nishiyama (1999) cites Siegel's (1980) paradigm in (33), which indicates that certain prenominal modifiers show ambiguity while relative clauses do not show such ambiguity (cf. Siegel 1980, Nishiyama 1999 : 219, n.25) :

- (33) a. a beautiful dancer
 = someone who is beautiful and who is a dancer (= intersective)
 = someone who dances beautifully and who is a dancer (= non-intersective)
 b. a dancer who is beautiful
 = someone who is beautiful and who is a dancer (= intersective)

Nishiyama claims that the Japanese equivalent in (34) seems to allow ambiguity as in (33 a), suggesting that it is not necessarily a relative clause, although he admits that the judgment is subtle :

- (34) utukusi-i dansaa
 'a beautiful dancer' or 'a dancer who is beautiful'???

Now, to obtain a clearer judgment, let me embed (34) in the following frame :

- (35) kanozō-wa utukusi-i dansaa da
 she-TOP beautiful dancer be
 'She is a dancer who is beautiful.'
 = someone who is beautiful and who is a dancer (= intersective)
 = ?*someone who dances beautifully and who is a dancer (= non-intersective)

We find the unmarked reading of (35) unambiguous with the intersective reading as indicated in the translation. On top of that, the subtlety of judgment of (34) seems to stem from the fact that Japanese allows for zero pronominals. More specifically, it is plausible to assume that (35) has the underlying representation in (36) :

- (36) kanozyo-wa [[e] utukusi-i] dansaa da
 she-TOP beautiful dancer be

In (36), [[e] *utukusi-i*] is a relative clause that modifies the head noun *dansaa* and the empty pronominal [e] can be understood as corresponding to the empty counterpart of either *yoosi-ga* ‘appearance-Nom’ or *odori-ga* ‘dance-Nom’, as demonstrated in (37) overtly :

- (37) a. kanozyo-wa [yoosi-ga utukusi-i] dansaa da
 she-TOP appearance-Nom beautiful dancer be
 = someone whose appearance is beautiful and is a dancer
 b. kanozyo-wa [odori-ga utukusi-i] dansaa da
 she-TOP dance-Nom beautiful dancer be
 = someone whose dance is beautiful and is a dancer

Thus, if the above consideration is on the right track, we can still maintain that prenominal adjectival elements in Japanese involves a kind of copulative relative clause and so they are not of nominal category unlike in English.

6.2. *Comparative Deletion*

We can provide additional evidence for the copulative relative clausal status of prenominal adjectival element in Japanese on the basis of comparative deletion facts in Japanese. Bresnan (1973) observes the following asymmetry with respect to comparative deletion in English :

- (38) a. John wants to come up with as good a solution as Christine did.
 b. John wants to come up with a solution as good as *Christine did.
 (39) a. John wants to find a better solution than Christine did.
 b. John wants to find a solution better than *Christine did.
 (adapted from Bresnan 1973, (252)–(255))

As shown above, when an adjective modifies a noun pronominally, comparative deletion is available (see (38 a) and (39 a)), whereas it is not possible when an adjective modifies a noun postnominally (see (38 b) and (39 b)). Bresnan (ibid.) assumes that the latter involves a structure of reduced relative clause, which is responsible for the impossibility of comparative deletion.

In this connection, it is interesting to note Ishii's (1991) observation that adjectives in Japanese do not allow for comparative deletion unlike those in English, as illustrated in (40) :¹²⁾

- (40) ?*Taroo-wa [Hanako-ga [e] katta yori (-mo)]nagai kasa-o katta.
(cf. Taroo bought a longer umbrella than Hanako bought.)

Akira Watanabe (2001, TEC class lectures) points out that one possibility to account for the unavailability of comparative deletion in Japanese is to consider that attributive adjectives in Japanese involve relative clause structures just like (38 b) and (39 b) in English.

Accordingly, if the above discussion is not off the mark, it seems to be plausible to assume that attributive adjectivals in Japanese embody copulative relative clausal constructions in general.

7. *Concluding Remarks*

The main aim of this article was to provide an explanation for a certain difference between English and Japanese concerning the empirical domain of nominal modification. Assuming the D-CP analysis of nominal modification originally proposed by Kayne (1994), it was claimed that the relevant difference between the two typologically different languages is related to another difference between the two languages: the presence of the functional category D in English vs. the lack thereof in Japanese.

Kayne (ibid.) proposes to analyze the prenominal adjectival structure as involving the (underlying) D-CP configuration. Following Kayne's idea, Bianchi (1999, 2000) claims that attributive adjectives with [+N] feature specifications will be raised to [Spec, CP] to satisfy the D's selectional property of taking a nominal element, as illustrated in (41) :

- (41) [DP the [CP [red]_j [C [IP [apple]_i [I t_j]]]]]

If this is basically on the right track, it is predicted that any language that has the functional category D should share the same structure for adjectival nominal modification. Since the Japanese counterpart also involves a prenominal "adjectival element", this analysis seems to be able to carry over to Japanese at

first blush.

However, it was demonstrated that there is evidence which suggests this is not the case. What looks like an adjective phrase in Japanese is in fact a clausal element, because Japanese “adjectives” bear temporal morphemes. If Japanese NPs are preceded by “tense-bearing clausal adjectives (= non-nominal elements)”, the category which hosts them in its specifier position cannot be nominal in nature. This implies that ADJ-N sequences cannot function as “extended nominal domains” in Japanese and thus cannot be selected by a D due to its selectional property. This in turn suggests that Japanese lacks the functional category D.

Accordingly, if the above argumentation is on the right track, it seems to provide further support for the idea that Japanese-type languages lack the functional category D in the lexicon (Fukui 1986, 1988, 1995 a) with various ramifications in the empirical domain of nominal modification as well as “agreement”-related phenomena. It is hoped that the present study will shed new light on the typology of adjectival nominal modification and have consequences for an important issue of cross-linguistic parameterization of the inventory of functional categories.

Notes

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- 1) In this article, we will leave open the possibility that Japanese noun phrases involve functional categories (e.g., Num (ber) P, Q (uantifier) P) other than D.
- 2) Borsley (1997) criticizes the “head” raising analysis of relative clauses by Kayne (*ibid.*), pointing out various theoretical and empirical problems. Bianchi (2000) replies to Borsley (*ibid.*) based on Bianchi (1999), proposing some modifications to Kayne’s original analysis of relative clauses, which overcome most of the criticisms raised by Borsley (*ibid.*). In what follows, we will adopt Kayne’s (1994) original version rather than Bianchi’s (2000) just for expository simplicity.
- 3) Although Kayne (1994) and Bianchi (1999, 2000) treat attributive adjectives such as yellow uniformly under the promotion analysis in the text, it has been observed in the literature that attributive adjectives per se fall into two classes: extensional adjectives and intensional adjectives (see Siegel 1980 for a detailed discussion of this issue in the framework of Montague grammar). It is

plausible to assume that only extensional adjectives are susceptible to the Kaynean analysis in question, intensional adjectives being directly merged into a projection of an N. As far as extensional adjectives are concerned, one of the merits of the Kaynean analysis of prenominal attributive adjectival modification is that we can assume the same theta-structure for both attributive and predicative adjectives. We will leave a full-fledged treatment of adjectives of the two kinds to a future research. Incidentally, Abney (1987) proposes to treat only prenominal attributive adjectives as f-selecting a non-argumental NP as its complement in English. There still remains the possibility that intensional adjectives are subject to such a f-selectional analysis, including adjectives such as *mere* and *utter*, which appear only in prenominal position, never in postnominal or predicative position. We will not discuss this issue further in this article, though.

4) Bianchi (1999, 2000) adopts Manzini's (1994) definition of minimal domain as formulated in (i) below :

- (i) The minimal domain of a head X includes all categories that are immediately dominated by, and do not immediately dominate, a projection of X.

5) This idea is originally due to Yuji Takano (personal communication).

6) See Abney (1987) for the characterization of the functional category D and the adjective (A) in English as [+N, +F] and [+N, -F], respectively, employing fundamental syntactic features [+/-N (ominal)] and [+/-F (unctional)]. Here we will follow Abney's assumption on the featural characterization of syntactic categories. In this connection, note that there are at least two syntactic categories that are notionally "adjectives" in natural languages in the world : one essentially nominal ([+N]), as in English, and the other essentially verbal ([-N]), as in Manipuri (Tibeto-Burman : India) (see Dixon (1977), Abney (1987), Whaley (1997) among others for discussions on the types of "adjectival notions" in the world's languages). If our analysis of nominal modification is on the right track, it would make an interesting typological prediction : although adjectives of English-type are subject to raising to [Spec, CP] in the D-CP structure due to the nominal nature of the adjectives, the ones of Manipuri-type are incapable of raising to the relevant position because of their verbal nature. To see if this typological prediction is borne out or not is beyond the scope of this article. We will leave it to a future research.

7) If Kayne's (1994) assumption that the relative pronoun is originally located at the D head of the raised relative head DP, then the assumption that Japanese lacks the functional category D also account for the fact that Japanese lacks rela-

tive pronouns.

8) Murasugi (2000) also considers the following structure in (i) for Japanese relatives under Kayne's hypothesis and rejects it, noting that there is no independent motivation for base-generating NP at Spec-CP :

- (i) [DP [IP... (pro_i) ...]_j [D' D [CP NP_i [C' C t_j]]]]

In fact, Honda et al. (1996) propose a Kaynean treatment of Japanese relatives similar to (i) with the following configuration :

- (ii) [DP [IP pro_i] D⁰[TopP NP_i Top⁰ tP]]

Their analysis of the Japanese relative clause is different from that of Kayne's (1994) in that the determiner D⁰ selects a Topic phrase (TopP) rather than a CP and the relative head NP is base-generated at [Spec, TopP] rather than its being raised from within the IP. See Honda et al. (ibid.) for arguments in favor of their particular analysis over Kayne's original one. A potential problem of their analysis is that, just as Kayne's original analysis, the motivation for the relevant movement to [Spec, D] is unclear independently of the surface word order in Japanese (cf. Fukui and Takano 1988, 2000). If our analysis in this paper is on the right track, their DP-TopP analysis will have to be somehow reinterpreted. We will not be concerned with this issue in this paper.

9) One might claim that Japanese has at least demonstrative elements as candidates for D. On this point, we will basically follow Bernstein (1997) in assuming that pronominal deictic demonstratives in Romance and Germanic languages are generated in a specifier position below DP and raise to D overtly, but we will not commit ourselves to her claim that they are generated in a specifier position of a functional projection FP below DP cross-linguistically. With respect to Japanese, we will assume that demonstratives are merged to a projection of N and stay there with no further movement to a higher projection (cf. Fukui op. cit., Hoji 1995 *inter alia*). See also Fukui (1986, 1995) for the crucial difference of demonstrative elements between English and Japanese with respect to the property of "closing off" a nominal projection.

10) One might contend that case particles can be considered to constitute the functional category D in Japanese, as sometimes assumed in the literature in Japanese syntax and semantics. However, such an assumption seems to be dubious at least on the following ground. First, notice that articles in English do not merge with definite nominal expressions involving demonstratives, as illustrated in (i) below :

- (i) a. *the [that/this gentleman]
b. *a [that/this gentleman]

If case particles in Japanese are on a par with articles in English with regard to their status as D, it should be expected that the case particles in Japanese cannot merge with definite nominal expressions containing demonstratives, either. However, this is obviously not the case, as demonstrated in (ii) below :

- (ii) a. [ano / kono sinsi]–wa
that / this gentleman-Top
b. [ano / kono sinsi]–ga / -o
that / this gentleman–Nom / -Acc

On this matter, we will follow Takano (1996) in assuming that a case particle in Japanese is a morphological realization of a Case feature and heads its own projection K^{\max} , which in turn takes an $N^{\min/\max}$ as its complement (see Abney (1987), Lamontagne and Travis (1987), Bittner and Hale (1996) among others for the KP analysis, which dates back to Kenneth Hale’s suggestion made in the mid- 1980 s).

As Fukui and Takano (2000) note, the structure in (8) is well in line with Chierchia’s (1998) *Nominal Mapping Parameter*, according to which Japanese-type languages are always permitted to employ NP rather than DP as an argumental element in their grammar. Thus, as far as semantics goes, functional elements such as D are not always necessary in a grammar.

11) Nishiyama (1998, 1999) and Aoyagi (2001) propose slightly different underlying structures for Japanese adjectival modification, as illustrated in (i) and (ii) below, respectively :

- (i) a. [TP [VP [PredP [AP aka] ϕ] ϕ] -i]
b. [TP [VP [PredP [AP aka] k-] -ar-] -ta]
- (ii) a. [TP [_vP [aP [AP aka] ku-] -ar-] -ru]
b. [TP [_vP [aP [AP aka] ku-] -ar-] -ta]

Nishiyama (1998, 1999) assumes that the element *i* is a present tense morpheme on a par with a past tense morpheme–*ta*. On the other hand, Aoyagi (2001) posits an underlying representation like (ii), where–*ru* and–*ta* are present and past tense morphemes, respectively.

Aoyagi (2001) claims that Japanese does not involve any predicative head movement in syntax and instead a predicate and its tense element are combined into a phonologically single unit via morphological merger in the phonological component. If our considerations in the foregoing section are basically on the right track, it seems reasonable to extend his analysis of adjectives in Japanese to the case of prenominal adjectival modification as well. More specifically, he proposes the following suppletion rule which accounts for the surface form of the present tense form of an adjectival element in Japanese (see Aoyagi (2001) for details of an analysis of Japanese adjectives) :

- (iii) /i/ – suppletion : ku + aru + ru → i

Nishiyama (1999) also entertains another possibility of the prenominal adjectival modification in Japanese with respect to the present form of an attributive adjectival on the basis of Rubin (1993, 1994, 1996), as illustrated below :

- (iv) [ModP [AP aka]-i]

In (iv), a prenominal adjectival makes up a ModP, a functional projection. In terms of minimalist spirit, the status of such a functional projection as ModP is not clear. We will leave a full examination of this possibility to a future research.

12) Ishii (1991) warns us not to inadvertently insert the nominalizer *-no* in Japanese immediately before *yoru* in judging the acceptability of (39). Otherwise, we will be dealing with a different construction. Ishii (ibid.) also notes that there are verbs that can be used in constructions like (39), namely, those which are sometimes called “verbs of creation,” as illustrated in (i) below :

- (i) Taroo-wa [Hanako-ga [e] kaita yori (-mo)] nagai ronbun-o kaita
 -TOP -NOM wrote than long paper-ACC wrote
 ‘Taroo wrote a longer paper than Hanako wrote.’

Ishii claims that cases like (i) in fact involves comparison between adverbials rather than adjectives (see Ishii (ibid.) and references cited therein for a detailed discussion on this point. Here we are abstracting away from this complication for simplicity of exposition.

References

- Abney, Steven (1987) The English noun phrase in its sentential aspect. Doctoral dissertation, MIT.
 Aoyagi, Hiroshi (2001) Nihongo-niokeru zyutugo-to ziseiyouso-no koutyaku-nituite. *ACADEMIA Lit-*

- erature and Language* 70, 1–30. Nanzan University, Nagoya.
- Baker, Mark C (1988) *Incorporation: A theory of grammatical function changing*. Chicago: University of Chicago Press.
- Bernstein, Judy B (1997) Demonstratives and reinforcers in Romance and Germanic languages. *Lingua* 102: 87–113.
- Bianchi, Valentina (1999) *Consequences of antisymmetry: Headed relative clauses*. Berlin: Mouton de Gruyter.
- (2000) The raising analysis of relative clauses: A reply to Borsley. *Linguistic inquiry* 31: 123–140.
- Bittner, Maria and Kenneth Hale (1996) The structural determination of Case and agreement. *Linguistic Inquiry* 27, 1–68.
- Bolinger, Dwight (1967) Adjectives in English: Attribution and predication. *Lingua* 18: 1–34.
- Borsley, Robert D (1997) Relative clauses and the theory of phrase structure. *Linguistic Inquiry* 28: 629–647.
- Bresnan, Joan (1973) Syntax of the comparative clause construction in English. *Linguistic Inquiry* 4: 275–343.
- Chierchia, Gennaro (1998) Reference to kinds across languages. *Natural Language Semantics* 6: 339–405.
- Chomsky, Noam (1995) *The minimalist program*. Cambridge: MIT Press.
- (2000) Minimalist inquiries: The framework. In: Roger Martin, David Michaels and Juan Uriagereka (eds.) *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, 89–155. Cambridge: MIT Press.
- (2001) Derivation by phase. In: Michael Kenstowicz (ed.) *Ken Hale: A life in language*, 1–52. Cambridge: MIT Press.
- Dixon, R. M. W. (1977) Where have all the adjectives gone? *Studies in Language* 1: 19–80.
- Fukui, Naoki (1986) A theory of category projection and its applications. Doctoral dissertation, MIT, Cambridge, Massachusetts; a revised version published in (1995 a) as *theory of projection in syntax*. Stanford: CSLI Publications (distributed by Cambridge University Press).
- (1988) Deriving the differences between English and Japanese: A case study in parametric syntax. *English Linguistics* 5: 249–270.
- (1995 b) The principles-and-parameters approach: A comparative syntax of English and Japanese. In: Masayoshi Shibatani and Theodora Bynon (eds.) *Approaches to language typology*, 327–371. Oxford: Clarendon Press.
- and Yuji Takano (1998) Symmetry in syntax: Merge and demerge. *Journal of East Asian Linguistics* 7, 27–86.
- and Yuji Takano (2000) Nominal structure: An extension of the symmetry principle. In: Peter Svenonius (ed.) *The derivation of VO and OV*, 219–254. Amsterdam/Philadelphia: John Benjamins.
- Honda, Kensuke, Kazuhiro Ichikawa, Tomoko Inoue, Kazuhiko Yurugi, and Satoshi Sunami (1996) The structure of Japanese relative clauses. Ms., Dokkyo University, Saitama.
- Ishii, Yasuo (1991) Operators and empty categories in Japanese. Doctoral dissertation, University of Connecticut.
- Kaplan, Tamar I. and John B. Whitman (1995) The category of relative clauses in Japanese, with reference to Korean *Journal of East Asian Linguistics* 4: 29–58.
- Kayne, Richard S. (1994) *The antisymmetry of syntax*. Cambridge: MIT Press.
- Kuno, Susumu (1973) *The structure of the Japanese language*. Cambridge: MIT Press.

- Lamontagne, Greg and Lisa Travis (1987) The syntax of adjacency. *WCCFL* 6, 178–186.
- Manzini, Maria Rita (1994) Syntactic dependencies and their properties: A note on strong islands. *UCL working papers in linguistics* 6, 205–218. Department of Linguistics and Phonetics, University College London.
- Murasugi, Keiko (1991) Noun phrases in Japanese and English: A study in syntax, learnability and acquisition. Doctoral dissertation, University of Connecticut.
- (2000) Japanese complex noun phrases and the antisymmetry theory. In: Roger Martin, David Michaels and Juan Uriagereka (eds.) *Step by step: Essays on minimalist syntax in honor of Howard Lasnik*, 211–234. Cambridge: MIT Press.
- Nishiyama, Kunio (1998) A unified analysis of Japanese adjectives. *Japanese/Korean Linguistics* 8: 175–188. Stanford: CSL.
- (1999) Adjectives and the copulas in Japanese. *Journal of East Asian Linguistics* 8: 183–222.
- Ogihara, Toshiyuki (1996) *Tense, attitudes and scope*. Dordrecht: Kluwer.
- Roberts, Ian (1991) Excorporation and minimality *Linguistic Inquiry* 22: 209–218.
- Rubin, Edward J. (1993) The category of modifiers. *ESCOL* '92: 218–255.
- (1994) Modification: A syntactic analysis and its consequences. Doctoral dissertation, Cornell University.
- (1996) The transparent syntax and semantics of modifiers. *WCCFL* 15: 429–439.
- Siegel, Dorothy (1977) The adjacency condition and the theory of morphology. *NELS* 8: 189–197.
- Siegel, Muffy (1980) *Capturing adjectives*. New York: Garland.
- Takano, Yuji (1996) Movement and parametric variation in syntax. Doctoral dissertation, University of California, Irvine.
- Takeda, Kazue (1999) Multiple headed structures. Doctoral dissertation, University of California, Irvine.
- Teramura, Hideo (1982) *Nihongo-no sintakkusu-to imi I*. Tokyo: Kurosio Syuppan.
- (1984) *Nihongo-no sintakkusu-to imi II*. Tokyo: Kurosio Syuppan.
- (1991) *Nihongo-no sintakkusu-to imi III*. Tokyo: Kurosio Syuppan.
- Whaley, Lindsay J. (1997) Introduction to typology: The unity and diversity of language. Thousand Oaks: Sage Publications.
- Whitman, John (1981) The internal structure of NP in verb final languages. *CLS* 17: 411–418.
- Yamakido, Hiroko (2000) Japanese attributive adjectives are not (all) relative clauses. *WCCFL* 19: 588–602.

Summary

ケイン流名詞修飾構造分析とその帰結

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日本語の名詞句に関しては、既に Fukui (1986, 1988, 1995 a) 等によって、一致現象と修飾現象等に関する日・英語の統語的振る舞いの違いを根拠に、「日本語には機能範疇 D が存在しない」という仮説が提案されているが、未だ研究者間で完全な合意には至っていないのが実情である。本論文では、日・英語に於ける名詞修飾構造に焦点を置きながら、比較統語論の観点から機能範疇のパラメータ化の問題を取り上げ、Fukui の当該仮説を支持する新たな根拠を提出する。具体的には、Kayne (1994) 流の D-CP 構造を仮定する名詞修飾構造分析が基本的に妥当だとすると、日本語には機能範疇 D が存在しないという結果が導かれることを示す。特に、日本語のいわゆる「形容詞」による名詞修飾構造が時制節を含む関係節構造を成している点を確認し、当該言語の膠着的性質による形態論上の理由から、日本語の名詞修飾構造の存在と機能範疇 D の存在は両立しえないことを指摘する。