Prenominal Modifiers in English and Japanese*

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1. Introduction

This article has two aims. One is to compare English with Japanese prenominal modifiers and show that the English prenominal modifiers would be peculiar from the viewpoint of the Principles and Parameters approach (henceforth, PPA), which has been developing since Chomsky (1981). The other is to propose an alternative approach based on the theory of grammatical dynamism as developed by Kajita (1977, 1997).

Let us look at the following two pairs of English and Japanese noun phrases:¹

(1) a. the excellent student
   b. sono yuusyuuna gakusei
      the excellent student

(2) a.*the fond of music student
   b. sono ongaku-ga sukina gakusei
      the music-of fond student

In (1) both English and Japanese noun phrases show the same syntactic behavior in that an adjective premodifies the head noun, but that is not the case with (2). In (2b) the adjectival phrase ongaku-ga sukina can premodify the head noun gakusei while it can also appear in the predicative position of a sentence like Kanozio-wa ongaku-ga sukida ("She is fond of music."). In (2a), on the other hand, the adjectival phrase fond of music cannot premodify the head noun, though it can appear in the postnominal position of a noun phrase like the student fond of music or in the predicative position of a sentence like She is fond of music. The contrast between (2a) and (2b) is the starting point for our argument.

The reason why the ungrammaticality of (2a) would be peculiar from a PPA point of view is as follows. Generally, English is said to be a head-initial language whereas Japanese a head-final language. It means that English requires the head of a phrase to come first in the phrase whereas Japanese requires the head of a phrase to come last. (I put aside the consideration ofNFL/Tense here.)

(3) a. Mary is [AP fond of music].
   b. John [VP hit the ball].

(4) a. Hanako-wa [AP ongaku-ga sukida].
   Hanako-Top music-of fond
   b. Taroo-ga [VP sono booru-o utta].
   Taro-Nom the ball-Acc hit-past

However, this generalization does not hold if we use predicative phrases like (3a) and (4a) as prenominal modifiers. In Japanese a prenominal phrase [AP ongaku-ga sukina] (or we might say it is [CP ongaku-ga sukina] instead) is head-final within the NP and is acceptable, which brings about no theoretical problem at all, whereas in English a prenominal phrase [AP fond of music] turns out to be unacceptable, though it is head-initial.

In order to account for the ungrammaticality of structures like (2a), Williams (1982:160) and Di Sciullo and Williams (1987:51) propose the Head-Final Filter on prenominal modifiers: *[w X y] N (y ≠ 0), which stipulates that a prenominal modifier will be ungrammatical if it does not end with the head X. This filter makes (2a) ungrammatical.³ This filter may be descriptively adequate, but it is a mere
stipulation and unnatural for the PPA approach because AP as a prenominal modifier is not permitted if the head adjective, followed by a complement, appears in the initial position of the AP, to be more precise, A-bar (e.g. *the \( [\_A \_P] \_A \_fond \text{of} \_A \_music \) student) in spite of the general agreement that English is a head-initial language. In contrast, such a discrepancy does not exist in Japanese, because a head adjective can appear in the final position of the AP (and also A-bar) as a prenominal modifier (e.g. sono \( [\_A \_P] \_A \_ongaku-ga \_sukina \) gakusei) as well as in the final position of the AP as a predicative (e.g. Hanako-wa \( [\_A \_P] \_A \_ongaku-ga \_sukida \) \text{).}

Thus, English is peculiar in that it is subject to the Head-Final Filter on prenominal modifiers, which is unnatural for the general property of being uniformly head-initial within X-bar.

2. Toward a Dynamic Analysis of Prenominal Modifiers in English and Japanese

In the preceding section, I have discussed the Head-Final Filter, a syntactic restriction on English prenominal modifiers. In this section, I will consider several semantic properties of the English prenominal modifiers, address a question about a correlation between the syntactic restriction and the semantic properties, and then show that a dynamic approach can offer a better analysis which deals with both the syntactic restriction and the semantic properties.

2.1. Semantic Properties and A Question to be Addressed

To begin with, six sets of semantic properties will be considered in order to define what is the most basic premodification of a head noun. First of all, let us look at the following pair of examples that Bolinger (1967: 3-4) shows and explains:

(5) a. the guilty people  
    b. the people guilty

In this pair there is a position-related contrast between characteristic and occasion. In (5a) the prenominal adjective expresses the "characterizing" and "lasting (=non-temporary)" properties of the noun it modifies, whereas (5b) relates the guilt to an occasion and thus the postnominal adjective expresses the "temporary" property of the noun it modifies. "Characterizing" means that the prenominal adjective describes the character of the head noun it modifies by referring to the inherent property of the noun or classifying the members of the set the noun denotes. Thus, the prenominal adjective expresses the "inherent" or "classifying" property of the noun it modifies whereas the postnominal adjective does not:

(6) a. the visible stars  
    b. the stars visible

(6a) refers to stars which are inherently visible (i.e. of a high magnitude), but (6b) refers to what could be seen on a cloudy night. I claim that prenominal adjectives usually have the "characterizing" and "lasting" properties.

Second, we can add the semantic properties "restrictive" and "nonrestrictive" to the prenominal adjectives of (7a) and (7b) respectively.

(7) a. a red rose  
    b. white snow

In (7a) red restricts the classes of roses, while in (7b) white emphatically describes the inherent property of snow. I claim that prenominal adjectives usually have the "restrictive" property.

Third, according to Bolinger (1967: 14-15), there are two types of modification of a head noun: referent-modification and reference-modification. (8a) belongs to the former type in that hungry directly modifies the referent of man. On the other hand, (8b) belongs to the latter type in that eager does not directly modify the referent of student, but rather it suggests someone who is eager qua student. I claim that prenominal adjectives usually show referent-modification like (8a).
(8) a. a hungry man
   b. an eager student
Following Bolinger (1967), we may add that (8b) is possible as a result of the disambiguation of The student was eager [predication], which means not only 'eager qua student' but also 'eager to be off', 'eager to hear the latest racing news', or whatsoever. Similarly, it seems that the 'characteristic' reading in an expression like the only navigable river is possible as a result of the disambiguation of the only river that is navigable [attribution as postnominal modification], which refers to both the temporary states of rivers and the classes of rivers.

Fourth, as Bolinger (1967:24) claims, establishment in discourse helps to determine how the grammatical devices of referent-modification and reference-modification can be used. I regard as normal the premodification which will be possible without any help of establishment in discourse, whether it is referent-modification or reference-modification. As I mentioned above, prenominal adjectives usually show referent-modification, but there are some adjectives which are normally used in prenominal position to show reference-modification. For example, short book is normally taken as 'short qua book', short in number of pages, lines, paragraphs, etc. and one would be unlikely to say (9a), on moving into an apartment and distributing articles among the shelves along the walls. However, (9b) would be normal enough and show referent-modification instead because the italicized portion would follow from the prior predication.

(9) a. This short book is about right for that low shelf
   b. This book is short—it's about right for that low shelf. [Later] Hand me that short book you had.
On the other hand, (10) would cause no surprise. Stick selects from the semantic range of short only on the basis of Material Object.

(10) This short stick is about right to prop up the shelf.

Fifth, a noun phrase basically denotes an individual in cases like (11a), where a prenominal adjective makes a contribution to the decision of referent of the whole noun phrase whose head basically refers to a concrete object, but it can derivatively denote other semantic types such as an event in those like (11b).

(11) a. the round table
   b. the quick construction of the bridge

Finally, the whole noun phrase is usually compositional in cases like (12a) because it fully conforms to the Principle of Compositionality, which states that the meaning of the whole is a function of the meaning of the parts and their mode of combination, but it can be derivatively a gestalt in those like (12b). In addition, there is a possibility that topless bar might not be fully phrasal but form a compound.

(12) a. a topless dress
   b. a topless bar (Lakoff 1977: 241) (=a special bar in which ladies who wear topless dresses work)

Now we have examined all the semantic properties on prenominal modifiers in English, and we can see a full set of the properties the most basic premodification of a head noun has in the following examples:

(13) a. a white cat
   b. the round table

In these examples, the prenominal adjectives have the "characterizing", "lasting", and "restrictive" properties of the nouns they modify and show the property of referent-modification which will be available without any help of establishment in discourse. They also indicate that each of them is a noun phrase consisting of an article, a prenominal adjective and the head noun whose meaning is fully compositionally determined, and denotes an individual. Thus (13a) and (13b) have a full set of these properties and constitute the most basic
premodification of a head noun in English. (14a) and (14b), on the other hand, seem to constitute the second most basic premodification in that they lack the property of referent-modification.

(14) a. an *eager* student
b. the *excellent* student

In each of these examples, the prenominal adjective does not directly modify the referent of the head noun, and it requires some element to be added to the semantic interpretation of the whole noun phrase. For example, we see 'someone who is eager qua student' in (14a) and 'the student who is excellent, e.g., in math' in (14b).

An important question that must be addressed about the prenominal modifiers in English is (15):

(15) Is there any correlation between the special syntactic restriction observed in (2a) and the semantic properties of prenominal adjectives, both of which concern the same position that immediately precedes a head noun? For yes, how and why?

It is highly doubtful that the PPA will succeed in answering this question. For one thing, the PPA itself cannot capture this correlation because it mainly aims at the universal (possibly parameterized) characterization of the head-complement relation without considering semantic properties associated with particular syntactic positions in a particular language (e.g. prenominal position in English). It might explain the correlation jointly with a certain semantic analysis, but it is not clear how. For another, even if the PPA adopts the Head-Final Filter on prenominal modifiers, it can only describe examples like *the fond of music student*. That is, it cannot seem to offer a principled explanation of why this type of noun phrase is not acquired at all as long as it uses the descriptive device. Third, the Head-Final Filter seems to be unnatural for the PPA, because this filter is incompatible with the general property of being uniformly head-initial even if it is restricted to the case of prenominal modifiers in English. Finally, there are some acceptable cases which do not seem to be subject to this filter. For example, *an easy to clean rug* is not so bad. Therefore, we will pursue an alternative approach based on the theory of grammatical dynamism as proposed by Kajita (1977, 1997), which incorporates the temporal dimension into linguistic theory and crucially refers to both syntactic and semantic information at each intermediate stage of language acquisition.

2.2. A Dynamic Approach and Language Acquisition

Before going into a detailed discussion, I will look at the theory format of the dynamic approach:

(16) Theory Format:

A. Structures of type X are possible in G.[G=Grammar]

B. If structures of type Y are in G\textsuperscript{1}, then structures of type Z are possible in G\textsuperscript{1}. (Superscripts indicate particular languages and subscripts, stages of language acquisition.)

In the following discussion, I assume familiarity on the part of the reader with Kajita's dynamic approach to language (Kajita 1977, 1997).

In addition, I will previously take a rough look at the acquisition of prenominal adjectives to be analyzed:

(17) a *white cat* → an *eager student* → the *angry* crowd
(18) *the afraid of the dog boy
(19) an *easy to clean rug* [later than (17)]

In (17) *white cat* is among the most basic type of premodification, and *eager student* is among the second most basic type in that it lacks the property of referent-modification, both of which were shown in 2.1, but *angry crowd* is less basic (i.e. more derivative) because the adjective *angry* semantically lacks a central property of
"lasting". Note that I claim these three types of prenominal adjectives in (17) are acquired in that order whereas (18) is not acquired at all, and that (19) shows it is possible at a later stage of language acquisition than (17).

The reason for the developmental order shown in (17) is supported by the following data on language acquisition. Radford (1990:56) cites from Bloom (1973) a set of examples of adjectives uttered by a child at age 22 months (named Alison). These adjectives are green, yellow, big, tiny, funny, empty, sharp, many of which are thought to be among interrogative adjectives. Other examples are blue bead (Paula at age 18 months) and red dress (Hayley at age 20 months). On the other hand, examples like big car are also cited from Jem (at age 21 months) or Jonathan (at age 23 months), but it seems doubtful that these two children regard the adjective big as a nonintersective adjective. In other words, there is a possibility that they regard big car as an unanalyzed cluster.⁷

According to MacWhinney (2000), Sarah (2.3.19) spontaneously produces poor kitty or nice kitty (poor and nice are among interrogative adjectives)⁵, but repeats little doggie or big doggie (little and big are nonintersective) after her mother. Children at the age of 18 are in the stage of one-word utterance. One child at the same age (Amy) seems to utter little girl, but actually she repeats it after her mother. For further support, another child (Gloria) spontaneously utters good Mammy.

2.3. A Dynamic Analysis of English and Japanese Prenominal Modifiers

In order to pursue this dynamic approach and explain the ungrammaticality of the fond of music student, we should begin by considering the adjectives in the following structures:

(20) a. a white cat
      b. the round table

These adjectives take no complement and specify the "characterizing", "lasting", and "restrictive" properties, and show the property of referent-modification which will be available without recourse to discourse. Note that these whole noun phrases are fully determined in meaning and denote individuals.

Here we are in a position to answer the question (15) and explain the essential difference between English premodification and Japanese premodification from a dynamic point of view.

First of all, let us consider why the expression A+N (more generally, modification structure) occurs in English.⁹ It can be regarded as an extension of the function of words in the following two respects. Take (20a) for example. First, the noun cat refers to the set of cats, and if we want to refer to a subset of the set of cats, we add some expression (e.g. white) to the noun cat compositionally—through the placement of the adjective white immediately before the noun cat. As a result, white and cat are merged into a constituent. So it may be said that this extension has something to do with many citations of the expression N+N like candy cane from data on the stage of two-word utterance. Second, English has developed a variety of adjectives that can express semantic properties such as AGE, DIMENSION, VALUE, COLOR. On the other hand, Warlpiri has no adjective and its nouns broadly cover the range of meaning expressed by nouns and adjectives in English. It is, therefore, adjectives that are used to specify nouns in English. Under these situations, the expression A+N, not N+A, is selected to avoid confusing a subset of the set of entities with subject-predicate relation (proposition), to indicate the difference from the order of the subject-predicate relation N(is) A, and to comply with the Righthand Head Rule⁰ as an extension of word function.

Note that we assume the expression of subject-predicate relation has been already available at an earlier stage of language acquisition.
See (23) below for evidence. The form \( N \) is Adjective (e.g. \textit{It is white}. / \textit{It was white}.) is usually interpreted as temporary in that it has the verb be, which is directly connected with present or past tense, though \textit{It is white} may also be interpreted as lasting. However, 'be white' in a sentence like \textit{It will be white if it is washed well} can be reinterpreted as temporary, thus conforming to the usual interpretation.

Furthermore, we assume that adjectives with no complement are more basic than those with a complement\textsuperscript{11} and that as such basic structures they can emerge in prenominal position at an intermediate stage of language acquisition—in a highly restrictive way—to differentiate some semantic properties from others. More specifically, our assumption is that adjectives with no complement come to emerge in prenominal position at some intermediate stage of English acquisition in order to achieve two things (toward a more appropriate expressive device). One thing is to differentiate the "characterizing" and "lasting" properties of head nouns from others such as some meaning associated with subject-predicate relation (i.e. "temporary"). I consider "characterizing" and "lasting" to be the central meanings related to prenominal position and "temporary" to be central meaning related to predicative position. To achieve this differentiation, therefore, prenominal modification (e.g. It is \textit{a white cat}.) will be newly introduced. The other thing is to introduce an expression of referent-modification which will be available without any help of establishment in discourse. In this way, we get the most basic prenominal modification like \textit{a white cat} and \textit{the round table} in (20).

Now some words are in order as to the availability of the following prenominal adjectives:

(21) a. an \textit{eager} student  
    b. the \textit{excellent} student  

(22) a. the \textit{angry} crowd  
    b. the \textit{hungry} wolf

The examples of (21) seem to constitute the second most basic premodification in that the adjectives are syntactically basic with no complement and semantically lack only the property of referent-modification. The examples of (22) are more derivative because the adjectives are syntactically basic but semantically lack a central property of "lasting". Thus, even in prenominal adjectives like (20)-(22), we see a sort of gradience that develops from 'basic' to 'derivative'.

The assumption explained above implies that prenominal adjectives emerge after other adjectives (esp. predicative adjectives) and it is supported by the data on language acquisition. Wells (1985) presents:

\begin{itemize}
  \item (23) That's \textit{grey}. (S + cop + IC) 21 months (≥10%)\textsuperscript{12}
  \item (24) (That's) \textit{a blue triangle}. (Indef. Art. + Mod. + Head) 24 months (≥10%)
\end{itemize}

We understand that our assumption is compatible with these data where a predicative adjective (23) emerges first and a prenominal adjective (24) emerges later—at the 10% criterion. Wells (1985) adds that ICs in examples like (23) reach the 50% criterion by 27 months and modifiers in examples like (24) reach the 50% criterion by 33 months, although both reach the 90% criterion by 42 months. In addition, "Def. Art. + Mod. + Head" and other more complicated noun phrases (e.g. \textit{that little bit, the beans in there, the bit where they go to a dog}) emerge later.

At this point, we would like to consider the meaning and syntactic position which are concerned with the predicative use. In general, to express some meaning associated with the predicative use (i.e. "temporary"), the English language "prefers" predicative or postnominal position. As for the latter case, postnominal adjectival phrases (e.g. the student \textit{afraid of his parents}) are possible, based on the abundant existence of postnominal prepositional phrases.
and postnominal relative clauses and motivated by dynamic constraints/principles such as disambiguation and economy. To confirm this, look at the following set of examples:

(25) a cup on the table / a cup which is on the table

(26) the student who is afraid of dogs

(27) the student afraid of dogs

Assume that there is an intermediate stage of English acquisition at which postnominal prepositional phrases and postnominal relative clauses like (25) and (26) have been acquired but not those like (27). This assumption is compatible with actual developmental data. So far as Wells (1985)'s data go, there seems to be no example of postnominal AP in cases like (27) cited around the age of 36 months, when postnominal relative clauses emerge. Then we can say that (27) is derivatively possible at a later stage of acquisition, based on the abundant existence of structures like (25) and (26) and motivated by the dynamic constraints/principles of economy and possibly disambiguation. I assume (27) results from the deletion of whiz in (26) for the sake of economy. In some cases disambiguation of "lasting" and "temporary" readings acts as a further motivating factor. The "lasting" reading is concerned with classifying students without recourse to any tense, whereas the "temporary" reading is concerned with referring to the temporary state of the student because it is affected by present tense. Some native speakers of English might judge that (27) has the "temporary" reading only, as Bolinger argues that the only river navigable exclusively has the "temporary" reading as a result of the disambiguation of the only river that is navigable. If it is the case, (27) has only the "temporary" reading with whiz economically deleted.

On these assumptions, we further argue that adjectives with a complement cannot appear in prenominal position for at least two reasons. First, they are less basic (i.e. derivative) structures\(^\text{11}\). Second, they do not have enough semantic motivation. These derivative structures tend to avoid further operation in cases like the movement of AP (an adjective with a complement) from postnominal position (the boy afraid of the dog) to prenominal position (the afraid of the dog boy). Moreover, these derivative structures can have no "lasting" property; they will not be available without any help of establishment in discourse. For these adjectives with a complement to express a certain meaning associated with predicative use (i.e. "temporary"), predicative or postnominal position is basically selected instead. Thus, the ungrammaticality of examples like (28) can be dynamically explained:

(28) a.*the afraid of the dog boy
    b.*the fond of music student

This dynamic analysis leads us to further advantages. Interestingly, if adjectives with a complement meet enough motivation considered here, they will be possible in the following prenominal position of each bracketed noun phrase:

(29) [an easy to clean rug]

(30) Your case is compared with thousands of scientific studies on a database; then you can access [easy-to-understand summaries of those relevant to you] with just one click.

(31) The biggest benefit is of course that .BIZ and .INFO domain names are currently more available. i.e. it will be much more easier to register [an attractive and easy-to-remember domain name] for the same price.

(32) *[the fond of music and angry about wars student]

In (29) there is a possibility that easy to clean could be lexicalized as one word with a fixed meaning. This view might be supported by (33):
(33) a. These three words can be hyphenated as one word: easy-to-clean.

b. This expression may be virtually equivalent in meaning to the expression easily cleanable, where cleanable is syntactically (or morphologically) and semantically the head of that phrase.

c. This expression may be felt to have the "characterizing", "lasting", and "restrictive" properties of the noun it modifies and show (possibly discourse-driven) referent-modification.

However, there is another possibility that we can regard easy to clean as AP, and this view seems to be compatible with our dynamic analysis.

Similar argumentation is applicable to (30)-(32). It is, however, necessary to add several comments to each of them. In (30) easy-to-understand is facilitated by three dynamic constraints/principles. The first is disambiguation of the "underlying" noun phrase summaries of those relevant to you which are easy to understand. This underlined portion can be "characterizing and lasting" or "temporary"; furthermore, the antecedent of which can be summaries or those. The second is some principle of economy (in this case, "be as brief as possible"—without using a relative clause). The third is structural necessity which could make easy to understand unacceptable in other positions within the noun phrase. For example, the noun phrase summaries easy-to-understand of those relevant to you would be unacceptable. Thus, easy-to-understand can come to occur in the prenominal position of the bracketed noun phrase in (30) as a "last-resort" effect. In (31) the coordination of adjectival phrases (attractive and easy-to-remember) makes itself more acceptable because the "characterizing" property of easy-to-remember is more specified and the syntactic awkwardness of easy-to-remember is also improved because it is used in conjunction with the adjective with no complement (attractive). In (32) the coordination of adjectival phrases (fond of music and angry about wars) improves its acceptability because its "characterizing" property is more specified and its syntactic awkwardness is eased with the help of parallel structure, though each conjunct is less lexicalized.

In this way, the availability of the prenominal adjectival phrases in question is determined by these positive and interactive dynamic constraints/principles (e.g. toward a more appropriate expressive device, disambiguation, economy, structural necessity) which function in a probabilistic, cumulative, and thresholded way. "Probabilistic" means that there is no 'all or nothing' judgment. The more motivation/relevant properties the structure in question has, the more likely it is to occur; the less motivation/relevant properties the structure in question has, the less likely it is to occur. For example, (20) is most likely and (21) is second most likely, but (28) is much less likely. "Cumulative" means that dynamic constraints/principles such as disambiguation, economy, and structural necessity jointly work to drive the structure in question into the most suitable syntactic position that expresses semantic properties such as "characterizing", "lasting", and possibly "discourse-driven" in examples like (30). "Thresholded" means that if the structure in question reaches a certain level at which syntactic, morphological, semantic and/or discourse-related properties are satisfied, it will start to occur in examples like (29)-(32).

In Japanese, on the other hand, not only adjectives with no complement but also adjectives with a complement can freely appear in prenominal position without any specific semantic properties, based on the abundant existence of the predicative adjectives/adjectival phrases and the prenominal relative clauses
which share the property of having less position-specific meanings and being head-final.14

There are two main reasons for this claim. First, Japanese predicative adjectives and adjectival phrases seem to have less position-specific meanings than their English counterparts, and Japanese prenominal relative clauses also have lower semantic restriction specific to their syntactic position. For example, the underlined predicative adjective in an example like *Kono hana wa utukusii* seems to be a little more likely to have "temporary" and "lasting" readings than its English counterpart (*This flower is beautiful*). The underlined prenominal relative clause in an example like *natuyasumi ni haitta noni shizukana puuru* ("the swimming pool(,) which is quiet even after summer vacation has started") can have not only "lasting"/"restrictive" reading but also "temporary"/"nonrestrictive" reading in the same comma intonation. Second, if we convert predicative use in an example like *kono hana wa gogatu ga migoroda* ("This flower is at its best in May") into prenominal use in an example like *gogatu ga migorona hana* ("the flower (which is) at its best in May"), the syntactic property of being head-final may be advantageous to Japanese premodification because the head of a modifier (e.g. *migorona*) is adjacent to the head of the noun phrase (e.g. *hana*), which is easily accessible to syntactic parsing. For these reasons, Japanese adjectives with/without a complement can easily appear in prenominal position without any specific semantic restriction.15

If such a dynamic view is right, we can capture the correlation between the special syntactic restriction and the semantic properties on prenominal APs in English, and thus answer the question (15). This is a descriptive and explanatory contribution to some part of adult English grammar. Then, we can naturally deal with developmental facts about English adjectival predication and modification in terms of the 'be based on' relation. Finally, we can explain the essential cross-linguistic difference between English prenominal modifiers and Japanese prenominal modifiers. I believe that the analysis along these lines will be promising, though it requires further theoretical refinements in the future.

3. Concluding Remarks

In this article we have argued that the dynamic analysis can give a natural explanation of the phenomena which seem strange to the PPA and which the PPA has to deal with by stipulation. In particular, we have shown how dynamic constraints or principles determine the step-by-step placement of certain elements (especially, premodifiers) around the head noun and capture developmental facts from 'basic' to 'derivative' in English.

NOTES

*This article is a revised and extended version of part of Sasaki (1998b), the paper which I orally presented at the monthly meeting of the Tokyo English Linguistics Circle held on September 19, 1998. [Sasaki (1998b) originates from Sasaki (1998a).]*

I would like to express my gratitude to Masaru Kajita and Takao Yagi for their valuable suggestions and comments about the theoretical argument and presentation of this research. My thanks also go to Tsuguro Nakamura, Yoichi Arai, Yoshiyuki Igarashi, and Masahiro Akiyama, all of whom gave me valuable comments on my analysis, and Masatomo Ukaji and Mitsuo Tani for their helpful bibliographical information. Furthermore, I would like to thank Sherman Lew and Lori Ann Desrosiers, who kindly acted as informants. Lori also gave me helpful comments on this article from the viewpoint of expression. Finally, my special thanks go to Takao Yagi again and Masanori Suiko, Yukio Nagahara, Noriko Imanishi, all of whom
read earlier versions / an earlier version of this article and gave me valuable and constructive comments in terms of content, organization, and expression. Needless to say, any remaining errors and shortcomings are my responsibility.

Finally, this article is a first approximation to a comparative study of English and Japanese prenominal modifiers. For a more articulated discussion, see Sasaki and Yagi (2003), although it is a preliminary sketch of an analysis which focuses on English prenominal modifiers.

1 I will use the term noun phrase (NP) throughout this article. I wish to put aside the question of whether the DP-analysis as developed by Abney (1987) and Haegeman and Guéron (1999) is necessary, because it is possible to make my theoretical argument without discussing it.

2 Alternatively, the predicative phrase ongaku-ga suhida might be regarded as NAP (=nominal adjective phrase) in place of AP. Likewise, the prenominal attributive phrase within NP (e.g. sono ongaku-ga sukina gakusei) might be regarded as NAP. Yet I will continue to regard such phrases as APs in this article.

3 This syntactic filter might deal with acceptable prenominal compound modifiers in the following noun phrases:

(i) a rapidly changing activity

(ii) the technologically motivated expansion of the linguistic resources of English

(iii) the astonishingly widespread use of English

(iv) machine-readable form

(v) corpus-related software

(vi) an oil-producing well

In each of these examples, the italicized portion is a productive compound whose morphological head appears in the final position of the compound and which premodifies the head noun of the whole noun phrase. So each compound might conform to the syntactic Head-Final Filter on prenominal modifiers, though the formation of each compound is usually considered to be subject to the Righthand Head Rule, which is proposed by Williams (1981) and states that in morphology the head of a morphologically complex word is defined as the right-hand member of that word. However, there might be an alternative view. According to Sadler and Arnold (1994), prenominal adjectives form what they call 'small' syntactic constructions (X^i constructions, with X^o daughters) which have some properties in common with lexical/morphological constructions. If this analysis is right, it will follow that grammatical theory should recognize a kind of construction which is neither fully syntactic nor fully lexical, but has properties of both. This is an interesting view, but I will not pursue it here. Finally, it is worth mentioning Greek is not subject to this syntactic filter, because the Greek NP i perifani ja tin kori tis mitera [the proud for the daughter hers (CL mother) is grammatical in contrast with the English NP the proud of her daughter mother. See Androutsopoulos (2000: 30). This example was pointed out by Imanishi.

4 Dryer (1992) examines a different type of correlation between the order of noun and adjective and the order of verb and object, and concludes there is no such correlation in a sample of 625 languages.

5 Semantic properties (together with syntactic restrictions) are different from language to language. For example, in Italian, the adjective may precede or follow the head noun, but some attributive adjectives of nationality, color always follow that noun. It poses another question to the PPA. For further details, see Svenonius (1993), Campbell (1995), Haegeman and Guéron (1999).

6 The adjective empty in an example like the empty bottle seems to be a counterexample to my analysis if it lacks the property of "lasting".

7 I claim that children first regard big car as an unanalyzed cluster even in spontaneous speech or regard it as being a car and big (in the absolute sense). The relative sense of big may be acquired at a later stage of acquisition. For further discussion, we need longitudinal study.

8 For example, I regard poor kitty as being a kitty and poor ("showing pity because it is unlucky or unhappy"). That is, I claim that poor modifies kitty as a referent-modification in the sense that the kitty itself is poor.

9 The importance of this question was pointed out by
Yagi, who suggests that it should be considered from the perspective of an extension of word function.

As explained in note 3, this rule states that in morphology the head of a morphologically complex word is defined as the righthand member of that word, but I claim that it is also applicable to the formation of modification structure at an early stage of language acquisition.

As Tani (1997) points out, it is not the case that the category Adjective exists in all languages. For example, there is no adjective in Warlpiri. In addition, it seems that adjectives with a complement are derivative even in the case of the predicative use. For example, He is afraid of dogs is thought to be derivatively possible on the basis of He is afraid. This argument is based on Kajita (1986).

IC stands for Intensive Complement, which denotes the complement of a copular verb. 21 months (≥ 10%) means that the structure in question is available to 10% or more of the children at the age of 21 months.

According to Wells (1985), adjectives with a complement are not cited at least from earlier stages—18 or 20 months—where adjectives with no complement emerge. So we may assume that, for example, a "transitive" adjective (be) fond of music is derivatively possible at a later stage of language acquisition, based on the verb phrase like music.

Similarly, in German, there is an adjectival expression with a complement which can appear in prenominal position without any specific semantic properties:

(i) seine mich... beleidigenden Worte
(Haider 1985: 87)

his me insulting words

"his words insulting me"

The basic word order of German is said to be SVO like English, but interestingly it shows the property of being head-final in this prenominal adjectival phrase.

In Japanese there are no postnominal attributive adjectives, attributive adjectival phrases, or attributive relative clauses, as the following examples show:

(i) *sono mondai muzukashii
the problem difficult

(ii) *sono gakusei ongaku-ga sukina
he student music-of fond

(iii) *ano shoomen kesa niwa-de naitteita
that boy this morning garden-at

Here I am noncommittal about whether Japanese prenominal adjectives and adjectival phrases come from prenominal relative clauses in the course of acquisition. For there is another possibility that single adjectives first appear in prenominal position and it extends to the cases of adjectival phrases and relative clauses. In addition, if Japanese prenominal adjectives/adjectival phrases (e.g. sono akai hana ["the red flower"]) are acquired after predicative adjectives/adjectival phrases (e.g. Kono hana wa akai. ["This flower is red"]) like their English counterparts, we can regard these Japanese prenominal modifiers as a device that shows certain properties such as "lasting" and "restrictive" more appropriately, though it is less clear than in English. This motivation belongs to "toward a more appropriate expressive device" and is at least one of the motivations for Japanese prenominal modification.

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英語と日本語の前位名詞修飾表現

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本論文は、英語の前位名詞修飾表現と日本語の前位名詞修飾表現を動的文法理論の観点から比較したものです。特に、チョムスキーの展開する原理とパラミターのアプローチでの捉えられない英語の特異性（例えば the fond of music student は容認不可能）を梶田の主張する動的文法理論のアプローチでは自然な説明が可能であることを論じた。

(2003年11月4日受理)