THREE TYPES OF ADJECTIVES:
PRENOMINAL, POSTNOMINAL AND PREDICATIVE *

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要約

形容詞の現われる位置とその意味

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　名詞の前に現われる形容詞は，関係詞節より変形によって導かれるといわれることがあるが，詳しく調べてみると，単独で名詞の後ろに現われる形容詞もあり，そのような形容詞は名詞の前に現われる場合と後ろに現われる場合とで意味が異なったり，一方にしか現われ得なかったりするという現象が見られる。この事実に基づいて，名詞の前に現われる形容詞も，名詞の後ろに現われる形容詞も，深層構造からもともとその位置に生成されると主張する語彙論者仮説が提案された。

　名詞の前に現われる形容詞と後ろに現われる形容詞の最も大きな意味の違いは，前者が指示修飾をするのに対し，後者は指示物修飾をするということである。この小論では，この違いは，前者が NP に，後者が DP に付加してそれぞれを修飾するという構造的違いから導かれると提案する。

　さらに，それぞれの概念構造を考えてみると，前者は形容詞がタイプを修飾し，後者はトークンを修飾するという違いが注目される。推理規則によってそれぞれを BE 関数を用いた概念構造に書き換えると，この違いは，この 2 つの形容詞の，主語の特徴付け対主語の一時的特徴の記述というもう 1 つの大きな相違点を反映するのがわかる。ここで 3 つ目の形容詞の型である連結詞の後に出てくる形容詞が注目されるのだが，関係詞節から名詞の前に現れる形容詞が導かれるとすれば，この 3 つ目の形容詞の型は名詞の前・後ろの形容詞，両方の意味をもつはずである。一時的・継続的双方の意味をもつことは，BE 関数が両義的であることから導かれるが，この形容詞は主語の特徴付けという働きはしない。これは，DP を修飾することから概念構造の形は名詞の後ろに現われる形容詞と同じくトークンを修飾するものであるためだといえる。

　以上，形容詞の意味と統語的構造には平行性があり，名詞の前に現われる形容詞は深層構造からその位置に生成されるという語彙論者仮説を支持する論を展開する。

1. Introduction

It has been argued that preverbal adjectives are derived from relative clauses through the Relative Clause Reduction and the Modifier Shift so that the semantic similarity between the pairs like the one in (1) can be captured (Baker (1978); McCawley (1988)):

(1) a. the red flower
    b. the flower that is red

However, it would be too strong to say that all prenominal adjectives are derived from relative clauses, because there are some adjectives which can be used only prenominally, postnominally or as a complement of a copula, and which have different meanings according to their location:

(2) a. *a child who is mere
    b. a mere child
(3) a. the boy who is ill
    b. *the ill boy
(4) a. the president who is present
    b. the present president

Should we introduce the subcategorization frame for adjectives as for verbs? This would account for the ungrammaticality of (2a) and (3a) nicely. For the pair (4), one can claim that the adjectives like *present* have two lexical entries.

However, since adjectives appear in other places as in (5) as well, this solution does not seem to work so well as it appears to be.

(5) a. John painted the house white.
    b. John left the room angry.

Moreover, the subcategorization frame account does not give any explanation for the contrast between the adjectives like *mere* which can appear only in prenominal position and the adjectives like *ill* which cannot appear prenominally. It would assign them different subcategorization frame arbitrarily.

In this paper, I would like to examine adjectives which appear prenominally, post-nominally, and as a complement of a copula investigating the semantic and the syntactic properties of each of them. In the next section, semantic aspect of them will be considered on the base of the observation of Bolinger (1967); and the syntactic aspect of each of them will be examined which reflects the semantic aspect of each. In section 3, the semantic aspect will be reconsidered using Jackendoff's (1983) conceptual structure. It will be argued that the semantic constraints each of them has will follow from their conceptual structure. Furthermore, it will be shown that the conceptual structure of each of them projects to their syntactic configuration without the aid of phrase-structure rules or the introduction of subcategorization frames for adjectives.

2. Three types of adjectives

2.1 Semantic Classification

2.1.1 Bolinger (1967) argues that adjectives have different meaning according to their location: the prenominal position, the postnominal position, and the complement position of a copula (henceforth, predicative adjective[1]):

(6) a. the only river that is navigable

b. the only navigable river

c. the only river navigable

He claims that (6b) means "the only river that belongs to the class of the river which is navigable" while (6c) means "the only river that happens to be navigable at the moment", and (6a) is ambiguous. The difference between the prenominal adjectives and the postnominal adjectives is captured by stating that the former is concerned with characterization or permanent property while the latter is concerned with occasion or temporal property. The ambiguity of the adjective with copula comes from the fact that copula can be either temporal or non–temporal.

2.1.2 Concentrating her attention to the temporal/non–temporal contrast between prenominal and postnominal adjectives, James (1979) argues that Bolinger's statement is a little too strong (697). For example, in the phrase *the angry man,* the prenominal adjective *angry* expresses the temporal state. However, she convincingly supports the idea that postnominal adjectives should be temporal; in other words, they must express the property which can be "suddenly acquired and/or lost" (701). It cannot be a sufficient condition for being a postnominal adjective[2], but it should be a necessary condition for being a postnominal adjective.

2.1.3 Turning to the property of prenominal adjectives, a good case can be made supporting the characterizing property of a prenominal adjective through the contrast between (7a) and (7b) and between (7a) and (8a):

(7) a. *the withdrawn money

b. The money seems withdrawn.

(8) a. the deposited money

b. The money seems deposited.

Bolinger (1967: 9) accounts for these contrasts saying that *deposited money* has some interest while *withdrawing money* does not have that implication. Consequently characterizing adjective *deposited* can be used prenominally while non–characterizing adjective *withdrawn* cannot.

From this characterizing/non–characterizing contrast, Bolinger goes further to say that postnominal adjectives play a role in referent–modification while the prenominal adjectives play a role in reference–modification. Look at the pair in (9):

(9) a. the lawyer criminal

b. the criminal lawyer

(9a) should be paraphrased as "the lawyer who committed a crime". On the other hand, (9b) means "the lawyer who deals with criminal cases": in Bolinger's term, "criminal qua lawyer". This difference is captured by saying that the former modifies the referent "the lawyer" and the latter the reference "lawyer".

The argument that the postnominal adjectives modify a referent is supported by James. She argues that postnominal adjectives are like restrictive relative clauses, and that as such , they "presuppose that there are, or may be, other known and identifiable referents describable by " NP (692) pointing out the data as in (10)(=James' (24))

(10) a. John has hurt his leg. The damaged leg/leg damaged is the left one—he has a bad pain just below the knee.

b. John has hurt his left leg. This damaged left leg/* left leg damaged must be looked at by a doctor at once.

2.1.4 In sum, there are two points which differentiate prenominal adjectives from postnominal adjectives: temporal vs. characterizing aspect and reference–modification vs. referent–modification. And predicative adjectives can denote either a temporal or a non–temporal state since a copula can be either temporal or non–temporal. However, notice that they cannot modify reference.
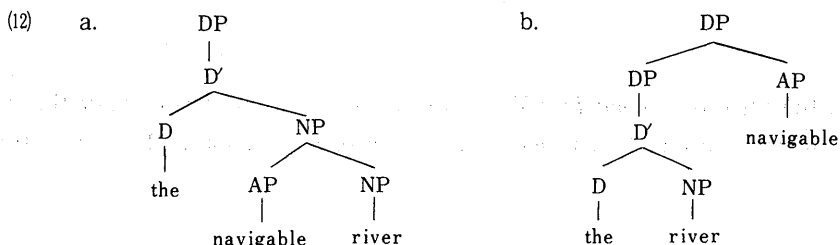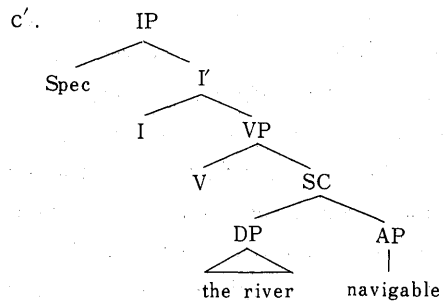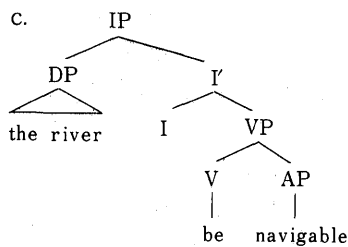
(11) These lawyers are criminal.

Bolinger notices that the adjective *criminal* can modify the reference of "lawyer" in (11), but asserts that it cannot do so directly. He claims that a reference–modifying adjective which appears as a complement of a copula is a "stand–in for a nominal" (16). Moreover, as he notes in footnote 14, this kind of predication is not acceptable unless a proper context is given. I would suggest that these "stand–in for a nominal" adjectives are actually prenominal adjectives which are followed by *one* which is deleted. Consequently, the proposal that predicative adjectives can modify only referent remains intact.

2.2 Syntactic difference

Having observed the semantic difference among prenominal adjectives, postnominal adjectives, and predicative adjectives, let us move on to investigate their syntactic differences.

2.2.1 Roughly, they seem to have the syntactic structure as follows using Stowell's (1989) DP analysis: (12a), the prenominal AP; (12b), the postnominal AP; (12c) and (12c′), S–structure and D–structure configuration of the predicative AP respectively.

c.
```
           IP
         /    \
       DP      I'
      /  \    /  \
   the river I    VP
                 /  \
                V    AP
                |     |
                be  navigable
```

c′.
```
            IP
          /    \
       Spec     I'
              /    \
             I      VP
                   /  \
                  V    SC
                      /  \
                    DP    AP
                   /  \    |
              the river navigable
```
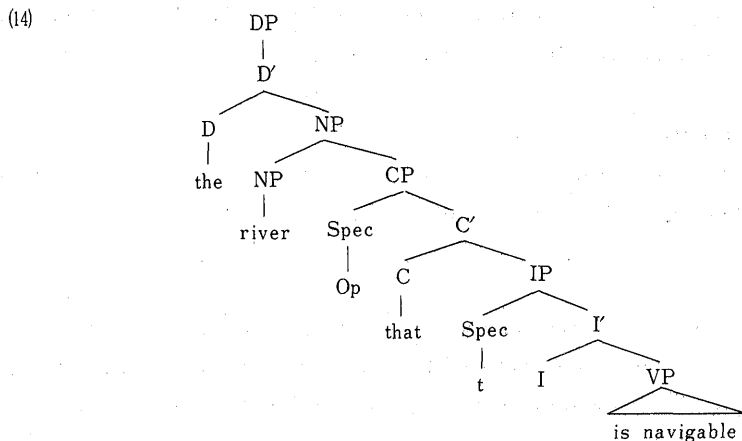
Notice that only the prenominal adjectives mutually c–command with, that is, are in the modification relation with, an NP, not a DP. Stowell (1989) convincingly argues that D usually functions as the head of a referential category. It follows that only prenominal adjectives, which modify an NP, can affect the semantic range of a noun. Other kinds of adjectives modify DP, hence reference–modification is not available.

2.2.2 The problematic case which must be taken care of concerns with restrictive relative clauses. It has been argued that the restrictive relative clauses adjoins NP[3] (cf. Baker (1978); McCawley (1988) and others) because NP and the restrictive relative clauses make a constituent (examples taken from McCawley).
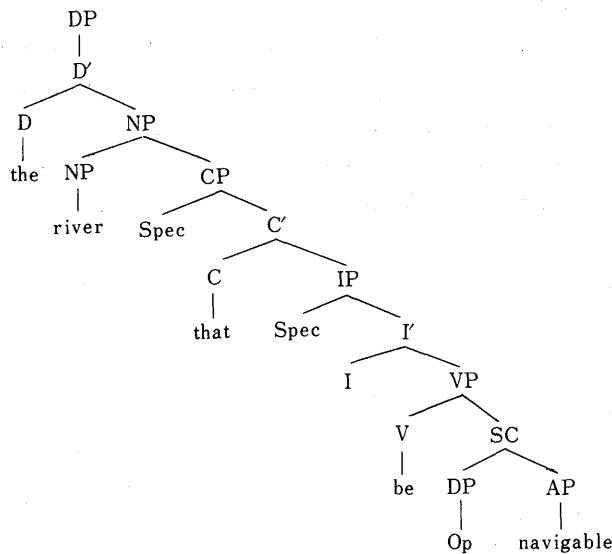
(13) a. Most [[linguists who play chess] and [philosophers who play poker]] find his book useful.

b. The *theory of light that Newton proposed* that everyone laughed at was more accurate than the *one* that met with instant acceptance.

Accordingly, (6) seems to have a structure as (14):

(14)
```
                DP
                |
                D'
              /    \
            D        NP
            |       /   \
           the    NP     CP
                  |      /  \
                river  Spec   C'
                       |     /   \
                       Op   C      IP
                            |    /    \
                          that Spec    I'
                               |      /   \
                               t     I     VP
                                          is navigable
```

At a glance, the adjective *navigable* in VP seems to modify the NP *river* through the empty operator. However, notice that it does not do so directly. Look at the D–structure of (14):

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(14′)

```
                    DP
                    |
                    D′
                  /    \
                 D      NP
                 |     /  \
                the  NP    CP
                 |   /    /   \
              river Spec     C′
                          /      \
                         C        IP
                         |      /    \
                       that  Spec    I′
                                   /    \
                                  I      VP
                                       /    \
                                      V      SC
                                      |     /   \
                                     be   DP     AP
                                          |      |
                                          Op   navigable
```

What the adjective *navigable* modifies directly is an empty operator which has the status of a DP that moves up to the Spec of IP and to the Spec of CP. The point is that even though it is a DP, it must be a predicate also which denotes a set–membership, since the CP which dominates it is a predicate. As Stowell (1989) notes, the function of D is most prominently to work as the head of the referential category, but it works as the head of the predicative category of set-membership as well. Therefore, it can restrict the set–membership which the NP that the CP modifies, but it cannot restrict the semantic range of the NP: it cannot play a role in the reference-modification.

Notice that this proposal is opposed to James' suggestion that a postnominal modifier represents a restrictive relative clause, and the contrast between (6a) and (6c) supports the claim made here. James' observation cited in 2.1.3 should be taken care of in some other way. However, the comment made above remains intact: postnominal adjectives modify referents, not a reference.

To sum up, the three kinds of adjectives differ syntactically as well as semantically. Prenominal adjectives mutually c–command an NP, postnominal and predicative adjec-tives a referential DP. In the case of relative clauses, predicative adjectives modify a predicative DP in a CP which mutually c–commands an NP.

Even though there remain some points that must be explained, it seems that the syntactic configuration and the meaning closely corresponds with each other. Accord-ingly, I suggest that there is no rule as the Relative Clause Reduction and the Modifier Shift, but that all the adjectives are base generated at their surface position.

3. Jackendoff's (1983) conceptual structure

In this section, I would like to go back to the semantic aspect of three adjectives to investigate it more fully using Jackendoff's (1983) conceptual structure to see if the remained difference can be accounted for without any stipulation as well.

3.1 Jackendoff's proposal

3.1.1   Jackendoff claims that which major ontological category is expressed by a particular major phrasal constituent depends on the semantics of the head, and suggests that adjectives typically map into PROPERTIES. However, it is not clear how to represent the conceptual structure containing PROPERTY which reflects its intuitive meaning and its syntactic structure[4]. Jackendoff suggests two types of representations for adjectives:

(15) a. the red hat

  b. $\begin{bmatrix} \text{THING} \\ \text{HAT} \\ \begin{bmatrix} \text{PROPERTY} \\ \text{RED} \end{bmatrix} \end{bmatrix}$

(16) a. The hat is red
  b. $[\text{BE}_{\text{Ident}} ([\text{HAT}], [\text{AT}_{\text{Ident}} ([_{\text{PROPERTY}}\text{RED}])])]$

(16b) reflects both the semantic and the syntactic aspect well. The function BE can be either temporal or non-temporal so that the ambiguity of *the river is navigable* can be captured. On the other hand, the PROPERTY cannot affect the semantic range of the noun which it is predicated of. Therefore, *the president is present* is unambiguous: only the referent-modification is available. Moreover, PROPERTY acting as a GOAL in (17) supports the conceptual structure (16b) in which PROPERTY is analyzed as a variable of AT-function.

(17) a. John painted the house red.
  b. $[\text{CAUSE}([\text{JOHN}], [\text{GO}([\text{HOUSE}], [\text{TO}([_{\text{PROPERTY}}\text{RED}])])])]$

3.1.2   At a glance, (15b) seems to capture the meaning of the prenominal adjectives nicely as well.   In the case of (15a), the prenominal adjective restricts the semantic range of "hat" adding the PROPERTY to the semantic features to it. In a similar vein, *the criminal lawyer* case can be taken care of: the adjective *criminal* affects the semantic range of "lawyer" by imposing a class of "lawyer who deals with criminal cases" on it. These two kinds of prenominal adjectives can be bound up to one set having the property of characterizing the reference-system of NP.

However, as soon as we start to think about the conceptual structure of DP which contains a postnominal adjective, we are faced with a problem: how can we deal with them?   Actually, (15b) is somewhat problematic also.   Notice that the ontological category THING is expressed by a DP; not an NP.   Since prenominal adjectives modify not a DP but an NP, the conceptual structure (15b) is not so good as it first appears to be. The conceptual structure of DP must be reconsidered.

3.2   Conceptual structure of DP reconsidered

3.2.1   Jackendoff proposes an inference rule as (18):

(18) (cf. Jackendoff's (6.8)[5])

$$\begin{bmatrix} \text{STATE} \\ \text{BE([X]}_i, \text{[AT([TYPE]}_j)]) \end{bmatrix} \longleftrightarrow \begin{bmatrix} \text{X} \\ \text{INSTANCE OF ([TYPE]}_j]) \end{bmatrix}_i$$

Using this inference rule, let us look into the conceptual structure of *the criminal lawyer present,* which includes both a prenominal adjective and a postnominal adjective.

First of all, "the criminal lawyer present" must be "a criminal lawyer" and "present", hence the conceptual structure (19):

(19)
$$\begin{bmatrix} \text{TOKEN/TYPE} \\ \begin{bmatrix} \text{TOKEN/TYPE} \\ \text{X} \\ \text{INSTANCE OF (} \begin{bmatrix} \text{TYPE} \\ \text{CRIMINAL LAWYER} \end{bmatrix}) \end{bmatrix} \\ \text{INSTANCE OF([}_{\text{PROPERTY}}\text{PRESENT])} \end{bmatrix}$$

Second, the TYPE CRIMINAL LAWYER must be specified. In this case, the [$_{\text{PROPERTY}}$ CRIMINAL] cannot be put in the structure of INSTANCE OF since "criminal" in this case is "criminal qua lawyer", not just adding some information to "lawyer" to restrict the members of the set that the phrase refers to. Accordingly, the conceptual structure of NP *criminal lawyer* should be (20):

(20)
$$\begin{bmatrix} \text{TYPE} \\ \text{LAWYER} \\ \text{[}_{\text{PROPERTY}}\text{CRIMINAL]} \end{bmatrix}$$

What is the difference between the status of PROPERTY of (19) and (20)?

3.2.2 According to the inference rule (18), (19) can be rewritten as (21).

(21)
$$\begin{bmatrix} \text{STATE} \\ \text{BE ([}_{\text{THING}}\text{CRIMINAL LAWYER]}_i, \text{[AT([}_{\text{PROPERTY}}\text{PRESENT]}_j)])} \end{bmatrix}$$

BE in this case should be temporal. This must be stipulated, but when a PROPERTY appears as a variable of AT without BE syntactically realized, it must be interpreted as BE$_{\text{temp}}$ (cf. Rothstein (1983)).

(22) a. John left the room angry.

b. *John left the room tall.

This stipulation is not completely arbitrary though; rather, it seems to be a natural one if we take into consideration that the theme of this BE is THING whose internal property cannot be affected. The property which can be added to it should be something that can be "suddenly acquired and/or lost" (James 1979: 701).

3.2.3 How about (20)? Jackendoff does not give any inference rule as (18) for this structure, but I propose one as (23):

(23)
$$\begin{bmatrix} \text{STATE} \\ \text{BE([PROPERTY]}_i, \text{[AT([TYPE]}_j)])} \end{bmatrix} \longleftrightarrow \begin{bmatrix} \text{TYPE} \\ \text{[PROPERTY]}_i \end{bmatrix}_i$$

Accordingly, (20) can be rewritten as (24):

(24)
$$\begin{bmatrix} \text{STATE} \\ \text{BE(} [_{\text{PROPERTY}}\text{CRIMINAL}]_i, \text{ [AT(} [_{\text{TYPE}}\text{LAWYER}]_j \text{)])} \end{bmatrix}$$

This rule resembles Jackendoff's inference rule (6.10):

(25)
$$\begin{bmatrix} \text{STATE} \\ \text{BE(} [\text{X}]_i, \text{ [(} [\text{TYPE}]_j \text{)])} \end{bmatrix} \longleftrightarrow \begin{bmatrix} \text{TYPE} \\ \text{EXEMPLIFIED BY (} [\text{X}]_i \text{)} \end{bmatrix}_j$$

Recall that the PROPERTY which is expressed by prenominal adjectives must characterize NP which they modify. This follows from stating that the PROPERTY has the role of an exemplar.

Note that assuming the conceptual structure (24), we must revise Jackendoff's definition of Identificational field. Jackendoff proposes the Thematic Relations Hypothesis (188):

(26) Thematic Relations Hypothesis

In any semantic field of [EVENTS] and [STATES], the principal event-, state-, path-, and place–functions are a subset of those used for the analysis of spatial location and motion. Fields differ in only three possible ways:

a. what sorts of entities may appear as theme;

b. what sorts of entities may appear as reference objects;

c. what kind of relation assumes the role played by location in the field of spatial expressions.

And he defines "Identificational field" as (27):

(27) Identificational field (Jackendoff 1983: (10.11)) :

a. [THINGS] appear as theme.

b. [THING TYPES] and [PROPERTIES] appear as reference objects.

c. Being an instance of a category or having a property plays the role of location.

In order to take care of the case of (24), which naturally belongs to Identificational field, we must add [PROPERTIES] to (27a):

(27′) a. [THINGS] and [PROPERTIES] appear as theme.

This is not an unnatural addition because PROPERTIES can function as a GOAL or a LOCATION which is typically done by THINGS[6].

3.2.4 Summing up, prenominal adjectives, postnominal adjectives, and predicative adjectives have the conceptual structure as follows:

(28) a.
$$\begin{bmatrix} \text{TYPE} \\ \text{X} \\ [\text{PROPERTY}] \end{bmatrix}$$

b.
$$\begin{bmatrix} \text{STATE} \\ \text{BE(} [\text{PROPERTY}], \text{ [AT(} [\text{THING}_{\text{TYPE}} \text{)])} \end{bmatrix}$$

(29) a.
$$\begin{bmatrix} \text{TOKEN/TYPE} \\ \begin{bmatrix} \text{TOKEN/TYPE} \\ \text{X} \end{bmatrix} \\ \text{INSTANCE OF (} [\text{PROPERTY}] \text{)} \end{bmatrix}$$

b. $$\begin{bmatrix} \text{STATE} \\ \text{BE}_{\text{temp}}(\ [\text{THING}_{\text{TYPE/TOKEN}}], \ [\text{AT}(\ [\text{PROPERTY}] \ ) \ ] \ ) \end{bmatrix}$$

(30) $$\begin{bmatrix} \text{STATE} \\ \text{BE}_{\text{temp/nontemp}}(\ [\text{THING}_{\text{TYPE/TOKEN}}], \ [\text{AT}(\ [\text{PROPERTY}] \ ) \ ] \ ) \end{bmatrix}$$

Note that in (28a), THING must be TYPE, not TOKEN because as shown in (19), the conceptual structure (28a) is of an NP, not a DP. It must be embedded in the frame $[_{\text{THING TYPE/TOKEN}} X \ ]$.

Being an exemplar of a THING$_{\text{TYPE}}$, or put it another way, being a theme of an identificational field, PROPERTY expressed by prenominal adjectives can be either temporal or nontemporal, but must characterize the THING$_{\text{TYPE}}$ which is expressed by an NP.

On the other hand, being a variable of AT without syntactically projected BE, PROPERTY expressed by postnominal adjectives should be temporal. Furthermore, being listed with THING$_{\text{TYPE/TOKEN}}$, it must restrict the set of the members which belong to the embedded THING$_{\text{TYPE/TOKEN}}$. If there is no exemplars which belong to the embedded THING$_{\text{TYPE/TOKEN}}$ but not to the larger THING$_{\text{TYPE/TOKEN}}$, the PROPERTY expressed by postnominal adjectives is just redundant, hence anomaly of the phrase.

And in the case of predicative adjectives, with syntactically projected BE which can be either temporal or non–temporal, it can express either temporal or non–temporal PROPERTIES. However, it cannot affect the meaning of NP, that is, it cannot modify a reference, which conforms to the data (cf. 2.1.4).
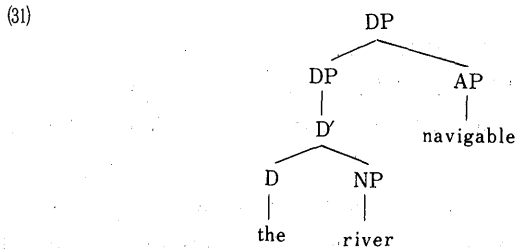
3.3   The syntactic projection of three types of conceptual structures containing PROPERTY

Assuming that the above discussion is right, let us see if the conceptual structures just proposed project to the syntactic structure rightly. If it does, it will support the analysis made here on the base of Jackendoff's Grammatical Constraint, which says that "one should prefer a semantic theory that explains otherwise arbitary generalizations about the syntax and the lexicon"(13).

3.3.1   Before going into the investigation of each of the three types of adjectives, let us think about the status of DP compared with that of NP. Stowell (1989) suggests that "D indicates membership in a kind" (257). Using the term of the conceptual structure, D functions to close up the category THING indicating TYPE or TOKEN of the category [7]. On the other hand, the category expressed by NP does not have any visual projection; it should be TYPE. In order to behave as a THING, that is, a category which can be either TYPE or TOKEN, it requires a D.

3.3.2   Now, let us think about postnominal adjectives first. Its conceptual structure is given in (29a). As argued above, since it modifies THING$_{\text{TYPE/TOKEN}}$, it must modify a DP, not an NP. Assuming that the modification relation is a kind of the predication relation which is based on mutual c–command as Zubizarreta (1982) proposes, the postnominal
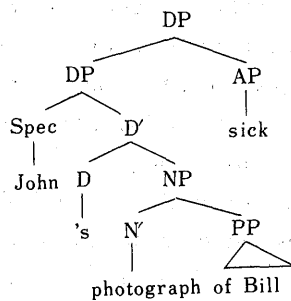
adjectives seem to be adjoined to a DP, as suggested above as (12b), which is repeated as (31) here:
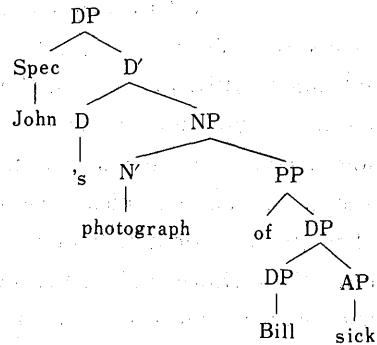
(31)

```
                          DP
                         /  \
                    DP        AP
                    |         |
                    D′        navigable
                   /  \
                  D    NP
                  |    |
                 the  river
```

The data of DP with Spec of DP supports this configuration:

(32) a. John's photograph of Bill sick

(33) a.

```
              DP
             /  \
         DP        AP
        /  \       sick
    Spec    D′
     |     /  \
    John  D    NP
          |   /  \
          's N′    PP
             |    /\
       photograph of Bill
```

b.

```
              DP
             /  \
         Spec    D′
          |     /  \
         John  D    NP
               |   /  \
               's N′    PP
                  |    /  \
            photograph of   DP
                           /  \
                         DP    AP
                         |     |
                        Bill  sick
```

Safir (1987) observes that in (32), *sick* can modify only *Bill*, not *John*. The above argument predicts this. The syntactic configuration for (32) should be either (33a) or (33 b). Since the modification relation is based on mutual c–command, *sick* can modify either *John's photograph of Bill* in (33a), which will be cancelled because of the selection restriction, or *Bill* in (33b); it cannot have a mutual c–command relation with the subject *John*.

It might be asked if the postnominal adjectives can be adjoined to the left of DP. It seems to do so:
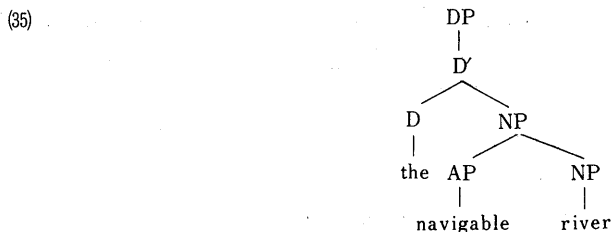
(34) a. Penniless, John left the town.

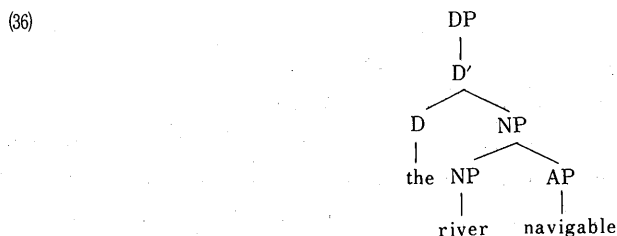b. Fired, the men walked away dejectedly. (=James'(36))

However, as James notes, a comma must intervene between the adjective and the DP, which does not happen when the adjective appears to the right of the DP. I tentatively suggest that the data in (34) are not examples of postnominal adjectives, and that the linear order of [DP AP] is natural for parsing the phrase in which AP adds some information to restrict the set–membership expressed by the DP which it follows.

3.3.3   Second, let us move to prenominal adjectives. Its conceptual structure is given in (28a). As mentioned above, since it modifies only THING TYPE, not THING TOKEN, it cannot modify a DP; rather, it modifies an NP. Accordingly, the syntactic configuration

of them would be as (12a), which is repeated here as (35):

(35)

```
              DP
              |
              D′
             ╱  ╲
           D      NP
           |     ╱  ╲
         the   AP      NP
               |       |
           navigable  river
```

In order to obtain the mutual c–command relationship between the AP and the NP, AP should be able to appear to the left of NP as well.

(36)

```
              DP
              |
              D′
             ╱  ╲
           D      NP
           |     ╱  ╲
         the   NP      AP
               |       |
             river  navigable
```

However, in the string *the river navigable*, the AP *navigable* is interpreted as a postnominal adjective, that is, a referent–modifying adjective; it cannot be interpreted as a reference–modifying adjective. If we eliminate all the phrase–structure rules as Stowell (1981) and others suggest, there is no way to rule out the phrase–structure as (36) syntactically. I confine myself here just suggesting that as in the case of the modification of DP, (36) is ruled out by a parsing rule. When we are parsing a DP, we tend to close up a DP when an NP appears. Accordingly, if the adjective which modifies an NP appears after an NP, it would be interpreted as modifying a DP which embeds the NP.

4. Conclusion

In this paper, investigating the semantic properties of three types of adjectives, namely, prenominal adjectives, postnominal adjectives, and predicative adjectives, it was asserted that these three types of adjectives should be base–generated at their surface position: they are not derived from others by syntactic transformational rules. And the syntactic configuration of each of them was examined, which turns out to reflect the semantic properties of each type of adjectives. Furthermore, Jackendoff's conceptual structure being introduced, the semantic properties of each adjectives were reexamined, and it was suggested that with some constraints which seems to be related with parsing rules, the distribution of prenominal adjectives and postnominal adjectives can be predicted without phrase–structure rules.

There remain some problems, however. First of all, I confined myself discussing single adjectives, that is, adjectives which do not take any complement. For example, APs as *fond of DP* or *proud of DP* were not dealt with. The unacceptability of APs with

complements to appear prenominally may follow from the Centripetal Principle of Pre-Head Modifiers (Hasegawa (Class lecture at the University of Tokyo, 23 April 1987)), which states that if a modifier precedes a head, the modifier must have the head-final structure.

(37) a. the mother [proud of her son]

      b. *the proud of her son mother

In the case of (37b), the modifier *proud of her son* precedes the head *mother*, and the modifier's head, *proud*, is not in the phrase final position. Consequently, it is ruled out by the Centripetal Principle of Pre-Head Modifiers. On the other hand, even though postnominal APs are acceptable as (37a) indicates, (38) suggests that the AP in (37a) should be treated as a relative clause:

(38) a. What is the girl proud of?

      b. *What did the girl proud of __ talk to John?

      c. *What did [the girl [who is proud of __ talk to John]] ?

(38c) is ungrammatical since *what* is taken out of a complex NP, in other words, it violates subjacency. (38b) sounds as bad as (38c). However, if the AP is adjoined to DP, the movement does not seem to violate any principle; hence it wrongly rules in (38b). I tentatively suggest that (38b) is ruled out for the same reason as (39b) is ruled out:

(39) a. What do you believe that John bought __ ?

      b. *What do you regret that John bought __ ?

Stowell (1989) proposes that referential categories are opaque to movement (245). Accordingly, a movement out of a referential DP is ruled out, hence the ungrammaticality of (38b). However, it would be a problem how to differentiate referential DP/CP from nonreferential DP/CP in syntax. I leave this problem open.

      Another problem to be considered is how to classify the words as *only, all, many,* and quantifiers: are they determiners or adjectives? It has been discussed over and over in literature. The theory of quantification is too big a topic to deal with in this paper. Here, I confine myself saying that they must be treated differently from prenominal adjectives.

      Even though there remain some problems to be considered as above, I do believe that the semantic approach to distinguish prenominal versus postnominal adjectives is on the right track. I hope this paper will contribute towards future research.

Notes

*This is a revised and expanded version of a paper read at the 14th meeting of KCELS, held on December 5, 1989.

1 I call the adjectives "predicative adjectives" which appear as a complement of a copula. Be careful not to confuse it with Bolinger's definition of "predicative", which is used in contrast with "attributive".

2 Actually, James claims that there is another constraint concerning the restrictive character of postnominal adjectives. This point of her argument will be taken up later using Bolinger's term, referent-modification.

3 Baker (1978) and McCawley (1989) argue that restrictive relative clauses adjoin N′, but in the DP

analysis, which is adopted here, their N′ is NP.

4 According to Jackendoff's (1983) Grammatical Constraint, it is natural for the conceptual structure to correspond with the syntactic structure.

5 Not giving any function for [TYPE], he put the rule as (i):

$$\text{(i)} \quad BE(\ [X]_i,\ [TYPE]_j\ ) \ \longleftrightarrow\ \begin{bmatrix} X \\ \text{INSTANCE OF }(\ [TYPE]_j) \end{bmatrix}_i$$

However, considering what he proposes, it should rather be as (18).

6 They cannot be THING TOKEN though, because they cannot denote any concrete referent.

7 I do not confine myself saying that it is the only function of D. It does have other functions as well. For example, when a quantifier as *some* appears in D, DP becomes a quantified phrase which must have a scope. I cannot give any comment whether there is any relationship between the theory of quantification and the conceptual structure of DP here.

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