

A Semantic Condition on Prenominal PPs*

Kazuya Nishimaki

1. Introduction

Generally, in English, prepositional phrases (henceforth, PPs) can function as postnominal modifiers, but not as prenominal ones, as the contrast between (1) and (2) indicates.

- (1) a. John doesn't know the man *in the garden*.
 b. The newspaper *on the table* says that the President is seriously ill.
- (2) a. * the *in the garden* man
 b. * the *on the table* newspaper
- ((2) = Fabb (1984:123), with slight modifications)

In (1), the PPs *in the garden* and *on the table* postmodify the nouns *man* and *newspaper*, respectively. In (2), the PPs premodify the nouns, which results in unacceptability. Nevertheless, some PPs can function as prenominal modifiers as in (3).

- (3) a. The *in-city* headquarters is (are) accessible by train.
 (intended reading: headquarters which is (are) established in some kind of city)
 b. The *on-base* military club serves a rich variety of drinks.
 (intended reading: military (night) club which is on some kind of (military) base)

In (3), the PPs *in-city* and *on-base* premodify the nouns *headquarters* and *military club*, respectively. The difference in acceptability between (2) and (3) is not fully explained by previous studies. The purpose of this article is to explain the difference in terms of the semantic function inherent in prenominal modification. Generally, prenominal modifiers are required to refer to characteristic features of nouns, as we will discuss more fully in section 3. We will demonstrate that the difference under discussion can be explained by assuming that prenominal PPs are subject to this requirement just as other types of prenominal modifiers.

The organization of this article is as follows. Section 2 briefly reviews licensing conditions for prenominal PPs proposed in some previous studies and points out their problems. Section 3 discusses what function prenominal

* I would like to thank the following people who gave me helpful comments: Yukio Hirose, Nobuhiro Kaga, Masaharu Shimada, Naoaki Wada, and Akiko Nagano. My thanks also go to Shiro Takeuchi, Tatsuhiro Okubo, Ryo Yoshioka, and Daichi Watanabe. Of course, any remaining errors are my own.

modification inherently serves in relation to nouns. Based on the semantic property of prenominal modification discussed in section 3, section 4 provides a plausible account for (im)possible patterns of prenominal PPs. Section 5 points out that a fact about prenominal PPs, i.e. their lexicalization, could be explained in terms of the semantic function inherent in prenominal modification. Section 6 offers concluding remarks.

2. Previous Studies: Licensing Conditions for Prenominal PPs

Licensing conditions for prenominal PPs are proposed by Burstein (1992) and Shimamura (1986, 2003, 2005), among others; however, they are insufficient to explain the difference in acceptability, especially the one between (2) and (3). In what follows, we critically review proposals by these previous studies.

2.1. Burstein (1992)

Burstein (1992) observes that prenominal PPs are idiomatic and that PPs with transparent meanings cannot occur prenominally, giving examples like the following:

- (4) a. *off the rack* dress
 b. * *on the shoulder* parrot

(Burstein (1992:54), with slight modifications)

Random House Unabridged Dictionary (1993) (RHUD) defines the PP *off the rack* in (4a) as “(of clothing) not made to specific or individual requirements; ready-made (s.v. *off-the-rack*).” As seen from this definition, *off the rack* is idiomatic in that the whole meaning is noncompositional. By contrast, the PP *on the shoulder* in (4b) is nonidiomatic in that the whole meaning is compositional. Based on such contrast as in (4), Burstein (1992) proposes the condition that prenominal PPs should be idiomatic. Let us call this idiomaticity-based condition.¹

¹ Burstein’s (1992) claim that prenominal PPs are idiomatic rests on their similarity to attested idioms with respect to syntactic operation. If syntactic operation is applied to internal constituents of attested idioms, they lose their figurative meanings. For example, inserting the adjective *oaken* destroys the figurative meaning of *kick the bucket* in (ia), which results in the unacceptability shown in (ib).

- (i) a. kick the bucket
 b. kick the **oaken* bucket

(Burstein (1992:56))

In (ii), we can observe that the same is true of prenominal PPs.

- (ii) a. *off the cuff* remark

(Burstein (1992:54))

However, the comparison of (2) with (3) shows that this condition is problematic. The PPs *in the garden* and *on the table* in (2) are regarded as nonidiomatic with compositional meanings. So also with the PPs *in-city* and *on-base* in (3). This means that neither the PPs in (2) nor those in (3) are subject to the condition in question, which leads to the prediction that all of them should be unacceptable equally. However, this is not the case: the examples only in (2) are unacceptable.

Another problem is that it is not necessarily the case that idiomatic PPs occur prenominally. Burstein (1992:57) himself points out this fact, giving an example like the following:

- (5) ? *on leave professor* (Burstein (1992:57), with slight modifications)

Unlike *off the rack* in (4a), the PP *on leave* in (5) cannot occur prenominally. Accordingly, neither the acceptability of (3) nor the unacceptability of (5) can be explained by the idiomaticity-based condition.

2.2. Shimamura (1986, 2003, 2005)

Shimamura (1986, 2003, 2005) observes that nouns inside prenominal PPs cannot occur with any elements except for an article or a zero-determiner. This point is illustrated in (6).

- (6) a. an *over-the-shoulder* reading lamp (Shimamura (1986:26))
 b. the flap *over shoulder* bag (Shimamura (2003:640))
 c. * an *over-Bill's-shoulder* reading lamp (Shimamura (1986:26))

The PP-internal noun *shoulder* occurs with the definite article *the* in (6a), and with a zero-determiner in (6b). In (6c), it occurs with the possessive *Bill's*, which causes (6c) to be unacceptable. Based on such contrast as in (6), Shimamura (1986, 2003, 2005) proposes the condition that prenominal PPs should allow their internal nouns to occur only with an article or a zero-determiner. Let us call this article-based condition.

Furthermore, in connection with this article-based condition, she puts forward a semantic condition. The condition is that nouns inside prenominal PPs should be interpreted only as generic. Let us call this genericness-based condition. For

-
- b. off the **shirt* cuff remark (Burstein (1992:56))

Inserting the noun *shirt* destroys the figurative meaning of *off the cuff* in (iia), which results in the unacceptability shown in (iib).

example, in (6a, b), the PP-internal noun *shoulder* has a generic interpretation and does not denote a particular shoulder. Note that even the occurrence of *the* in (6a) does not permit *shoulder* to be interpreted as definite, as Shimamura (1986:26) states. By contrast, in (6c), the PP-internal noun *shoulder* has a definite or specific interpretation by the occurrence with *Bill's*; *Bill's shoulder* refers to the shoulder of a particular individual called Bill, which results in the violation of the genericness-based condition.

However, both article- and genericness-based conditions are problematic. First, the article-based condition cannot explain the difference in acceptability between (2) and (3). In the PPs *in the garden* and *on the table* in (2), their internal nouns *garden* and *table* occur with the definite article *the*; in the PPs *in-city* and *on-base* in (3), their internal nouns *city* and *base* occur with a zero-determiner. This means that both PPs in (2) and those in (3) meet the condition in question, which leads to the prediction that all of them should be acceptable equally. However, this is not the case: the examples only in (3) are acceptable.

Second, Shimamura's conditions cannot account for the acceptability of (7), in which a noun inside a prenominal PP occurs with any other element than an article or a zero-determiner.

- (7) The *off-his-rocker* recluse runs out of his house.

In (7), the noun *rocker* inside the PP *off-his-rocker* occurs with the referential possessive *his*, and not with an article or a zero-determiner. In this respect, *off-his-rocker* violates the article-based condition. Furthermore, it is the violation of the genericness-based condition. Shimamura (2003:638, 2005:61) states that no referential possessives can occur in prenominal PPs because their occurrence is incompatible with the condition; by contrast with her statement, in (7), the referential possessive *his* occurs in the prenominal PP *off-his-rocker*.²

The discussion so far leads to the conclusion that neither of Shimamura's conditions, i.e. the article- and genericness-based conditions, is tenable. The former condition fails to explain the unacceptability of (2); the latter as well as the former fails to explain the acceptability of (7).

² We may attribute the difference in acceptability between (6c) and (7) to idiomaticity. In the case of (7), the idiom *off one's rocker* underlies the prenominal PP *off-his-rocker* (the idiom is defined as "mad" in *The New Oxford Dictionary of English* (1998), and as "insane" in *RHUD* (s.v. *rocker*)). The possessive *one's* exists originally in the idiom *off one's rocker*, which is stored in the lexicon as such, and is realized as *his* in an actual context. This is not true of (6c). No such idiom *over one's shoulder* underlying **over-Bill's-shoulder* exists. For a fuller account, see Nishimaki (2011).

To sum up, the licensing conditions proposed by the previous studies cannot correctly predict the possible distribution of prenominal PPs, and they cannot correctly rule out their impossible patterns, either. A problem with the previous studies is that their attention is focused only on the meanings and/or forms of PPs themselves; though they address the issue of prenominal modification, they give little consideration to its semantic function in relation to nouns. In the rest of this article, we will discuss the semantic function specific to prenominal modification, and point out that this functional principle can explain more adequately the difference between possible and impossible patterns of prenominal PPs.

3. Prenominal versus Postnominal Modification

In this section, we discuss what principle underlies prenominal modification, showing that it fundamentally differs in function from postnominal modification. Furthermore, we point out that the principle in question applies to prenominal modifiers in general.

3.1. *Characterization (Permanent Attribute) versus Occasion (Temporary State)*

According to Bolinger (1952, 1967), Yasui et al. (1976), Quirk et al. (1985), and Sadler and Arnold (1994), among others, prenominal and postnominal modification differs fundamentally in semantic function. In Bolinger's (1952, 1967) terms, the difference is that between "characterization" and "occasion." On the one hand, "characterization" refers to characteristic features, typically permanent attributes, of nouns, thereby classifying their referents as having the features in question or not. In this sense, it has a classifying function. On the other hand, "occasion" refers to temporary states without a characterizing or classifying function, which "characterization" has.

In order to see this point, let us consider the difference in meaning between (8a) and (8b). In (8a), the adjective *navigable* premodifies the noun *rivers*, whereas in (8b) the adjective postmodifies the noun.

- (8) a. All navigable rivers are being patrolled.
 b. All rivers navigable are being patrolled.

(McCawley (1988:383))

Referring to Bolinger (1967), McCawley (1988:383) explains the difference as follows: the rivers referred to in (8a) are those that normally allow navigation (with the prenominal *navigable* classifying the referents of the noun *rivers* as having permanent navigability or not), whereas the rivers referred to in (8b) are those that

happen to allow navigation at the moment (perhaps excluding some rivers that normally allow navigation but at present are blocked by ice, and including some rivers that normally do not accommodate ships but happen to be usable at the moment by ships because of an abnormally high water level).

The above explanation suggests that adjectives referring only to temporary states of nouns cannot occur prenominal due to the impossibility of being interpreted as characterizing them. Bolinger (1967) mentions this point as follows:

- (9) a. If an adjective names a quality that is too fleeting to characterize anything, it is restricted (with that meaning) to predicative, or to post-adjunct, position. (Bolinger (1967:9))
 b. Adjectives referring to temporary states of health, sensation, mind, or spirits are similarly restricted [to predicative, or to post-adjunct, position] [...]. (Bolinger (1967:10))

These statements account for the contrast between (10a) and (10b).

- (10) a. * the *faint* girl (Bolinger (1967:10), with slight modifications)
 b. the girl *faint* (Yasui et al. (1976:107), with slight modifications)

The unacceptability of (10a) is due to the prenominal occurrence of the adjective *faint*, which refers only to a temporary (physical) state. Bolinger (1967:10) explains this fact, stating that “[a]ll of sudden the girl was faint does not sanction *the faint girl.” Thus, as (10b) indicates, *faint* is restricted to a postnominal position.³ In contrast, an adjective like *famous*, which refers mainly to a permanent

³ Seemingly, example (ib) is problematic to our analysis, because the adjective *unconscious* premodifies the noun *victims* despite referring only to a temporary state.

- (i) a. *People unconscious are unable to hear.* (Bolinger (1952:1134))
 b. *The unconscious victims were given emergency treatment.* (Bolinger (1952:1136))

The following definition, in particular the phrase *a state similar to sleep*, indicates that *unconscious* refers only to a temporary state (the following is quoted from *Collins COBUILD Dictionary on CD-ROM* (2006) (COBUILD)):

- (ii) Someone who is **unconscious** is in a state similar to sleep, usually as the result of a serious injury or a lack of oxygen.
 (s.v. *unconscious*, bold types in the original)

The point is that even adjectives referring only to temporary states function to characterize nouns, thereby classifying their referents, in their prenominal occurrence; (ib), in which *unconscious* occurs prenominal, denotes “characterization,” whereas (ia), in which it occurs

attribute, can occur prenominally and not postnominally. This point is illustrated in the following contrast:

- (11) a. You' re a famous author – [...]. (BNC C9U)
 b. * an author famous (Yasui et al. (1976:107))

In the next subsection, we will focus on prenominal modification to see how heavily its possibility depends on “characterization.”⁴

3.2. *More about Characterization*

The contrast between (12a) and (12b) clearly shows that the presence or absence of characterization makes all the difference to the (un)acceptability of prenominal modification. More specifically, in (12), it depends on different properties of the nouns *building* and *man* whether or not the prenominal adjective *nearby* is regarded as characterizing them.

- (12) a. *a nearby building*
 b. * *a nearby man*
- (Bolinger (1967:11))

postnominally, denotes “occasion.” Bolinger (1952:1136) explains that *unconscious* provides a natural classification of *victims*; it functions to characterize a particular class of victims as contrasting with injured or dead ones. On the other hand, *unconscious* is less likely to provide a natural classification of *men* than *victims*. This causes (ib) to be more natural than such a sentence as *The unconscious men (persons, people) were given emergency treatment* (Bolinger (1952:1136)).

(ib) suggests that expressions referring to temporary states are not necessarily barred from a prenominal position. The point is that a prenominal position imposes the task of characterization or classification on even such expressions.

Given this fact, strictly speaking, the possibility of prenominal modification depends not on whether an expression is interpreted as referring to a permanent attribute or a temporary state, but on whether it is interpreted as characterization or not. It is because a permanent attribute is useful for characterization that expressions referring to such an attribute can typically occupy a prenominal position.

⁴ Adjectives inherently meaning comparison, e.g. *similar*, *different*, and so on, can occur both prenominally and postnominally:

- (i) a. a similar rule to this
 b. a rule similar to this
 c. a different book from what I bought
 d. a book different from what I bought

(Yasui et al. (1976:102))

Yasui et al. (1976:111, fn. 2) state that it may safely be assumed that their positional alternation does not make a difference in meaning, though they do not explain the reason. We do not dig deeper into such adjectives as given in (i).

Nearby, referring to location in space in relationship to the speaker, can qualify as a prenominal modifier in (12a) but not in (12b). The difference lies between *building* and *man*. On the one hand, because a building is immovable, it can occupy a place referred to by *nearby* so permanently as to be characterized by being there; accordingly, in (12a), *nearby* is interpretable as expressing a permanent attribute characterizing a building, which qualifies *nearby* to premodify *building*. On the other hand, because a man conceivably moves off the next moment, he or she cannot occupy a place referred to by *nearby* so permanently as to be characterized by being there; accordingly, in (12b), *nearby* is not interpretable as expressing a permanent attribute characterizing a man, which results in its inability to occur prenominally.

So far, we have limited ourselves to adjectives, showing that “characterization” is crucial for prenominal modification. Importantly, the same is true of prenominal modifiers in general; just like adjectives, various types of prenominal modifiers are required to refer to characteristic features, typically permanent attributes, of nouns. In what follows, in order to confirm that this is true, we consider (im)possible patterns of prenominal modification by three types of expressions: present and past participles, and nouns. The examples in (13)-(15) are parallel to those in (12) in that it depends on different properties of nouns whether or not the prenominal modifiers in question are regarded as characterizing them.

To start with, let us consider the following prenominal modification by the present participle *wandering*:

- (13) a. *a wandering minstrel*
 b. * Who is the *wandering* man?

(Quirk et al. (1985:1326), with slight modifications)

In (13a), prenominal modification by *wandering* is possible because *a wandering minstrel* refers to one habitually given to wandering. However, if we saw a man wandering down a street at a particular time, we could not say (13b). In such a case, *wandering* refers to a temporary state or action. Thus, *wandering* is not interpretable as characterizing a man, which results in its inability to occur prenominally.

Now, we move on to consider the following prenominal modification by the past participle *scratched*:

- (14) a. *a scratched surface*
 b. * *a scratched head*

(Bolinger (1967:9))

When one scratches a glass surface, it leaves a score on the surface. This score functions to characterize the surface, which qualifies *scratched* to premodify *surface* in (14a). On the other hand, it is normal that if one scratches one's head (to remove an itch), it does not affect the head. More specifically, because the action of scratching a head leaves no mark on its surface, nothing characterizing it appears on the surface. In (14b), this prohibits *scratched* from premodifying *head*.

Finally, let us turn to prenominal modification by a noun. The NP *the corner table* is possible, as shown in (15a); by contrast, the NP **the corner man* is impossible, as shown in (15b).

- (15) a. *The table in the corner* was laid for dinner. *The corner table* ...
 b. *The man in the corner* spoke to me. **The corner man* ...

(Quirk et al. (1985:1331))

The (im)possibility of these NPs' prenominal modification depends on the semantic relation of *corner* to *table* and *man*. Because a table is not free to move of itself, it can stand in a place referred to by (*in the*) *corner* so permanently as to be characterized by being there; therefore, in (15a), *corner* is interpretable as expressing a permanent attribute characterizing a table, which qualifies *corner* to premodify *table*. On the other hand, because a man conceivably moves off the next moment, he or she cannot stand in a place referred to by (*in the*) *corner* so permanently as to be characterized by being there; therefore, in (15b), *corner* is not interpretable as expressing a permanent attribute characterizing a man, which does not qualify *corner* to premodify *man*.

As is seen from our discussion so far, the general principle says that prenominal modification refers to characteristic features, typically permanent attributes, of nouns, with a classifying function, whereas postnominal modification refers to temporary states of nouns.

3.3. *Time-Independence versus Time-Dependence*

From another point of view, we can explain the difference in semantic function between prenominal and postnominal modification: we can regard the difference as that in reference to time. Prenominal modification refers to characteristic features, typically permanent attributes, of nouns, thereby classifying their referents as having the features in question or not. This is tantamount to saying that prenominal modification is independent of a particular time or occasion,

as Sadler and Arnold (1994:192) state; it is interpreted as a timeless property of a noun. On the other hand, postnominal modification refers to temporary states of nouns without a characterizing or classifying function, which prenominal modification has. This means that it is dependent on a particular time or occasion. This difference in reference to time is illustrated in the following, which indicate that prenominal modifiers reject an adverb of temporary time, whereas postnominal ones do not:

- (16) a. * a now famous author (Yasui et al. (1976:107))
 b. The boat afloat now will go under the bridge.
 (Nakajima (2004:495), with slight modifications)

In (16a), the prenominal *famous* is incompatible with the adverb of temporary time *now*, which results in unacceptability, whereas in (16b) the postnominal *afloat* is compatible with it.⁵

In terms of time-(in)dependence, as far as the nominal modifiers considered so far are concerned, we can classify them into three types. The schematized classification is given in (17).

(17) Three Types of Nominal Modifiers			
	Type 1	Type 2	Type 3
Position	: Postnominal	Prenominal	Pre / Postnominal
Examples	: <i>faint</i>	<i>famous</i>	<i>navigable</i>
Time-Independent:	No	Yes	Yes
Time-Dependent :	Yes	No	Yes

Time-dependent expressions (Type 1) can occupy only a postominal position,

⁵ The following suggest that adverbs of permanent time such as *permanently* or *always* can occur with prenominal modifiers:

- (i) a. [...], it was *a permanently navigable river*, [...].
 (Olivia F. Robinson, *Ancient Rome: City Planning and Administration*)
 b. Then I was directed to take Jude and myself into *the always nearby jungle growth* and hide there until the action was ended.
 (Fred E. Randle, *Hell on land, Disaster at Sea: the Story of Merrill's Marauders and the Sinking of the Rhona*)
 c. [...], and there is *the always famous question* of the Scopes trial [...].
 (Roland E. Murphy, *101 Questions & Answers on the Biblical Torah: Reflections on the Pentateuch*)
 d. [...], *an always wandering imagination*, [...].
 (Jan Goldstein, *The Post-Revolutionary Self: Politics and Psyche in France, 1750-1850*)

referring to temporary states of nouns. Time-independent ones (Type 2) can occupy only a prenominal position, referring to characteristic (permanent) attributes of nouns.⁶ Time-dependent and time-independent ones (Type 3) can occupy both prenominal and postnominal positions. Depending on their occurrence position, they refer either to temporary states or to characteristic (permanent) attributes of nouns.

The discussion throughout this section makes it clear that prenominal and postnominal modification differs fundamentally in semantic function. The general principle says that the former refers to characteristic features, typically permanent attributes, of nouns independently of a particular time or occasion, whereas the latter refers to temporary states, depending on a particular time or occasion. The point is that this principle holds for nominal modifiers in general whether they are adjectives, participles, or nouns. If the general principle governing prenominal modification holds widely, then we may be justified in considering that this principle applies to prenominal modification by PPs, too. In the next section, we will point out that extending the observation in this section to PPs accounts for the difference between possible and impossible patterns of prenominal PPs.

4. Possible and Impossible Patterns of Prenominal PPs

This section is an attempt to explain the difference between possible and impossible patterns of prenominal PPs in terms of the principle governing prenominal modification.

4.1. Characterization: in the Case of PPs

The difference between (18) and (19) cannot be explained by the previous studies examined in section 2.

- (18) a. * the *in the garden* man (= (2a))
 b. * the *on the table* newspaper (= (2b))
 (19) a. The *in-city* headquarters is (are) accessible by train. (= (3a))

⁶ According to Yasui et al. (1976:107), even expressions mainly referring to permanent attributes may occur postnominally when they are contextually guaranteed to refer to temporary states. For example, *famous*, which mainly refers to permanent fame, can occur prenominally (e.g. *You're a famous author – [...].* (= (11a))), but cannot postnominally (e.g. **an author famous* (= (11b))). However, if it occurs with an adverb of temporary time, it is allowed to occur postnominally, as in (i).

(i) an author now famous (Yasui et al. (1976:107))

The acceptability of (i) is due to the fact that *now* guarantees *famous* to have a temporary rather than permanent interpretation.

- b. The *on-base* military club serves a rich variety of drinks. (= (3b))

Now, we can give a reasonable account for the difference in terms of the principle governing prenominal modification, i.e. “characterization.” If our consideration so far is on the right track, the PPs in (18) and (19) should be regarded as expressing permanent attributes characterizing nouns because of their prenominal occurrence. However, the PP *in the garden* in (18a) cannot be interpreted as expressing a permanent attribute characterizing a particular class of men. This is perhaps because normally one cannot imagine a particular class of men who are in a garden so permanently as to be characterized by being there. Similarly, the PP *on the table* in (18b) cannot be interpreted as expressing a permanent attribute characterizing a particular class of newspapers. This is perhaps because normally one cannot imagine a particular class of newspapers which are on a table so permanently as to be characterized by being there. These facts bar the PPs in question from a prenominal position (cf. (12b, 15b)).

Let us turn to the acceptable examples in (19). The PPs *in-city* in (19a) and *on-base* in (19b) can be interpreted as expressing permanent attributes characterizing *headquarters* and *club*, respectively. In the case of (19a), generally speaking, headquarters is (are) an entity which is established as a center of military operation or business during a particular, relatively long, period at a particular place, and it is at least not an entity that can move off the next moment like a man, car, and so on; it is normal that headquarters is established in some kind of city so permanently as to be characterized by being there. In the case of (19b), a (night) club is an entity which is operated during a particular, relatively long, period at a particular place to afford evening entertainment or serve liquor; it is normal that a (night) club is on some kind of base so permanently as to be characterized by being there (cf. (12a, 15a)).

Morita (2006:421) explains that *in-city* and *on-base* function to entirely exclude the other interpretations of (19) (e.g. (19a): “headquarters established by a city,” which *city headquarters* could mean, and (19b): “a military club associated with a base in some way,” which *base military club* could mean). Furthermore, according to him, these PPs function to emphasize that the headquarters in question is (are) established in, and not outside, a city, and that the military club in question is located on, and not off, base. In other words, in (19a), *in-city* functions to characterize a particular class of headquarters as contrasting with, for example, the ones established by a city or outside a city, thereby classifying a set of headquarters as being established in a city or not. Similarly, in (19b), *on-base* functions to characterize a particular class of military clubs as contrasting with, for example, the

ones which are associated with a base in some way or are located off base, thereby classifying a set of military clubs as being located on base or not. Therefore, the function of *in-city* and *on-base* in (19) mentioned by Morita is reduced to the characterizing (classifying) function specific to prenominal modification.⁷

Next, we turn to the other prenominal PPs given in section 2, which are repeated in the following:

- (20) a. * *on the shoulder* parrot (= (4b))
 b. ? *on leave* professor (= (5))
 c. * an *over-Bill's-shoulder* reading lamp (= (6c))
- (21) a. *off the rack* dress (= (4a))
 b. an *over-the-shoulder* reading lamp (= (6a))
 c. the flap *over shoulder* bag (= (6b))
- (22) The *off-his-rocker* recluse runs out of his house. (= (7))

In what follows, let us see how these examples can be explained on our analysis.

We begin with examining the impossible examples in (20). In the case of (20a), one cannot imagine a particular class of parrots which are on one's shoulder so permanently as to be characterized by being there. Regarding (20b), *COBUILD* defines the PP *on leave* as follows:

- (23) If you are **on leave**, you are not working at your job.
 (s.v. *leave*, bold types in the original)

The use of the progressive form *you are not working* in this definition suggests that *on leave* refers to one's temporary state. Given these considerations, it seems

⁷ Bolinger (1967:9) points out that the notion of contrast plays an important role in "characterization." Regarding the contrast in (i), he elaborates on this point as in (ii).

- (i) a. *deposited money*
 b. * *withdrawn money*
- (ii) There is some interest in deposited money because it contrasts, in our manner of keeping accounts, with invested money and pocket money. Withdrawing money does not put it in a situation that interests us — the culture does not recognize any class of money that can be so characterized.
 (Bolinger (1967:9))

The acceptability of (ia) is due to the fact that *deposited* can be recognized as a characteristic feature of a particular class of money, which follows from the contrast of *deposited money* with, e.g. *invested money* and/or *pocket money*. On the other hand, *withdrawn* in (ib) cannot, which prohibits its prenominal occurrence.

reasonable to assume that the PPs *on the shoulder* in (20a) and *on leave* in (20b) refer to a temporary state rather than a permanent attribute of *parrot* and *professor*, respectively. Thus, *on the shoulder* and *on leave* are unlikely to be interpreted as characterizing a particular class of reporters and professors, respectively. This bars them from a prenominal position. In the case of (20c), though it is somewhat unclear how its unacceptability can be explained on our analysis, a possible explanation would be as follows: *Bill's shoulder* in (20c) refers to a particular entity. Perhaps, this specific reference is likely to be associated with a particular time or occasion. This prevents **over-Bill's-shoulder* from having a time-independent interpretation, which results in its failure to occur prenominally in (20c). The plausibility of this explanation may be established by Di Sciullo and Williams (1987:50), who state that “[p]erhaps the absence of references to time gives the generic character to the meanings of words.” To put it the other way around, if an expression has no generic character, it follows that the expression has time reference (we will have more to say on a generic character of words in section 5).

Next, we move on to the possible examples in (21). It is assumed that the PPs in (21) can be recognized as characteristic features of particular class of dresses, reading lamps, and bags, providing a classification of them. For example, the PP *off the rack* in (21a) characterizes a particular class of dresses as contrasting with other classes of dresses, e.g. made-to-measure or designer-made ones, thereby classifying a set of dresses as ready-made ones or not. This qualifies the PP to occur prenominally (cf. fn. 7).

Finally, let us consider the PP *off-his-rocker* in (22). It is defined as “mad” or “insane” (cf. fn. 2). The adjectives *insane* and *mad* can occur prenominally, as in (24).

- (24) a. the *mad* man (Bolinger (1967:13), with slight modifications)
 b. The *insane* man may also suffer from hallucinations.
 (Kenelm Winslow, *The Home Medical Library, Volume II*, italic mine)

According to Bolinger (1967:13), *mad* can occur prenominally in the sense “insane,” but cannot in the sense “temporarily mad with anger.” Therefore, given that *off-one's-rocker* means “mad” or “insane,” it may safely be assumed that its prenominal occurrence in (22) is due to its reference to a characteristic feature or permanent attribute of *man* just as that of these adjectives.

Maling (1983:258) notes that the acceptability of prenominal PPs may vary considerably by individual speakers. Such supposed variation can be easily explained if we assume that the acceptability of prenominal PPs depends greatly on

a semantico-pragmatic factor like interpretation as well as a purely grammatical one. This is perhaps because one speaker thinks from his or her (encyclopedic) real-world knowledge that an attribute which a PP denotes is characteristic of someone (something) and another speaker does not think so. Therefore, the presence of such variation in acceptability supports our view that the prenominal occurrence of PPs depends greatly on whether or not they are interpretable as characterization, which governs prenominal modifiers in general.

In connection with such individual variation in acceptability, Maling (1983:282, n. 7) states that (25a) is decidedly better than (25b).⁸

- (25) a. * No *out-of-the-running* candidates will be given air time.
 b. * An *onto-something* reporter hounded the President.

(Maling (1983:258))

If fact, we can find *out-of-the-running candidates* on the Internet website, as shown in (26).

- (26) “You can vote for all the *out-of-the-running candidates* you want to, and a safe choice as well.” Even if the safe candidate wins, the support for other candidates will be noted.

(<http://www.gametheory.net/News/Items/120.html>, italics and underlines mine)

⁸ COBUILD defines *out-of-the-running* and *onto-something* as in (i), giving the examples in (ii).

- (i) a. If they are **out of the running for** something, they have no chance of winning or obtaining it.
 b. If someone **is onto** something, they are about to discover something important.
 (ii) a. *Until this week he appeared to have ruled himself out of the running because of his age.*
 b. *He learned across the table and whispered to me, ‘I’m really onto something.’*
 (s.v. *out of running* and *onto*, bold types and italics in the original)

We can attribute the unacceptability of (25b) to the reference of the PP *onto-something* to a temporary state. RHUD defines its *onto* as “in or into a state of awareness about (s.v. *onto*).” Given the phrase *a state of awareness* in this definition, it seems reasonable to assume that the PP refers to a temporary state. The evidence supporting this assumption is given in (iii): it can occur with *now* postnominally.

- (iii) The reporter now onto-something will hound the President.

Thus, *onto-something* is unlikely to be interpreted as characterizing a particular class of reporters, which bars the PP from a prenominal position in (25b).

All of the five informants judged that *out-of-the-running candidates* in (26) is acceptable. Furthermore, let us consider the following:

- (27) Every day, Yoko and Linda enjoy an *over-the-hedge gossip* (session),
and Boyd and Maureen enjoy an *over-the-phone one*.

According to Shimamura (2005:64), the prenominal PP *over-the-hedge* is unacceptable. But all of the five informants judged that it is acceptable.

Why are these prenominal PPs acceptable in (26) and (27) unlike the judgment in Maling (1983) and Shimamura (2005)? If our argumentation so far is on the right track, we can give a reasonable explanation for the reason in terms of the characterization specific to prenominal modification: the prenominal PPs in question are used in contrastive or selective contexts, as the underlined parts indicate. In (26), the contrastive or selective context enables *out-of-the-running* to characterize a particular class of candidates as contrasting with other classes of candidates, e.g. safe ones. As a result, the PP in question classifies a set of candidates as having no chance of winning or being safe to win. In (26), this characterization or classification makes *out-of-the-running* acceptable as a prenominal PP. Similarly, in (27), the contrastive or selective context enables *over-the-hedge* to characterize a particular class of gossips as contrasting with other classes of gossips, e.g. over-the-phone ones. As a result, the PP in question classifies a set of gossips as over-the-hedge or over-the-phone ones. In (27), this characterization or classification makes *over-the-hedge* acceptable as a prenominal PP (cf. fn. 7).

So far, we have shown that we can give a plausible account of the difference between possible and impossible patterns of prenominal PPs by assuming that the former refer to characteristic (permanent) features of nouns. In what follows, we test this assumption.

4.2. Prenominal PPs' Reference to Characteristic Features

In section 3, we saw that an adjective like *famous*, which mainly refers to a permanent attribute, cannot postmodify nouns (e.g. **an author famous* (= (11b))). This fact serves as a diagnostic test for prenominal PPs' reference to characteristic (permanent) features. The prenominal PPs in (28) reject a postnominal position like *famous*, as the unacceptability of (29) shows.

- (28) a. The *in-city* headquarters is (are) accessible by train. (= (19a))
b. *off the rack* dress (= (21a))

- c. This is a versatile lamp with various purposes. Of course, you can use it as an *over-the-shoulder* reading lamp as well as a living-room lamp.
- d. Linda will buy a flap *over shoulder* bag at this shop.
- (29) a. ?* The headquarters *in-city* is (are) accessible by train.
- b. * *dress off* the rack (Plag (2003:134), italics mine)
- c. ?? This is a versatile lamp with various purposes. Of course, you can use it as a reading lamp *over-the-shoulder* as well as a living-room lamp.
- d. * Linda will buy a flap bag *over shoulder* at this shop.

Therefore, the unacceptability of (29) gives us justification for assuming that the prenominal PPs in (28) refer to characteristic (permanent) features of nouns.⁹

(30) may be an apparent counterexample to the above generalization that prenominal PPs reject a postnominal position, because we can arrange the prenominal *off-his-rocker* in (30a) postnominally, as shown in (30b).¹⁰

- (30) a. The *off-his rocker* recluse runs out of his house. (= (22))
- b. The recluse *off-his rocker* runs out of his house.

However, given different meanings of (30), it is not problematic to our analysis.

⁹ Four of my informants judged that (29b) is acceptable. One of them attributes its acceptability to the relative easiness of inferring that the idiomatic reading stems from the literary reading which *off the rack* has as a normal PP, e.g. “hanging off some kind of rack.” This enables it to behave like a normal PP, which occurs postnominally. Therefore, according to the informant, the idiomatic *off the rack* sounds natural with its postnominal occurrence. If it is joined with hyphens ((*dress*) *off-the-rack*), their judgment inclines toward oddness. This suggests that as the PP in question becomes more word-like, its postnominal occurrence gets more difficult.

¹⁰ According to four of my informants, if we alter the following underlined part into *the mobster off-his-rocker*, the latter acquires a more or less different meaning from that of the former. And three judged that the alternation leads to the perfect badness of **The mobster off-his-rocker had like her spunk*:

- (i) [...] Dmitrity had rehired her himself — because she was brilliant, he’d said, and because she was a troublemaker.
- The off-his-rocker mobster had liked her spunk. Her sass. Which, of course, had been in the profile she’d carefully created for him.
- (Anna DeStefano, *To Protect the Child*, underline and italics mine)

One of the informants attributed the perfect badness to a context, explaining that the positional alternation of PPs can change the meaning of not only the PPs themselves but the whole context in which they occur. According to his explanation, in the changed context, *the mobster off-his-rocker* makes no sense. Unfortunately, it is unclear to me how the positional alternation in question changes the whole context.

Two of my informants pointed out the difference between (30a) and (30b). According to them, in (30a), the prenominal *off-his-rocker* can be paraphrased as “always or characteristically insane,” whereas in (30b) the postnominal one can be paraphrased as “(who) happens to be temporarily insane at a particular time,” or “behaving as if he were insane.”¹¹ This difference suggests that just like the adjective *navigable* in (8), *off-his-rocker* can refer either to characteristic (permanent) features of nouns or to temporary states depending on its occurrence position.

From the facts given in (28)-(30), we cannot accept altogether Shimamura’s (2003:636) view. Comparing (31) with (32), she argues that prenominal PPs, whether their reading is compositional or noncompositional, are acceptable, but that for postnominal PPs, only those which maintain their compositionality are acceptable:

- (31) a. a mess *after the party*
 b. an *after-the-party* mess
 (32) a. * service *round the clock*
 b. *round-the-clock* service

(Shimamura (2003:636))

In (31), the compositional PP *after the party* can occur both prenominally and postnominally, whereas in (32) the noncompositional PP *round the clock* can occur only prenominally.¹²

However, our data in (28)-(30) reject this view. The contrast between (28a)

¹¹ We have to admit the PP *on-base* as the only exception to our generalization. We can arrange the prenominal *on-base* in (ia) postnominally, as shown in (ib).

- (i) a. The *on-base* military club serves a rich variety of drinks. (= (19b))
 b. The military club *on-base* serves a rich variety of drinks.

In addition, its different positions do not seem to involve such different meanings as those of *off-his-rocker* do in (30).

Nevertheless, *on-base military club* in (ia) is not identical to *military club on-base* in (ib) in all respects. Two of my informants pointed out that they differ in topic: what we talk about in the expression in question. In (ia), the topic is *military club*, on which we put emphasis; while in (ib), it is *on-base*, on which we put emphasis.

¹² *Barron’s Educational Series A Dictionary of American Idioms* (1975) defines *round-the-clock* as in (ia) with example (ib).

- (i) a. For 24 hours a day continuously; all day and all night.
 b. *That filling station has round-the-clock service.* (You can go there or telephone for help all day and all night.)

(s.v. *around the clock*, italics in the original)

and (29a) demonstrates that the compositional PP *in-city* can occur only prenominally. In contrast, the noncompositional PP *off-his-rocker* can occur both prenominally, as in (30a), and postnominally, as in (30b). In addition, the semantic difference which we notice between (30a) and (30b) may be true of compositional PPs like *after the party* in (31). In fact, one of my informants pointed out that the examples in (31) can differ in meaning, though it depends on context whether or not we can see such difference.¹³ (31a) is more likely to mean “a mess which is actually caused by a particular party,” whereas (31b) is more likely to mean “a mess which can be potentially, typically or characteristically caused by something like a party.” Shimamura makes no reference to this difference.

Now let us compare (33) with (34).

- | | | |
|---------|--|-----------|
| (33) a. | * the <i>in the garden</i> man | (= (18a)) |
| b. | * the <i>on the table</i> newspaper | (= (18b)) |
| c. | * <i>on the shoulder</i> parrot | (= (20a)) |
| d. | ? <i>on leave</i> professor | (= (20b)) |
| e. | * an <i>over-Bill's-shoulder</i> reading lamp | (= (20c)) |
| (34) a. | John doesn't know the man <i>in the garden</i> . | (= (1a)) |
| b. | The newspaper <i>on the table</i> says that the President is seriously ill. | (= (1b)) |
| c. | The parrot <i>on the shoulder</i> of the second person sings clearly. | |
| d. | The professor <i>on leave</i> has a party at his home today. | |
| e. | The lighting from the reading lamp <i>over Bill's shoulder</i> irritates Hillary. It disturbs her sweet sleep. | |

The PPs in (33) cannot occur prenominally. On the other hand, as seen from (34), they can occur postnominally. This contrast is the same as observed in section 3, in which we saw that an adjective like *faint* referring only to a temporary state cannot occur prenominally (e.g. **the faint girl* (= (10a))), whereas it can postnominally (e.g. *the girl faint* (= (10b))). Given these facts, we are safe in positing the PPs in question as referring only to temporary states of nouns.

4.3. Prenominal PPs' Time-Independence

We conclude this section by confirming that prenominal PPs are time-independent. We can use another fact given in section 3 as a diagnostic test

¹³ Interestingly, one of my informants, who encountered *in-city* in my test for the first time, said that its prenominal usage, e.g. *the in-city headquarters*, is fully comprehensible with entirely compositional reading in spite of her total unfamiliarity with the expression, whereas its postnominal usage, e.g. **the headquarters in-city*, makes no sense.

for prenominal PPs' time-independence. The fact is that prenominal modifiers cannot occur with an adverb of temporary time like *now* because of their time-independence (e. g. **a now famous author* (= (16a))); while postnominal ones can because of their time-dependence (e. g. *The boat afloat now will ...* (= (16b))). The prenominal PPs in (35) give the same contrast to the postnominal ones in (36).

- (35) a. * The now *in-city* headquarters is (are) accessible by train.
 b. * The now *on-base* military club serves a rich variety of drinks.
 c. * Yoko Ono will buy a now *off-the-rack* dress at this shop.
 d. ?? The lighting from the now *over-the-shoulder* reading lamp irritates Hillary. It disturbs her sweet sleep.
 e. * Linda will buy a now *over shoulder bag* at this shop.
 f. * The officers plot to the now *off-his-rocker* general.
- (36) a. John doesn't know the man now *in the garden*.
 b. The newspaper now *on the table* says that the President is seriously ill.
 c. The parrot now *on the shoulder* of the second person sings clearly.
 d. The professor now *on leave* has a party at his home today.
 e. The lighting from the reading lamp now *over Bill's shoulder* irritates Hillary. It disturbs her sweet sleep.

The unacceptability of (35) indicates that prenominal PPs are incompatible with *now*.¹⁴ On the other hand, the acceptability of (36) indicates that postnominal PPs are compatible with *now*.¹⁵ These points confirm that prenominal PPs are

¹⁴ According to two of my informants, the interpretation of *now* as referring to a particular temporary time renders (35b, f) unacceptable. In this case, *now* can be paraphrased roughly into *at present*. On the other hand, its interpretation as referring to a relatively long span of time renders them acceptable. In this case, *now* can be paraphrased roughly into *recently*. In the former temporary interpretation, the relevant expression in (35b) means "the military club which is on base at present," and that in (35f) means "the general who is being temporarily insane at present." In the latter long-span interpretation, the relevant expression in (35b) means "the military club which was not on base before but recently has been opened on base," and that in (35f) means "the general who has recently got insane and will permanently remain so." One of the informants pointed out that joining *now* and its following prenominal PPs with a hyphen helps to give the long-span interpretation, which is aptly illustrated in the following:

- (i) Author Richard Bach, who wrote the bestseller *Jonathan Livingston Seagull*, was stuck in a writer's block after writing the first half of his *now-famous* novel.
 (Marie-Jeanne Abadie, *Teen Dream Power: Unlock the Meaning of Your Dreams*, italics mine)

In (i), *now* and its following prenominal *famous* are joined with a hyphen. In anyway, the point is that even if *now* can occur with prenominal modifiers, it has to refer to a relatively long span of time and not a particular temporary time.

¹⁵ One of my informants pointed out that (36b) is grammatical but may sound a little odd

time-independent, whereas postnominal ones are time-dependent.

In terms of time-(in)dependence, as far as the PP nominal modifiers considered so far are concerned, they can be classified into three types. (37) is a schematic representation of the classification, which is nearly parallel to that of other types of nominal modifiers provided in (17) (in the following, the notations ‘Examples (C)’ and ‘Examples (Nonc)’ refer to compositional examples, and to noncompositional examples, respectively).

(37) Three Types of Nominal Modifiers of PPs

	Type 1	Type 2	Type 3
<u>Position</u>	: Postnominal	Prenominal	Pre / Postnominal
Examples (C)	: <i>in the garden</i>	<i>in-city</i>	<i>after the party</i>
Examples (Nonc)	: <i>on leave</i>	<i>off the rack</i>	<i>off-his-rocker</i>
Time-Independent:	No	Yes	Yes
Time-Dependent :	Yes	No	Yes

Time-dependent PPs (Type 1) can occupy only a postnominal position, referring to temporary states of nouns. Time-independent ones (Type 2) can occupy only a prenominal position, referring to characteristic (permanent) attributes of nouns. Time-dependent and time-independent ones (Type 3) can occupy both prenominal and postnominal positions. Depending on their occurrence position, they refer to either temporary states or to characteristic (permanent) attributes of nouns.

These two diagnostic tests lead us to the conclusion that PPs obey the general principle governing nominal modification: prenominal PPs are required to refer to characteristic features, typically permanent attributes, of nouns, which acts as a trigger for their time-independence; while postnominal ones are required to refer to temporary states, which acts as a trigger for their time-dependence. In the following section, we will consider a further consequence which this conclusion brings to our discussion.

5. Consequence and its Related Issues

In this section, we point out that the conclusion drawn in the last section could give a reasonable explanation for a fact about prenominal PPs. Furthermore, we discuss its related issues.

Burstein (1992) and Shimamura (1986, 2003, 2005) observe that prenominal PPs are frozen expressions: they do not permit syntactic operations to apply to

pragmatically; *the newspaper now on the table* may sound to mean that a newspaper which was elsewhere until a few minutes ago appears now of itself on the table in question.

their internal constituents in obedience to the Lexical Integrity Principle.¹⁶ This is illustrated in the contrast between (38a) and (38b).

- (38) a. an *after-the-party* mess
 b. * an *after-the-lavish-party* mess

(Shimamura (1986:28))

The unacceptability of (38b) is due to the insertion of the adjective *lavish* into the prenominal PP *after-the-party*. Such observation leads Burstein and Shimamura to argue that prenominal PPs are lexicalized; however, they do not explain why prenominal PPs undergo such lexicalization at all (unlike postnominal ones). Now, we could give a reasonable explanation for the reason in terms of the general principle governing prenominal modification: lexicalization of prenominal PPs results from their independence of a particular time or occasion. In what follows, let us explain how the process of lexicalization evolves.

What we have to consider in the first place is what the fundamental differences between phrases and words are. One of such differences is that the former can refer to a particular time or occasion, whereas the latter cannot, according to Di Sciullo and Williams (1987:50), and Ito and Sugioka (2002:6-7), among others. In other words, the former are specific in reference, whereas the latter are generic. In terms of time-(in)dependence, it follows that phrases are time-dependent, whereas words are time-independent. The nominal compound *bank robber* in (39a) affords an illustration of this point.

- (39) a. John is a bank robber.
 b. John is robbing a bank at this very moment.

(Di Sciullo and Williams (1987:50), with slight modifications)

The compound in question denotes a permanent attribute independently of a particular time or occasion. Therefore, we cannot say (39a) to mean (39b), which

¹⁶ The Lexical Integrity Principle (the LIP) is defined, for example, as follows:

- (i) No syntactic rule can refer to elements of morphological structure.
 (Lapointe (1980:8))

The point is that the obedience to the LIP is the most essential property for wordhood; words always obey the LIP, whereas phrases do not. If a unit obeys the LIP, it follows that the unit is a word. The LIP also states that words are the minimal unit to which syntactic operations apply. Following this statement, this section discusses “lexicalization” to mean that seemingly phrasal expressions behave as words by acquiring lexical integrity with the result that syntactic operations can no longer apply to their internal structures.

denotes a temporary state depending on a particular time or occasion.

With this fact in mind, let us recall the discussion in section 4.3, where we demonstrated that prenominal PPs are time-independent. Given that they are phrases, our statement in the last paragraph might give a careful reader the suspicion that they are time-dependent because of their phrasal status. And he or she might wonder how prenominal PPs become time-independent. A plausible explanation would be as follows: PPs are originally time-dependent. However, once they occur prenominally, they cannot remain time-dependent. The general principle governing prenominal modification dictates that they become time-independent. More significantly, as a result, their prenominal occurrence suppresses their ability of time reference specific to phrases. It is this suppression that is assumed to contribute greatly to the lexicalization of prenominal PPs. Due to the suppression of a property specific to phrases, i.e. the ability of time reference, prenominal PPs are assumed to have a lower degree of phrasehood than normal ones, which are time-dependent. To put it the other around way, prenominal PPs are assumed to be more word-like than normal ones in that the former are time-independent, which is one of the properties specific to words. If this assumption is on the right track, within our approach, a trigger for the lexicalization in question can be identified with the general principle governing prenominal modification.

In connection with such nonce prenominal PPs as in (40) and (41), Shimamura (2005:65) argues that all prenominal PPs, even nonce formations, are stored in the lexicon as a result of lexicalization because they are not perfectly productive, and that the only PPs stored as such qualify as prenominal modifiers:

- (40) Following the above position, move your elbow away from left side to provide maximum freedom of movement. This also means that the writing line must be tilted to a greater slant to be in harmony with the position of the elbow. Keep your hand below the writing line.

In every group of left-handed individuals, I invariably find a small minority who write from an above-the-line position. [...]

Left-handers often write with a backslope. In cursive script this occurs because of the particular angle of the pen in either below- or above-the-line writing. [...]

(Vance Studley, *Left-handed Calligraphy*)

- (41) [...] Enstrom, who concluded that writing techniques in which the hand is below the line are best [...].

In more recent research, Guiard and Miller (1984) attempted

to differentiate neurological from postural strategies relating to left-handed writers. [...]

No consistent relationship between the neurological data and writing position was observed, and it was concluded that laterality and other neurological factors were unlikely to have determined either inverted-hand or *below-the-line* posture. [...]

(Jean Alston and Jane Taylor, *Handwriting: Theory, Research and Practice*)
(italics and underlines mine)

The PP (*below- or above-the-line* in (40) and (41), which is entirely compositional, is context-dependent, associated with the underlined parts preceding it.^{17, 18}

¹⁷ See Morita (1995) for context-dependent word-formation.

¹⁸ Shimamura (2003, 2005) points out that the lexical integrity of prenominal PPs prevents their internal coordination, which is syntactic operation:

- (i) a. Correspondingly, the *before-tax* profit equals the *after-tax* profit [...].
(Steven R. Jackson et al. *Managerial Accounting: A Focus on Ethical Decision Making*, italics mine)
- b. * *before* and *after* tax reform (Shimamura (2005:59))

In (ib), *before* and *after* are coordinated within a prenominal PP, which results in unacceptability. But this is not necessarily the case, as the possibility of *below- or above-the-line* in (40) indicates. In the prenominal PP, *below* and *above* are coordinated by *or*. We have many other prenominal PPs which allow coordination:

- (ii) a. [...] to revenue, costs and, ultimately, to *before- and after-tax* profit.
(Peter S. H. Leeftang et al. *Building Models for Marketing Decisions*)
- b. The criteria for choosing *before or after* tax profit depend [...].
(Michael Armstrong and Helen Murlis, *Reward Management: A Handbook of Remuneration Strategy and Practice*)
- c. The split between *off- and on-the-job* training was [...].
(Martyn Sloman, *A Handbook for Training Strategy*)
- d. [...] *off- or on-the-job* training will be more effective [...].
(Leslie Rae, *Effective Planning in Training and Development*)
- e. [...] its total *below- and above-the-line* budget [...].
(John J. Lee, Jr. and Rob Holt, *The Producer's Business Handbook*)
- f. *Below or above-the-line* treatment also is not important [...].
(Tax Management Inc, *Tax Management Transfer Pricing Report Vol.7*)
(italics mine)

Such coordination within prenominal PPs is not surprising, given that some prefixed words exceptionally allow internal coordination in spite of their otherwise lexical integrity, as many morphologists point out. The examples are given in the following:

- (iii) a. *pro- and anti-*abortion (Siegel (1974:147), with slight modifications)
b. *pre- and post-*war (fiction) (Plag (2003:84), with slight modifications)

Unlike the prefixed words in (iii), those in (iv) do not allow their prefixes to be coordinated:

Furthermore, the following type of prenominal PPs (*under/over* + numerals expressing ages) seems to be productive as well as compositional.

- (42) a. The incidence is indeed higher than expected for the group of men who were under 30 at the time of tests. But the incidence is noticeably lower (though not low enough to be significant) for the over-30 group.
(*New Scientist*, Oct. 27, 1983)
- b. *Under-5* children were the most vulnerable group [...].
(Gandikota V. Roa et al. *Air Quality*)
- c. In these areas, the *under-10* children will have spleen [...].
(Kenrad E. Nelson, *Infectious Disease Epidemiology: Theory and Practice*)
- d. Many *over-40* women have changed their eating habits [...].
(*Ebony*, Aug. 1977)
- e. Overall, the *over-50* men in my surveys don't experience the great transformation [...].
(Nelson Goud and Abe Arkoff, *Psychology and Personal Growth*)
- f. They always have the *under-40* women that are most successful, as well as the *under-40* men, and I think they do try.
(Lara Descartes et al. *Media and Middle Class Moms: Imagines and Realities of Work and Family*)
(italics and underlines mine)

-
- (iv) a. * *ex- and se-*cretions (Siegel (1974:147), with slight modifications)
b. * *im- and ex-*ports (Quirk et al. (1985:970), with slight modifications)

The contrast between (iii) and (iv) indicates that if we have prefixes coordinated, then the prefixed words in question are relatively compositional and coordinated prefixes are antonymous. The same is true of coordination within prenominal PPs: if we have coordination within prenominal PPs, the prenominal PPs in question are relatively compositional and coordinated prepositions are antonymous.

Another interesting fact is that the prefix *pre-* and the preposition *after* inside prenominal PPs can be coordinated:

- (v) a. We report both *pre- and after-tax* returns.
(Robert B. Jorgensen, *Individually Managed Accounts: An Investor's Guide*)
- b. [...] not its *pre- or after-tax* earnings or profit.
(Frank P. Jozsa, Jr., *American Sports Empire: How the Leagues Breed Success*)
- c. [...] which often feature a separate bar for *pre- and after-dinner* drinks.
(Bernard Davis, Andrew Lockwood and Sally Stone, *Food and Beverage Management*)
- d. [...] ideal for *pre- or after-dinner* relaxation.
(Steven B. Stern, *Stern's Guide to the Greatest Resorts of the World*)
(italics mine)

These examples may suggest some similarity between prefixed words and prenominal PPs.

More examples could be adduced, but these will suffice.

According to Shimamura's view, all of the prenominal PPs in (40)-(42) should be stored in the lexicon to occur prenominally. However, we are very hesitant in asserting that the prenominal PPs in (40)-(42) are stored in the lexicon. Given their compositionality and productivity, the assertion seems too strong that all prenominal PPs are stored in the lexicon. We would give a more reasonable explanation for the possibility of these prenominal PPs in terms of characterization examined so far: they function to characterize nouns, thereby qualifying as prenominal modifiers, whether or not they are stored in the lexicon. For example, in (42a), the prenominal PP *over-30* functions to characterize a particular class of group of men as contrasting with that of men who are under 30 in age. This is clear from the contrastive or selective context given by the underlined parts in (42a). All things considered, it seems disputable whether or not all prenominal PPs are stored in the lexicon.

This section is a suggestion or speculation. The strict definition of such notions as lexicalization and lexicon is indispensable for a full discussion about the topic in this section. Unfortunately, the limitation of space does not allow for a further discussion about the topic under discussion. The fuller discussion will be carried over to future research.

6. Concluding Remarks

This article has been concerned with prenominal PPs. Previous studies try to explain the difference between possible and impossible cases in terms of the meanings and/or forms of PPs themselves, and they give little consideration to their semantic function in relation to nouns. We pointed out that this sort of approach is not adequate. Instead, we proposed that the difference can be explained in terms of the general principle governing prenominal modification: prenominal PPs are required to express characteristic features, typically permanent attributes, of nouns, which are independent of a particular time or occasion, just as other types of prenominal modifiers. Furthermore, we suggested that prenominal PPs' time-independence is likely to trigger their lexicalization.

REFERENCES

- Barron's Educational Series A Dictionary of American Idioms* (Revised edition), (1975) Barron's Educational Series, Woodbury, New York.
- Bolinger, Dwight (1952) "Linear Modification," *PMLA* 67, 1117-1144.
- Bolinger, Dwight (1967) "Adjectives in English: Attribution and Predication." *Lingua* 18, 1-34.
- British National Corpus (BNC) (online: <http://bnc.jkn21.com/>)
- Burstein, J. Caryn (1992) *The Stress and Syntax of Compound Nominals*, Doctoral dissertation, City

- University of New York.
- Collins *COBUILD Dictionary on CD-ROM*, (2006) Harper Collins, London.
- Di Sciullo, Anna-Maria and Edwin Williams (1987) *On the Definition of Word*, MIT Press, Cambridge, Mass.
- Fabb, Nigel A. J. (1984) *Syntactic Affixation*, Doctoral dissertation, MIT.
- Ito, Takane and Yoko Sugioka (2002) *Go no Shikumi to Gokeisei (Syntax of Word and Word-Formation)*, Kenkyusha, Tokyo.
- Lapointe, Steven (1980) *A Theory of Grammatical Agreement*, Doctoral dissertation, University of Massachusetts, Amherst. [Published by Garland, New York, 1985]
- Maling, Joan (1983) "Transitive Adjectives: A Case of Categorial Reanalysis," *Linguistic Categories: Auxiliaries and Related Puzzles*, ed. by Frank Heny and Barry Richards, 253-289, D. Reidel Publishing, Dordrecht.
- McCawley, James D. (1988) *The Syntactic Phenomena of English Volume 2*, University of Chicago Press, Chicago.
- Morita, Junya (1995) "Lexicalization by Way of Context-Dependent Nonce-Word Formation," *English Studies* 76, 468-473.
- Morita, Junya (2006) "Meishikeisei niokeru 'Hensoku': Go no Naibu ni Shutsugensuru Kinou Hanchuu ('Deviation' in Noun Formation: Functional Categories Occurring inside a Word)," *Eigo no Gokeisei: Kyoujiteki · Tuujiteki Kenkyuu no Genjou to Kadai. (English Word Formation: the Present State and Subjects of the Diachronic and Synchronic Studies)*, ed. by Hiroshi Yonekura, 408-425, Eichousha, Tokyo.
- Nakajima, Heizou (2004) "Kouchi Keiyoushi to Feizu (Postnominal Adjectives and Phase)," *Eigo Seinen* 150, 494-497.
- Nishimaki, Kazuya (2011) "Some Remarks on Phrasal Prenominal Modifiers," *Tsukuba English Studies* 29, 241-259.
- Plag, Ingo (2003) *Word-Formation in English*, Cambridge University Press, Cambridge.
- Quirk, Randolph, Sidney Greenbaum, Geoffrey Leech and Jan Svartvik (1985) *A Comprehensive Grammar of the English Language*, Longman, London.
- Random House Unabridged Dictionary* (2nd edition), (1993) Random House, New York.
- Sadler, Louisa and Douglas J. Arnold (1994) "Prenominal Adjectives and the Phrasal / Lexical Distinction," *Journal of Linguistics* 30, 187-226.
- Shimamura, Reiko (1986) "Lexicalization of Syntactic Phrases," *English Linguistics* 3, 20-37.
- Shimamura, Reiko (2003) "On Lexicalized Phrases," *Empirical and Theoretical Investigations into Language: A Festschrift for Masaru Kajita*, ed. by Shuji Chiba et al. 631-646, Kaitakusha, Tokyo.
- Shimamura, Reiko (2005) "Ku no Goika nitsuite: Eigo no Meishi Zenishuushoku Hyougen wo Chushin ni (On the Lexicalization of Phrases: With Special Reference to Prenominal Modifiers in English)," *Gendai Keitairon no Chôryû (The Current of Contemporary Morphology)*, ed. by Tsuyoshi Oishi, Tetsuo Nishihara and Youji Toyoshima, 55-73, Kurosio,

Tokyo.

Siegel, Dorothy (1974) *Topics in English Morphology*, Doctoral dissertation, MIT. [Published by Garland, New York, 1979]

The New Oxford Dictionary of English, (1998) Oxford University Press, Oxford.

Yasui, Minoru, Satoshi Akiyama and Masaru Nakamura (1976) *Keiyoushi (Adjectives)*, Kenkyusha, Tokyo.

Doctoral Program in Literature and Linguistics

University of Tsukuba

E-mail: s1030047@u.tsukuba.ac.jp