

## Reconsideration of Conditions on Lexicalization\*

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### 1. Introduction

This article examines such expressions as those bracketed in (1).<sup>1</sup> These expressions, premodifying nouns, appear to be phrases with post-head materials, e.g. complements. We call the relevant expressions prenominal phrasal modifiers (henceforth PPMs).

- (1) a. a [<sub>AP</sub> heavier-than-air]machine (Jespersen (1914:336))  
 b. an [<sub>PP</sub> after-(the)-party] mess (Shimamura (1986:24))  
 c. at the [<sub>NP</sub> end-of-the-century] time (Jespersen (1914:342))  
 d. at the [<sub>VP</sub> wash-hand] stand (Jespersen (1914:347))

Note that the data presented in (1) contradict the general fact that English bars phrasal post-head materials in prenominal modifiers. This has been explained by the Head-Final Filter (HFF) in the literature, such as Williams (1982), and Di Sciullo and Williams (1987), among others. The HFF is formulated as in (2) (where ‘w’ means a pre-head material, ‘X’ head, ‘y’ a post-head material, and ‘N’ a noun).

- (2) \* [w X y] N    y ≠ 0 (Di Sciullo and Williams (1987:51))

A comparison between (3a) and (3b) gives us a better understanding of the HFF.

- (3) a. the [<sub>AP</sub> very [<sub>A</sub> proud]] man  
 b.\* the [<sub>AP</sub> [<sub>A</sub> proud] [of his children]] man  
 (Di Sciullo and Williams (1987:51))

According to (2), the configuration in which prenominal modifiers have complements is ruled out. In (3a), the prenominal *very proud*, which is not followed by a complement, is consistent with the configuration required by (2). In contrast, in (3b), the prenominal *proud of his children*, which contains the complement *of his children*, is inconsistent with the configuration in question. As a consequence, (3b) is ruled out.

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<sup>1</sup> In this article, some examples from the literature receive slight modifications in representation, e.g. letter styles.

Then, the HFF tells us that PPMs should contain no post-head materials. The puzzle here is the interaction between the HFF and PPMs: why does the HFF not exclude PPMs like those in (1) despite the apparent presence of their post-head materials? This can be solved by assuming that in PPMs the post-head materials are invisible to the HFF. If so, what makes them invisible to the filter? A possible answer is lexicalization of PPMs; they are reanalyzed as  $X^0$  categories encapsulating phrasal structures.<sup>2</sup>

Word-internal structures are invisible to syntax. This syntactic invisibility emerges from the defining property of words: the Lexical Integrity Principle (LIP) (Lapointe (1980:8), Di Sciullo and Williams (1987:49), and Bresnan and Mchombo (1995:181)). The LIP is defined as follows:

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

More specifically, (4) blocks any syntactic rule from applying to word-internal structures. Among the phenomena attributable to this LIP is a prohibition against inserting an extra element into a word:

- (5) a. a new green-house  
b.\* a green new house  
(6) a. a fat young turkey  
b. a young fat turkey  
(Allen (1978:58))

In (5a), *new* can modify only the compound *green-house* as a whole. The ungrammaticality of (5b) is due to the fact that *new* is inserted into this compound in violation of the LIP. On the other hand, in (6b), *fat* can be inserted into the sequence *young turkey* given in (6a). This is because the sequence is a phrase, which is insensitive to the LIP. Thus, if PPMs undergo lexicalization to have word status, it is predicted that they should be syntactically invisible in accordance with the LIP. This prediction is empirically confirmed by the contrast in (7), which involves the PPM *after-the-party*.

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

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<sup>2</sup> Different scholars define lexicalization in different ways. On the various definitions, see Shimamura (2005:66-67). By lexicalization, we mean a process in which phrasal categories convert into lexical ( $X^0$ ) ones to acquire lexical properties.

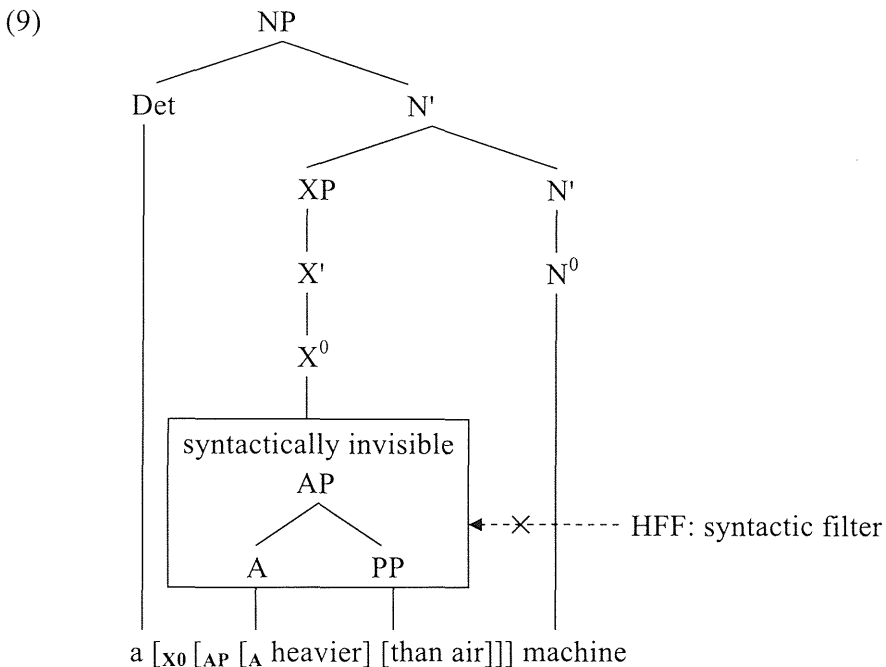
(Shimamura (1986:28))

As with *green-house* in (5), the inserted material *lavish* in (7b) is a violation of the LIP, which results in ungrammaticality.

If PPMs are lexicalized, it follows that those in (1) are bracketed as in (8).

- (8) a. a [<sub>X<sup>0</sup></sub> [<sub>AP</sub> [<sub>A</sub> heavier]-[than-air]]] machine  
 b. an [<sub>X<sup>0</sup></sub> [<sub>PP</sub> [<sub>P</sub> after]-[(the)-party]]] mess  
 c. at the [<sub>X<sup>0</sup></sub> [<sub>NP</sub> [<sub>N</sub> end]-[of-the-century]]] time  
 d. at the [<sub>X<sup>0</sup></sub> [<sub>VP</sub> [<sub>V</sub> wash]-[hand]]] stand

For example, (8a) has the following tree structure:



In (9), the square represents a syntactically invisible domain which results from the lexicalization. The LIP prevents syntax from having access to the structures embedded in this domain. The HFF is relevant to syntax in that it is a well-formedness condition on syntactic phrases. Therefore, the embedded structures, e.g. the AP in (9), are invisible to the syntactic filter. This syntactic invisibility enables PPMs to pass through the HFF.

If the above assumption is correct, a question arises naturally: under what conditions can syntactic phrases be lexicalized to qualify as PPMs? In the

literature, very few serious attempts have been made to tackle this question, except for Shimamura (1986, 2003, 2005); she attributes PPMs' (non-)occurrence to morphosyntactic conditions. The purpose of this article is to investigate the validity of the morphosyntactic conditions; we take PPMs' semanticpragmatic aspect into consideration. Our claim is that phrases can be freely lexicalized in a morphosyntactic sense whereas a semanticpragmatic condition determines whether or not the lexicalized phrases qualify as PPMs.

The organization of this article is as follows. Section 2 examines the morphosyntactic conditions on PPMs proposed by Shimamura (1986, 2003, 2005) and points out their problems. Section 3 concerns a semanticpragmatic condition on prenominal modification by  $X^0$  categories; we review the condition that prenominal modification should refer to characteristics of nouns. Section 4 analyses PPMs in terms of this condition, arguing that it can account for the (im)possible patterns. Section 5 considers a consequence of the condition proposed in section 4. Section 6 offers concluding remarks.

## 2. Shimamura (1986, 2003, 2005)

This section is a review of a morphosyntactic approach to PPMs in Shimamura (1986, 2003, 2005). We point out that this approach does not work well; her morphosyntactic conditions on PPMs are insufficient to explain their (im)possible patterns.

### 2.1. *Reanalysis Rules and Morphosyntactic Input Conditions*

In order to explain PPMs' lexicalization, Shimamura (1986, 2003, 2005) posits phrase-to-word reanalysis rules and morphosyntactic input conditions to the reanalysis rules. Possible PPMs fulfill the input conditions. In what follows, let us review the reanalysis rules and input conditions.

We begin with the reanalysis rules. Shimamura formulates the rules to reanalyze PPs, VPs, and NPs into adjectival  $X^0$ s. For example, PP-to-Adj reanalysis rules are shown in (10) with the outputs exemplified in (11).<sup>3</sup>

- (10) a. Adj  $\rightarrow$  [P-the-N]<sub>PP</sub>  
 b. Adj  $\rightarrow$  [P-a-N]<sub>PP</sub>  
 c. Adj  $\rightarrow$  [P-N]<sub>PP</sub>

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<sup>3</sup> Shimamura argues that as a result of reanalysis PPMs acquire adjectival status; they exhibit adjectival behavior in some respects. For instance, they can be modified by the degree adverb *very* as (gradable) adjectives can be:

- (i) a *very off the wall* remark (Shimamura (2003:637))

- (Shimamura (2003:643))
- (11) a. an *after-the-party* mess (= (7a))  
 b. *in a row* nests (Lieber (1992:11))  
 c. *after-sale(s)* service (Shimamura (1986:24))

Shimamura (2003:643) explains the process of the reanalysis, stating that “[...] phrases of fixed forms, after being generated above the X<sup>0</sup>-level in syntax, enter the lexicon and are listed as such in the lexicon, and they undergo reanalysis.”

Next, let us turn to the input conditions. Shimamura observes that PPMs are strictly restricted in their morphosyntactic aspect. The morphosyntactic restriction is that PPM-internal nouns occur only with an article or a zero-determiner and not with other elements, as shown in (12).

- (12) a. an *over-the-shoulder* reading lamp (Shimamura (1986:26))  
 b. *in a row* nests (= (11b))  
 c. *after-sale(s)* service (= (11c))  
 d.\* an *over-Bill's-shoulder* reading lamp (Shimamura (1986:26))

The PPM-internal *shoulder* occurs with the definite article *the* in (12a), *row* with the indefinite article *a* in (12b), and *sale(s)* with a zero-determiner in (12c). In the impossible (12d), the PPM-internal *shoulder* occurs with the possessive *Bill's*.

This restriction motivates Shimamura to posit morphosyntactic input conditions to the reanalysis, which specify that its inputs have the following fixed forms:

- (13) Morphosyntactic Conditions
- a. Lexicalized PPs: [P-the-N], [P-a-N], [P-N]  
 b. Lexicalized VPs: [V-the-N], [V-a-N], [V-N], [V-P-the-N]  
 c. Lexicalized NPs: [N-P-the-N], [V-P-a-N], [N-P-N]
- (Shimamura (2005:57))

Only the phrases of the forms specified in (13) can be inputs to the reanalysis rules and candidates for PPMs. Since *Bill's* in \* *over-Bill's-shoulder (reading lamp)* in (12d) is not designated in (13), the prepositional expression does not qualify as a PPM. The strict formal restriction observed in PPMs can be attributed to these morphosyntactic conditions.

## 2.2. Problems

Although Shimamura's analysis appears to offer an adequate explanation for facts about PPMs, we can point out at least three problems with the morphosyntactic conditions given in (13). In what follows, let us discuss each problem.

### 2.2.1. Possessive

First, the conditions cannot accommodate the possible (14).

- (14) John is anxious to learn about the *over-his-head* theory.

In (14), the PPM-internal *head* occurs with the possessive *his* and not with an article or a zero-determiner. In this respect, the prepositional PPM *over-his-head* violates the condition specified in (13a). However, the PPM is acceptable; the condition in question can provide no account of its acceptability.

### 2.2.2. Listedness

The second problem is that the conditions cannot explain the difference in acceptability between (15a) and (15b).

- (15) a. \* the *in the garden* man (Fabb (1984:123))  
 b. The *in-city* headquarters is accessible by train.

In (15a), *garden* in *in the garden* occurs with the definite article *the*; in (15b), *city* in *in-city* occurs with a zero-determiner. This means that both prepositional expressions in (15) meet the conditions in question, which leads to the prediction that both of them should be acceptable as PPMs equally. However, this is not the case: only *in-city* in (15b) is acceptable. This fact shows that not all phrases that meet the conditions in (13) are lexicalized to qualify as PPMs. Shimamura (2005:64) herself points out this problem, giving the following:

- (16) a. *over the fence* gossip  
 b. \* *over the hedge* gossip

The only difference between (16a) and (16b) lies in a PPM-internal noun. In the former it is *fence*, and in the latter *hedge*. Both nouns are similar in meaning. Nevertheless, *over the fence* (*gossip*) is possible, while \* *over the hedge* (*gossip*) is impossible. In order to solve this puzzle, Shimamura (2005:65) explains that all PPMs must be listed in the lexicon as such even if they have compositional

meanings. According to Shimamura's explanation, *over the fence (gossip)* is acceptable because it is listed in the lexicon as a PPM, whereas \* *over the hedge (gossip)* is unacceptable because it is not listed.<sup>4</sup>

However, this is an ad hoc explanation in that it says nothing about why some phrases which meet the conditions in (13) are listed in the lexicon as PPMs whereas others are not; it is a mere accident. To put it differently, Shimamura's explanation cannot predict in what case lexicalization and listing take place. Moreover, Shimamura's view that all PPMs must be listed in the lexicon is implausible. The following data suggest its implausibility.

- (17) a. 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 scrip this occurs because of the particular angle of the pen in either below- or above-the-line writing. [...]

(Vance Studley, *Left-handed Calligraphy*)

- b. [...] 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*)

- (18) 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)

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<sup>4</sup> It is likely that Shimamura adopts the view of the lexicon advocated by Aronoff (1976), Allen (1978), Di Sciullo and Williams (1987), and Aronoff and Anshen (1998), among others. According to these morphologists, the (morphologically complex) words which are unpredictable (idiosyncratic) in some respect are listed in the lexicon, whereas those which are predictable are not. Note that in their view predictability goes hand in hand with compositionality and productivity.

- 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]

*Above-the-line* and *below-the-line* in (17), which are entirely compositional, are context-dependent nonce formations. They are associated with the underlined parts preceding them. The PPMs in (18) follow the pattern in which *under* or *over* precedes numerals of ages. This pattern of PPM seems to be productive as well as compositional. Given their nonce-ness, compositionality, and productivity, it is implausible that these PPMs are all listed in the lexicon, in particular, if we adopt the standpoint that words which are idiosyncratic, hence non-compositional and unproductive, are listed (see fn. 4).

A more conclusive indication of PPMs' non-listedness is my informants' reaction to *in-city* (*headquarters*) (= (15b)). Among my informants, there are some who have never heard this PPM before. Given the total unfamiliarity, it is natural to assume that *in-city* is not listed in their lexicon. If so, Shimamura's theory predicts that its non-listedness should lead to unacceptability. However, contrary to this prediction, the informants in question accept it without difficulty. This means that PPMs' (non-)occurrence does not necessarily have to do with their listedness.

### 2.2.3. *IPs and CPs*

Finally, the rules in (10) and the conditions in (13), repeated as (19) and (20), respectively, do not deal with the examples in (21).

- (19) a. Adj  $\rightarrow$  [P-the-N]<sub>PP</sub>  
b. Adj  $\rightarrow$  [P-a-N]<sub>PP</sub>



- c. Adj  $\rightarrow$  [P-N]<sub>PP</sub>
- (20) Morphosyntactic Conditions
- a. Lexicalized PPs: [P-the-N], [P-a-N], [P-N]
- b. Lexicalized VPs: [V-the-N], [V-a-N], [V-N], [V-P-the-N]
- c. Lexicalized NPs: [N-P-the-N], [V-P-a-N], [N-P-N]
- (21) a. [...] the [<sub>IP</sub> *to-be-elected*] one [...]. (Jespersen (1914:340))
- b. an [<sub>IP</sub> *ate too much*] headache
- c. [<sub>CP</sub> *God is dead*] theology
- d. a [<sub>CP</sub> *who's the boss*] wink
- (Lieber (1992:11))
- e. a [<sub>CP</sub> *youth can-do-anything*] sort of self-confidence
- f. this new [<sub>CP</sub> *you-never-had-it-so-good*] generation
- (Kirchner (1970:210))

IPs or CPs underlie the above PPMs: (21a) an IP headed by an infinitival *to*; (21b) an IP headed by a tense inflection; (21c) a declarative CP; (21d) an interrogative CP; (21e) a CP headed by the modal *can*; (21f) a negative CP. As is seen from (20), Shimamura (1986, 2003, 2005) focuses on the PPMs involving PPs, VP, and NPs; such PPMs as those in (21) are beyond her scope.<sup>5</sup> As Shimamura (1986:35) points out, IP/CP-based PPMs have considerable latitude in their forms. It seems almost impossible to specify a set of morphosyntactic conditions on these PPMs. If they are lexicalized by reanalysis rules like those in (19) to pass through the HFF, we must posit an individual rule and condition for each of them. This makes no significant generalization.

### 2.3. *Intermediate Summary and Proposal*

As it turns out, the rules and conditions proposed by Shimamura cannot correctly predict PPMs' possible patterns, and they cannot correctly rule out their impossible ones, either. There are cases in which possible PPMs do not satisfy the conditions, on one hand, and those in which impossible ones satisfy them, on the other hand. Furthermore, the rules and conditions in question do not give a comprehensive account of PPMs in that they do not cover IP/CP-based PPMs.

The conclusion drawn from the discussion so far is that it is almost impossible to explain away PPMs exclusively morphosyntactically. Rather, the facts observed in this section imply that PPMs are subject to no morphosyntactic restrictions. A similar view is advanced by some morphologists. Lieber (1988:205-206), for example, states that “[n]ew items [PPMs + nouns] [...] can be created at will.”

<sup>5</sup> Shimamura (2003:632, 2005:56) states that their status is unclear.

Likewise, Wiese (1996:189) mentions that “[...] no structural conditions exit for phrasal compounds [PPMs + nouns] [...]”<sup>6</sup> Then, if any kind of PPM needs lexicalization to pass through the HFF, it follows that phrases can be freely lexicalized in a morphosyntactic sense. If so, why do we have impossible cases? These previous studies explicate the reason. We attribute such impossibility to semanticopragmatic conditions on prenominal modification by  $X^0$  categories. Given PPMs’ semantic function, i.e. prenominal modification, naturally, they should meet its overarching semanticopragmatic conditions. A problem with previous studies is that they overlook this point with their focus only on PPMs’ morphosyntactic aspects. PPMs’ semanticopragmatic aspects are well worth consideration apart from their morphosyntactic ones. So, our assumption is two-fold. On one hand, lexicalization itself can occur without morphosyntactic conditions (or rather without those which Shimamura proposes). On the other hand, semanticopragmatic conditions governing  $X^0$  prenominal modification determine whether or not lexicalized phrases qualify as PPMs. The following section discusses one of such semanticopragmatic conditions.

### 3. Prenominal Modification

Semanticopragmatic conditions on  $X^0$  prenominal modification are abundant in the literature. Of them, ‘characterization’ would be the most well-known (Bolinger (1952, 1967)). This section discusses how this condition operates on  $X^0$  prenominal modification.

#### 3.1. Characterization

Since Bolinger (1952), it has been widely accepted that prenominal modification is conditioned on its reference to characteristics of nouns: if we have prenominal modification, then it is interpretable as referring to characteristics of nouns. Following Bolinger (1952, 1967), we call this condition ‘characterization.’ In (22), it rules out the prenominal *faint*.

(22) \* the *faint* girl (Bolinger (1967:10))

Adjectives referring only to temporary states like *faint* cannot occur prenominally,

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<sup>6</sup> Lieber (1988) and Wiese (1996) view PPM-noun combinations as nominal compounds. This view is most strongly defended by Lieber (1988, 1992). According to her, all of such combinations constitute nominal compounds. However, some morphologists point out that this view is too strong. Syntactic tests prove that some are insensitive to the LIP, that is, non-lexical. On this point see Burstein (1992), Sproat (1993), Kato and Kageyama (1998), and Shimamura (2003, 2005), among others. We leave the question open whether examples in this article constitute compounds.

because they describe a quality which is too fleeting to characterize the referents of nouns. Bolinger (1967:10) explains this fact, stating that “[a]ll of sudden the girl was faint does not sanction \* the faint girl.” A state in which someone is faint is too fleeting to characterize him or her. In contrast, adjectives referring to permanent attributes like *famous* can occur prenominally:

(23) You’ re a *famous* author – [...]. (BNC C9U [italics mine])

In the literature, characteristics have been frequently identified with permanent attributes. This can be ascribed to the fact that a permanent attribute of something is very likely to be recognized as the most typical of its characteristics because of the permanence; therefore, characteristics are closely associated with permanent attributes.<sup>7</sup>

The ‘characterization’ effect can result from properties of nouns as well as adjectives. For example, in (24), it depends on different properties of the nouns *building* and *man* whether or not the prenominal *nearby* is interpreted as characterizing them.

(24) a. a nearby *building*  
b.\* a nearby *man*

(Bolinger (1967:11))

*Nearby*, referring to spatial location in relationship to the speaker, is acceptable as a prenominal modifier in (24a) but not in (24b). Different properties of the nouns *building* and *man* are responsible for this difference: movable or not. Since a building is immovable, it can occupy a place referred to by *nearby* so permanently as to be characterized by being there; accordingly, in (24a), *nearby* is interpretable as expressing a permanent attribute characterizing a building, which results in its prenominal occurrence. In contrast, since 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; thus, in (24b), *nearby* is not interpretable as expressing a permanent attribute characterizing a man, which excludes its prenominal occurrence.

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<sup>7</sup> According to Bolinger, referring to characteristics of nouns is amount to classifying their referents as having or not having the characteristics in question. In this sense, prenominal modification has a classifying function. Thus, in (23), the prenominal *famous* classifies referents of *author* as being famous or not being famous.

### 3.2. *Universality of Characterization*

In the previous subsection, we limited ourselves to showing that ‘characterization’ is crucial for prenominal adjectives. Importantly, the same applies universally to X<sup>0</sup> prenominal modifiers; just like prenominal adjectives, other types of prenominal modifier are required to refer to characteristics, typically permanent attributes, of nouns. This is aptly illustrated in (25), which involves prenominal modification by the noun *corner*. The NP *the corner table* is possible, as shown in (25a); by contrast, the NP \**the corner man* is impossible, as shown in (25b).

- (25) 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))

In (25), *corner*’s prenominal (non-)occurrence depends on the semantic relation of *corner* to *table* and *man*. Since 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 (25a), *corner* is interpretable as expressing a permanent attribute characterizing a table, which qualifies *corner* to premodify *table*. In contrast, since 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; hence, in (25b), *corner* is not interpretable as expressing a permanent attribute characterizing a man, which does not qualify *corner* to premodify *man*.

### 3.3. *Time-Independency*

As is clear from the discussion so far, prenominal modification refers to characteristics of nouns. 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. The time-independency manifests itself in its incompatibility with an adverb of temporary time, e.g. *now*:

- (26) a. You’re a *famous* author – [...]. (= (23))  
 b. \* a *now famous* author (Yasui et al. (1976:107))

In (26b), the prenominal *famous* is incompatible with *now*, which results in unacceptability.

To summarize, ‘characterization’ has a remarkable effect on X<sup>0</sup> prenominal modification. By its effect, prenominal modification should refer to characteristics,

typically permanent attributes, of nouns. The point is that this effect can be found everywhere in  $X^0$  prenominal modification whether the  $X^0$  involved is an adjective or noun. In this sense, it can be safely said that ‘characterization’ applies universally to  $X^0$  prenominal modification. Given the universality, it is safe to assume that PPMs’ (non-)occurrence is semanticpragmatically controlled by this condition, because what they do as  $X^0$  categories is prenominal modification. The following section proves this point.

#### 4. Analysis

This section is an attempt to demonstrate that ‘characterization’ holds for PPMs, too. The consideration here reveals how the semanticpragmatic condition distinguishes the possible patterns from the impossible ones.<sup>8</sup>

##### 4.1. Characterization: in the Case of PPMs

The difference between (15a) and (15b), repeated as (27a) and (27b), respectively, cannot be explained by Shimamura (1986, 2003, 2005), as seen in section 2.

- (27) a. \* the *in the garden* man  
 b. The *in-city* headquarters is accessible by train.

Now, ‘characterization’ can give a reasonable account of the difference. If our consideration is on the right track, the above *in the garden* and *in-city* should be regarded as expressing a permanent attribute characterizing a noun because of their prenominal occurrence. However, in (27a), it is very difficult to give such an interpretation to *in the garden*. 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. These facts bar *in the garden* from a prenominal position (see (24b) and (25b)). In contrast, in (27b), *in-city* can be interpreted as expressing a permanent attribute characterizing *headquarters*. Generally speaking, headquarters is an entity established as a center of military operation or business during a particular, relatively long, period at a particular place. At least, the entity in question cannot move off the next moment like a man, car, and so on; it is normal

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<sup>8</sup> Note that we never argue that ‘characterization’ is the only semanticpragmatic condition that PPMs must satisfy as  $X^0$  categories. It is reasonable that PPMs fulfill other semanticpragmatic conditions on  $X^0$  prenominal modification; ‘characterization’ is one of the semanticpragmatic conditions that  $X^0$  prenominal modification must meet. This article aims to show that PPMs’ (non-)occurrence is controlled by a semanticpragmatic condition on  $X^0$  prenominal modification. It is not our aim to describe in detail what semanticpragmatic conditions are imposed on PPMs as  $X^0$  categories.

that headquarters is established in some kind of city so permanently as to be characterized by being there. In (27b), this gives a characterizing interpretation to *in-city* (see (24a) and (25a)).

This explanation can be confirmed by the empirical fact that the PPM *in-city* is incompatible with *now*, which is shown in the unacceptability of (28).

(28) \* The now *in-city* headquarters is accessible by train.

This incompatibility coincides with that of a prenominal adjective with *now* (e.g. \* *a now famous author* (= (26b))). As with other X<sup>0</sup> prenominal modifiers, the incompatibility under discussion is a manifestation of PPMs' time-independency, which follows from their characterizing nature.

According to Morita (2006:421), in an example like (27b), *in-city* is used to avoid ambiguity produced by other expressions available for the intended reading of *in-city headquarters*, i.e. headquarters established in some kind of city. One of such expressions is *city headquarters*. This can have another reading, e.g. headquarters established by a city, which leads to ambiguity. This ambiguity can be entirely removed by using *in-city*. Furthermore, Morita explains that its function is to emphasize that the relevant headquarters is established in, and not out of, a city. Put another way, in (27b), *in-city* functions to characterize a particular class of headquarters as contrasting with, say, the ones established by or out of a city, thereby classifying a set of headquarters as being established or not being established in a city (see fn. 7). To put our own interpretation on this function, it is reduced to the prenominal modification's characterizing (classifying) nature, which naturally arises from 'characterization.'<sup>9</sup>

Lieber and Scalise (2007:5) claim that "[...] words [PPMs + nouns] that seem odd to us out of context can be used given sufficient context." In terms of

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<sup>9</sup> 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 of a particular class of money, which follows from the contrast of *deposited money* with, e.g. *invested money* and/or *pocket money*. In contrast, *withdrawn* in (ib) cannot be, which prohibits its prenominal occurrence.

‘characterization,’ the “sufficient context” in this statement can be identified with a context sufficient to interpret PPMs as characterizing nouns.

#### 4.2. *Variation or Inconsistency in Acceptability*

Maling (1983:258) notes considerable variation among individual speakers in the acceptability of PPMs, suggesting potential difficulty in a clear judgment. In connection with such variation, Maling (1983:282, n. 7) states that (29a) is decidedly better than (29b).<sup>10</sup>

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

(Maling (1983:258))

In fact, however, we can find *out-of-the-running candidates* on the Internet website, as given in (30).

- (30) “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])

According to all five informants, *out-of-the-running candidates* in (30) is perfectly acceptable. Let us go on to consider the prepositional expressions in (31), which are judged to be unacceptable as PPMs in the literature.

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<sup>10</sup> 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. *running* and *onto* [bold types and italics in the original])

The unacceptability of (29b) may be due to *onto-something*’s referring to a temporary state. RHUD defines *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 *onto-something* refers to a temporary state and not a characteristic (permanent attribute). This makes it difficult to interpret it as characterizing a particular class of reporters, which leads to its exclusion from a prenominal position in (29b).

- (31) a. \* *over the hedge* gossip (cf. *over the fence* gossip) (Shimamura (2005:64))  
 b. \* *along the wall* ivy  
 c. \* *beside the river* vineyards  
 (Burstein (1992:54))  
 d. ? *on leave* professor  
 e. ? *on the market* product  
 f. ? *in stock* items  
 g. ? *in love* man  
 h. ? *up in the air* plans  
 i. ? *on sabbatical* school teacher  
 j. ? *on the nose* answer  
 k. ? *on the bandwagon* supporter  
 (Burstein (1992:57))

Actually, the following suggest that these expressions can be acceptable:

- (32) a. Every day, Yoko and Linda enjoy an *over-the-hedge* gossip (session), and Boyd and Maureen enjoy an *over-the-phone* one.  
 b. *along-the-wall* ivy  
 c. *beside-the-river* vineyards  
 (Wiese (1996:189))  
 d. The *on leave* professor has a party at his home today.  
 e. [...] efficacy data on any developing, new or *on-the-market* product or ingredient.  
 (<http://www.nutraceuticalmedicalresearch.com/news/pdf/The-Value-of-Exploratory-Research-FINAL-as-of-Oct-13-10-with-ABSTRACT.pdf>)  
 f. Click OK to create the invoice for the *in-stock* items.  
 (Bonnie Biafore, *QuickBooks 2009: The Missing Manual*)  
 g. Yes, this insanely *in love* man is your God; [...].  
 (Dionne L. Roberts, *Character Keeping Us Single: For Singles Seeking Marriage*)  
 h. Critical of Nehru with his *up-in-the-air* plans – [...].  
 (Indo-British Historical Society, *Indo-British Review*, vol. 14)  
 i. [...] *on-sabbatical* school teacher emphasized his love for the city [...].  
 (<http://culogin.sungazette.com/page/content.detail/id/506750.html?nav=5012&showlayout=0>)  
 j. Are we going to get bona fide *right-on-the-nose* answers?  
 (United States. Congress. House. Committee on Appropriations. Subcommittee on Dept. of Defense, *Department of Defense Appropriations for 1974*)



k. [...] a typical Australian ‘jump *on the bandwagon* supporter’[...].  
 ([http://www.novafm.com.au/article\\_aussie-s-early-morning-world-cup-adventure-vs-germany\\_101658](http://www.novafm.com.au/article_aussie-s-early-morning-world-cup-adventure-vs-germany_101658))

The inconsistency in acceptability observed in these data is a mystery to a purely morphosyntactic approach. In contrast, under present analysis, such inconsistency follows as a natural consequence of ‘characterization.’ It is entirely plausible that one speaker thinks on the basis of his or her real-world knowledge that an attribute which a PPM denotes is characteristic of something and another does not think so. In other words, what is characteristic of something may vary from individual to individual. It may be safely assumed that this results in the inconsistency under consideration. If so, its presence supports our view that PPMs’ (non-)occurrence depends greatly on their interpretability as characterizing nouns.<sup>11</sup>

Let us consider why *out-of-the-running* and *over-the-hedge* are acceptable in (30) and (32a), respectively. The point is that in both examples they are put into contrastive contexts, as the underlined parts indicate. This facilitates their characterizing interpretation (see fn. 9). In (30), the contrastive 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, this PPM classifies a set of candidates as having no chance of winning or being safe to win. Similarly, in (32a), the contrastive 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. Consequently, this PPM classifies a set of gossips as over-the-hedge or over-the-phone ones. In (30) and (32a), the characterization (classification) leads to acceptability.

This section has examined how PPMs are analyzed in terms of ‘characterization.’ By assuming that PPMs obey this condition, we can adequately

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<sup>11</sup> Some comments on (31a-c) and (32a-c) may be in order. As mentioned in section 2, Shimamura (2005:64) notes the contrast in (31a), stating that a PPM-internal noun cannot be replaced with another similar one. However, contrary to this statement, all five informants judge *over-the-hedge* (*gossip*), which is unacceptable according to Shimamura, to be perfectly acceptable, as shown in (32a). We have another related example in (i).

(i) [...] from fragile *over-the-wall* gossip [...]. (Hugh Cudlipp, *Walking on the Water*)

In the above PPM, *wall* is used in place of *fence* or *hedge*.

Noticing PPMs’ idiomaticity, Burstein (1992) argues that transparent expressions, e.g. *along the wall* in (31b) or *beside the river* in (31c), are ruled out as PPMs. However, according to Wiese (1996), they are possible as PPMs, as shown in (32b, c). He argues that any kind of phrase is acceptable as a PPM as long as it is interpreted as a quotation, though he does not explain what an interpretation as a quotation is like.

explain their possible and impossible patterns. Another advantage of present analysis is that the variation or inconsistency in the acceptability of PPMs can be easily accounted for. The discussion in this section leads to the conclusion that PPMs' (non-)occurrence is actually controlled by a semanticopragmatic condition on  $X^0$  prenominal modification. In the following section, we turn to a consequence of this conclusion.

## 5. Consequence

In section 1, we adopted the working hypothesis that PPMs result from phrases' lexicalization to pass through the HFF. On this hypothesis, we have examined conditions on their lexicalization and occurrence. Our analysis has reached two conclusions. One is that phrases can be lexicalized with no morphosyntactic condition to pass through the HFF. The other is that the acceptability of lexicalized phrases as PPMs is controlled by a semanticopragmatic condition on  $X^0$  prenominal modification.

The most interesting consequence of this analysis is that any kind of phrase qualifies as a PPM through its lexicalization as long as it fulfills a semanticopragmatic condition, e.g. 'characterization.' In section 2, we mentioned that a wide range of phrases function as PPMs. Nevertheless, the following are not attested, which has been attributed to the HFF effect in the literature:

- (33) a. \* the to cry man (Williams (1982:160))  
 b. \* a that I saw man (Lieber (1992:50))  
 c. \* the who I saw yesterday boy (Sadler and Arnold (1994:189))

The prenominal expression in (33a) involves an active *to*-infinitive, that in (33b) a *that*-relative clause, and that in (33c) a *which*-relative clause.<sup>12</sup> Present analysis leads to the prediction that an appropriate, e.g. characterizing, context should render any kind of phrase, including those in (33), acceptable as PPMs. If so, it follows that no morphosyntactic condition is imposed on PPMs' lexicalization itself with their (non-)occurrence under full semanticopragmatic control. If we have the type of phrase that cannot qualify as a PPM under any context, it entails some kind of morphosyntactic condition on PPMs' lexicalization and occurrence. As yet it is not clear which view is valid. What our investigation has revealed is that some, if not all, types of PPM can involve a semanticopragmatic rather than morphosyntactic condition.

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<sup>12</sup> Jespersen (1914:340) suggests that the unacceptability of prenominal *to*-infinitives may be due to the awkwardness of the sequence of the weakly stressed words *the* (or *a*) and *to*.

## 6. Concluding Remarks

This article has been concerned with PPMs. The expressions in question, premodifying nouns, appear to be phrases with post-head materials like complements. A puzzle is why they are possible in spite of the HFF, which bars phrasal post-head materials in prenominal modifiers. This puzzle can be resolved by assuming that PPMs are lexicalized phrases to pass through the HFF. In order to explain their (im)possible patterns, Shimamura (1986, 2003, 2005) puts forward morphosyntactic conditions on this lexicalization. We pointed out that neither the possible nor impossible patterns can be correctly predicted by these conditions. Instead of PPMs' morphosyntactic aspects, we discussed their semantic-pragmatic ones. Our analysis revealed that PPMs' occurrence is conditioned on its reference to characteristics of nouns, which is reduced to 'characterization,' a semantic-pragmatic condition universally governing  $X^0$  prenominal modification. Our conclusion is that phrases can be freely lexicalized in a morphosyntactic sense whereas it is semantic-pragmatically determined whether or not the lexicalized phrases qualify as PPMs. The question remains to be investigated in the future research whether or not meeting a semantic-pragmatic condition on  $X^0$  prenominal modification qualifies any kind of phrase as a PPM.

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