The Distinction between Noun-Phrase Premodifiers: Nouns are not Adjectives

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Determining the syntactic category of an out-of-context lexical item is often impossible. For example, *fight* may be either a noun (e.g., *The fight was enjoyable*.) or a verb (e.g., *They fight for freedom*.). The category of these lexemes is only distinguishable when they enter the syntax in a phrase or clause thereby exhibiting the distribution characteristic of their category. However, even in context, nouns seem to function like adjectives quite often and quite productively. For example, *medicine* may function like a noun (*The medicine has expired*.) or an adjective (*The medicine cabinet was closed*). Thus, both nouns and adjectives seem to be able to function as a premodifier (or adjunct) of some head noun (see Adger, 2003, p. 275-277).

Of course, one might simply suppose that *rigid* and *granite* in (1) and (2) below are both adjectives.

- (1) His rigid resolve won the battle.
- (2) His granite resolve won the battle.

Both words ascribe some property to a head noun—doing so in a very similar way, and they both seem to share the same syntactic position. Moreover, both constituents allow for recursion as demonstrated by (3) and (4) below:

- (3) this old national treasure
- (4) the toy car collection (from Giegerich, 2009)

Nevertheless, a number of constituency tests will demonstrate that these two premodifiers maintain the distinguishing characteristics of their category even in this shared syntactic position.

Already, the recursion from (3) and (4) above expose a distinction between the two premodifiers. Notice that *old* does not premodify *national*; instead, it seems to describe *treasure* or perhaps *national treasure*. In contrast, *toy* does seem to be premodifying *car* in that it is a collection of [*toy cars*] $_{N}$, not a collection of cars that are toy. While adjectives are certainly

allowed to modify another adjective in a similar way as *toy* and *car* do (see (5) below), that ability seems much more limited than with nouns (consider (6)).

- (5) [icy cold purple soft drink]_N
 a. [[[icy]_A [cold]_A]_A [purple]_A [soft]_A drink]_N
 b. [[A+A] [A] [A] [N]] or, alternatively,
 c. [[A+A] [A [A+N]]]]
 d. *[[A+A] A] A] [N]]
- (6) [toy-car-collection catalog page number]_N
 a. [[[[toy]_N [car]_N]_N [collection]_N]_N [catalog]_N]_N [[page]_N [number]_N]_N
 b. [[N+N] N] N] [N+N]]

The adjectives can only premodify another adjective once, not recursively, and the relationship between those adjectives seems to be unique (i.e. coordinated). In contrast, nouns can premodify nouns without limit (theoretically). Thus, the first distinction between these two premodifiers is that nouns can adjoin recursively in a much more productive and unrestricted way than adjectives.

Distinct constituencies demonstrate the second difference between these two premodifiers. Adjectives can be premodified by degree words while nouns are generally premodified only by adjectives or other nouns. In (7)-(10) below, the degree word *very* shares a constituency with the adjective *rigid*, but not the noun *granite*, and *almost* shares a constituency with *musical*, but not *music*.

- (7) The very rigid laws of the king could not be changed.
- (8) *The very granite laws of the king could not be changed.
- (9) The $[[almost musical]_A museum]_N was alive with sound.$
- (10) *The [[almost music] $_{N}$ museum] $_{N}$ was alive with sound.

Likewise, adjectives have a limited ability to share a constituency with adjectives and nouns, explaining (in part) the limited recursion in the discussion directly above and further suggesting difference between adjective and noun premodifiers. In sum, the second distinction between

these two premodifiers is that adjectives share a constituency of adjectives (as one would expect). Nouns do not share this constituency, even in a noun-premodifier position.

Coordination demonstrates the third distinction between these two premodifiers.

Generally, only like constituents can be coordinated, and, although many noun premodifiers cannot be coordinated, those that can only seem to allow coordination with other nouns.

- (11) [strong and rigid]A
 - a. The strong and rigid will of the king won the battle.
 - b. ?*The strong and granite will of the king won the battle.
 - c. *The granite and strong will of the king won the battle.
- (12) [medicinal and herbal]A
 - a. The medicinal and herbal advice in this book is valuable.
 - b. ?*The medicinal and herb advice in this book is valuable.
 - c. ?*The medicine and herbal advice in this book is valuable.
- (13) [medicine and herb] $_{\rm N}$
 - a. This medicine and herb cabinet should have a lock on it.
 - b. *This medicine and herbal cabinet should have a lock on it.
 - c. *This medicinal and herb cabinet should have a lock on it.

Thus, the third distinction between adjective and noun premodifiers is that they cannot be coordinated with each other.

Finally, thematic roles demonstrate the last distinction between these two premodifiers. Adjectives cannot be assigned thematic roles (Adger, 2003, p. 275), but nouns can. We would expect this to hold between adjective and noun premodifiers. Below, (14)-(17) demonstrate this reality:

- (14) [street seller $]_{N+N}$
 - a. someone who sells on the street <locative>
- (15) [cake baker $]_{N+N}$
 - a. someone who bakes cakes <theme>
- (16) $\lceil alpine\ hiker \rceil_{A+N}$
 - a. *someone who hikes in alpine <locative>

b. someone who hikes in the mountains <locative>

- (17) [lunar observer]_{A+N}
 - a. *someone who observes lunar <theme>
 - b. someone who observes the moon <theme>

Adjectives can only get a thematic role if they are derived from a noun and they revert back to the underlying noun. We would expect non-derived adjectives to not have any recourse of repair for thematic role assignment. Below, (18)-(19) show just that:

- (18) [fast hiker] $_{A+N}$
 - a. *someone who hikes in fast <locative>
 - b. someone who is fast at hiking
- (19) $[bad\ observer]_{A+N}$
 - a. *someone who observes bad <theme>
 - b. someone who is bad at observing

Although adjectives and nouns share the same syntactic position as a premodifier of some head noun, they exhibit the distribution unique to their distinctive category. This should come as little surprise, as adjectives share other syntactic positions with nouns; see (20)-(21) below:

- (20) The car is [a lemon.] $_{NP}$
- (21) The car is $[blue.]_{AP}$

Using various tests such as recursion, constituency, coordination, and thematic-role assignment, we have demonstrated a distinct, categorical difference between two noun-phrase premodifiers: adjectives and nouns. These lexical items are categorically distinct, and they remain distinct even when they share a syntactic position.