The phonology of synthetic compounds

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Consider the word *beer drinker*. For long, words of this type have been called (deverbal) *synthetic compounds* and at least three types of analyses have been defended:

(1) a. [[beer drink] er] 'the suffixation analysis' (adhering to binarity)
b. [[beer] [[drink] er]] 'the compound analysis' (adhering to binarity)
c. [[beer][drink][er]] 'the ternary analysis'

Competing with the analysis in (1a), whatever the details, is the analysis in (1b) which views *beer drinker* as a regular NN 'root' compound. I will here not consider the ternary analysis in (1c) as a viable solution. Many arguments to support the suffixation analysis have been provided by various linguists (notably including Peter Ackema and Ad Neeleman), who make their case based on semantic and syntactic considerations. The biggest problem for this approach is that it is not clear what the suffix has been attached to. Is the complex unit [*beer drink*] a compound or a phrase? Or is it something else? Throughout several decades of discussions about the proper structure of synthetic compounds, only semantic and syntactic arguments have played a role.

In this talk, I will suggest that the suffixation analysis must be the correct one, at least in certain cases, based on *phonological evidence*, namely from *word accent*, which, as far as I know, has never been noted. Consider the Dutch example *bierbrouwerij* 'beer brewery'. Again, there are two possible (binary) analyses:

(2) a. [[bier brouw] erIJ] 'beer brewing' 'the suffixation analysis'
b. [[bIEr] [[brouw] erij]] 'beer brewery' 'the compound analysis'

(2b) is a regular NN compound, meaning a certain type of brewery, a location or building, that has something to do with beer, likely a place where beer is being brewed. (2a) predominantly means something different; it means 'the activity of brewing beer' (although it *can* also be used to refer to a location where the activity of beer brewing takes place, according to most speakers). What we focus on is that these meaning differences correspond with two different locations of word accent (as indicated with capitalization in (2)). What we need to know is that the Dutch suffix *-erij* (unlike *-ery* in English) has a lexical accent (on '*ij*'). In the word *brouwerIJ*, word accent is on *ij*. When we then form a regular compound, as in (2b), the compound accent rule puts primary accent on the first member, demoting the accent on *ij*. I assume here that we can only explain that in (2a) word accent is on the suffix, if the suffix 'has been added last'. This means that to arrive at the final accent pattern, the *morphological structure* can not be that of a regular compound; it has to be the structure in (2a). This is, I suggest, the synthetic compound structure. The suffix structure in (2a) raises the question what [*bier brouw*] is? Based on a certain formal analysis of morphological and syntactic structure, I will argue that it is neither a (compound) word (X^0) nor a syntactic phrase (X^1). The syntactic 'level' of such units is literally *unspecified* (X). My evidence will come from a class of verbs in Dutch, called *separable verbs*, which, as stored in the lexicon are neither words nor phrases (as is often assumed).

I will then include in the discussion a second class of synthetic compounds of the type *broad shouldered*; in Dutch *breedgeschouderd*. In Dutch, the affix that is attached to the unit [*breed schouder*] is discontinuous: *ge*-X-*d*. As the example shows, the prefixal part occurs in front of *schouder*, rather than in front of the whole unit (**gebreedschouderd*). Interestingly, this fact has been used to argue in favor of the compound analysis in (3a):

(3) a. [[breed] [ge- schouder -d]]
b. [[breed schouder] ge-Xd]

I will argue that we can maintain that the correct morphological structure is (3b), the suffixation analysis, which will commit me to the claim that (something like) the structure as in (3a) is the *prosodic structure*. I will argue that the determination of word accent appeals to a 'metrically interpreted' morphological structure, using the 'old-fashioned' S/W labelling (which I call the *phonotactic structure*). Analogously, while *bierbrouwerij* has two morphological structures, (2a) and (2b), and two metrically interpreted phonotactic structures, these structures converge on one prosodic structure (which is something like (2b)).