The English noun-noun construct: Prosody and structure

The idea can still be found in some English language textbooks that English noun-noun constructions such as tram or silk shirt, in which the first noun modifies the meaning of the second, can be divided into two morphosyntactic classes on the basis of their stress patterns: those in which the first noun is most prominent (left stress) are said to be compound words, while those in which the second noun is most prominent (right stress) are said to be phrases. In the academic literature, on the other hand, it is well-established that this idea is a myth (Giegerich 2009).

Consequently, there are two questions to be answered. Firstly, what determines the stress pattern of English noun-noun constructions (NNs)? Secondly, what if anything underlies the distinction between those that are regarded as morphological compounds and those that are regarded as syntactic phrases?

The first question, regarding the stress pattern of NNs, has been intensively studied, and it is clear that the best predictors of stress are the identities of the constituent nouns (Plag et al. 2007). That is to say that any noun in either the left-hand (N1) or right-hand (N2) position of a NN will predispose that construction to either left or right stress. However, this is not a categorical phenomenon, and different nouns exert stress bias to varying degrees (Plag 2010).

In N1 position, a noun's bias for right stress tends to be positively correlated with its length, in terms of number of syllables, and with its productivity as a modifier, in terms of the number of head nouns it can combine with. In N2 position, bias for right stress is again positively correlated with length, as well as with semantic specificity, in terms of number of senses (Bell & Plag 2013). Right stress also tends to be associated with particular compound semantic relations, e.g. the MADE OF relation in combinations such as silk shirt, and it has been argued that such relations may be in some sense more basic or more transparent than others (Bell 2015b). Finally, over and above these patterns, there is considerable inter-speaker variation in preferred stress pattern, especially in cases where the different factors of length, distribution and semantics exert conflicting pressures (Bell 2015a).

An answer to the second question, regarding the factors that underlie the morphosyntactic status of NNs, depends on it being possible to distinguish two groups: compounds and phrases. Criteria are usually based on the principle of lexical integrity, and one widely-accepted such criterion is whether the constituent words can be modified independently of one another (e.g. Lieber & Štekauer 2009:11). For example, a construction like London colleges is classed as a phrase, since both nouns can be separately modified to produce e.g. south London colleges or London theological colleges (Payne & Huddleston 2002:449). In order to investigate what properties of a NN determine whether such modification is possible, I carried out a large-scale empirical analysis of [AN]N and N[AN] constructions randomly extracted from the British National Corpus. The results show that the possibility of independently modifying N1 depends on there being a combination of adjective plus N1 that is lexicalised, institutionalised, or at least more frequent than the corresponding noun-noun combination. Conversely, ANN strings in which the noun-noun combination is lexicalised or more frequent than the adjective plus N1 are interpreted as having the structure A[NN]. The possibility of modifying N2 depends largely on the identity of N1. In attested N[AN] constructions, the first noun is one that modifies a large number of other nouns but is itself modified by relatively few: in other words, a noun that characteristically functions as an attributive modifier (cf. Baayen 2010).

Taken together, the studies discussed show that both the stress patterns of NNs and the results of tests for their morphosyntactic status can be understood as probabilistic phenomena related to the lexical semantics and frequency distributions of their constituent nouns. There is no clear boundary, either between right and left stressed types, or between phrasal and compound types. Rather, the most prototypical members of these classes represent extreme points on a continuum between which there is considerable variation along a number of dimensions. The results are compatible with a view of language in which generalisations emerge from patterns of usage and extralinguistic experience, rather than as the products of discrete mental modules.

References

Bell, Melanie J. 2015a. Inter-speaker variation in English compound prominence. *Lingue e Linguaggio* 14(1), 61-78.


