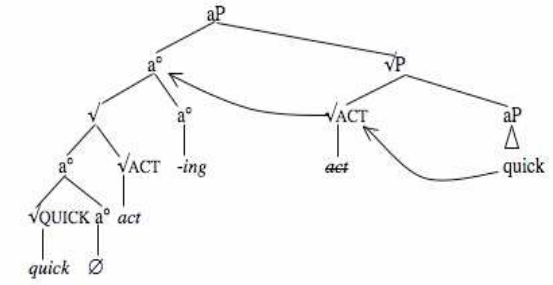
Exploring Compounding in Distributed Morphology

Susanna Padrosa Trias
Centre de Lingüística Teòrica, UAB

According to the framework of Distributed Morphology (DM), there is no component specifically designed for word formation. Instead, there is a unique generative component, namely syntax, which is responsible for both word and phrase structure. The syntax manipulates terminals which can contain two types of morphemes: abstract morphemes and roots (symbolised by √). The former are bundles of universal grammatical features (e.g. [Past]), and are related to functional categories, while the latter are complexes of language-specific phonological features, are assumed to be category neutral (e.g. √CAT), and are related to lexical categories. Roots need to be categorized by a functional node containing categorial information (i.e. nº, aº, vº). A tree structure, which is derived by syntactic operations like Merge and Move, is sent to LF and PF (Chomsky 1995). On the way to PF, terminal nodes can undergo some readjustment operations (e.g. fusion, fission), before they are given phonological content by insertion of Vocabulary Items (which occurs in a competitive fashion). Such readjustment operations can explain mismatches between syntactic and morphological structure (cf. Marantz 1997, 2001; Embick & Noyer 2007, among others).

Given this brief background to DM, compounds in this framework are considered by exploring Harley's (2008a, b) contribution. Harley understands compounding as being equivalent to incorporation structures (cf. Baker 1988) and assumes that internal arguments and modifiers of roots are merged with roots first, before the root undergoes categorization. Synthetic argument compounds (e.g. *truck driver*) and synthetic modifier compounds (e.g. *quick-acting*) are given the same analysis. The latter is exemplified in (1):

(1) a. quick-acting baking powder (It acts quick(**ly**))
b.



(from Harley 2008b)

Some comments are in order here. If compounding is really the result of syntactic incorporation, as shown in (1b), then there is no reason why the adverb *quickly* (see the sentence in (1a)) cannot occur inside the compound (which is what one would expect to occur), unless one does not resort to some convenient readjustment rules on the way to PF. Another problem with (1b) is the fact that *–ing* only attaches to verbs (already categorized roots). A solution is to add a categorizing vº above the √P once *quick* has incorporated into √ACT. Given that this analysis predicts the grammaticality of verbal compounds and, in fact, compounds like **to quick-act*, **to meat-eat* and **to truck-drive* are all ungrammatical, Harley proposes that in languages like English (but not Mohawk, for example) the head vº is prohibited from hosting compounding. Her proposal, though, is not supported by compound verbs like *to computer-generate*, *to Chomsky-adjoin*, *to steam-clean*, *to deep-fry*. Although

some of these NV compounds may come from back-formations, we consider that they all have the same status as non-backformed compounds.

Although a model of grammar with a unique generative component is more economical than one with two generative systems, we believe that the second model can fare better with the data just discussed (among other phenomena). Assuming a model of grammar, along the lines proposed by Ackema & Neeleman (2004), the two generative systems (one for words and one for phrases) compete with each other for the combination of lexical categories (there are no acategorial roots). In non-polysynthetic languages like English, the syntactic merger wins over the morphological merger iff the two mergers have the same semantics. Accordingly, the merger of an adverb and a verb takes place in syntax and *to act quickly* wins over **to quickly-act*. The ungrammaticality of compounds like **to meat-eat* and **to truck-drive* receive a similar explanation. Given that a verb and a noun can merge in syntax with the same semantics (e.g. *to eat meat*; *meat* is the internal argument of the verb), the syntactic merger wins over the morphological merger. As noted above, similar compounds are grammatical, though: e.g. *to computer-generate*. Despite apparent similarity, the semantics of the morphological merger is not identical to the syntactic merger: in the compound, the computer is the instrument (means) by which the generation of something is carried out, whereas in the syntactic merger (i.e. to generate a computer) the computer is the internal argument of the verb. If the semantics of the compound wants to be preserved in the syntax, then additional lexical categories are necessary (e.g. to generate by means of a computer), with the consequence that the mergers in morphology and syntax are no longer identical and competition is suspended.

In short, the puzzles posed by an incorporation analysis of compounds in DM are solved in a model which has two generative systems: one for word structure and another one for phrasal structure. Time permitting, other weak points of the DM framework will be discussed (e.g. the alleged existence of roots like √VIS in $visible_{a^o}$ and $vision_{n^o}$; the putative competition for insertion between Vocabulary Items like *–ness* and *–ity*) and more evidence will be provided in favour of the two-component model (e.g. Dutch prefixed verbs are not subject to the complexity constraint, unlike syntactic complex predicates; cf. Ackema & Neeleman 2004).

References

Ackema, P. and Neeleman, A. 2004. *Beyond Morphology*: *Interface Conditions on Word Formation*. Oxford: Oxford University Press.

Baker, M. 1988. *Incorporation: A Theory of Grammatical Function Change.* Chicago & London: University of Chicago Press.

Chomsky, N. 1995. *The Minimalist Program*. Cambridge, Mass.: MIT Press.

Embick, D. and Noyer, R. 2007. "Distributed Morphology and the Syntax-Morphology Interface". In Ramchand, G. and Reiss, C. (eds.). *The Oxford Handbook of Linguistic Interfaces*. Oxford: Oxford University Press. pp. 289-324.

Harley, H. 2008a. "Compounding in Distributed Morphology". To appear in R. Lieber and Stekauer, P. (eds.). *The Oxford Handbook of Compounding*.

Harley, H. 2008b. "Incorporation, compounding and constituency". Talk given at the "Words don't come easy" workshop, University of Verona.

Marantz, A. 1997. "No Escape from Syntax: Don't Try Morphological Analysis in the Privacy of Your Own Lexicon". *UPenn Working Papers in Linguistics* 4: 201-225.

Marantz, A. 2001. *Words*. Unpublished ms. MIT.