

The morphology-syntax connection: Phrasal spell out and allomorphy

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RELEVANCE OF LEXICAL INSERTION FOR THE TOPIC. Lexical insertion occupies a central place in the study of the relationship between the different grammatical components. It is generally assumed to follow two principles: 1) it can only insert material in terminal nodes -heads- 2) the choice of allomorphs for a particular head is determined in PF. This generally accepted view, which we will call Head Spell Out (HSO), causes problems for the understanding of the relationship between the interfaces. As lexical items target heads, allomorphy requires to be explained by manipulating the syntactic features contained in that head in a post-syntactic component (by fusion or impoverishment rules, *inter alia*; Bonet 1991); this view implies that phonology and syntax do not communicate directly, but through a set of post-syntactic rules; it also implies that morphology, being a set of PF rules (Embick & Noyer 2001), is not related to semantics or with some syntactic operations, such as internal merge. In contrast with the HSO approach, we argue that a lexical insertion account that allows phrasal spell out (PSO) gives a neater view of the relationships between the different modules.

HOW PSO IS BETTER FOR INTERFACES. Phrasal spell out allows lexical insertion to target non-terminal nodes, that is, phrasal nodes. If lexical items can target phrasal nodes, this means that (at least some) lexical items correspond to syntactic structures, not single heads. Two different allomorphs of those items correspond to two different syntactic configurations. Morphology is sensitive to merge (both internal and external) and therefore it immediately interacts with syntax and, not taking place in PF, also with semantics. Phonology and syntax can communicate directly, as there is no need to posit morphological operations in PF, because heads do not require to be manipulated by other procedure but merge.

PSO IS POSSIBLE. In the latest developments of the minimalist program (Chomsky 2004), merge is understood as the most basic syntactic operation. It takes two sets and forms with them one single set that contains both previous sets as its members. The set created can be taken again as input by merge and combined with another set to create a bigger set. In the first step of the tree, merge combines two heads and creates a phrase with them. From the definition of merge, then, it follows that heads are (singleton) sets. Otherwise, the merge operation applied in the first step of the tree and the one that combines a phrase with another phrase would be different operations and merge would not be basic. There is, thus, no substantive difference between being a terminal or a non-terminal node: both are sets. Nothing inside the theory determines that lexical insertion should only target some sets, terminal nodes; although technically possible, restricting lexical insertion to only singleton sets would come as a stipulation.

PSO IS NECESSARY. PSO has already been successfully used as an analytical tool to avoid zero morphemes or fusion operations (Weerman and Evers-Vermeul 2002, Neeleman and Széndroi 2007), but no direct evidence for its need has been proposed. In this paper we argue for this evidence. PSO targets syntactic constituents, while HSO targets exclusively terminal nodes. Syntactic movement creates and destroys syntactic constituents, while it does not affect what counts as a terminal node. PSO predicts, thus, that the choice of lexical items may interact with syntactic movement, while HSO does not make this prediction. Given the configuration in (1)

(1) [A [B [C [D]]]]

if a given language has two lexical items, L1 corresponding to {A} and L2, corresponding to {A, C, D}, L1 can be used straightforwardly, but L2 cannot be used unless a constituent containing A, C and D (on the exclusion of B) is created by movement. This is obtained in the configuration in (2).

(2) [[C [D]] A [B {C—[D]}]]

A further movement operation may destroy the constituent required by L2, as in (3):

(3) [[C [D]] F [E [{C—[D]} A [B]]]

In this situation L2 becomes unavailable again, but L1 is now available. Notice that movement did not change what counts as a terminal node, even if head movement is allowed. Thus, PSO predicts that the choice between L1 and L2 is sensitive to movement, while HSO predicts that these items will be chosen independently of movement.

DATA AND ANALYSIS. We show that the three steps in (1)-(3) are illustrated by the behaviour of 'algun(o)' vs. 'alguien' in Spanish, fulfilling the predictions of PSO. The pronoun 'alguien' does not allow plural forms (**alguienes*) and does not take partitive codas, while the pronoun 'alguno' allows plural forms and partitive codas. We argue that both *alguno* and *alguien* are decomposable in two elements, *alg-* (corresponding to a quantifier) and either *-ien* or *-uno* (the second, identical to the indefinite article). While *-uno*, as a lexical item, targets a head (A in (1)), we show that *-ien* targets a phrase created by movement of several projections inside the noun phrase (crucially Divisor Phrase –Borer 2005- and NP with animacy features) to a quantifier-related projection over the adjective domain. Movement of DivisorP to this projection results in the structure in (2). However, if a projection responsible for plural number is introduced in the representation, Divisor Phrase requires to move further, breaking the relevant constituent and preventing insertion of *-ien*, although making insertion of *-uno* possible. These three steps are represented in (4)-(6) (identical to (1)-(3)).

(4) [QuP [XP [AP [DivP [NP]]]]]

(5) [QuP [XP [DivP [NP]] X [AP {DivP—[NP]}]]]

(6) [PlP [DivP [NP]] Pl [QuP [XP {DivP—[NP]}] X...]

From here it follows that *-ien* will be incompatible with plurals or, to the extent that these require pluralities, with partitive codas.

WHY HSO CANNOT EXPLAIN THESE DATA. A HSO approach could claim that *-ien* is a N head whose properties force movement to XP (in the form of an uninterpretable feature), thus explaining the difference between (4) and (5). However, this approach cannot explain why, after checking between XP and *-ien* has been established, *-ien* is not allowed to move to the higher position headed by PluralP (the difference between (5) and (6)). In contrast, PSO straightforwardly predicts this situation, because the relevant lexical item targets a syntactic constituents which has been created in (5) and destroyed in (6).

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