

A derivational approach to phrasal spellout

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Overview This paper explores the morphological side of the following analogy: *SynSem is to Idioms as SynMor is to ???*

I assume (as is standard) that syntax is a system for assembling structures, and that these structures are interpreted at the interfaces. Where I diverge from the canon is in my assumption that the structure of the interfaces is uniform – all differences between the syntax-semantics (synsem) and the syntax-morphology (synmor) interfaces come from the nature of the semantic and morphological objects and the operations defined thereupon; i.e. the process of interface interpretation is identical across interfaces. This assumption has surprising consequences for the nature of the synmor interface, forcing us to a nanosyntax-like phrasal spellout mechanism. This sort of phrasal spellout differs however in fundamental ways from the typical one, as described in more detail below.

SynSem I take it to be well established that *there are no derived idioms*. In other (pre-minimalist) words, an idiomatic constellation must be present already at deep structure. In particular, there could be no raising verb *schmappear* which, in conjunction with a particular raised DP *the monkey*, gives rise to an idiomatic meaning, irrespective of the embedded verb (1 shows the normal meaning in a non-raising context, and 2 the idiomatic meaning in a raising context):

- (1) It schmappeared that the monkey jumped.
(*normal meaning*: the monkey seemed to jump)
- (2) The monkey schmappeared to have jumped.
(*idiomatic meaning*: jumping is dangerous)

The ‘standard’ account of idioms is essentially one which makes use of a sort of phrasal spellout – what this generalization shows is that the phrases which are shipped off to the synsem interface are not *derived* structures, but *derivation* structures. (The shape of the derivation – what is merged with what else and when – is the minimalist version of deep structure.) This view fits nicely with recent work [Kobele, 2012] which recasts the standard Heim and Kratzer [1998] into directly compositional terms; i.e. where each derivational step can be directly associated with a semantic operation. One way to think about this is that the semantic interface is sensitive to *patterns* in the derivation (a lexical item is the special case of a trivial pattern); for example, the synsem interface might contain the instruction the sequence of steps ‘**merge(kick,merge(the,bucket))**’ is interpreted as $\lambda x.\text{die}(x)$.

SynMor Adopting our hypothesis of *interface uniformity*, we should expect that, just as in the case of idioms, the synmor interface should be able to assign ‘idiomatic’ interpretations only to derivational and not derived structures. In other words, that *first-merged* should be a useful concept in the synmor interface, and that *derived specifier* should not be. (As is well known [Baker, 1985], this appears to be the case.)

Now we come to the question about how to understand the ‘???’ in the analogy above. At a bare minimum, this should include suppletion (being a prototypical case of ‘idiomatic’ as opposed to ‘compositional’ interpretation at the synmor interface). As long as we restrict attention to suppletion of ‘inherent’ properties (such as tense in the verbal domain), we encounter no problems (the synmor interface might contain the instruction the sequence of steps ‘**merge**(T_{past} , **merge**(*go*, ...))’ is interpreted as *went*). However, if we think of agreement as feature valuation (and so AgrS has, ‘lexically’, unspecified person and number values), then we cannot provide a similar account of, for example, English *am* (1s present tense ‘*be*’). There are two solutions to this problem.

The first, conservative, one simply reconceptualizes agreement as feature matching, and allows multiple featurally specified lexical versions of AgrS (the synmor interface might contain the instruction the sequence of steps ‘**merge**(AgrS_{1s}, **merge**(T_{pres} , **merge**(*be*, ...)))’ is interpreted as *am*). This approach does not obviate the need for some way to deal with ‘compositional’ properties of the synmor interface (e.g. post-syntactic readjustment, head-movement, mirroring, etc).

A more radical approach is, continuing to assume that AgrS has lexically unspecified person and number values, to *change the objects* that are the outputs of the synmor interface. Instead of words, these objects must become *functions* from feature values to words, i.e. *paradigms*. A natural step is to identify the ??? above with ‘paradigm’, and to treat the synmor interface as simply decomposing the derivation into ‘idiomatic’ patterns (=paradigms) which are then interpreted and linearized. Thus, the process of structure assembly in syntax provides the synmor interface with not only its objects, but also, via Agree, the inputs to these objects. This move allows us to naturally incorporate a word and paradigm model into a fully decompositional syntax.

Conclusions Our ‘derivational’ interface model posits that there is a single format for interfaces with syntax. This format is based on the traditional transformational account of idioms. Methodologically, this perspective encourages treating syntactic atoms as the smallest units of distributional regularity, without regard for whether they are also the smallest units of interface regularity.

Baker. The mirror principle and morphosyntactic explanation. *LI*, 16(3):1985.

Heim and Kratzer. *Semantics in Generative Grammar*. 1998.

Kobele. Importing montagovian dynamics into minimalism. In *LNCS* 7351, 2012.