Syntax: One interface or two?
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With *Syntactic Structures* (1957) and *Aspects of the Theory of Syntax* (1965), Chomsky spearheaded two revolutions in the study of language. In *SS*, his main innovation was to treat linguistic expressions as strings produced by a system of generative rules, for which he provided a formalism and evaluation procedures. In *Aspects*, he went far beyond string generation to propose a fundamentally *cognitive* model of sentence generation and understanding. Linguists are right to point to the later work as the real founding document of modern theory but I will argue that syntactic and pragmatic frameworks of the past fifteen years have been quietly breaking with the *Aspects* revolution and that this is because of certain assumptions we have inherited from *Aspects* that are neither necessary nor tenable.

Before any alternative to post-*Aspects* syntax can be taken seriously, we must drive a wedge between *SS* and *Aspects* to appreciate what *Aspects* brought to the study of language that is not essential to the generative program. In *SS*, the grammar of a language is said to consist of phrase structure and transformational rules, which generate morpheme strings that are converted into phoneme strings by morphophonemic rules. Crucially, these rules were justified solely for their capacity to generate the licit pronunciation orders of morphemes. Chomsky argued *against* them having a role in also fixing a string's interpretation, so that we must regard an *SS* grammar as non-compositional—though the meanings of a grammar's output strings must be *somehow* composed of the meanings of their parts, the syntactic arrangement of those parts does not give instructions for their composition.

This is not to say that syntax and semantics were to be disconnected in *SS*. Chomsky noted that sentence structures appear to be very *nearly* compositional but with shortfalls. Moreover, he argued that the best proposals for structural rules would capture sentential ambiguities in terms of alternate derivational histories, thus linking the syntactic process to interpretation. However, while it is second nature now to think that structural ambiguities are due to different structures composing different meanings, *SS* treated morpheme strings with multiple structural analyses in the same (non-compositional) terms as phoneme strings with multiple morphemic analyses, i.e. with their semantics derivative of *use*.

In modern terms, an *SS* grammar generates objects of type $< \pi >$, meaning objects that give instructions for phonetic articulation and perception alone. Such a grammar provides a capacity for generating an infinite array of sentence structures that can be put to semantic use, such that, as part of a theory of *performance*, we can study the meanings of structures as following from how they are used by language communities, but the uses to which structures are put are not governed by any intrinsic compositional properties that they have.

Aspects was of course radically different, as it incorporated compositional interpretation at the level of deep structure. Much has changed in syntactic theory since, but the basic suggestion enshrined in what we now know as the T-model still remains: the objects derived by a grammar are thought to be of type $< \pi, \lambda >$, meaning they provide instructions for both phonetic and semantic interfaces, so that syntax effects a direct relation between structured form and compositional meaning. While the T-model is taken now for a 'virtual truism', the idea that syntactic structure *itself* relates form and meaning through an interface with semantics has had its detractors, even within frameworks that endorse the cognitive necessity of a compositional syntax (as recognised most forcefully in Fodor 1975). Indeed, even Fodor, who played such a significant role in linguists trying to ground syntax with respect to semantics, eventually came to believe that "quite possibly, English has no semantics, some appearances to the contrary notwithstanding" (2008:198).

One way to develop Fodor's seemingly bizarre conjecture is to consider that double-interface syntax requires double-interface input, i.e. lexical items that are specified for phonemic and semantic content. While it is intuitive to think of the lexicon as being *necessarily* so structured, so that we can encode and decode semantics by looking up entries in our mental dictionaries, note that lexical items of this kind are just *not* required to explain how we understand the meanings of words, as we are not born with lexicons, yet we still develop lexical understanding through our pragmatic abilities. The lexicon as conceived in post-*Aspects* theory is entirely derivative of the assumption that syntax has both a phonetic and a semantic interface, as it exists to provide *context-independent* sound-meaning associations to serve as input to our context-independent syntax.

Recently, however, the possibility of context-independent meaning has been abandoned to a greater or lesser extent in varieties of relevance theory (e.g. Recanati 2004 and Carston 2013) and exo-skeletal syntax (Borer 2013 argues that lexical items have no intrinsic semantic content but she in the end endorses the T-model). These developments have mostly come about as explanations of observed phenomena but, with a Minimalist reinterpretation of Wittgenstein (1953) and Kripke (1982), we can use a simple set theoretical description of lexical items to show that context-independent meaning (and the T-model in turn) is psychologically impossible, given an insurmountable barrier that the arbitrariness of the sound-meaning relation poses for acquisition. This is analogous to the poverty of stimulus in syntax, but while syntax has an innate grounding, sound-meaning relations do not.

To conclude, I will offer some remarks on why T-model syntax has seemed so promising despite its impossibility and I will suggest how we can reinterpret the many valuable post-*Aspects* discoveries about syntax. In particular, I will argue that standard analyses of syntactic structure are really analyses of purely *semantic* structure, with morphemes standing as proxies for concepts, as morphemes have no context-independent semantics and so must be banished from all context-independent structural representations. Crucially, while developments within Minimalism suppose a superficially similar *priority* of semantics in structure generation, what we are forced to conclude here is that there is *nothing but* semantics in syntax, which is to say: generative theory is a theory of meaning, not form.

References

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