

DOES COMPOSITIONALITY ENTAIL COMPLEXITY?

The view that propositions are mereologically complex structured entities is the regnant paradigm in the philosophy of language and linguistics. As Steven Schiffer says, “Virtually every propositionalist accepts [compositionality] and rejects unstructured propositions”,¹ and even the “new” theories of propositions defended by Peter Hanks, Jeffrey King, Scott Soames, and Jeff Speaks take propositions to be complex structured entities.² Schiffer’s linking of structured propositions and compositionality is no accident: the most influential argument for structured propositions takes their existence to follow from the fact that language is compositional.³ In brief, it is argued that if language is compositional, the linguistic meanings of complex expressions must themselves be complex. Call the claim that language is compositional **Compositionality**, and the claim that the linguistic meanings of (many) complex expressions are themselves complex **Complexity**. Then we can say that, according to what we can call the **Compositionality Argument**, *Compositionality entails Complexity*. This argument dates back to Frege and Russell, and has had a lasting influence on theorizing about propositions ever since. The argument can be formulated in two ways: as a *deductive* argument that Compositionality entails Complexity, or as an *inductive* argument that Compositionality is best explained by Complexity. I show the deductive argument is unsound and that the inductive argument is weak. I also show that several arguments of the form ‘Compositionality + X entails (or is best explained by) Complexity’ are unconvincing, for several different substitution instances of ‘X’, including ‘truth-evaluability’, ‘representationality’, ‘direct reference’, ‘factual representationality’ (representing facts or states of affairs), and ‘recoverability’ (the fact that the semantic values of the meaningful parts of a sentence *s* sometimes need to be recovered for further semantic processing when *s* is embedded in some larger sentence *s**).

These arguments run as follows. The claim that Compositionality *entails* Complexity is undermined by the fact that there are compositional expressions—complex expressions with compositionally determined semantic values—whose semantic values are not complex: to wit, Arabic and Roman numerals. (This claim is further defended in Keller and Keller (2014).) The claim that Compositionality is *best explained by* Complexity is undermined by the closely related fact that there are many compositional expressions whose semantic values are not complex. The most plausible precisification of the claim that Compositionality + truth-evaluability entails (or is best explained by) Complexity is the claim that the correspondence theory of truth requires primary truth bearers to be complex. But we have no reason to think this is true unless it is true that only complex entities can represent complex states of affairs. There are two things to note about this claim. First, at this point all mention of

¹ Schiffer 2003, p.18

² In Hanks (2011) and King, Soams, and Speaks (2014). I should note that Jeff Speaks only endorses the thesis that propositions are complex entities in a “lightweight” sense that remains neutral about they are *really* complex.

³ The most influential *positive* argument, that is. The most influential reason for embracing structured propositions is dissatisfaction with the view that propositions are (unstructured) sets of worlds, combined with the conviction that structured propositionalism is the only viable alternative to the sets of worlds approach. But why not accept “simple fine grained propositions”—i.e., propositions that are ontologically simple, *sui generis* entities with fine grained truth-conditions? The argument from compositionality features prominently in the few attempts I am aware of to answer this question.

Compositionality has been dropped—this is an argument that Intentionality, *independently of* Compositionality, entails Complexity. And second, while this claim is plausible in the physical realm, it is far from analytic: George Bealer and Peter van Inwagen, among others, have held that mereologically simple entities are capable of representing complex states of affairs. (Indeed, a great many philosophers have thought that simple *souls* were capable of representing complex states of affairs! And of course propositions share with souls the dubious distinction of being non-physical.) So, while I cannot provide a knockdown argument *against* the thesis that Intentionality entails (or is best explained by) Complexity, I do not think its proponents have provided much of an argument *for* it either, at least when it comes to the immaterial domain.

I also argue that **Recoverability**—the fact that the semantic values of the meaningful parts of a sentence *s* sometimes need to be recovered for further semantic processing when *s* is embedded in some larger sentence *s** (see, e.g., King (2003))—only suggests Complexity if we assume that semantic processing occurs “linearly”—that, e.g., the semantic value of a node is a wholly a function of the semantic values of its daughters. But we have no reason to accept this assumption.

Finally, I argue that the phenomenon of direct reference, in conjunction with Compositionality, gives us no reason to accept Complexity. The thesis of direct reference requires only that the semantic value of directly referential expressions be the object to which they refer. That is wholly compatible with the claim that the semantic values of sentences containing directly referential expressions such as ‘Barak is hungry’ are simple: determined by, but not composed of, the semantic values of their meaningful parts.

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