All Concepts Were *Not* Created Equal: Ontological Concepts (Types) vs. Logical Concepts (Predicates)

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In the concluding remarks of *Ontological Promiscuity* Hobbs (1985) made what we believe to be a very insightful observation: given that semantics is an attempt at specifying the relation between language and the world, if "one can assume a theory of the world that is isomorphic to the way we talk about it … then semantics becomes nearly trivial". But how exactly can we rectify our logical formalisms so that semantics, an endeavor that has occupied the most penetrating minds for over two centuries, can become (nearly) trivial, and what exactly does it mean 'to assume a theory of the world' in our semantics?

In this talk we hope to provide answers for both questions. First, we believe that a commonsense theory of the world can (and should) be embedded in our semantic formalisms resulting in a logical semantics grounded in commonsense metaphysics. Moreover, we believe that the first step to accomplishing this vision starts by rectifying what we think was a crucial oversight in logical semantics, namely the failure to distinguish between two fundamentally different types of concepts: (*i*) *ontological* concepts, that are **types** in a strongly-typed ontology; and (*ii*) *logical* concepts, that are **predicates** corresponding to properties of and relations between objects of various ontological types.

Our ontological concepts are those that types that are somewhat similar to the types in Sommers' *Tree of Language* (Sommers, 1963) and are not motivated by the need to resolve specific sematic phenomena (e.g., metonymy, co-predication, etc.), but are motivated by the embedding of commonsense metaphysics into our logical semantics. By embedding ontological concepts (types) in our predicates, type unification and other type operations can then be used to 'uncover' missing information– information that is never explicitly stated in everyday discourse, but is often implicitly assumed as shared background knowledge, a phenomenon that is at the heart of most challenges in the semantics of natural language.

In this talk we will suggest how such an ontological structure can be systematically embedded in our logical semantics. Subsequently, we will show that distinguishing between ontological and logical concepts can (*i*) suggest simple solutions to a number of semantics riddles, such as the Paradox of Confirmation (Hempel, 1945); (*ii*) provide a simple explanation for the (apparently, cross-linguistic) adjective-ordering restrictions phenomena; and how it will suggest a solution to a number of challenges in the semantics of natural language. Our ultimate goal is to suggest that while logical semantics might seem to have faltered, neither logic, nor semantics is the villain, but a serious oversight that treated all concepts equally, namely as predicates while there are two fundamentally very different types of concepts: ontological concepts – what Cocchiarella (2001) calls

(first-intension concepts), that are types in a strongly-typed ontology; and predicates (second-intension concepts), that are the properties of (and the relations that hold between) objects of various ontological types.

References

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