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REDUCTION AND UNIFICATION IN NATURAL LANGUAGE ONTOLOGY

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Reduction and Unification in Natural Language Ontology

Elements in Semantics

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Abstract: Semantic theories for natural language assume many different kinds of objects, including (among many others) individuals, properties, events, degrees, and kinds. Formal type-theoretic semantics tames this ‘zoo’ of objects by assuming only a small number of ontologically primitive categories and by obtaining the objects of all other categories through constructions out of these primitives. This Element surveys arguments for this reduction of semantic categories. It compares the ontological commitments of different such reductions and establishes relations between competing foundational semantic ontologies. In doing so, it yields insights into the requirements on minimal semantic ontologies for natural language and the challenges for semantic ontology engineering.

Keywords: ontology, compositional semantics, categories, type systems, semantic ontology engineering

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