# Multiword Expressions = Compositional Expressions + Constraints

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We present the Ontological Semantics (OS; Nirenburg and Raskin, 2004) method of automating the analysis of multiword expressions. OS is a knowledge-based approach to language understanding aimed at supplying intelligent agents with full, ontologically-grounded semantic and pragmatic analyses of natural language to serve as input to reasoning about action. In the spirit of construction grammars, multiword expressions are treated -- during both knowledge acquisition and text processing -- the same as compositional semantic ones but with additional feature-based constraints. The utility of this approach was experimentally validated in the OntoSem language analysis system (McShane et al., 2015), and it is now being successfully integrated into the successor, OntoSem2, system, which pursues incremental (rather than sentence-level) language analysis. OS takes a holistic approach to language understanding, attempting to treat all linguistic phenomena and integrating reasoning about language with other types of agent reasoning. However, due to its reliance on high-quality knowledge bases, OS methods are better suited to agent applications than to the types of big data applications currently favored by mainstream NLP.

References:

McShane, M., Nirenburg, S. and Beale, S. 2015. The Ontological Semantic treatment of multiword expressions. Lingvisticæ Investigationes, 38(1): 73-110. John Benjamins Publishing Company.
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