

Representations of Meaning, 7.5 HEC

Meaning Representations

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May 3, 2016

Contrast and compare how meaning is represented in Montague model theoretic semantics, vector space models and grounded representations (e.g. Harnad).

Traditionally, a distinction is made between compositional and lexical semantics, Sinn and Bedeutung (Frege) – sense and reference – or intension and extension (Carnap). There are also approaches that argue that meaning is embodied through agent’s action and perception (Harnad). With reference to some popular semantic models and theories discuss their conception of linguistic meaning.

The goal of this paper is not to discuss these semantic theories in detail but to compare their notion of linguistic meaning.

The report/essay should contain approximately 1300 to 1500 words.

Some suggested readings:

Bird, Steven, Ewan Klein, and Edward Loper. 2009. *Natural language processing with python*. Beijing, Cambridge, Farnham, Köln, Sebastopol and Tokyo: O’Reilly, 1st ed edition Chapter 10. Available online at <http://www.nltk.org/book/ch10.html>

Blackburn, Patrick, and Johan Bos. 2005. *Representation and inference for natural language. A first course in computational semantics*. CSLI Publications. URL <http://www.let.rug.nl/bos/comsem/book1.html> Chapter 2.

Dowty, David R, Robert Eugene Wall, and Stanley Peters. 1981. *Introduction to Montague semantics*. Dordrecht, Holland: D. Reidel Pub. Co

Lappin, Shalom, and Chris Fox, ed. 2015. *The handbook of contemporary semantic theory*. Wiley-Blackwell, 2nd edition Chapter 15: Vector Space Models of Lexical Meaning

Erk, Katrin. 2012. Vector space models of word meaning and phrase meaning: A survey. *Language and Linguistics Compass* 6:635–653. URL <http://dx.doi.org/10.1002/lnc0>.

Harnad, Stevan. 1990. The symbol grounding problem. *Physica D* 42:335–346

Feldman, Jerome. 2010. Embodied language, best-fit analysis, and formal compositionality. *Phys Life Rev* 7:385–410

Cooper, Robin. 2015. Type theory and language: From perception to linguistic communication. URL <https://sites.google.com/site/typetheorywithrecords/drafts/tt1150611.pdf>, draft of chapters 1-5, 11th June 2015, June 2015