

A SINGLE-TYPE SEMANTICS FOR NATURAL LANGUAGE

KRISTINA LIEFKE (MCMP MUNICH)

ABSTRACT. In (Montague, 1970), Montague defines a formal theory of linguistic meaning which interprets a small fragment of English through the use of *two* basic types of objects: individuals and propositions. In this talk, I develop a semantic theory with a similar empirical scope which only uses *one* basic type of object (hence, *single-type semantics*). The possibility of the latter has been conjectured by Partee (2006) to account for the assertoric force of (certain subclasses of) noun phrases and their associated sentential entailments, cf. (Carstairs-McCarthy, 1999; Snedeker et al., 2007; Cheney and Seyfarth, 1990). The presented single-type semantics assigns truth-conditions to noun phrases and predicts their relevant entailments. In doing so, it establishes new representational relations between objects of different types and unifies the distinct objects in Montague’s linguistic ontology.

To identify a suitable semantic basis for natural language, the first part of this talk discusses the semantic requirements on the single basic type and describes the objects in its associated domain. The second part casts the resulting structure into the type system of the single-type logic TY_1^3 . The latter is a subsystem of a variant of Montague’s Intensional Logic, that shares many of its metamathematical properties. The last part of my talk demonstrates the application adequacy of the logic TY_1^3 by showing that it models the standard fragment of English from (Montague, 1973). I close with an assessment of the merits of single-type semantics and pointers to future work.

Keywords Single-type hypothesis, Data semantics, Montague grammar, Partial logic, Type theory.

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