Section 5

Possible Worlds: Problems and Prospects

Organizer: Kristina Liefke (MCMP)
Participants: Christopher Menzel (Texas A&M University), Chris Fox (University of Essex), Richard Moot (University of Bordot), Christian Retore (University of Montpellier), Roussanka Loukanova (Stockholm University)

Abstract:

Possible world semantics is today still the default theory of linguistic meaning. Howev-er, there are a number of serious problems with possible worlds. These include the diffi-culty of individuating or counting worlds, the 'total' nature of worlds, and the coarse-grained-ness of propositions qua sets of worlds. Recent work in computational semantics has further observed the intractability of representing worlds, which challenges the cog-nitive plausibility of any theory referencing worlds. This symposium aims to critically review the use of possible worlds in semantics and philosophy, to identify different prob-lems with possible worlds, and to propose ways of solving these problems.

Titles and Abstracts of the talks

1.

Christopher Menzel: Problems and Prospects for Possible Worlds and Possible Worlds Semantics
In this talk, I will paint a fairly broad but reasonably rigorous picture of the current state of the art in the philosophy of possible worlds. I will focus on the divide between the two dominant paradigms: reductionism (Lewis, Bricker, Yagisawa, etc.) and modalism (Prior, Plantinga, Adams, etc.). I will discuss the most pressing philosophical problems with both paradigms, and their implications vis-a-vis the role of possible world semantics in metaphysics and the philosophy of language. I will close by sketching an alternative philosophical framework that takes possible world semantics seriously without any actual commitment to possible worlds.

2.

Chris Fox Possible Worlds Considered Harmful
Possible worlds are often given a foundational status that goes beyond merely demon-strating the soundness of modal logic. They are often adopted, without question, in the analysis of a wide range of phenomena, including doxastic modality, deontic modality, imperatives, and questions and answers. Unfortunately, this ontological reductionism can result in counterintuitive results. It can also lead to false dilemmas with a range of phenomena. This is a consequence of conflating artefacts of the subject matter with those of the framework.

3.

Richard Moot: Natural Language Semantics and Computability (joint work with Christian Retore, University of Montpellier)

This talk is a reflexion on the computability of natural language semantics. It does not contain a new model or new results in the formal semantics of natural language: it is rather a computational analysis of the logical models and algorithms currently used in natural language semantics, defined as the mapping of a statement to logical formulas, because a statement can be ambiguous. We argue that as long as possible world semantics is left out, one can compute the semantic representation(s) of a given statement, including aspects of lexical meaning. We also discuss the algorithmic complexity of this pro-cess.

4.
Roussanka Loukanova: Algorithmic Concepts of Situated Information

The talk introduces a formal system of algorithmic concepts of a type-theory of situated information. The system is equipped with a formal language and a reduction calculus. Algorithms are formalized by specialized terms representing mutual recursion with constraints. The canonical form of a meaningful term A represents the algorithm that computes the information designated by A. Information obtained during the algorithmic steps is stored in memory networks. The reduction calculus reduces each term A to its canonical form. The reduction system is demonstrated by reductions that provide informational patterns. Information is parametric, dependent on situations, and can be updated algorithmically.