

TRUTH AND GROUNDEDNESS

Martin Fischer
Munich MCMP

At least since Kripke the notion of groundedness has played a major role in attempts to solving the semantic paradoxes. In Kripke's account the notion of groundedness is explicated via his fixed-point construction and especially the minimal fixed-point. In Yablo's terminology Kripke's work is focused on the inheritance aspect of groundedness and not on the dependence aspect.

In the talk I will present a variation of Kripke's fixed-point construction that is a model for a theory of truth and groundedness. The aim of this model is twofold: On the one hand it tries to capture the structure of the fixed-points. On the other hand it provides a justification for a theory based on a quite expressive language, a language containing not only a truth predicate but also a groundedness predicate.

The model is a fixed-point construction combined with a possible worlds model. The construction in the talk is based on work carried out by Volker Halbach and Philip Welch as well as Johannes Stern. The innovation of my construction is that in the end each possible world represents one possible fixed-point which allows for an adequate representation of grounding.

The language \mathcal{L}_G is the language of arithmetic expanded by two one place predicates T, G . A model $\mathfrak{M} = (W, R, f)$ with W a set of worlds R an accessibility relation and f an evaluation function that assigns to each world an extension of the truth predicate, i.e. a consistent set of sentences. The extension of the groundedness predicate is dependent on the extension of the truth predicate. The extension of G at a world w will be the set of those sentences for which either they are true at all accessible worlds or their negation is. With the help of the strong Kleene scheme it is possible to define a monotone jump operator that guarantees the existence of a fixed-point. By starting with a suitable model the fixed-point has some nice properties. Moreover in the closed-off versions some interesting theorems hold and point to possible theories of truth and groundedness.

The talk will contain a discussion of the adequacy of the model to capture our intuitions about groundedness and possible shortcomings. One of the advantages of the model is its flexibility to accommodate different intuitions of grounding, for example following different evaluation schemes. Moreover we can use the model to introduce further notions such as paradoxicality or intrinsically true.