

Categorical Model Theory and the Semantic View of Theories

Categorical Model theory (CMT) stems from the functorial semantics of algebraic theories proposed by Lawvere in his thesis back in 1963. Today this theory uses a family of concepts of model none of which is fairly standard. The technical concepts of model considered in CMT lack so far any generally accepted epistemological underpinning. It remains unclear whether or not the classical Tarskian notion of model based on the T-schema applies in CMT in all cases. I argue that this classical notion is not adequate for accounting for models of Homotopy Type theory. As a remedy I propose a novel concept of model, which agrees with CMT and supports a constructive version of the Semantic View of scientific theories. Finally, I argue that this version of the Semantic View is more adequate to the existing scientific practice than the standard version.