Runaway Models

Ioannis Votsis
Heinrich-Heine Universitaet Duesseldorf
votsis@phil-fak.uni-duesseldorf.de

Among the main aims of science are to predict and explain the world. In order to pursue those aims, scientists employ theories, models, equations and the like to represent features of the world. How are we to understand this representation relation? Supporters of the semantic view of theories typically construe the representation relation in one of two ways: (i) in terms of some notion of morphism or (ii) in terms of some notion of similarity. In this talk, I take a closer look at a number of objections mounted against (i) and (ii). I argue that on the whole such objections are misguided for they demand representation in science to meet loose standards that the critics conceive of as appertaining to representation in art. Indeed, I argue that if we were to take such a demand seriously it would lead to runaway models of scientific representation that are of no clear benefit to the debate over what makes a scientific theory, model or equation represent its target domain informatively and adequately.