HEINRICH HEINE
UNIVERSITÄT DÜSSELDORF

Das Institut für Philosophie
lädt herzlich ein zum Vortrag von

Prof. Dr. Clark Glymour

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18:15 – 19:45 Uhr

Gebäude 23.21 Raum Hs 3E

Are Best Explanations Possible?

Abstract
If best explanations are guides to informative truth, and that is what we seek, then prima-facie we should give credence to best explanations where they are available. Van Fraassen challenges all counts, both on grounds of his "semantic model" of theories freed from all linguistic representation, and on grounds of the vagueness and underdetermination of "best explanations." But on the "semantic model" the infinite class of models of many scientific theories are unpresentable, and, as Halvorson points out, the semantic view has no tenable concept of the formal equivalence of theories. Back to the old-fashioned proposal that theories can be regimented as first-order sentences, for which a natural account of theoretical equivalence follows from Beth's theorem. Putnam's account of learning in the limit, elaborated by Kelly, Schulte, Osherson, Weinstein and others then gives an account of learning strategies when theories are formulated in the vocabulary of the data. When, however, the language of theories outruns the language of the data, formal learning theory needs further assumptions. I propose these: the theory should be finitely axiomatizable but its data consequences should not be. The conditions underdetermine theories even on infinite data, but do they underdetermine truth and probability? The logically weakest finitely axiomatizable conservative extension of a not finitely axiomatizable theory is true if any such data equivalent theory is, and no data-equvialent theory is more probable. Such theories, if they exist, are discoverable on formal learning theory principles. Do such theories exist? Using results of Kleene, Craig and Vaught, I will answer that question.

Speaker
Clark Glymour is a key figure in philosophy of science since decades. In particular, his philosophical contributions to causation and (probabilistic) modeling of scientific inquiry shaped the discussion in the respective fields. A key element is thereby his theory of causal nets, as developed in a series of papers and a book, together with Peter Spirtes and Richard Scheines. This was the birth of a new research program focusing on the search for algorithms for uncovering causal structures on the basis of empirical data and for generating predictions by means of causal models.

Studierende und andere Interessierte sind herzlich willkommen