

Causal Asymmetries

Causation is asymmetrical in many different ways. Causes precede effects. Explanations cite causes not effects. Agents use causes to manipulate their effects; they do not use effects to manipulate their causes. Effects of a common cause are correlated; causes of a common effect are not.

This book by an eminent contemporary philosopher of science offers the first comprehensive treatment of causal asymmetries. It explains why a relationship that is asymmetrical in one of these regards is asymmetrical in others. Hausman discovers surprising hidden logical connections between apparently unrelated aspects of causation and traces them all to an asymmetry of independence, which he argues is constitutive of the causal relation.

This is a major book for metaphysicians and philosophers of science that will also prove stimulating to statisticians and scientists.

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Versions of the ideas developed in this manuscript have appeared in several essays. "Causal Priority" (1984) is a first stab at the central ideas developed here in chapter 4. An early version of the ideas concerning causation and agency developed in chapter 5 appear in "Causation and Experimentation" (1986), and a much more recent version appears in "Causation, Agency, and Independence" (1998a). A large part of chapter 6 appears in "Causation and Counterfactual Dependence Reconsidered" (1996). One can trace the slow development of the ideas concerning the relations between causation and explanation that are presented in chapter 8 in "Causal and Explanatory Asymmetry" (1982), "The Insufficiency of Nomological Explanation" (1989), "Why Don't Causes Explain Their Effects?" (1993b), and "Linking Causal and Explanatory Asymmetries" (1993a). Many of the ideas on probabilistic causality presented in chapter 9 appear in "Deterministic Causation of Probabilities" (1998b).

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