COMPOSITIONAL ABDUCTION AND SCIENTIFIC INTERPRETATION

Abductive reasoning is a form of inference that infers some hypothesis because of what that hypothesis explains. Unlike deductive reasoning, it yields a plausible conclusion but does not definitively verify it. The theory of compositional abduction developed in this book provides a novel theory of confirmation. Kenneth Aizawa uses case studies to analyze how scientists interpret the results of experiments to support compositional hypotheses (i.e., hypotheses about what things are composed of) and suggests that they use a kind of abduction. His theory is offered as an alternative account of scientific reasoning that the logical empiricists would have interpreted as hypothetico-deductive confirmation. It is also an alternative to the Peircean interpretation of the role of abduction in science. It will be of interest to philosophers of science, especially those working on hypothetico-deductive confirmation, Peirce's view of abduction, inference to the best explanation, and the New Mechanism. This title is also available as Open Access on Cambridge Core.

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A Granular Approach

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