

BOOK REVIEW

Induction and Deduction in the Sciences

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Induction can be defined as the inference from particular to the general. An inductive inference can be characterized as one whose conclusion, while not following deductively from its premisses, is in some way supported by them. Scientific reasoning from observations to theories, is a good example of inductive reasoning. Deduction, on the other hand, is a method of inference where from a given set of premisses the conclusion must follow.

The latest volume in the series of Yearbooks of the Vienna Circle Institute deals with the main inferential methods that can be applied to different kinds of experimental evidence. Renowned scholars in the field of philosophy of science, in this book, explore the different methods of explanation and justification in the sciences in different contexts and with different objectives. The volume contains contribution on methods of sciences, especially on induction, deduction, abduction (a special case of induction, one accepts a conclusion on the grounds that it explains available evidence), laws of nature, probability and explanation. There are also articles on topics such as logic, mathematics, social sciences, Bayesianism (Background beliefs and expectation determine the extent to which a given evidence supports

a hypothesis), Artificial Intelligence. Other papers deal with the work of Frege, Neurath, Popper, all intellectual giants of the last century.

The book documents the invited contributions to a workshop on Historical and Contemporary Perspectives of Philosophy of Science which was held in Vienna in July, 2002. As usual the Yearbook contains reviews of a half a dozen new books in the field which I found interesting. A brief review and preview of activities of the Vienna Circle Institution for 2003 and 2004, are also given at the end of the book.

This is again a fine scholarly book of a high standard that we have come to expect from the Vienna Circle Institute. It will be welcomed by scholars and all serious students of philosophy and science. The steep price and a rather high level of discussion might inhibit a complete beginner from buying the book but nevertheless I urge all interested readers to have, if possible, a look at the book in order to obtain an authentic and upto date view of the area covered.

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