

**A Field Guide to Inductive Arguments**, K. D. Moore, *et al.*

Kendall/Hunt Publishing Company, 1986, 161 pp. \$9.95 pbk.

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Texts covering topics in introductory logic, and the newer genre of texts for courses in critical reasoning, thinking and writing, typically devote 60-70% of space first to deductive arguments, informal fallacies and the like. The approach of this *Field Guide* is quite different, being exclusively preoccupied with identifying and evaluating inductive arguments in a wide context. The approach is defended by noting that "inductive arguments . . . are the primary patterns of thought in science, law, management, and all other activities in which we learn from experience."

The author defends it, however, as primarily a supplement to a standard basic logic textbook, but also as useful for reasoning courses taught in departments other than philosophy and for the casual reader interested in a text that is somewhat self-instructional in format.

The metaphor of the field guide is followed out with an initial flow chart providing a key to initial identification of inductive arguments by classification through recognition of essential features and selection of alternative secondary features, with "go to . . ." instructions to locate the chapters devoted to the type in question. Thus, arguments are classified as deductive or inductive according to "presence of all information found in the conclusion (implicitly or explicitly) in the premises" or "presence of more information in the conclusion than is found in the premises," as well as a supposed corollary that "conclusion must be true if the premises are true" or "conclusion could be false even if premises are true." Teachers of courses in logic and critical reasoning should be familiar with the trap that is thus set: all invalid deductive arguments are thereby rendered inductive. This flaw is later corrected in the text with more standard counterfactuals, but perhaps too much reliance is placed on imprecise notions for the careful logician. (Even the "more information in the conclusion than in the premises" characterization won't stand up to examples like "A horse is an animal; therefore, a horse's head is an animal's head" without preposterous reliance on an unexamined and likely indefensible sense of "implicitly contained".)

The work is divided into six chapters, corresponding to the strategy of the flow chart guide. "How to Find Arguments," is followed by 4 chapters, each of which discusses a different type of inductive argument: "Arguments by Analogy," "Enumerative Induction," "Hypothetical Reasoning," and "Causal Arguments"; the last chapter consists in a "Checklist for Suspicious Claims."

Chapter 1, besides working on the mess created by the flow chart, has a brief passing discussion of the philosophical and the scientific problems of induction. The former is evaded by the by now standard pragmatic justification; the latter is identified as essentially the search for standards of good inductive arguments, given that the future will resemble the past. In this respect the text is not particularly distinctive; Skyrms' *Choice and Chance* employs substantially the same moves, with a good deal more attention to the ins and outs of historical attempts to justify induction. On the other hand, Cederblom and Paulsen's *Critical Reasoning* does not mention the philosophical problem at all, nor does Fogelin's *Critical Thinking* or Browne and Keeley's *Asking the Right Questions*. One wonders whether a *passing* reference to a problem addressing the very rationality of a practice is wise in a text whose main aim is to train the reader in that practice.

The discussions of analogical reasoning and induction by enumeration are straight-forward and uncomplicated, but do not strike this reader as fundamentally stronger than those of similar topics in other texts. On the other hand, the discussions of hypothetical reasoning and causal reasoning are perhaps superior to other sources, in that they place proper emphasis

on the role of the null hypothesis in testing other hypotheses—an emphasis often wholly missing from philosophers' discussions. While not mathematical in style, these two chapters convey in ordinary layman's terms the strength of these forms of scientific reasoning in a manner which compels respect for them.

The major strength of this work lies, however, in the very rich set of sample arguments, exercises, games, and activities employed after each chapter's relatively brief topical discussion. These are drawn from diverse sources: books of games, scientific experiments (particularly from the social sciences), letters to the editor, advice columns, newspaper articles, ESP experiments, court opinions, scientific texts and reports, and speeches. It thus directs the student's attention to the enormous wealth of inductive arguments at hand in daily life, and carefully leads the student through application of the techniques of argument identification, clarification and assessment commonly covered in courses for which this text is appropriate. Because of the emphasis on activity rather than exclusive preoccupation with arguments in written form, the engagement of the student is varied and a wider application of reflective techniques is facilitated. Consistent with this orientation, the text is "self-destructive"; like many workbooks, it is designed to be used up as it is used.

A *Field Guide to Inductive Arguments* has, by the author's report, been extensively tested on undergraduate populations. With a careful, knowledgeable instructor, it may provide a useful adjunct to a standard text in which the coverage of inductive arguments is relegated to a secondary, passive focus.

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