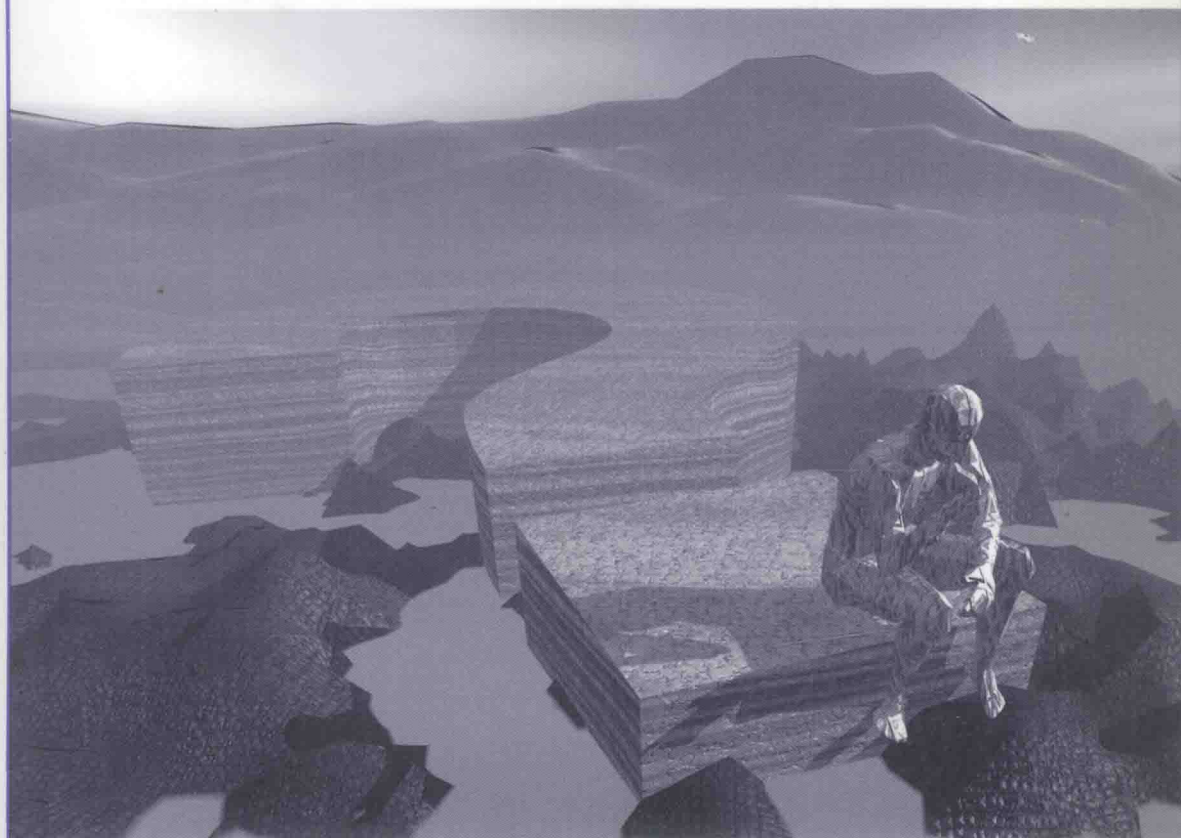


CRITICAL REASONING AND LOGIC



ROBERT BOYD

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Robert Boyd
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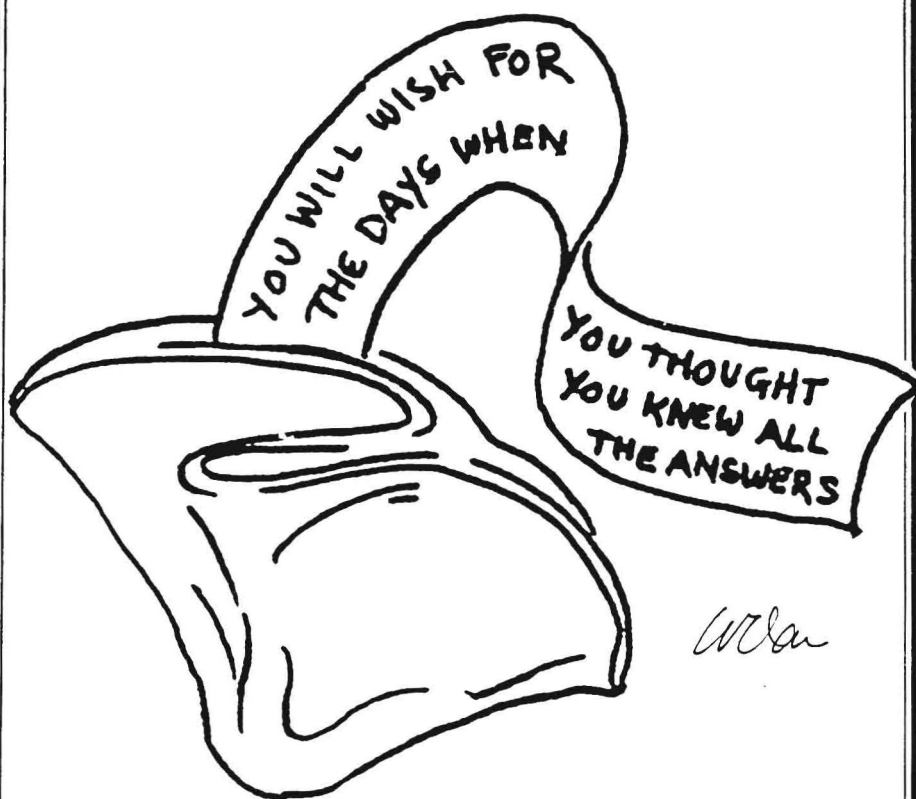
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To
SKW

A teacher and a colleague,
but more importantly,
a friend

**FORTUNE COOKIE FOR A
CRITICAL THINKER**



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Preface

Critical reasoning requires the criteria provided by logic. It requires a critical reasoner who is sensitive to the context of the materials being examined. Critical reasoning requires an evaluation process by which revision is possible, of both the reasoning being examined and the critical reasoner him- or herself. Furthermore, I have been influenced by my belief that critical reasoning must be practical. Students will use logic only when they are shown that it is relevant to them. Also, I have kept in mind that the role of critical reasoning is not to *end* discussion, but to *stimulate* it, for, in discussion, new insights are gained. Critical reasoning is best learned when students observe instructors doing it and allowing students to engage in it. As a result, some of the positions taken in this text are open to debate. For example, does one's attitude toward truth affect one's approach to critical reasoning? Or can *some* arguments reflect both deductive and inductive reasoning? Finally, the text reflects my belief that an adequate system of critical reasoning must have a balanced emphasis between deductive and inductive reasoning. Induction, which is the most practical form of reasoning, cannot be relegated to a single chapter or two. Nor should the presentation of deductive reasoning leave the student with the idea that a valid argument renders truth. Depending upon the nature of the course, the interests of the instructor, and the abilities of the students, some sections of the text will be more relevant than others.

While critical reasoning is an art and a science that requires both the discipline and practical application of logic, there is no single approach to teaching the subject. Some instructors prefer to approach critical reasoning from a more formal and rigorous angle, even in their introductory courses in logic. Others—especially those who do critical thinking—prefer a *very* informal approach that deals only with arguments in natural language. In writing this text, I have kept both approaches in mind. I have maintained the precision and rigor, to the extent possible in an introductory text, that is required by the more formal approach. I also have preserved the flexibility of the informal strategy. It is important both

to make critical reasoning relevant to students and to understand how much material can be realistically covered in a term, while meeting the requirements and objectives of the course. *This text covers more ground than any instructor could cover in a single semester with undergraduates.* The following lists illustrate four possible approaches to critical reasoning and relevant corresponding sections of the text.

Informal-logic emphasis

Chapters 1, 2, 3, 4, 5, 6, 7

Critical-thinking emphasis

Chapters 1, 2, 3, Application Part I, 5, Application Part II, 7, Application Part III, 10

Inductive-Reasoning emphasis

1, 3, 4, 5, 6

Deductive-Reasoning emphasis

1, 3, 7, 8, 9

As with any major writing project, this work is the product of many individuals, and I want to acknowledge my gratitude publicly. When I began graduate work in philosophy, Dr. Spencer Wertz piqued my interest in logic. He taught me that logic is not a dead discipline, but a field in which much more work needs to be done. Since then, he has been a constant source of advice, encouragement, and criticism. I dedicate this work to him. I want to thank Dr. Louis Pojman for his steadfast support. By example, he taught me what it means to be a teacher at heart. I have fond memories of the University of Texas–Dallas because of the courses I took from Professor Pojman. The late Dr. Neil Daniel (of the English Department at Texas Christian University) had more patience than most people I know. I want to publicly express my thanks to him for helping me improve my writing skills. Also, I wish to thank Tony Cantu, Dean of Instruction at Fresno City College, for his encouragement. While this text owes a debt to all my critical reasoning students at Texas Christian University (TCU) and now at Fresno City College (FCC), I especially want to thank David Williams (TCU), Joel Bush (TCU), Gail Mayberry (FCC), Linda Calandra (FCC), and Kristine Snow (FCC). As always, I must acknowledge the important role my family played in writing this text: They allowed me to pursue my dream. Thanks, Kath, Brian, and Mandie.

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