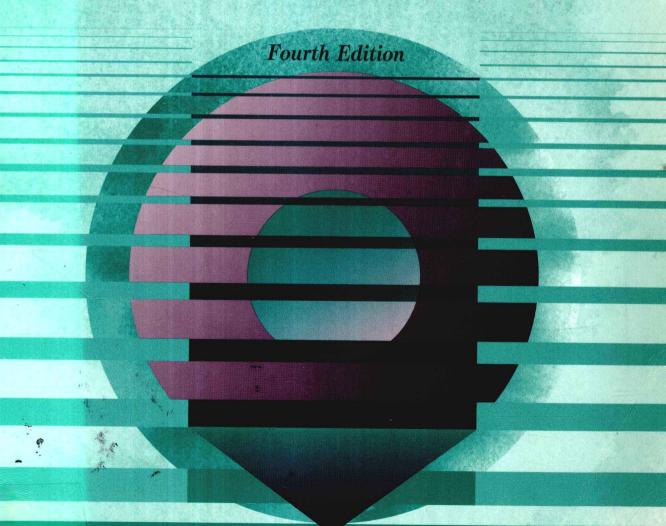
# CRITICAL THINKING COMMUNICATION

The Use of Reason in Argument



Edward S. Inch

Barbara Warnick

## CRITICAL THINKING AND COMMUNICATION

### The Use of Reason in Argument

**EDWARD S. INCH** 

Pacific Lutheran University

**BARBARA WARNICK** 

' 'niversity of Washington

Allyn and Bacon

**Senior Editor:** Karon Bowers **Editorial Assistant:** Sarah Kelly

Marketing Manager: Jacqueline Aaron

Editorial-Production Service: Omegatype Typography, Inc.

Manufacturing Buyer: Julie McNeill Cover Administrator: Linda Knowles

**Electronic Composition:** Omegatype Typography, Inc.



Copyright © 2002, 1998, 1994, 1989 by Allyn and Bacon A Pearson Education Company 75 Arlington Street Boston, MA 02116

Internet: www.ablongman.com

All rights reserved. No part of the material protected by this copyright notice may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording, or by any information storage and retrieval system, without the written permission from the copyright owner.

Between the time Website information is gathered and published, some sites may have closed. Also, the transcription of URLs can result in typographical errors. The publisher would appreciate notification where these occur so that they may be corrected in subsequent editions.

#### Library of Congress Cataloging-in-Publication Data

Inch, Edward S.

Critical thinking and communication: the use of reason in argument / Edward S. Inch, Barbara Warnick. — 4th ed.

p. cm.

Includes bibliographical references and index.

ISBN 0-205-33541-1 (alk. paper)

1. Reasoning. 2. Critical thinking. 3. Communication. I. Warnick, Barbara II. Title.

BC177.W35 2002 168—dc21

2001018859

Printed in the United States of America
10 9 8 7 6 5 4 3 06 05 04 03

The fourth edition of *Critical Thinking and Communication* reflects many current developments in the teaching and learning of argumentation. During the past five years, the field has continued to adapt to the needs and interests of an increasingly diverse society. Although we have continued to focus on a rhetorical perspective on argument, we have also included practices that characterize reason-giving in various cultures. These include use of cooperative argument, narrative, and value appeals. Our discussion of these approaches complements our treatment of the logical approach in Chapters 8 and 12. Throughout the book, we have focused on a critical-thinking approach that emphasizes the need to acknowledge differing points of view, avoid personal prejudice, and carefully evaluate the evidence, reasoning, and assumptions used in arguments.

In Chapter 2, we have considered the relationship between culture and argument as manifest in various styles of argument, from the collaborative to the adversarial. We have also considered how ethics help guide our arguments and how arguers can build their own ethical codes. Chapters 3 and 4 examine how arguers and audiences work together to consider issues, prepare arguments, and adapt them to various situations. We discuss how collaborative arguments are made and how they affect our decision making.

We were not surprised to see that nearly every suggestion we made about conducting online research in the last edition has been affected by the rapid development of the Internet and the World Wide Web. We made extensive revisions in Chapter 7 to adapt to changes in the research environment and to provide explanations that will remain current and useful for some time. We recognize that, while some students find online resources convenient, easy, and fast to use, others are overwhelmed by the amount of information available and are somewhat at a loss to locate precisely the information they need to support their arguments. Suggestions in Chapter 7 about using proprietary databases, assessing and citing websites, conducting searches using key words, and using online government documents should assist in narrowing a topic and finding useful information. Although databases, search engines, and other resources may change, the general principles for research we have included in the fourth edition will continue to be useful to students.

As in the first three editions, we have produced a flexibly organized textbook. Section I, "Building a Conceptual Framework," presents the basic theory of argument and argumentation that guides the remainder of the book. It provides for a discussion of the nature of argument, argumentation, and critical thinking—their function, contexts, ethical standards, and occasions. Section II, "Communicating Arguments," presents an analysis of how arguers and recipients are interrelated. This section considers recipients, language use, sources, and forms of expression for argument. Section III, "Parsing Arguments," considers argument components and how they work together. Specifically, this section considers the relationships and

tests of claims, evidence, and forms of reasoning. The chapters in Sections IV and V can then be read and studied in any order, depending on student needs and teaching interest. Section IV, "Arguing Extended Cases," focuses on the process for building extended arguments and examines how arguments of fact, value, and policy can be made. Section V, "Analyzing Arguments," provides methods of analyzing and evaluating arguments.

We have provided many study tools in this book—lists of key concepts, answers to selected exercises (Appendix B), chapter summaries, a bibliography, and exercises that require students to apply chapter concepts. In addition, we have also provided an answer key supplement for instructors. We have divided the discussion of fallacies into the chapters to which the fallacy type is most relevant. However, the appendix on fallacies (Appendix C) provides a typology that can be used to help students analyze argument strengths and weaknesses. The book's study aids should enable students to review for exams, do further reading, and have handy references when reading text material. We have used a variety of examples from law, education, ethics, business, and other fields to illustrate the argument concepts introduced.

The book treats topics that are standard in argumentation courses—reasoning types, fallacies, tests of reasoning and evidence, case construction, and, for courses including debate assignments, intercollegiate debate (Appendix A). The book focuses on argument in interactive and written communication as well as in speeches, and it draws on multiple argument models in Chapter 12 on argument analysis and criticism. These models were developed by philosophers Stephen Toulmin, Michael Scriven, and Irving Copi, and they have been highly useful to students in understanding how arguments work. Another feature of the book is its emphasis on argumentation about values. Chapter 10 provides extensive explanation of the aspects of value argument and the procedures for constructing cases on value issues.

We would like to conclude by thanking individuals who have helped us with the development of this textbook. We would especially like to thank Susan L. Kline of Ohio State University and Joseph W. Wenzel of the University of Illinois, whose assistance on the first and second editions of the book was extensive. We would also like to acknowledge the reviewers for the third edition, whose comments and suggestions were excellent: Beth M. Waggenspack, Virginia Tech University; Susan L. Kline, The Ohio State University; Jim Vickrey, Troy State University; Ronald O. Wastyn, James Madison University; Dale Herbeck, Boston College; Steven Schwarze, The University of Iowa; and Mark A. Pollock, Loyola University, Chicago. We would like to acknowledge the assistance of Solveig Robinson, Mary Washington University, and Amanda Feller, Pacific Luthern University, on the fourth edition. Finally, we would like to thank the reviewers of the fourth edition: Raymie McKerrow, University of Ohio, and Chris Miller, California State University–Sacramento.

E.S.I. B.W.

ix Preface

#### SECTION I BUILDING A CONCEPTUAL FRAMEWORK 1

#### **CHAPTER 1**

**Arguments and Argumentation** 2

> CRITICAL THINKING 4

ARGUMENTATION AND ARGUMENTS 6

PERSPECTIVES ON ARGUMENTATION 10

AN ARGUMENT MODEL 13

**SUMMARY** 18

**EXERCISES** 19

#### **CHAPTER 2**

#### **Contexts for Argument** 24

**CULTURE AND ARGUMENTATION** 25

ARGUMENTATION AND ETHICS 32 Strengthening the Individual 34

Strengthening the Community 36

DEVELOPING AN ETHICAL CODE 37 **Ethics for Arguers** 

Ethics for Recipients 38

**SUMMARY** 39

**EXERCISES** 40

#### **CHAPTER 3**

#### Argument Occasions 47

#### NATURE OF OCCASIONS 49

Argument Spheres—Personal, Technical, Public 50 Argument Fields 54

ARGUMENT SITUATIONS 57

SUMMARY 60

EXERCISES 61

#### SECTION II COMMUNICATING ARGUMENTS 65

#### **CHAPTER 4**

#### Arguers, Recipients, and Argumentation 66

TYPES OF AUDIENCES 68

#### THE AUDIENCE AND ARGUMENTATION 74

Selecting the Starting Points 7
Supporting Reasoning 76
Using Evidence 77
Organizing Arguments 79

#### THE ARGUER AND ARGUMENTATION 80

Message Sources and Their Influence 82 Enhancing Credibility through Argument 85

#### FALLACIES RELATED TO AUDIENCE 87

Ad Hominem 88
Ad Populum 88
Appeal to Tradition 90
Straw Arguments 90

SUMMARY 91

EXERCISES 93

#### **CHAPTER 5**

#### Language and Argument 99

#### THE NATURE OF LANGUAGE 101

Language and Meaning 103
Language and Abstraction 104
Connotations and Denotations 107

CONTENTS

#### LANGUAGE IN ARGUMENT 110

Language, Thought, and Perception 110 Functions of Language 112 Using Language in Argument 116

#### FALLACIES OF LANGUAGE 121

Equivocation 122 Amphiboly 122 Emotive Language 123

SUMMARY 125 EXERCISES 127

#### SECTION III PARSING ARGUMENTS 133

#### **CHAPTER 6**

#### Argument Claims and Propositions 134

#### THE NATURE OF CLAIMS AND PROPOSITIONS 135

#### FORMULATING A PROPOSITION 140

Controversiality 140 Clarity 141 Balance 144 Challenge 145

#### TYPES OF CLAIMS 146

Factual Claims 146 Value Claims 148 Policy Claims 149

#### INTERCONNECTION OF CLAIMS 149

SUMMARY 150 EXERCISES 151

#### **CHAPTER 7**

#### **Evidence in Argument: The Foundation for Arguments** 155

THE NATURE OF EVIDENCE 156

TYPES OF EVIDENCE 158

#### EVALUATING FACT AND OPINION EVIDENCE 161

Reliability 161 Expertise 162 Objectivity 162 Consistency 163
Recency 164
Relevance 164
Access 165
Accuracy of Citation

**EVALUATING STATISTICAL EVIDENCE** 167

FALLACIES OF EVIDENCE 169

Begging the Question 170

Non Sequitur 170

RESEARCH STRATEGIES FOR LOCATING EVIDENCE 171

165

Research Results and Credibility 172

Finding Evidence 174

SUMMARY 180

EXERCISES 182

**CHAPTER 8** 

Reasoning and the Process of Making Inferences 190

FORMAL LOGIC AND PRACTICAL REASONING 192

REASONING AS INFERENCE MAKING 195

Quasilogical Arguments 196

Analogy 198

Generalization and Argument from Example 202

Cause 204

Coexistential Arguments 208

Dissociation 211

FALLACIES OF FAULTY REASONING 214

False Analogy 214

Hasty Generalization 215

False Cause 216

Slippery Slope 217

SUMMARY 218

EXERCISES 220

SECTION IV ARGUING EXTENDED CASES 227

**CHAPTER 9** 

Case Construction: Arguing about Propositions of Fact 228

ARGUING ABOUT FACTS, VALUES, AND POLICIES 229

RELATING FACTS, VALUES, AND POLICIES 231

PRINCIPLES OF CASE CONSTRUCTION 232

STOCK ISSUES IN FACT-BASED CASES 236

Fact Definition 237 Threshold 237 Application 238

PRINCIPLES OF REFUTATION 239

246

THE ISSUES BRIEF 242

SUMMARY 243

#### **CHAPTER 10**

Arguing about Values 253

**EXERCISES** 

VALUES AND VALUE SYSTEMS 255

THE PROCESS OF VALUE CHANGE 260

VALUES AND ARGUMENTATION 261

STOCK ISSUES FOR VALUE ARGUMENTS 262

Value 263 Criteria 264 Application 265

THE ISSUES BRIEF 266

SUMMARY 266

EXERCISES 268

#### **CHAPTER 11**

Arguing about Policies 273

POLICY ARGUMENTS AND POLICY SYSTEMS 275

STOCK ISSUES IN POLICY ARGUMENTS 276

III 277 Blame 279

Cure 280

Cost-Benefits 281

THE ISSUES BRIEF 282

ALTERNATIVE FORMATS FOR ARGUING POLICIES 287

Comparative-Advantages Case 287

Goals Case 290

ALTERNATIVE FORMATS FOR REFUTING POLICY ARGUMENTS 292

Strategy of Defense of the Present Policy System 293

Strategy of Defense of the Present Policy System with Minor Repairs 293

Strategy of Counterproposals 294

SUMMARY 295

EXERCISES 296

#### SECTION V ANALYZING ARGUMENTS 301

#### **CHAPTER 12**

Argument Analysis and Criticism 302

BENEFITS OF ARGUMENT ANALYSIS 303

A GENERAL MODEL FOR ARGUMENT ANALYSIS 304

Analysis of Simple Arguments 305

Analysis of Other Structural Patterns 310

An Application 314

THE TOULMIN MODEL 318

The Nature and Background of the Toulmin Model 318

Six Parts of the Model 318

Difficulties in Applying the Model 323

Argument Chains and the Toulmin Model 325

COMPARISON OF THE TWO MODELS 326

SUMMARY 327

EXERCISES 328

#### APPENDIX A

Intercollegiate Debate 335

#### APPENDIX B

Answers to Selected Exercises 353

#### APPENDIX C

Fallacies 364

INDEX 369

# SECTION I

## BUILDING A CONCEPTUAL FRAMEWORK

# ARGUMENTS AND ARGUMENTATION

#### CHAPTER OUTLINE

CRITICAL THINKING

AN ARGUMENT MODEL

**ARGUMENTATION AND ARGUMENTS** 

SUMMARY EXERCISES

PERSPECTIVES ON ARGUMENTATION

#### KEY CONCEPTS

critical thinking (p.4) argumentation (p. 4) argument (p. 6) claim (p. 7)

evidence (p. 8) reasoning (p. 9) level of dispute (p. 15) argument chain (p. 16)

Three students—Kaidren, John, and Ramona—have selected affirmative action in college admissions as their topic for a group discussion for their speech class. They have completed most of their library research and are now deciding how to plan their discussion. Here is a segment from their group meeting<sup>1</sup>:

Kaidren: How about using the following question for our topic: "Does affirmative

action promote unfair admissions practices?"

John: I think that would be a good way to state it. Affirmative action assigns ad-

missions spots to minorities that should be available to all applicants, and

that's definitely unfair.

Ramona: Wait a minute, what do you mean by "fair"?

Kaidren: I mean treating all people in a way that is free of favoritism or bias. I mean

practices that are impartial and equitable to everyone.

Ramona: So, in terms of admissions, what does that mean?

John: It means that students should be evaluated based strictly on merit, not on

their race or other factors. It means not using quotas to admit people who

shouldn't qualify for admission.

Kaidren: Yes, students' SAT scores, GPAs, and other objectively measured achieve-

ments should be the only criteria used.

Ramona: Well, I think that if that is all "fair" means, then we shouldn't use the term.

My Webster's defines "fair" as being "free from self-interest, prejudice, or favoritism." Various studies have shown that standardized tests such as the SAT discriminate against minorities. Also, the factor that best predicts how students will score on standardized tests is their income. So I think SATs are biased against minorities and the poor and are themselves unfair!

John: What do you mean by "various studies"? Where did you get the informa-

tion that the SAT discriminates?

Ramona: If SAT scores were used alone, the most selective colleges would admit prac-

tically no blacks. These colleges' average SAT scores for admitted students are above 600 in verbal and 650 in math. Since about five percent of whites and less than one percent of blacks score this high, blacks would be systematically excluded from these colleges. Also, the groups with the highest family income receive the highest average scores, and the score range goes down progressively right along with the income ranges. Just look at these charts from *The Case against the SAT* by James Cruse and Dale Trushein.<sup>2</sup>

John: Well, what about students' GPAs? I think that students who have worked hard in school and made good grades should be admitted. Affirmative ac-

tion quotas close out students whose records show that they deserve to be

admitted.

Ramona: Wait a minute! Quotas have been illegal since the Bakke decision, which

ruled them illegal and at the same time approved the use of race (and gender) as a determining factor in college admissions. Today institutions use goals or target numbers that enable colleges and universities to promote

diversity.

John: Quotas, goals, targets—what's the difference? The effect is still the same.

Students who are entitled to admission don't get in.

Kaidren: Yes, John Kekes, professor of philosophy at the State University of New

York in Albany, said in a 1995 Congressional Quarterly Researcher that "for every act of preferential treatment, somebody else is treated unjustly." I

don't think that's fair.

Ramona: Look, admissions practices have never been "fair." Athletes, children of

alumni, and other groups have often received preference in admission. It's often not what you know, but who you know, or what you can do for the

institution, that counts.

Kaidren: Well, does that mean we should just ignore merit and admissions stan-

dards and begin admitting every person or group that has some special circumstance or condition that allows them special treatment? I think that

would be chaotic!

... And the discussion continues.

These three students are engaged in two processes that will be the focus of this book—critical thinking and argumentation. Critical thinking is a process in which a person tries to answer rationally those questions that cannot be easily answered and for which all the relevant information is not available. Critical thinking requires judgment. Joanne Kurfiss defines *critical thinking* as

an investigation whose purpose is to explore a situation, phenomenon, question, or problem to arrive at a hypothesis or conclusion about it that integrates all available information and that therefore can be convincingly justified. $^4$ 

A person who has thought critically about an issue will not settle for the apparent or obvious solution but will suspend judgment while seeking out all relevant arguments, facts, and reasons that promote good decision making.

While critical thinking does not necessarily involve communication, argumentation does. Argumentation is the process of making arguments intended to justify beliefs, attitudes, and values so as to influence others. We see argumentation in media ads for products, campaign ads for candidates, newspaper editorials, Internet sites on public issues, business meetings where proposals are made, and in many other places. Argumentation occurs everywhere, and we deal with it as readers, listeners, writers, and speakers on a daily basis. In fact, argumentation is perhaps one of the most important skills we can develop. As participants in a world community and members of democratic communities, argument is the means by which we engage in discussion about our present and our future. Hugh Heclo, a professor of public affairs at George Mason University, took the position that American politics has been transformed in recent decades to become hypersensitive to public opinions and anxieties. Further, he notes that unprecedented access to information and the ability to disseminate opinions freely through the Internet and other media have made the individual voice and opinion more powerful than ever. 5 The importance of his observation should not be underestimated. We live in a time where the role of argument, arguers, and recipients has tremendous potential power to shape the nature of our world. This book is intended to help you improve your skills as a consumer and producer of argumentation.

#### CRITICAL THINKING

Critical thinking is regarded as a vital skill in today's society because it prevents people from making bad decisions and helps them to solve problems. As Richard W. Paul and Gerald M. Nosich recently observed

The kind of "work" increasingly required in industry and business is "intellectual," that is, it requires workers to define goals and purposes clearly, seek out and organize relevant data, conceptualize those data, consider alternative perspectives, adjust thinking to context, question assumptions, modify thinking in light of the continual flood of new information, and reason to legitimate conclusions. Further-

more, the intellectual work required must increasingly be coordinated with, and must profit from the critique of, fellow workers.<sup>6</sup>

Paul and Nosich go on to observe that supervisors and employers value workers who can reason well and express themselves clearly.

Good critical thinking is a prerequisite for all of these skills. What, exactly, is critical thinking? Many of its processes are shown in the discussion of affirmative action with which we began this chapter. Kaidren began that discussion by *clearly stating a question for discussion*. ("Does affirmative action promote unfair admissions practices?") As you will see when you read Chapter 6 of this book, discussions that are not based on clearly focused statements can often become confused or muddled because discussants lose sight of the points at issue.

Ramona almost immediately asked, "What do you mean by fair?" Critical thinking requires clarifying the meaning of terms central to the discussion, and it is obvious that fair as a term will be central to any deliberation about the benefits and disadvantages of affirmative action. Does fair mean treating everyone strictly on the basis of merit, or does it mean eliminating factors that discriminate against minorities, or does it mean something else? It is not hard to imagine that this group will continue to be preoccupied by what fair means!

Good critical thinking also involves developing and applying criteria for evaluation. Does affirmative action actually promote fairness and equal treatment of minorities, or does it lead to further discrimination once they have been admitted? Does affirmative action actually enhance diversity in college classrooms? Does it benefit or damage other aspects of students' educations? All of these questions relate to whether affirmative action indeed fulfills the purposes for which it was intended. Answering them requires that Kaidren, Ramona, and John justify their own values and present evidence about the effectiveness of affirmative action in admissions.

Many other aspects of critical thinking are apparent in this brief discussion. John asked for the source of Ramona's claims about the SAT as part of the process of evaluating the credibility of sources of information used by the group. When Kaidren observed that extending affirmative action principles to all groups would result in admissions chaos, she was pursuing the implications of the principles behind the practice. When Ramona observed that admissions practices have never been "fair" because certain groups—alumni children and athletes—have received special treatment, she was comparing an analogous (comparable) situation to shed new light on the question.

In addition to these examples, critical thinking involves many other processes such as

- Refining generalizations and avoiding oversimplification
- Generating and assessing solutions to problems
- Comparing perspectives, interpretations, or theories
- Reading critically, seeking out information that disagrees with one's perspective
- Listening critically, seriously considering views with which one disagrees.<sup>7</sup>

Applying these processes to a question or issue is what distinguishes the novice thinker from the expert thinker. *Novice* thinkers look for the easiest and most obvious solution, fail to consider possible objections and difficulties, read only sources that agree with their views, and are unable to identify what is wrong with faulty arguments. *Expert* thinkers thoroughly analyze problems before proposing solutions, read sources that disagree with their views, anticipate objections to their position, monitor their own effectiveness, and choose the most effective from a wide range of possible solutions and strategies.<sup>8</sup>

Thinkers who are truly expert will be prepared to deal with the "multilogical problems" of contemporary society—those problems that can be approached from many different and often competing perspectives. These include, for example, environmental pollution, racial discrimination, governmental spending, overpopulation, and health care issues. Addressing such problems calls for people who are comfortable thinking across domains and disciplines and who can compare and evaluate competing perspectives, interpretations, and theories.

One of the central aims of this book is to assist you in becoming a more expert thinker. By selecting a thesis, identifying the central issues pertinent to it, conducting research, and constructing an extended argument, you will engage in a process of discovery that will enhance your critical thinking. But this is only half the story. Once you have developed a position, you will be required to communicate it to others through argumentation. Until you have anticipated your audience's values, beliefs, and objections, constructed your position in light of them, and responded to their objections, questions, and concerns, your development as a critical thinker will not be complete.

#### ARGUMENTATION AND ARGUMENTS

Argumentation as we have defined it at the beginning of the chapter is significant to the development and maintenance of a healthy society. It can occur only when people are interested in hearing or reading what others have to say and in seriously considering others' proposals. When parties engage in argumentation, they agree to certain conventions and tacit principles. They agree to rules for conducting the discussion, they make contributions as required, and they seek the approval of the other parties involved. <sup>10</sup> If people refuse even to listen to the other party, argumentation cannot occur.

In addition to the use of individual arguments, argumentation also involves the construction of cases or overall positions, such as the case for prosecution or defense in the law courts, a governmental proposal for a change in policy, a marketing campaign, or a business proposal. Speeches, essays, group discussions, legislation, and political campaigns would all be examples of argumentation. Argumentation is composed of individual arguments. An argument is a set of statements in which a claim is made, support is offered for it, and there is an attempt to influence someone in a context of disagreement. It is important to distinguish argument in this sense—a claim, plus support for it in the form of reasoning and/or evidence—from interpersonal arguments or disputes. <sup>11</sup> In this latter sense, "argument" is a kind of (usually unpleasant) interpersonal exchange, as when we say, "John and Mary were having