

## ARGUMENTATION

Drawing from the study of human reasoning, *Argumentation* describes different types of arguments and explains how they influence beliefs and behavior. Raymond S. Nickerson identifies many of the fallacies, biases, and other flaws often found in arguments as well as “stratagems” (schemes, illogical and alogical tactics) that people regularly use to persuade others (or themselves). Much attention is given to the evaluation of arguments. As a source for understanding and evaluating arguments in decision-making, it is ideal for courses on cognition, reasoning, and psychology.

RAYMOND S. NICKERSON is retired from Bolt Beranek and Newman Inc (BBN Systems and Technologies) where he was a senior vice president. He was the founding editor of the *Journal of Experimental Psychology: Applied*. He is now a Visiting Scientist at Tufts University, Massachusetts. He is a recipient of the Franklin V. Taylor Award from the American Psychological Association’s Division of Applied Experimental and Engineering Psychology, and an Outstanding Career Achievement Award from Tufts Graduate School of Arts and Sciences and School of Engineering. The American Psychological Association established the Raymond S. Nickerson Best Paper Award, to be given annually, in his honor. *Argumentation* is his tenth book.

## *Books by the Author*

- The Teaching of Thinking (with David N. Perkins and Edward E. Smith) - 1985  
Using Computers: Human Factors in Information Systems - 1986  
Reflections on Reasoning - 1986  
Looking Ahead: Human Factors Challenges in a Changing World - 1992  
Psychology and Environmental Change - 2003  
Cognition and Chance: The Psychology of Probabilistic Reasoning - 2004  
Aspects of Rationality: Reflections on What it Means to be Rational and Whether We Are - 2008  
Mathematical Reasoning: Patterns, Problems, Conjectures and Proofs - 2010  
Conditional Reasoning: The Unruly Syntactics, Semantics, Thematics and Pragmatics of “If” - 2015

# ARGUMENTATION

*The Art of Persuasion*

RAYMOND S. NICKERSON

*Tufts University*



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*For Mia, Asher, Emmett, Ray, and their generation.*

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## *Preface*

*Argument* has many connotations as the term is used in the psychological literature. While respecting this diversity, in this book I use the term to mean an effort to modify beliefs or behavior. The focus is primarily, though not exclusively, on verbal arguments. Two questions about verbal arguments are emphasized: what makes an argument persuasive, and what makes an assertion (e.g., a premise of an argument) plausible?

The ability and propensity to argue – with oneself and others – are distinctively human traits, and traits on which we daily depend. The prototypical argument is a set of claims (premises) that are intended to support another claim (a conclusion). Arguments vary with respect to the degree to which they are persuasive. An argument may be said to be *strong* if its premises strongly support its conclusion in the sense that if its premises are known (or believed) to be true, its conclusion is likely to be accepted as true as well. It may be said to be *sound* if it is strong *and* its premises are known (or believed) to be true.

For practical purposes, we want to be able to tell the difference between arguments that are sound and those that are not. This requires being able to judge whether the premises strongly support the conclusion *and* whether they are true. With this conception of argumentation in mind, I attempt in this book to review what the literature has to say on the questions of what makes an argument *persuasive* and what makes a claim *plausible*.

Any attempt to address these questions is bound to raise a plethora of related questions: What is an argument? How might arguments be classified? What purpose(s) do arguments serve? How are arguments enabled or constrained by human capabilities and limitations? What strategies or stratagems do people use in attempts to win arguments? Or to judge the persuasiveness of arguments? What role(s) does logic play in argumentation? What is the basis of the authority of logic? Why do we feel obliged to try to be logical? How does argumentation relate to reasoning? What is a fallacy? Are there fallacies that are common in arguments? What other types of problems (unjustified assumptions, biases, foibles) affect argumentation? Do people treat assertions as true or false, or do they accept them to

varying degrees. If the latter, what determines the amount of credence they give to specific assertions? Why do different people draw different conclusions from the same evidence? The questions multiply.

I make no claim that this book offers answers to all of these questions, but I hope it stimulates productive thinking about a nontrivial subset of them and provides useful pointers to relevant sources.

- Chapter 1 addresses the questions of what an argument is, for purposes of this book, and what purposes arguments serve. It also relates argumentation to reasoning.
- Chapter 2 discusses differences among various types of argument: deductive, inductive (abductive, conductive), postulational, analogical.
- Chapter 3 focuses on the important task of evaluating arguments, both formal and informal, distinguishing the roles of form (e.g., rules of logic) and substance (empirical truth).
- Chapter 4 deals explicitly with one of the two major questions that motivate this book: What makes an argument persuasive? Attention is given both to properties of arguments and properties of arguers.
- Chapter 5 focuses on the second major question dealt with in the book: What makes a claim plausible? Factors are noted that determine whether an assertion will be believed, or the degree of credibility it will be given.
- Chapters 6, 7, and 8 identify and discuss numerous types of reasoning problems – fallacies, biases, and assorted other foibles – that plague argumentation, often making arguments invalid and/or unsound.
- Chapter 9 focuses on *stratagems*, a term borrowed from Schopenhauer (undated/1896) to whom it connoted an allogical ploy that is used for the purpose of winning debates or disputes or for shaping or molding beliefs or behavior by methods other than appeal to relevant information and cogent reasoning.
- Chapter 10 considers the question of how argumentation may be taught, and the position is taken that teaching argumentation requires teaching reasoning, and conversely.

I note, with gratitude, the support of grant N00014-14-1-0529 from the US Office of Naval Research – in particular Program Director Harold Hawkins – for much of the time this book was in preparation. It is a pleasure too to acknowledge many stimulating discussions with colleagues including, especially during this time, Daniel Barch, Susan Butler, Mike Carlin, Rich Chechile, Ruma Falk, and helpful comments from several anonymous reviewers of the manuscript, or parts thereof, while it was in

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preparation. I am grateful to the Psychology Department of Tufts University for letting me, a nonacademic, maintain an affiliation since I retired from industry (BBN Systems and Technologies) thirty years ago.

I would be remiss if I did not acknowledge the role that George Miller played in establishing my interest in the relationship between reasoning and argumentation. About thirty-five years ago, at his invitation, I wrote a paper titled *Reasoning in Argument Evaluation*. It was one of forty-six papers commissioned by The Study Group on the National Assessment of Student Achievement. It was included in a report to the National Assessment of Educational Progress, prepared by Miller (1986), but was otherwise never published. I have incorporated parts of that paper, to the extent that they are still relevant, in several places, especially in Chapter 3. The invitation from Miller to write the paper for that project unquestionably stoked my interest in the subject, and it has lasted these many years.

In previous books, I have acknowledged the constant and invaluable loving support of my wife, Doris. She died peacefully at home while this book was in preparation. The loss was profound, but her legacy continues.

It gives me special pleasure to dedicate this book to the first few arrivals of the next generation (great-grandchildren) in my family: Mia, Asher, Emmett, and Ray.

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