Trudy Govier

A PRACTICAL STUDY OF ARGUMENT

ENHANCED SEVENTH EDITION



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A PRACTICAL STUDY OF ARGUMENT

TRUDY GOVIER



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This book is written for all those interested in arguments and arguing—and especially for students enrolled in courses designed to improve their critical thinking abilities. My goal in this work is to present enough theory to explain why certain kinds of argument are good or bad and enough illustrations and examples to show how that theory can be applied.

The book includes lively illustrations from contemporary debates and issues and ample student exercises. Responses to some exercises are provided within the book, while the remainder are answered in a manual available to instructors. A central new feature of the seventh edition is that for most of the exercises in the text, on-line supplementations are available. These developments have been made possible by the sustained and energetic efforts of Dr. Jim Freeman of Hunter College, New York. The on-line material includes fill-in-the-blank, true-false, and multiple choice examples; all are machine gradable. Students get immediate feedback on whether their answers are correct, and instructors get reports of the percentage of correct examples the students completed, for each exercise assigned.

I present an integrated treatment of cogent argument and fallacies and of formal and informal strategies for analysis and evaluation. In addition to the highly significant feature of Dr. Freeman's exercise material, this seventh edition includes updated examples; a reordering of some early material on language, clarity and argument; compression of exposition at some points; and a strengthened discussion of inductive reasoning. In recognition of students' increased used of Internet materials for personal and academic research, relevant pointers on evaluating information from the Internet are included.

My interest in the theory and practice of argument stems from an occasion many years ago when I was asked to review a manuscript on informal fallacies. At the time, I was teaching an elementary course on formal logic to a large group of students who were not too keen on the subject. The greater practicality of the informal logic and the lively interest of the examples in that manuscript led to my own fascination with practical argumentation. I began to study texts in that field and developed my own course on practical reasoning. From that work, this text was generated. Along with many other people, I have done further research on the philosophy of argument since that time, and I have tried to take account of new developments here. Some themes relatively unexplored in the field of argument analysis when this book was first written remain of great interest to theorists today. The topics of conductive argument and analogical arguments are two examples.

This book combines a detailed nonformal treatment of good and bad arguments with a solid treatment of two central areas of formal logic: categorical logic and propositional logic. In addition to the interpretation and evaluation of arguments, the book also explores issues relevant to their construction. The first edition, written between 1982 and 1984, was novel in its combination of discussions of cogent and fallacious arguments, its synthesis of informal and formal approaches, and its sustained effort to present a coherent general theory of argument. Since the early 1980s other authors have adopted a similar approach; thus the combination of topics is less unusual than it was previously. The second edition of this text was written in 1986, the third in 1990, the fourth in 1995, the fifth in 1999, and the sixth in 2003. This current edition, the seventh, was prepared in the summer of 2008.

The importance of cogent argumentation is a persistent theme in this work. The types of arguments treated in this book are integral to the development of many areas including law; philosophy; physical, biological, and social science; literature; and history.

Three problems frequently experienced by students of critical thinking and argument are taken seriously in this text.

- *Finding and Interpreting Arguments* To evaluate an argument, we have to know what that argument is. In practice, this means finding the conclusion and premises in written or spoken material. Students often find this matter difficult. I spend considerable time on it in Chapters One and Two. In Chapter Two, a detailed and careful explanation of a standardizing technique will assist students to attend to claims that need support and the support that is provided for them. Chapter Three includes a discussion of clarity in language, paying special attention to ambiguity, vagueness, and the emotional overtones that terminology can bring to an argument or discussion.
- *Having Confidence in Argumentative Procedures* For many students, if an issue is not straightforwardly factual, it is a matter of opinion, and all opinion is "mere" opinion, where no distinction between good and bad reasons can be made. This kind of loosely relativistic epistemology tends to undercut any interest in distinguishing between good arguments and poor ones. This matter is addressed explicitly in Chapter One, where students are advised that opinions can be supported by reasons and distinctions can be made between better and worse arguments. The book offers hundreds of topical examples to illustrate the point. I have made a special effort to select examples that will be of interest to a wide audience and presuppose relatively little background knowledge about the social context of any one country. When needed, elements of background knowledge have been included in the text. In the many exercises, students work to develop reasoned criticisms of various arguments and claims. They are also encouraged to develop their own arguments and apply a critical stance to their own reasoning.
- *Using Argument Skills after the Course Is Over* For textbooks, most examples have to be fairly short. One problem faced by many students and instructors is that of *transfer*. How can concepts and skills developed for short textbook

examples be applied in further work, where we are considering not just a paragraph or two, but a whole essay or even a whole book? In several earlier editions I appended a number of essays providing for those wishing to undertake the task of transfer. In 2008, this appendix has been deleted due to the wide availability, electronically, of topical and suitable material.

FEATURES NEW TO THE SEVENTH EDITION

- Updated examples and exercises throughout
- Electronically available exercises, developed by Dr. Jim Freeman
- Reordering of chapters on language and on good argument, with the former now coming before the latter for pedagogical reasons
- Reordering of material within the chapter on language so as to incorporate material on emotional aspects of language use prior to material on definitions, in deference to student interest and instructor preference
- Expanded and updated treatment of inductive reasoning (Chapters Nine and Ten)

Where relevant, references are made to two books of my theoretical essays: *Problems in Argument Analysis and Evaluation* (Foris/de Gruyter 1988) and *The Philosophy of Argument* (Vale Press 1999). Readers interested in exploring points of theory may consult those works.

The Instructor's Manual for the third edition of this book was prepared by myself and Michael Reed. I have prepared subsequent manuals by myself, with the very able assistance of Risa Kawchuk in the case of the fifth and sixth editions. The Instructor's Manual offers overview summaries of each chapter along with answers to those exercises not answered in the text itself. It also provides some quiz and examination questions.

ACKNOWLEDGMENTS

I have benefited from studying other texts, from participating in a number of conferences on argument and informal logic, from writing and reading papers in the journal *Informal Logic*, and from discussions with many students and colleagues over the years.

The treatment of analogies in this book derives originally from John Wisdom's "Explanation and Proof," an unpublished manuscript commonly referred to as the Virginia Lectures. I am grateful to Professor Wisdom for granting me permission to study his manuscript of these lectures at a time when they were not in print. The theory of argument developed here was also influenced in its initial stages by Carl Wellman's *Challenge and Response: Justification in Ethics* (Carbondale, IL: Southern Illinois University Press, 1971). The term *conductive argument* was introduced and explained in that work.

Students in Philosophy 105 at Trent University, in a graduate seminar on the theory of argument at the University of Amsterdam, in adult education courses in Calgary and Vancouver, and in Logic 1000 at the University of Lethbridge have helped me by expressing their enthusiasm for the study of argument and asking challenging and penetrating questions about my ideas and techniques. I have benefited from opportunities to discuss issues with Jonathan Adler, J. Anthony Blair, Ralph H. Johnson, David Hitchcock, James Freeman, and Victor Rodych. I owe much to my

two "troubleshooters," Cary MacWilliams (third and fourth editions) and Risa Kawchuk (fifth and sixth editions). Their hard work spared me many errors. For the seventh edition, David Boutland, Colin Hirano, and Gabrielle Motuz assisted with proofreading and discussion of relevant points. I am also indebted to the following prerevision reviewers of the seventh edition: Thomas Fischer, University of Houston Downtown; Joseph Probst, Pasadena City College; Mark Zelcer, City College of NY; Michael Einhaus, Bakerfield College; Lisa Warenski, Union College; David Newman, Colorado State University; Steven R. Levy, California State University, Los Angeles; Charlotte Gregory, Trinity College; Bryan Baird, University of Georgia; Edward Thomas, Mercer University; Andrei Zavaliy, Hunter College; Douglas Low, Oakland City University; Markar Melkonian, CSUN; Mark Nelson, Westmont College; Mary Doyle Roche, College of Holy Cross; James Freeman, Bucks County Community College. As before, my greatest debt is to my husband, Anton Colijn, who has been involved in the planning and writing of all seven editions. Without his patient listening, discussion of themes and examples, assistance with computer problems, and sustained enthusiasm for informal logic, this book would not exist.

TO THE STUDENT

You have no doubt been told that the study of logic and argument will be of practical value to you. It's often said—and I'm convinced it's true. Learning to identify and evaluate arguments is tremendously useful in practical problem solving and in all the academic disciplines. Such skills are essential for intellectual competence and contribute to clear and effective communication. By working through the exercises in this book and the developments of them, supplied electronically, you should develop your skills, to your great advantage in academic work in philosophy and every other subject.

But more can be said, because logic and reasoning have central importance in our personal lives. Applying logic to your own thinking will make you more aware of your own beliefs and lead you to understand the reasons and assumptions behind those beliefs and your responses to the world. If you take it seriously, the study of argument is not likely to leave your thinking unchanged. Some deep assumptions will remain fundamental and for some beliefs you will find reliable evidence. In other cases you may decide that your reasons are inadequate or fallacious. When that happens, the honest response is to look seriously at your own ideas, explore fresh evidence and arguments, and think again.

Reasons and beliefs lead to actions, which express your character and define your relationship to the world. There are reasons underlying the beliefs that are fundamental to you. The logical understanding and evaluation of those reasons is part of understanding yourself and thinking for yourself and doing it well. Logic, then, affects more than your intellectual and practical competence. Your reasoning is also an inseparable element of yourself. It structures your personal honesty and integrity and, by implication, your very self. The study of reasons and logic plays a fundamental part in making you the person you are.

The promise of logic is enormous. If you want to fulfill that promise, this course can be one of the most important you will ever take.

I worked hard to make this seventh edition readable, accurate, and practical. I hope that you will work hard as well and, in doing so, realize for yourself the practical and personal value of logic and argument.

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What Is an Argument? (And What Is Not?)

THIS IS A BOOK ABOUT ARGUMENT. It is about the nature of arguments—what arguments are and the different structures they have—and about the standards for judging arguments to be good or bad. It is about understanding the arguments other people give, evaluating those arguments, and constructing good arguments of your own. **Arguments** are found where there is some controversy or disagreement about a subject and people try to resolve that disagreement rationally. When they put forward arguments, they offer reasons and evidence to try to persuade others that their beliefs are correct. Consider the following short argument:

Marijuana should not be legalized. That's because sustained use of marijuana worsens a person's memory, and nothing that adversely affects one's mental abilities should be legalized.

In this argument, a claim is made that marijuana should not be legalized; that is the **conclusion** of the argument. And reasons for the claim are put forward; those are the **premises** of the argument. You may agree or disagree with these claims. The argument invites you to consider whether marijuana does have a negative effect on memory and whether no substance that adversely affects mental abilities should be legalized. From the two premises that sustained use of marijuana worsens memory and nothing that adversely affects mental abilities should be legalized, the conclusion that marijuana should not be legalized follows. Reasons are given for that conclusion.

WHAT IS AN ARGUMENT?

An **argument** is a set of claims in which one or more of them—the premises—are put forward so as to offer reasons for another claim, the conclusion. An argument may have several premises, or it may have only one. In our example about legalizing marijuana there are two premises. When we present arguments in speaking or writing, we try to persuade by giving reasons or citing evidence to back up our claims. We may also construct and consider arguments as a means of reflecting on how we could justify a claim that we already believe.

Sometimes the word *argument* is used to mean dispute or fight, as in the sentence "The parents got into so many arguments over the mortgage that finally they stopped

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living together." In ordinary speech, this use of the word *argument* is rather common. In this book, however, the word *argument* is not used to refer to a fight or dispute. Rather, an argument is a reasoned attempt to justify a claim on the basis of other claims. Both kinds of argument—rational arguments and fights—have some connection with disagreements between people. When we use arguments in the sense of *offering reasons for our beliefs*, we are responding to controversies by attempting rational persuasion. If we engage in an argument in the sense of a fight, we shift to other tactics, often including the resort to physical force. It's important to keep the two senses of the word *argument* distinguished from each other.

This book is not about fights. It is not even primarily about disputes. Here our concern is with rational arguments—their structure, their evaluation as cogent or not cogent, and their prospective usefulness as tools of rational persuasion. In the early chapters of this book, we concentrate on understanding arguments. We then move on to the task of evaluating them—offering and explaining standards that can be used to determine the intellectual merits of the arguments we find in newspapers, books, Internet material, and ordinary conversation.

Here is another example of an argument:

There are no international police. It takes police to thoroughly enforce the law. Therefore, international law cannot be thoroughly enforced.

This argument has two premises (the first two statements) and a conclusion (the third statement). We can make the structure of premises and conclusions clearer by setting the argument out as follows:

- 1. There are no international police.
- 2. It takes police to thoroughly enforce the law. Therefore,
- 3. International law cannot be thoroughly enforced.

In this argument, statements (1) and (2) are put forward to support statement (3), which is the conclusion. The word *therefore* introduces the conclusion.

Let us look at a somewhat more complex example, this one concerning the issue of the functions of government. While some people believe that government functions should be kept to an absolute minimum, as claimed by libertarians, others maintain that there is no sound basis for such restrictions. They claim that in complicated modern societies, governments have functions that cannot realistically be eliminated. Here is an argument to support that view.

It's completely unrealistic to try to minimize government in the modern age, as libertarians want to do. We need government for far more than enforcing the law and defending our borders. There are matters of basic infrastructure such as sewers, sidewalks, traffic signs, highways and airports. There are issues of safety with regard to food, drugs, and consumer products. Then, think too the regulation of professions: you don't want just anybody hanging out a sign and saying he or she is a dentist or a heart surgeon! Anyone who understands the complexity of the modern world will realize that no individual or small group can manage by protecting itself from attack and trying to keep its budgets to a minimum. There are too many things going on, and too many ways they can go wrong.

The main point is stated in the first two sentences, where the arguer states opposition to efforts to libertarianism. The conclusion is re-stated at the end of the passage. It is that in modern times there are many legitimate functions of government beyond what libertarians would allow. A number of reasons are provided, for this conclusion: (1) there are tasks required relating to basic infrastructure; (2) there are tasks required relating to ensuring consumer safety; and (3) there is a need to regulate professionals. The author of this passage is arguing from the three *premises* describing these functions to the *conclusion* that there are broad legitimate functions of government, going beyond the minimum. We will not say at this point whether the argument is good or poor; the point here is simply that the author does offer an argument for his view of government.

In effect, someone who offers an argument for a position is making a claim, providing reasons to support that claim, and implying that the premises make it reasonable to accept the conclusion. Here is a general model.

Premise 1 Premise 2 Premise 3 ... Premise N Therefore, Conclusion

Here the dots and the symbol N indicate that arguments may have any number of premises—one, two, three, or more. The word *therefore* indicates that the arguer is stating the premises to support the next claim, which is the conclusion.

ARGUMENT AND OPINION

As human beings living in an uncertain world, we make claims about many matters about which we do not have knowledge or even well-confirmed beliefs. An opinion is a belief, often held with a rather low degree of confidence. Usually when we hold opinions, we are aware that they are our *opinions* in the sense that we cannot fully defend them by citing reasons or evidence in support. For example, it may be one person's opinion that wilderness skiing is safe and another's opinion that it is dangerous. These are opinions, but nevertheless it is clear that reasons and evidence are relevant to their credibility; there are facts about avalanche risks in various areas, and the suitability of various kinds of equipment. Such facts can be studied and reported in ways that are more or less reliable. Politically and legally, we are free to hold any opinion at all, as people so often insist when they say things like "I'm entitled to my own opinion." In normal circumstances, others cannot coerce us into believing something we don't believe. However, the political right to hold any opinion does not mean that all opinions are intellectually equal. Some opinions are mere opinions, whereas other opinions are based on evidence, reasoning, and good judgment.

However much we speak of people being entitled to their own opinion, most of us do seek evidence for claims about matters of practical importance, such as which doctor to go to, which college to attend, and what the salary is for a job we might be seeking. When opinions are carelessly formed and unsupported, they do us little service because they are not reliable guides to the world. We should seek well-founded and sensible opinions, grounded in factual accuracy and coherent reasons. Such common sayings as "Isn't that just a matter of opinion?," "Everyone has a right to his own opinion," and "Well, that may be your view, but I have my own opinion" seem to suggest that one opinion is just as good as another. But because our beliefs and opinions guide our attitudes and actions, that view is simply not correct.

It is dangerous to be careless and freewheeling about our opinions. What we think is important. Our thinking affects how we understand ourselves, conduct our lives, and interact with the world in which we live. The point of arguing and evaluating arguments is to reach opinions based on reasoned reflection and good judgment. Calling some claim "a matter of opinion" is no excuse for failing to reflect on it. In this book, we hope to convince you that having an opinion is an occasion to *begin* thinking and arguing, not an excuse for *not* doing so.

ARGUMENT AND INDICATOR WORDS

Consider the following argument.

- 1. I think.
 - Therefore
- 2. I exist.

This argument, famous in the history of philosophy, was put forward by the seventeenth-century philosopher René Descartes in his work *Meditations on First Philosophy*. The context of the argument was that Descartes was considering what people could reasonably doubt and what they could not reasonably doubt. He came to realize that doubting involves thinking, which is possible only if the one who is thinking exists. In the above representation of Descartes' argument, statement (1) is the premise and statement (2) is the conclusion. The word *therefore* indicates that (1) is intended to provide rational support for (2).

The word *therefore* is one of many words that logicians call **indicator words**. Indicator words suggest the presence of argument and help to indicate its structure. Some indicator words, like *therefore*, come before the conclusion in an argument. Other indicator words, like *since* and *because*, come before premises. In attempting to rationally persuade people of his or her conclusion, an arguer in effect asks the audience to reason *from* the premises *to* the conclusion. Indicator words serve to indicate which statements are premises and which are conclusions, and in this way they show the direction of the reasoning. Both to understand other people's arguments and to construct and present clear arguments ourselves, it is important to be clear about the distinction between the premises and the conclusion. The conclusion is the claim or statement that we are trying to support. The premises are other claims, which offer evidence or reasons intended to support the conclusion.

Here are some of the many indicator words and phrases that come before the premises in arguments:

Premise Indicators since because for as indicated by follows from may be inferred from may be derived from on the grounds that for the reason that as shown by given that may be deduced from

Consider this example:

The Giants will likely beat the Trojans this year, *because* Swanson is such a strong addition to the team.

In this example, *because* is an indicator word that comes before the premise and helps us follow the direction of the argument. The conclusion comes before the indicator word and the premise comes after it.

Here is another example:

Universities need to have faculty who will do research, *since* research is necessary and there are few other institutions that support it.

In this example, the conclusion is that universities need to have faculty who will do research. The two premises are that research is necessary and that there are few institutions other than universities that support research. The indicator word *since* comes before the premises, indicating that the premises are intended to provide rational support for the conclusion.

Here are some of the words and phrases that come before conclusions in arguments:

Conclusion Indicators therefore thus SO consequently hence then it follows that it can be inferred that in conclusion accordingly for this reason (or for all these reasons) we can see that on these grounds it is clear that proves that shows that indicates that

we can conclude that we can infer that demonstrates that Consider the following argument:

Fear can cause accidents among older people. *Therefore*, doctors should use discretion when counseling older people about the risks of falling.

In this example, the indicator word *therefore* precedes the conclusion and shows us the structure of the argument.

Here is another example, in which the words *for these reasons we can see that* serve to introduce the conclusion of an argument.

The number of Buddhists in North America is steadily growing, and business with countries such as Japan and India, which have large Buddhist populations, is becoming increasingly significant in North America. *For these reasons we can see that* understanding Buddhism has practical value.

WHERE AND HOW DO YOU FIND ARGUMENTS?

Indicator words can often help you to find arguments, because they show that one claim is being given rational support by others. Consider the following examples:

(a) Human beings are neither naturally good nor naturally evil. *The reason is clear to see*: human beings become either good or evil because of the lives they lead, which in turn are the result of choices they make in this world. (Here the first statement is the conclusion. An indicator phrase follows, indicating the supporting premise.)

(b) *Since* the meaning of a word must be understood by all the people who use that word, the meaning of a word cannot be a mental image in only one person's head. (Here a premise is introduced by the indicator word *since* and then a conclusion is drawn.)

(c) There must be life somewhere in the universe as well as here on earth, *for* the universe is infinite and it can't be true that in an infinite universe only one place has the special features needed for life. (A conclusion is stated; the indicator word *for* introduces two premises.)

It is not always as straightforward as this to find the premises and conclusions of arguments. One problem is that some arguments do not contain indicator words. It is possible to offer reasons for a claim without inserting indicator words pointing to the conclusion and premises. You can see this by changing example (c) only slightly. Consider example (d), which puts forth the same argument as (c) in the context of a dialogue.

(d) *John*: I think the earth is the only place in the universe where life has developed and can flourish.

Mary: I doubt that. The universe is infinite. It can't be that in an infinite universe only one place has special features needed for life. There must be life somewhere else in the universe as well as on earth.

In example (d) Mary offers an argument in response to John. She asserts all the claims asserted in example (c). We can understand which claim is her conclusion

because of the context: John makes a claim; Mary says she doubts it; she then tells John why she doubts it, in an effort to persuade him of her position. Example (d) illustrates the fact that arguments do not necessarily contain indicator words. Mary gives reasons for her view and offers an argument, which is clearly stated in the dialogue even though there are no indicator words.

Another complicating factor about arguments and indicator words is that many of them can also occur in contexts outside arguments. That happens with the words *so*, *since, because, for, thus*, and *therefore.* These terms are not always found in the context of arguments. They may serve other linguistic functions.

Consider, for instance, the following examples:

- (e) Since 2005, tornadoes have occurred in the Canadian province of Manitoba.
- (f) Allan mowed the lawn for Deborah.
- (g) He got three cavities because he ate so much candy.

In example (e), the word *since* serves to introduce a time factor; it is not a logical indicator for a premise. In example (f), the word *for* is a preposition referring to the person for whom Allan's worked; it is not a premise indicator. In example (g) the word *because* refers to a causal relationship and does not introduce a premise. Although the words listed above as premise and conclusion indicators frequently serve that role, they have other functions as well, and for that reason their presence does not always indicate that an argument is being offered.

To spot arguments, you need to develop your sense of context, tone, and logical structure. You need to see what people are claiming, and what claims they are putting forward in support of their main points. To understand whether a written passage contains an argument and which claims are premises and conclusions, you may need background knowledge about the context in which the passage was written. One frequent clue to the presence of argument is an indication that a claim put forward has been disputed and is thus in need of support. Suppose someone says, "Maria has long insisted that Edwards would be an efficient president, but I disagree." He disagrees. Why? On what basis does he disagree? The claim that Maria's view is incorrect should be followed by reasons in support of his own position. In other words, he should offer an argument at this point. Disagreement is a common context for argument.

Where Do We Find Arguments?

Arguments may also be given in contexts of little controversy when there is an interest in whether a good justification could be given for some claim. For instance, philosophers have constructed complicated arguments for conclusions such as "events have an order in time" or "the physical world is independent of human minds." It is not that people actually disagree about these matters. Rather, there is an interest in the theoretical question of whether and how these basic beliefs can be justified. The construction and examination of arguments in support of them is part of fundamental inquiry into these topics.

When you are considering whether a speech or a passage contains an argument, you should begin by asking yourself

What would be its conclusion if it were to contain an argument?

What is the speaker or writer claiming?

What is his or her fundamental point?

8 A Practical Study of Argument

Is some claim actually, or potentially, being disputed? Are questions of justification being considered?

Reflecting on what is at issue in the context—what is being disputed or supported should guide you to the conclusion, and you should then ask what reasons are put forward in support of that conclusion. There are many contexts in which arguments occur. These include conversations about practical problems or public issues, courts of law, scientific research papers, meetings, political speeches and lectures, letters to the editor, academic writings, and advertisements.

WHY ARE ARGUMENTS IMPORTANT?

Why all the fuss about arguments? The general answer is that unlike descriptions, jokes, stories, exclamations, questions, and explanations, arguments are attempts to justify claims. When we give arguments, we try to show reasons for believing what we do. In doing that, we gain an opportunity to explore the strength of these reasons. When we evaluate other people's arguments, we think critically about what they claim and their reasons for claiming it. Arguing and evaluating arguments are indispensable elements of critical thinking—of carefully examining our beliefs and opinions and the evidence we have for them. They are important tools we use to rationally persuade others of our beliefs and opinions. The processes of justification and rational persuasion are important both socially and personally, and for both practical and intellectual reasons.

The lack of an argument is a fault in serious contexts where disputable claims are put forward as true, but it is not a fault in other contexts. Some claims do not require defense by argument. It would be perfectly appropriate, for example, for a political analyst to claim that the United States will have another presidential election in the year 2012 and give no supporting argument, because these elections are regularly held every four years, and elections were held in 1996, 2000, 2004, and 2008.

Careful attention to the arguments of people who disagree with us can help us understand why they think as they do. It may also give us good reason to rethink our own position. By attending to the arguments of other people, we may find reason to conclude that we are wrong. Discovering our errors is enormously important because it provides an opportunity to correct our beliefs. If we never consider reasons why we might be wrong, we have little possibility of knowing that we are right. To understand what we believe, we have to understand and consider *why* we believe it. The processes of listening to, evaluating, and constructing arguments provide the best way to do this.

Arguing back and forth is a relatively constructive approach to disagreement, one that is clearly preferable to alternatives such as shouting, making threats, or physically attacking the other party. When parties disagree about a claim or theory, when they have different opinions, they can try to persuade each other by reasons. If back-andforth argument is pursued honestly and sincerely, one or both of the parties may change their views so that the disagreement is resolved. Even in cases in which agreement is not achieved, the process will help them better understand each other.

Some people say "He has not given us any argument at all" as a way of expressing the idea that someone has offered faulty arguments. In effect, they are using the word *argument* to refer only to good arguments. We do not follow that usage in this book. In our sense of the word *argument*, a person has offered an argument if he or she has put forward premises in an attempt to support a conclusion. Arguments may be evaluated as either good or poor in the sense that if the premises do support the conclusion, the argument is a good one; if not, it is a poor one.

Even in areas of life in which feeling plays a central role in our experience, reason retains its relevance. For one thing, we need reason to explore the limits of our trust and faith. Many thinkers have, for instance, tried to prove the existence of God by reason and have used reason in the process of interpreting religious texts such as the Bible, the Torah, and the Koran. Secondly, rational argument can sometimes help us to overcome negative emotions. Many feelings are based on beliefs, and negative feelings are often based on illfounded beliefs. Consider, for instance, the case of a student who feels anxious "because my professor doesn't like me." Suppose that this student believes that his professor doesn't like him because "he looks at me in such a funny way." If the student finds out that the professor has a glass eye, which makes his gaze seem unusual no matter what he is looking at, the student will understand that he has no good reason to think his professor doesn't like him and no basis for his anxiety. In other words, feelings can change because they were based on a belief that turned out to be incorrect.

Trying to justify human beliefs by reason is an indispensable task for both practical and theoretical reasons. Careful reasoning from acceptable premises to further conclusions is the best method of arriving at sensible decisions and plausible beliefs because when we construct and examine arguments, we make our reasons and evidence explicit and that provides an opportunity to reflect on what we think and why. Because this method is more reflective, more careful, and more systematic than the others, it has the greatest chance of getting things right. The main purpose of this book is to cultivate your ability to construct and evaluate arguments. These are not new things, of course. In all likelihood, you have been doing these things nearly all your life and have done them successfully on many occasions. New here is thinking reflectively about these activities and applying general standards to ascertain the merits of arguments.

WHAT ISN'T AN ARGUMENT?

Even the most rational speakers and writers do not offer arguments all the time. Sometimes they simply make statements that are neither premises nor conclusions. Sometimes they make exclamations, expressing feelings. Or they raise questions, describe events and problems, explain occurrences, tell jokes, and so on. In none of these cases are they trying to justify conclusions as true on the basis of supporting reasons.

Consider the following:

- (a) Forty-nine divided by seven equals seven.
- (b) I can't stand broccoli!
- (c) What are the causes of juvenile delinquency?
- (d) It was a crisp and frosty September morning, but so many problems occupied their minds that the beauty of the day went unappreciated.

None of these sentences express arguments. Example (a) is simply a statement of mathematical fact. Example (b) expresses a feeling of distaste. Example (c) raises a question rather than stating or claiming anything. Example (d) offers no argument; it merely describes a situation, saying how it was on that morning in September. In none of these sentences do we find an attempt to persuade people of a conclusion; therefore,