



Deciding What to Believe

When you read a newspaper or book, listen to someone speak, or even just think by yourself, you face decisions about what to believe. Should you accept a newspaper editorial's argument that smoking around nonsmokers violates their rights? Should you be persuaded by your professor's reasoning that plea bargaining in the criminal courts should be eliminated? Should you agree with a television commentator that certain drugs should be legalized? Should you alter your attitude toward abortion when a friend points out that it is inconsistent with some of your other beliefs? Should you be led by your own considerations to the conclusion that assisted suicide should not be made legal? You already evaluate arguments about issues like these every day. In this sense, critical reasoning—the subject of this book—is not entirely new to you. But this book will offer a collection of procedures that will enable you to carry out this activity more carefully and systematically. This should help you develop your own position on such issues more effectively.

Critical reasoning, then, is concerned with deciding what to believe, but this is not to say that critical reasoning *alone* can tell you what to believe. Critical reasoning is not a magical technique guaranteed to tell you whether to accept a particular belief in isolation. It does not operate in a vacuum. To decide whether drugs should be legalized, for example, you would need supporting information. You would probably want to know the extent of drug use under present laws, the nature of illegal drug trafficking and the harm it produces, the probable effects of different plans for legalization (Would drug use increase? By whom? How much?), and so on. But in evaluating what appears to be “information” on these subjects and in judging whether this information justifies taking a particular position on the issue, critical reasoning should play a crucial role.

The techniques of critical reasoning that we describe in this book assume that you already have many beliefs and that you use these beliefs to decide whether to accept new arguments presented to you. For example, suppose someone claims that drug use wouldn't increase significantly if drugs were legalized. You will be inclined to accept or reject this, depending on your beliefs about people—how tempted they are to use drugs, whether it is the threat of punishment that now keeps them from using drugs, and whether they would become more inclined to use drugs if the threat of legal punishment were lifted. If you believe that the threat of legal punishment has little to do with whether people use drugs, this would support the claim that legalization wouldn't result in higher drug use. Of course, you can always pursue the question further, asking whether a supporting belief is itself well supported. Why do you believe that the threat of punishment isn't what keeps people from using drugs? You could try to find out whether there is support for this belief, perhaps by looking at research done on why some people use drugs while others don't. Moreover, it is crucial for critical reasoners to be willing to give up some previously held beliefs if they appear to be inconsistent with claims that have better support.

The techniques of critical reasoning that we present here are not techniques for generating beliefs or cleverly presenting arguments. They are not techniques that tell you how to move from premises you now accept to conclusions you haven't yet considered. They are techniques for *evaluating* some beliefs in the light of others. By contrast, the detective in fiction is often depicted as “deducing” unexpected conclusions from a set of clues. Critical reasoning does not operate in this way. It is a procedure for judging beliefs, not for generating them. This can be seen as a task akin to editing a written text after it has been produced in first-draft form by yourself or others.¹

Critical reasoning as we conceive it is both *active* and *open* to alternative points of view. We can describe our approach more clearly by contrasting it with two other kinds of activity: (1) *passive* reading or listening (as in the case of students who expect a lecturer to fill them with information) and (2) mere disagreement (as in the case of a combative person who is not willing to take seriously the reasons and opinions offered by other people).

1. The main focus of the text is on evaluating arguments rather than generating them. However, learning to restate clearly and then evaluate arguments is likely to improve the quality of the arguments you create, just as learning to edit any piece of writing helps you create better writing.

Critical Reasoning Versus Passive Reading or Listening

Sometimes, when we listen to a lecture or read a book or an essay, we take each statement as information to be remembered. Suppose you are listening to a professor lecturing on the criminal courts. If your main purpose is to prepare yourself for a multiple-choice test, you might simply try to remember as many of her statements as you can: “Most criminal cases don’t go to trial. About 90 percent of defendants plead guilty. Most legal scholars account for this high rate of guilty pleas as being the result of plea bargaining. If this is so, then eliminating plea bargaining would swamp the courts with cases.” If you are taking notes, your mind will be active to the extent that you select some statements as worth writing down, and you probably group statements together under topical headings. But you are passive in the sense that you don’t evaluate which of the professor’s statements to accept and which to doubt or reject.

By contrast, critical reasoning demands a more fully *active* approach. First, in order to evaluate the lecturer’s *reasoning*, you listen for structure: Are some statements presented as conclusions (for example, eliminating plea bargaining would swamp the courts) and others as supporting reasons (for example, plea bargaining results in guilty pleas)? Are some presented as explanations? What are they intended to explain? (Is the availability of plea bargaining intended to explain the high rate of guilty pleas?) Next, you examine the reasoning *critically*, that is, you evaluate or assess it: Has this conclusion been adequately supported? Do you have reason to doubt the supporting statements? Does the conclusion follow from them? Is this explanation adequate? These are some of the questions this book will address.

Critical Reasoning Versus Mere Disagreement

In contrast to passive reading and listening, mere disagreement is critical as well as active, but it nevertheless lacks some essential features of critical reasoning. When we engage in mere disagreement, we are primarily negative in our criticism.² We are poised to reject that with which we disagree. We approach what we hear or

2. To some people the term “critical” and “criticism” are always negative. In this text, we allow, indeed promote, *positive* criticism. *Critical* reasoning as we conceive it is a positive activity, but also one that is not willing to take beliefs at face value. It involves continual willingness to re-evaluate our beliefs. It subjects them to critical scrutiny, not necessarily to reject them, but to determine whether they remain defensible in light of new information and new arguments advanced by yourself or others.

read with our own established beliefs in mind. We consider each statement presented to us and accept it, reject it, or hold it as uncertain, depending on how it squares with our prior set of beliefs. For example, if we are listening to the commentator discuss drug legalization, and we hear her say, “Many of the deaths associated with drug trafficking are the result of disputes between rival drug gangs,” we might think, “OK, I agree with that.” As we hear the further claim that, if drugs were legalized, the commerce of drugs could be regulated by law, we think, “Well I guess so.” But as we hear the commentator arrive at the conclusion that some drugs should be legalized, we might make the judgment, “No, that’s too radical, I’ve always been against drugs.”

This process is active in that, as each statement is considered, a judgment is made. And the process is critical insofar as the judgments are evaluative (some statements are accepted, some are rejected). But critical reasoning differs from mere disagreement in certain crucial ways.

Mere disagreement is applied to separate, individual statements, and they are judged solely against the background of the reader’s or listener’s own beliefs. Critical reasoning, by contrast, requires us to examine the argumentative structure of an entire commentary, taking some statements as justifications for believing others. Rather than judging someone’s main thesis and evaluating it on the basis of our prior beliefs alone, critical reasoning requires that we be open to having our minds changed. Even if we would have disagreed with a particular claim initially, we might be persuaded by the remainder of the commentary to believe it. Critical reasoning opens us to changing our beliefs; it involves looking at reasons on which a point of view is based, judging whether these reasons are strong enough to justify accepting this point of view, and altering our beliefs if a better alternative is presented.

Moreover, as we conceive it, critical reasoning is more concerned with revising our own systems of beliefs than in being critical of other arguers. If we focus on the word “critical,” it is easy to construe *critical reasoning* as finding fault with other people’s arguments. But this is not our primary objective. We distinguish between (1) the task of interpreting and clarifying the arguer’s thinking with the aim of helping the arguer see any mistakes that might have occurred and (2) of using the presentation of an argument as an occasion for deciding what to believe. Although many of the techniques we discuss apply to both, we will focus on the second.

The Attitude of the Critical Reasoner

This activity of critical reasoning typically carries with it an attitude quite different from that of the person engaged in mere disagreement. When we engage in

mere disagreement, we seek to maintain the same beliefs we held prior to considering a new position. When we engage in critical reasoning, we cultivate an attitude of relative detachment. If an arguer points out that reasons we ourselves would accept really support a specific conclusion and therefore would compel us to give up some conflicting view we hold, we see this as a gain, not a loss.

If we have been against abortion, but someone points to beliefs we also hold that would rationally compel us to the view that a fetus should not be considered a person, as critical reasoners we would embrace this view, even though it threatens our antiabortion position. And the same can be said if we are in favor of allowing abortion and we are given good reasons for taking the fetus to be a person. The object is not to “save face” by attempting to justify past beliefs but to embrace whatever is most reasonable now. We are committed to being consistent and to following reason wherever it leads.

An issue like abortion typically reduces potential reasoners to mere disagreeers. Because the issue is heartfelt and because those on both sides tend to see their opponents as villains, it is difficult to accept a point that might give support to the opposing view, even if there is good reason to accept it. The object becomes “winning” the argument by making the opposition look and sound bad. Critical reasoning by contrast seeks to take reasoning out of this competitive arena, where in the extreme the competitors seek to dominate and even humiliate each other. If an arguer points out that reasons we ourselves would accept really support an unanticipated conclusion, and therefore should compel us to give up some conflicting view we hold, we see this as a gain, not a loss.

Self-Identity: Two Options

These two attitudes—the mere disagreeer’s attitude of wanting to sustain past beliefs and the critical reasoner’s attitude of wanting to judge what should be believed—correspond to two ways of viewing ourselves. I might associate what I truly am with my present set of beliefs. Then, if I find that I was mistaken about something, I must admit that until now my self has been defective—a difficult thing to do. In this situation, it is important for me to always be right and not to have to change my beliefs or learn from someone else. Maintaining this attitude will hold me at the level of mere disagreement.

On the other hand, I might identify myself more closely with the belief-forming process itself. Rather than characterizing myself in static terms, by the set of beliefs that I try to maintain, I can think of myself dynamically as actively engaged in replacing less adequate beliefs with more adequate ones. A tradition of active, critical, and open discourse with others is associated with the philosopher

Socrates.³ Socratic method or Socratic dialogue involves constantly scrutinizing beliefs and asking whether they are justified by the reasons put forward in their support. We would add that this process is as important in our dialogues with ourselves as with others.

I can characterize myself as the kind of person who takes pride in carrying out this activity well. Critical reasoners are like athletes engaged in the activity of their sport. Mere disagreeers are more like bodybuilders, taking pride in the static features of their bodies, not in how their bodies perform.

Some Common Misconceptions About Critical Reasoning

We believe there are certain misconceptions about critical reasoning that make some students leery of the enterprise. Perhaps the most common misconception is that critical reasoning locks us into rigidly structured patterns of thought. It is associated with “being logical,” which calls up a picture of moving from proposition A to proposition B to proposition C in a mechanical, almost unhuman way. This “linear” way of thinking is sometimes contrasted with a spontaneous, creative, free-and-easy manner of thought that sounds much more appealing.

This picture of critical reasoning and its effects on the mind is a mistaken one. It is true that in learning to evaluate arguments you will begin to look at the patterns formed by the statements that make up arguments. But learning to do this will not suddenly make the thoughts that come into your head fit into patterns. You may get your ideas any way you want; critical reasoning won't have any effect on this. Your thoughts might float through your head in any order, mixed with the wildest fantasies and daydreams—critical reasoning has nothing to say about this. But if, on some later occasion, you wish to evaluate a certain thought that occurred to you, you might then need to fit it and certain other thoughts into a pattern. Critical reasoning doesn't tell you to spend a large portion of your mental life doing this, but if and when you want to evaluate a statement that you have considered or that someone else has offered, at that time you will need to consider whether there are other statements that adequately support the one in question. This involves looking at the pattern of the statements in the process of assessing and editing your beliefs.

The notion that a person thinks either logically or nonlogically all the time, and that learning to reason will transform you from doing the latter to doing the former, is preposterous. If thinking nonlogically means thinking spontaneously, freely, in no imposed order, then everyone thinks nonlogically a good deal of the time, and no one would want to stop doing so. But on some occasions, everyone

3. Socrates (470–399 B.C.) was a Greek philosopher. The Socratic tradition of critical reasoning springs from a series of dialogues by his follower Plato (427–347 B.C.) in which Socrates is the central character.

needs to determine whether a certain belief is well supported and worth holding. On these occasions, there is really no choice about whether to do this logically or nonlogically. Critical reasoning, in other words, is something we all do some of the time. The question is how to do it better.

Another common misconception about critical reasoning is that it supposes there is a right and wrong point of view. Some people are more attracted to the notion that each person has his or her own way of looking at things and one way is no better than another. Actually, engaging in critical reasoning doesn't force you to assume that there is always a single correct position on an issue. It could be that more than one position can be held equally reasonably. We do not assume that the truth can always be known, or even that it can ever be known with certainty. But to engage in critical reasoning is to assume that at least sometimes one point of view can be seen to be more reasonable than another. We also assume that it is sometimes more reasonable to doubt a certain position than to believe it.

Perhaps the notion that one person's opinion is always as good as another's seems the more humane and tolerant attitude. A more thorough assessment of this relativism will be given in the final chapter of this book. For now it is worth noting that this attitude has a profound and dangerous consequence. If one holds that there is no way of determining what is reasonable to believe—that one opinion is always as good as another—then, when it comes to deciding what belief to act on, what procedure is available for making this decision? If it is assumed that no opinion can be shown to be more reasonable than another, it is a short step to the view that the only final appeal in settling differences is an appeal to force.

Benefits of Critical Reasoning

What is to be gained from approaching disputes as opportunities to improve your set of beliefs rather than as contests? Many people enjoy winning arguments, and they would be disappointed to learn that studying critical reasoning won't prepare them to win more arguments. Nevertheless, there are several points to consider in favor of critical reasoning.

First, not all disputes in which you engage are with other people. Perhaps the most important dialogues that occur in your mental development are with yourself. If you have acquired the habit of arguing with others only for the purpose of winning, you have not prepared yourself adequately to reason well in these dialogues with yourself. There are sidetracks along which an individual can be drawn, just as a pair of people can be drawn away from reason and into competition and toward attempts to dominate. In a conversation with yourself, unless habits of reasoning have been well established, it is easy to choose the position that is the most comfortable or the most self-serving, rather than the one that is the most reasonable.

Second, from a broader perspective, the practice of critical reasoning can promote substantial social values. Perhaps foremost among them is the defense it can provide against our vulnerability as citizens in a society increasingly ruled by experts. Even though we might not be experts ourselves, we can mitigate our status as amateurs by honing our reasoning skills. Moreover, our guiding assumption in promoting critical reasoning is that our beliefs form the basis for our actions, and the better justified our beliefs, the more appropriate to the world our actions will tend to be.

Exercise 1.1 Taking Notice of Disagreements and Reasoning

1. Write a short account of a dispute that you overheard or one in which you participated recently. State whether you think anyone's point of view was changed as a result of reasons presented by the opposition. If not, why not? To what extent did the exchange consist of mere disagreement, and to what extent reasoned criticism?
2. When you enter into a discussion, you are likely to find that there are many factors that might promote or discourage critical reasoning. For example, you might be more inclined to reason with a peer than with a parent, or with someone who acknowledges some of your points rather than someone who rejects everything you say. Your arguments might receive a better hearing if you're sitting across from someone than if you are standing over him or her. Make a list of factors that tend to encourage critical reasoning and factors that tend to discourage it. Next underline which of these factors you can control. You might consider strategies for controlling these factors when you try to engage someone in a critical dialogue. (This is a good exercise for collaborative discussion in small groups.)
3. Consider the situations of a courtroom trial and a formal debate. Contrast the procedures followed in these situations (as you understand them) to the procedures of reasoned criticism outlined in this chapter.

**The Main Techniques of
Critical Reasoning**

Thus far we have claimed that critical reasoning is a process that emphasizes a rational basis for belief and provides a procedure for resolving disagreements by means of further inquiry. And we have contrasted critical reasoning to a mere disagreement or quarrel in this respect. We now indicate briefly some of the ways

critical reasoning can accomplish its ends. This overview also introduces the materials contained in chapters 2 through 11.

We can illustrate the main techniques of critical reasoning by applying them to the following lecture fragment on the subject of plea bargaining. Suppose you have taken notes, and you now want to critically evaluate what has been said. How do you structure what you have heard in a way that prepares you to evaluate it fruitfully? What should you accept of what has been said? What should you call into question? Why? These are the kinds of questions we hope to prepare you to answer for yourself in the chapters that follow.

**First
Argument**

**Second
Argument**

Lecture Fragment on Plea Bargaining

Plea bargaining (agreeing to plead guilty in exchange for a reduced sentence) generates problems. Innocent defendants who can't afford bail may plead guilty just to avoid jail time waiting for trial. The process makes no presumption of innocence. Guilt is not determined in an adversarial process, it is negotiated. It makes work easier for prosecutors, defense attorneys, and judges, but it sometimes results in dangerous offenders receiving less jail time than they otherwise would.

Given these problems, some have suggested that plea bargaining be eliminated. But this might create an even worse problem. Ninety percent of defendants plead guilty, and most of those do plea-bargain. Suppose plea bargaining were eliminated and the percentage of guilty pleas dropped to 80 percent. This would double the number of criminal trials, placing a staggering burden on the criminal justice system. The practice of plea bargaining should be continued if eliminating it might have this disastrous result.

The experience of Alaska, however, calls this fear into question. Alaska has virtually done away with plea bargaining. There was some increase in the number of trials, but not as much as expected. In the year before elimination of plea bargaining, there were seventy-two felony trials in Fairbanks. In the year after, there were ninety. This is only a 25 percent increase.

Why was the increase so small? The explanation of why defendants plead guilty could be because most of them are factually guilty, and they don't have a viable legal argument for their defense (i.e., they are legally guilty as well); so they believe it is unlikely that they would win in a trial. If this is the case, then, as Alaska's experience indicates, while it may be difficult to eliminate plea bargaining, it is not impossible.

What arguments can we find in the lecture fragment on plea bargaining? If we survey the passage, we can see that the first paragraph contains reasons in favor of the conclusion that plea bargaining should be eliminated. The second

paragraph presents reasons supporting the opposite conclusion—that plea bargaining should not be eliminated. The third and fourth paragraphs cast doubt on the second argument; they suggest that the reasons given for keeping plea bargaining may be weak. The last statement of the passage (“... while it may be difficult to eliminate plea bargaining, it is not impossible”) indicates that the lecturer is supporting the first argument and rejecting the second.

In applying critical reasoning to this passage, you will want to decide for yourself whether to accept the first argument and reject the second. To do this, you will first need to restate each argument clearly, listing all the reasons (premises) and the conclusion for each.⁴ Often, this requires rewriting parts of the passage in a more clear, direct manner. For example, the first argument might be stated in the following way:

FIRST ARGUMENT (AGAINST PLEA BARGAINING)

- Premise 1. Plea bargaining may cause innocent defendants to plead guilty.
- Premise 2. Plea bargaining makes no presumption of innocence.
- Premise 3. Plea bargaining results in guilt being negotiated.
- Premise 4. Plea bargaining sometimes results in dangerous offenders receiving less jail time than they otherwise would.
- Conclusion: Plea bargaining should be eliminated.

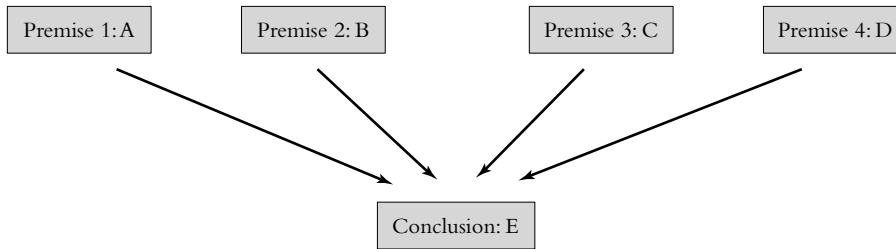
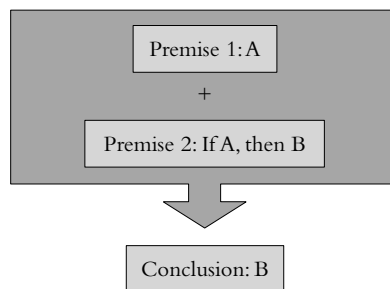
SECOND ARGUMENT (FOR PLEA BARGAINING)

- Premise 1. Eliminating plea bargaining might overwhelm the court system with criminal trials.
- Premise 2. If eliminating plea bargaining might overwhelm the court system with criminal trials, then it should not be eliminated.
- Conclusion: Plea bargaining should not be eliminated.

Notice that there is a difference between these two arguments. The first presents several independent reasons for its conclusion. Each premise by itself carries some weight in supporting the conclusion that we should eliminate plea bargaining. By contrast, the second argument gives two *linked* reasons for its conclusion. The first premise is a reason by itself in support of the conclusion, but the second is not. Rather it links the first premise to the conclusion. We might represent the difference between these two kinds of arguments by diagramming the premises in two different ways—horizontally and vertically, as we do on the following page.

After a general discussion at the beginning of chapter 2 on the nature of arguments and kinds of arguments, chapters 2 through 7 will focus on arguments like argument 2—ones with premises that are linked together so that (if they are successful) the conclusion follows necessarily from all of the premises. These are called *deductive arguments*. These chapters discuss in detail how to reconstruct and

4. Reasons offered in support of a position are conventionally called “premises”; the position being supported is called the “conclusion.”

Argument 1: Independent Premises**Argument 2: Linked Premises**

evaluate them. We present evaluation as a two-step procedure of asking the following: (1) whether the conclusion follows from the premises and (2) whether the premises themselves should be believed. These basic steps are initially discussed in chapter 4. Chapter 5—which is optional—is a more detailed account of how we can determine whether an argument's conclusion follows from its premises. It introduces elements of reasoning studied by an area of philosophy called logic and taught in classes on symbolic logic. Our approach to critical reasoning downplays this formal approach and offers instead a collection of less conventional procedures that will be useful in a variety of contexts, such as the identification of fallacies (chapter 6) and the examination of how the soundness of arguments can depend on definition and meaning (chapter 7).

Chapter 8 discusses arguments that are not deductive. The premises of these arguments provide some support for their conclusions, but the conclusions do not follow necessarily. This includes those like argument 1 (which we call convergent), arguments by analogy, arguments based on statistical premises, and arguments based on data (traditionally called inductive). Paragraphs 3 and 4 of the lecture fragment on plea bargaining can be seen as generalizing from particular

data. The particular case of Fairbanks, Alaska, in which felony trials increased only 25 percent, is used to suggest that it may not be impossible to eliminate plea bargaining generally (that is, in other states as well). Chapter 8 will give you a procedure for judging whether generalizations such as this are warranted.

Chapter 9 extends the discussion of critical inquiry to the topic of theories. Theories are often set forth either as premises of arguments or as explanations of why certain patterns occur in the observable world. Evaluating theories sometimes requires specialized knowledge, but we present some general procedures that are helpful in understanding many theories and provide a way to begin evaluating them.

The lecture fragment can be interpreted as presenting two theories, both intended to explain why most defendants plead guilty. The first theory (suggested in paragraph 2) supports the argument that plea bargaining should not be eliminated. According to this theory, most defendants plead guilty simply because they are offered a lesser sentence under plea bargaining than they would stand to get if they went to trial. The second theory is presented in paragraph 4. In essence, this theory claims that defendants plead guilty because they are guilty. The techniques described in chapter 9 will help you reconstruct these theories more precisely and understand how to evaluate them. This reconstruction in turn will help you choose between the two opposing arguments presented in the lecture.

Sometimes we feel unqualified to judge what we hear and read because we lack expertise. In the case of plea bargaining, for example, we might feel tempted to leave the matter to specialists in the field of criminal justice and simply adopt the views of those specialists. However, taking this approach raises difficulties of its own. How do we know who to count as experts in a particular field? What do we do if the experts disagree? How do we avoid being controlled by experts? The difficulties we face in making decisions based on theories and arguments proposed by experts and specialists is the subject of chapter 11.

Throughout this book's treatment of all of these topics, a strong underlying purpose of *Critical Reasoning* is to provide procedures for determining what is reasonable to believe. When presented with an argument or theory, one might take it as an occasion for a contest, an occasion for defending prior beliefs and defeating anything that contradicts them, or as an opportunity to determine whether past beliefs are inadequate and should be modified. Our basis for urging the latter course is the proposition that there is more to be gained by building a more reasonable set of beliefs than by winning contests when disagreements occur.

Exercise 1.2**A Beginning Step: Identifying Main Points and Supporting Points**

1. Putting an argument that you hear or read into your own words is an important step in critical reasoning. We will be discussing how to do this in detail

throughout the book, but as a start, for each passage (a) write what you take to be the author's main point and (b) list any claims the author makes that support this point. Set aside for the moment your own position on the issues raised, and try to capture the author's position as best you can. It is often useful to simplify a passage, eliminating what is inessential and simplifying cumbersome statements.

- a. America has got to keep good-paying jobs in this country because it needs to narrow the gap between the very wealthy and the rest of us. In the last decade, the difference between the wealthiest 20 percent and the poorer classes has expanded drastically. If the differential becomes too great, American democracy is at risk. We can only hope to reverse this dangerous state of affairs if we keep jobs in this country that pay wages adequate for workers to support their families.
- b. People are dying all over the United States as victims of the drug war. The lives of these victims are often destroyed, if not by drugs themselves, then by a disease like AIDS that often comes with drug use. But of course, drug users are not the only victims. The drug trade brings with it the violence we see in cities all over the United States. Gangs supported by drug money bring terror to the streets. But our political system is also a victim. The truly incredible amount of money available to drug kingpins inevitably leads to corruption among the police and in the government. The fabric of the country is in danger. The war on drugs is one of the greatest problems the country will face over the next decade.
- c. The abortion issue seems to be in the news practically every week. There are rallies and political speeches. Various candidates are jockeying for political advantage by embracing one side or the other on this controversial issue. Abortion raises some fundamental issues that bring into conflict our very conception of humanity and our ideals of liberty. In spite of the importance of the topic, abortion should not be made the central issue in political campaigns. Candidates for public office differ in a variety of ways, some of which are more important to the fate of the country than abortion policy is. If we do not adequately deal with problems such as medical coverage and crime, both our ideals of humanity and our liberty will be threatened. There should be no "litmus test," no single criterion, in judging people for public life in our complex and increasingly vulnerable world.
- d. Honesty is on the decline in the United States. Increasing numbers of people admit that they lie on a regular basis at work and at home. These lies are not just minor omissions, trivial untruths designed to save another's feelings, or even lies in the "traditional domain" of sexual behavior. Many workers indicate that they regularly lie at work. This change in American attitudes began with President Johnson's denial that he would

expand the war in Vietnam, right before he did just that. It was fostered by the lies leading to Nixon's resignation as president. The belief that politicians at all levels of government will not tell the truth has only grown. President Clinton's revelation that he did not tell "all the truth" about his sexual behavior just confirmed what was a widespread expectation that politicians and other public figures routinely lie. Why do public figures, as well as the rest of us, feel that they need to lie? The real reason is that Americans—in their private, public, and workaday lives—are not willing to hear the truth. The voters don't want to be told that big tax cuts will result in decreased public service. Bosses don't want to be told that their favorite plans are likely to fail. And friends don't want to hear that their binge drinking is interfering with their lives. If this trend continues, the fabric of the country is in danger. We all need to be willing to face the truth as citizens, as employees, as friends. If we stop penalizing others for telling the truth, then they will be more willing to be honest in what they say.

2. Review your notes from a lecture that you heard recently. In your own words briefly state the most important points.
3. As a starting point in developing your reasoning skills, it will be useful for you to produce a short piece of writing. This exercise will be used later to help you improve your writing. In a paragraph or two, express a position on one of the following issues and support it:
 - a. censorship
 - b. capital punishment
 - c. abortion
 - d. use of alcohol or other drugs
 - e. marriage
 - f. single parenting
 - g. gun laws
 - h. building new prisons
 - i. the prospects for your generation
4. Read both of the accompanying editorials. For each one, consider what is the main point. Some candidates are listed below. If you think of another way of stating the main point for either editorial, write it out.

Some candidates for the main point of the editorial *Truth about 'assistance'*:

- a. Many people who want assisted suicide are not terminally ill.
- b. Assisted suicide would lead to helping people die who are depressed and might later want to live.
- c. Advocates of assisted suicide are trying to mislead us.
- d. Assisted suicide should not be made legal.
- e. Assisted suicide is morally wrong.

Some candidates for the main point of the editorial *No Right to Cause Death*:

- a. Smoking causes harm to bystanders.
 - b. Smoking poses a risk to the health of bystanders.
 - c. Smoking violates the rights of nonsmokers.
 - d. Those who smoke around nonsmokers violate nonsmokers' rights.
 - e. Smoking should be more tightly restricted.
 - f. Smoking is wrong.
5. For each of the accompanying editorials, state in your own words one or two points that support the main point. Try to determine whether the supporting points are convergent, as in argument 1 on page 11, or linked, as in argument 2 on page 11.

Truth about 'assistance'⁵

There are many good reasons respected groups oppose suicide. Here are some of them.

By Wesley J. Smith

To paraphrase the old musical classic, assisted-suicide advocates are great pretenders.

They promise that it will be restricted "as a last resort" to mentally competent, terminally ill people. They argue that the killing will be facilitated only by supercareful Marcus Welby clones. They promise that the entire practice will be strictly controlled and, above all, compassionate.

Balderdash. Let's open our eyes to the truth.

► Assisted suicide is not about terminal illness.

Jack Kevorkian epitomizes what actual assisted-suicide practice would look like. Approximately 20% of his

subjects (his term) have been terminally ill. The largest category of people he has helped to die were disabled. Three had no physical illness on autopsy.

That's not all.

The 9th Circuit Court of Appeals decision, now before the Supreme Court, specifically held that the disabled "will, along with non-impaired individuals, be beneficiaries" of legalized assisted suicide.

Moreover, the court ruled that "a decision by a duly appointed surrogate decision maker is, for all legal purposes, the decision of the patient himself." This means that if upheld, it would allow the permissible, nonvoluntary killing of those who are legally incompetent, which could include Alzheimer's patients, mentally retarded people and, perhaps, children.

5. Wesley J. Smith, *USA TODAY*, 9 January 1997. Reprinted with permission of the author. Wesley J. Smith is an attorney for the International Anti-Euthanasia Task Force and author of the upcoming book, *Forced Exit*.

- ▶ It is not about compassion.

Studies show that suicidal people who are dying or disabled are no different from those who want to die because of, say, a lost business or divorce. Almost all are clinically depressed.

We will interfere with the jilted lover's "right to die," by force if necessary. Yet we are supposed to allow doctors to assist the suicides of persons with multiple sclerosis or cancer when next week or next month they might regain the desire to live.

That isn't compassion; it is the ultimate in abandonment.

- ▶ Follow the money:

Headlines announce almost daily the pressure that for-profit HMOs place on doctors to reduce the cost of health care.

Plug legalized assisted suicide, which is far cheaper than long-term care, into the HMO equation.

Imagine "choosing" assisted

suicide because your HMO denied you adequate access to specialists in pain control or appropriate treatment for depression. It could happen.

Or think how you would feel if an HMO doctor recommended suicide as the best "treatment" for your spouse, and you knew that the doctor could be fired or lose bonus income for providing your beloved with too much care but would be financially untouched for assisting in his or her suicide.

These are just a few of the many reasons the American Medical Association, the Hospice Nurses Association and the Clinton administration, among many diverse others, have filed briefs in the Supreme Court against legalizing assisted suicide.

It's time to stop pretending, open our eyes, and see assisted suicide for what it really would be: a moral and ethical catastrophe.

No Right to Cause Death⁶

The rationale for granting smokers the “right” to spread their toxic fumes around has disappeared. Diehards, egged on by the tobacco companies that supply them, have long tried to cast their habit as a civil liberties issue, claiming they should be free to engage in a practice that harms no one but themselves.

But the evidence is now overwhelming that smokers endanger all those forced to inhale the lethal clouds they generate. That makes smokers at least a small hazard to virtually all Americans—and a fitting target for tighter restrictions.

Evidence that smoking can harm nonsmokers has been accumulating for the last decade. In 1986, two of the nation’s most prestigious health authorities—the National Academy of Sciences and the Surgeon General—concluded that fumes generated by smokers can cause lung cancer in adult nonsmokers and respiratory problems in the children of smokers.

Now, in a comprehensive study covering more than twice the data available in 1986, the Environmental Protection Agency has concluded that smoking is indeed a serious and substantial health risk for nonsmokers, particularly children.

Each year environmental tobacco smoke probably causes some 3,000

lung cancer deaths in the U.S., 150,000 to 300,000 cases of respiratory infections in infants and young children, and a worsening of symptoms in 200,000 to 1 million asthmatic children. Maternal smoking seems to be implicated in Sudden Infant Death Syndrome, a frightening condition in which babies die inexplicably in their cribs at night. And other studies not assessed by the E.P.A. have suggested that environmental tobacco smoke may cause heart disease and cancers at sites other than the lung.

The E.P.A. marshals an enormous array of evidence to build an overwhelming case that tobacco smoke is hazardous to innocent bystanders. The smoke that emanates from a smoldering cigarette contains virtually the same cancer-causing compounds as the smoke inhaled by the smokers. The inhaled smoke is known to cause cancer; it would be astonishing if the environmental smoke were not carcinogenic as well.

The main difference is that bystanders take in a more diluted mixture—and they have no choice in the matter. Smoking does, therefore, involve the violation of rights, and it is the smokers who are the violators.

The clinching evidence that environmental smoke causes lung cancer

6. Editorial, *New York Times*, 10 January 1993. Copyright © 1993 by the New York Times Company. Reprinted by permission.

comes from studies of the health damage suffered by nonsmoking spouses of smokers. Seventeen of these studies were able to distinguish which spouses got the biggest doses of environmental smoke. In every study, the highest exposure group had an increased risk of lung cancer, and in nine the increase was statistically significant, or almost certainly meaningful. The odds of this happening by chance are less than 1 in 10 million, the E.P.A. says.

The Tobacco Institute, the trade group for the industry, has countered with sophistry. It contends that two-thirds of 30 or more studies reviewed by the E.P.A. show no "statistically significant" increase in lung cancer risk. That is true, but one-third of the studies do show significance, and the combined results are persuasive.

The Institute also complains that the E.P.A. has loosened its statistical standards so that it is only 90 percent confident of its conclusions instead of 95 percent confident, the standard often used. That, too, is true. But a panel of distinguished scientists endorsed the approach as appropriate

given the enormous array of data on tobacco smoke and the certainty that the smoke is not beneficial. The continued effort of the Tobacco Institute to get Americans to ignore the best available science represents corporate irresponsibility of the rankest sort.

The only real issue is how serious one should consider the environmental hazard. The spouses of people who smoke at home might face a 1-in-500 chance of developing lung cancer, the E.P.A. suggests. That is far less than the 1-in-10 to 1-in-20 chance faced by the smokers themselves. But it is far more than society tolerates for exposure to other cancer-causing chemicals.

No one would grant his neighbor the right to blow tiny amounts of asbestos into a room or sprinkle traces of pesticide onto food. By the same logic, smokers have no right to spew even more noxious clouds into the air around them. The next step has to be a searching examination of how to tighten restrictions on smoking in all public places, and the workplace as well.



The Anatomy of Arguments: Identifying Premises and Conclusions

When someone gives reasons to support a point of view, that person is usually offering an *argument*. You encounter arguments in your reading and in your conversations with others, and you commonly offer arguments to support your own beliefs. When you are presented with an argument, you can take the opportunity to decide whether the reasons given are good enough to warrant incorporating the point of view that is being advanced into your own set of beliefs. To make this decision, you need to clearly understand the argument and then evaluate it.

The main focus of this and several of the following chapters is a kind of argument called *deductive*. But before we begin our study of deductive arguments, we should provide a broader view of arguments, including nondeductive arguments. Since an argument gives reasons (one or more) in support of a point of view, both of the following examples would surely count as arguments. In each of them, at least one reason is given to support a point of view.

Example 2.1

Deductive Argument

Eliminating plea bargaining might overwhelm the court system with criminal trials. If it would do this, then plea bargaining should not be eliminated.

Therefore, plea bargaining should not be eliminated.

Example 2.2

Informally Stated Argument

Auctioning the eggs of fashion models encourages parents to fixate on their child's physical appearance. So auctioning the eggs of fashion models promotes an unhealthy attitude.

Although these examples give reason(s) in support of a viewpoint, important differences exist between them. Example 2.1 has a form or structure that makes the conclusion follow necessarily from the premises. That is, if the premises are true then the conclusion must be true. It's an example of a *deductive argument*.

If an argument doesn't already have a structure that makes the conclusion follow from the premises, we could try to restate it so that it does have such a structure. For example, we could treat Example 2.2 as being a fragment of a longer, more complete, deductive argument.

Example 2.2
Restated as a
Complete
Deductive
Argument

*Auctioning the eggs of fashion models encourages parents to fixate on their child's physical appearance. **Fixating on one's child's physical appearance is an unhealthy attitude.** So auctioning the eggs of fashion models promotes an unhealthy attitude.*

When we add the middle (boldfaced) sentence to Example 2.2, we are restating it in a way that makes the conclusion—auctioning the eggs of fashion models promotes an unhealthy attitude—follow necessarily from the premises. Some might claim that the middle sentence is already *implicit* in the original example. If this is taken to mean that anyone who asserts the original argument must have “had in mind” the unstated premise: *Fixating on one's child's physical appearance is an unhealthy attitude*, then we are not committed to this view. We aren't guessing what the arguer had in mind. Rather, when we add this premise to create a complete deductive argument, we are trying to make it easier to decide whether to accept the argument's conclusion. By adding the unstated premise, we can see all of the statements we would have to judge as acceptable or unacceptable in order to decide whether this argument compels us to accept its conclusion. The premises of a deductive argument are like a checklist: Is it reasonable to believe that auctioning fashion models' eggs encourages parents to fixate on a child's appearance? Is it reasonable to believe that this is an unhealthy attitude? If there are no reasonable grounds for rejecting either of these claims, then I am driven to the conclusion that auctioning the eggs of fashion models promotes an unhealthy attitude.

For the next several chapters, our general approach will be to interpret arguments as deductive. If they are not stated as complete deductive arguments, we will try to restate them so that they are. Later chapters will study certain kinds of arguments that, for purposes of evaluation, might be best interpreted as nondeductive. If an argument is *nondeductive*, its conclusion doesn't necessarily follow from its premises. If the argument is successful, its premises provide *some support* for the conclusion; but even if the premises are true, the conclusion could be false.

Examples 2.3, 2.4, and 2.5 could all be taken as nondeductive. Example 2.3 gives three reasons against legalizing physician-assisted suicide. These reasons could be presented as having *some weight*, even if it doesn't follow necessarily that physician-assisted suicide should be illegal. The argument might be taken as leaving open the possibility that considerations in favor of legalization outweigh considerations against it.

Some Types of Arguments

Example 2.3

Convergent Argument

Legalizing physician-assisted suicide would lead to (1) helping disabled people die who are not terminally ill, (2) helping people die who are depressed and might later want to live, and (3) helping people die in order merely to save medical expense. These are all reasons against legalizing physician-assisted suicide.

Example 2.4

Inductive Argument

The rate of violent crime fell last year in a sample of fifty U.S. cities and towns, so the rate probably fell in the nation as a whole.

Example 2.5

Argument from Analogy

The universe has an order and precision similar to a clock's. Since the clock had a maker, the universe probably had a maker.

Of course, this example could also be interpreted as a deductive argument that is not completely stated. It could be taken as having the implicit premise that if legalizing physician-assisted suicide would have these three results, then it should be kept illegal. The conclusion that physician-assisted suicide should be kept illegal would then follow necessarily. In the next several chapters, we will interpret arguments such as Example 2.3 as deductive, but in chapter 8 we will introduce an alternative way of viewing them: that is, as a kind of nondeductive argument sometimes called *convergent*.

Example 2.4 is typical of a kind of argument called *inductive*. Its premise describes a characteristic found in a sample (fifty U.S. cities and towns). The conclusion asserts that *probably* this same characteristic—a decline in the rate of violent crime—is true of a larger population (the nation as a whole). The fact that this conclusion asserts only a probability is what makes this kind of argument nondeductive. Example 2.5 is called an *argument from analogy*. It argues that two things are alike in certain respects, so they are probably alike in some further respect. As with the previous example, the conclusion—the universe had a maker—is asserted as probable only, not as necessarily following from the premise, so this, too, is best interpreted as a *nondeductive* argument.

All five examples, then, constitute *arguments* in the broad sense that they give one or more reasons in support of a point of view. The reasons are called *premises*, and the point of view being supported is called the *conclusion*. Chapter 8 will provide techniques for understanding and evaluating nondeductive arguments. We now turn to the task of identifying premises and conclusions of deductive arguments.

The Key to Identification: Seeing What Is Supported by What

To understand deductive arguments fully, you first need to learn to identify their parts—the **premises** and the **conclusion**. Ultimately, understanding them will help you to evaluate arguments better. As in medicine, you must learn the anatomy of an animal before you can systematically diagnose its ills and improve its health.

We will begin our investigation of premises and conclusions by looking at short, simplified passages that contain arguments. For example, a reader of the editorial on smoking reprinted at the end of chapter 1 might restate one of its arguments in this way:

Example 2.6 *If smoking poses a risk to the health of bystanders, then it violates their rights. Smoking does pose a risk to the health of bystanders. Therefore, smoking violates the rights of bystanders.*

The first two statements support the third. They provide reasons for believing that smoking violates the rights of bystanders, so each one individually is a premise of the argument. The conclusion is the statement that the premises are supposed to support: Smoking violates the rights of bystanders.

Consider a second example. Suppose someone who doesn't know much about biology argues as follows:

Example 2.7 *Whales are not mammals, since no fish are mammals, and whales are fish.*

In this argument the premises and the conclusion are not given in separate sentences, but we can nevertheless distinguish what is supported from what is offered as support. The first clause, *whales are not mammals*, is supposed to be supported by the two clauses that follow: *no fish are mammals* and *whales are fish*. The latter two statements are the premises, and the first statement, *whales are not mammals*, is the conclusion. This conclusion happens to be false, but it is nevertheless the conclusion of the argument—a faulty argument in this case.

Two cautions are in order: (1) Some people misconstrue the conclusion as a mere summary of the premises. The conclusion of an argument does not, however, simply restate the sentences in a passage. (2) Others tend to think of the conclusion as the most important point in the passage. Often it is, but it need not be. The conclusion can be singled out because it stands in a special relationship to the other statements—that is, it is supposed to be supported by the other statements. To find the conclusion in a passage, we must see which statement is supposed to be supported by the others.

Clues to Identifying Argument Parts: Indicator Words

Sometimes the person offering an argument provides clues that identify the premises and conclusion. Consider the following pessimistic argument about gun control:

Example 2.8 *Either we ban all handguns or homicide rates will remain high. We will not ban all handguns. We can conclude that homicide rates will remain high.*

In this case the speaker tells us which statement is the conclusion of the argument by using the phrase “We can conclude that.” We call expressions that serve this purpose *conclusion indicators*. Numerous expressions can play this role, including the following:

<p>CONCLUSION INDICATORS</p> <p>so</p> <p>thus</p> <p>therefore</p> <p>hence</p> <p>we can conclude that</p> <p>consequently</p>
--

There are also expressions that help identify premises. Among the most common of these are:

<p>PREMISE INDICATORS¹</p> <p>since</p> <p>for</p> <p>because</p> <p>for the reason that</p>

The statement that immediately follows a conclusion indicator is the conclusion; that following a premise indicator is a premise. This latter will seem natural when you consider that premises are reasons given in support of the conclusion, and all the premise indicators mean roughly “for the reason that.”

1. These words are not always used as premise indicators. For example, *since* can also be used to indicate order in time, as in the statement, “Since (that is, *in the time since*) Joe went to medical school, he has established a practice in the field of AIDS treatment.”

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