



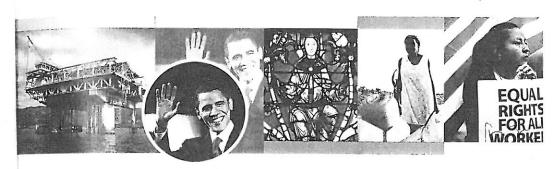


Public figures try to control their images for obvious reasons. Would you buy a used car from any of these distinguished men and women?

you claim authority, establish credibility, and demonstrate competence as you try to present a different and a more personal or a less personal ethos.

- 3. Opponents of Richard Nixon, the thirty-seventh president of the United States, once raised doubts about his integrity by asking a single ruinous question: Would you buy a used car from this man? Create your own version of the argument of character. Begin by choosing an intriguing or controversial person or group and finding an image online. Then download the image into a word-processing file. Create a caption for the photo that is modeled after the question asked about Nixon: Would you give this woman your email password? Would you share a campsite with this couple? Would you eat lasagna that this guy fixed? Finally, write a serious 300-word argument that explores the character flaws or strengths of your subject(s).
- 4. A well-known television advertisement from the 1980s featured a soap-opera actor promoting a pain-relief medication. "I'm not a doctor," he said, "but I play one on TV."Today, many celebrities—from athletes like Venus Williams to actors like Leonardo DiCaprio—use their fame in promoting products or causes. One way or another, each case of celebrity endorsement relies on arguments based on character. Develop a one-page print advertisement for a product or service you use often—anything from soap to auto repair to cell-phone service—or a political position. There's one catch: your advertisement should rely on arguments based on character, and you should choose a spokesperson who seems the least likely to use or endorse your product or service. The challenge is to turn an apparent disadvantage into an advantage by exploiting character.

# Arguments Based on Facts and Reason: Logos



SPOCK: Logic and practical information do not seem to apply here.

McCOY: You admit that?

SPOCK: To deny the facts would be illogical, Doctor.

—from Star Trek episode "A Piece of the Action"

When writers need to persuade, they usually try their best to provide readers with good reasons to believe them. When the choice is between logic and emotion, many of us will side with Star Trek's Dr. McCoy rather than the stern Mr. Spock. Most of us respect appeals to logos—arguments based on facts, evidence, and reason—but like the good doctor, we're inclined to test the facts against our feelings and against the ethos of those making the appeal. Aristotle, among the first philosophers to write about persuasion, gives us a place to begin. He divided proofs based on facts and reason into two kinds—those derived from what we call hard evidence (Aristotle described these as inartistic appeals—facts, clues, statistics, testimonies, witnesses) and those based on reason and common

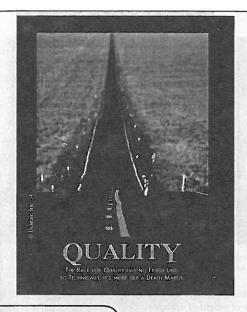
sense (what Aristotle termed artistic appeals). These categories overlap and leak (what, after all, is common sense?), but they remain useful even

The differences can be observed in two arguments presented forty years apart at the United Nations when American representatives charged other nations with harboring weapons of mass destruction. On October 25, 1962, Adlai Stevenson, U.S. ambassador to the UN, asked, "Do you, Ambassador Zorin, deny that the U.S.S.R. has placed and is placing medium and intermediate range missiles and sites in Cuba?"—knowing that he had the hard evidence of spy photographs to prove his claim. The images showed the alleged construction beyond a reasonable doubt in an era when doctoring photographs was not an easy process.

Forty years later, on February 5, 2003, U.S. Secretary of State Colin Forty years later, on February 5, 2003, U.S. Secretary of State Colin Powell did not have the same kind of open-and-shut case when he argued to the UN Security Council that Iraq was harboring weapons of mass destruction in contravention to UN resolutions. Instead, he had to assure his worldwide audience that "what you will see is an accumulation of facts and disturbing patterns of behavior." None of his materials—including some photographs—had the immediacy or transparency



Colin Powell lost some credibility after his claim that Iraq had weapons of mass destruction proved untrue.



## Not Just Words

Sometimes the difference between appeals isn't immediately self-evident. What one person considers an appeal to reason may look like an emotional or ethical argument to another. Add in the element of irony or parody, and the categories scramble even more. Take a look at the image above. At first glance, this may look like a serious poster, one that uses pathos and ethos (the title "Quality" and the picture, which implies that the poster's creator is committed to the long, lonely journey necessary to achieve this admirable goal) to argue that high standards are worth the effort. But the (logical?) caption cleverly undercuts that message. What do you think this poster's overall point is? How do words and image work together' to make that point? Who is the intended audience? Finally, working within a group, discuss whether the poster represents an appeal to logic and reason, and why.

As the storylines on CSI suggest, hard evidence almost always makes the strongest logical argument.

of the 1962 Cuban missile crisis images. So Powell had to hope that the pattern and weight of evidence offered in a lengthy presentation would make his claim—"that Saddam Hussein and his regime are concealing their efforts to produce more weapons of mass destruction"—seem compelling. Since no such weapons were found after Western troops invaded Iraq, one might infer (logically) that hard evidence is superior to reasoning aided by less-than-compelling inferences and probabilities. In fact, Powell came to regret his dependence on the assortment of reasons he had been offered by other members of the Bush administration to back up the claims he made. Eighteen months later, he called his presentation a "blot" on his record and said that he felt "truly terrible" about being misinformed by the less-than-hard evidence he had been given.

As this example shows, hard evidence won't always be available, nor will it always be as overwhelming as the photographs that Adlai Stevenson displayed. And even when hard evidence is available, it must be carefully tested. While Stevenson could trust the veracity of the photographs that he displayed nearly fifty years ago, he probably would be more skeptical today. On July 9, 2008, a photo of Iranian missile tests was published in newspapers around the world. The photo showed four missiles being fired, but it was called into question when other photos of

the tests showed only three missiles. Where had the fourth missile come from? Even after extensive examination, experts disagreed about whether the three-missile image had simply been digitally changed or whether a fourth missile had actually been fired at a later time and then composited into the original photo. In short, even the hardest of evidence needs to be scrutinized with great care before being accepted as clear and compelling proof.

## **Providing Hard Evidence**

As the Stevenson and Powell examples suggest, even when hard evidence is contested or hard to come by, people usually prefer arguments based on facts and testimony to those grounded in reasoning alone. In a





Iranian missile test: Where did the fourth missile (second from right in the top photo) come from? Does this photo constitute "hard evidence"?

courtroom as well as in the popular media, for example, lawyers or reporters look for the "smoking gun"—the piece of hard evidence that ties a defendant to a crime. It might be an audiotape, a fingerprint, an email, or, increasingly, DNA evidence. Popular crime shows such as CSI: Crime Scene Investigation focus intensely on gathering this sort of "scientific" support for a prosecution. Less dramatically, the factual evidence in an argument might be columns of data carefully collected over time to prove a point about racial profiling or the effects of climate change on populations of fish and other wildlife. If you live in a state where you can be ticketed after a camera catches you running a red light, you know what hard evidence means.

what hard evidence lifears.

Factual evidence, however, takes many forms. The ones that you use will depend on the kind of argument you're making. In fact, providing appropriate evidence ought to become a habit whenever you write an argument. The evidence makes your case plausible; it may also supply the details that make writing interesting. Consider Aristotle's claim that all arguments can be reduced to just two components:

Statement + Proof

Here's another way of naming those parts:

Claim + Supporting Evidence

In a scholarly article, you can see this connection between statements and proof in the text and the notes. As an example, we reprint a single page from a much-cited review of Michael Bellesiles's Arming America: The Making of America's Gun Culture by James Lindgren published in the Yale Law Review (see facing page). Bellesiles used evidence gathered from eighteenth-century documents to argue that gun ownership in frontier America was much rarer than advocates of the right to bear arms believed. After publication, Arming America was hailed by gun critics for weakening the claim of gun advocates today that the ownership of weapons has always been a part of American culture. But Lindgren, as well as many other critics and historians, found so many evidentiary flaws in Bellesiles's arguments that questions were soon raised about his scholastic integrity. Lindgren's review of Arming America runs for more than fifty meticulous pages (including an appendix of errors in Bellesiles's work) and contains 212 footnotes. You can see a factual argument in action just by looking at how Lindgren handles evidence on a single page. You may never write an argument as detailed as Lindgren's review, but you should develop the same respect for evidence.

This selection from James Lindgren's review of Michael Bellesiles's Arming America: The Making of America's Gun Culture first appeared in the Yale Law Review, volume 111 (2002).

LINOGRENFINAL.DOC

Arrii. 26, 2002 4/26/02 12:34 PM

2002]

Arming America

2203

#### B. How Common Was Gun Ownership?

The most contested portions of Arming America involve the book's most surprising claim, that guns were infrequently owned before the mid-1800s. As I show below, the claim that colonial America did not have a gun culture is questionable on the evidence of gun ownership alone. Compared to the seventeenth and eighteenth centuries, it appears that guns are not as commonly owned today. Whereas individual gun ownership in every published (and unpublished) study of early probate records that I have located (except Bellesiles's) ranges from 40% to 79%; only 32.5% of households today own a gun.<sup>44</sup> This appears to be a much smaller percentage than in early America—in part because the mean household size in the late eighteenth century was six people,<sup>45</sup> while today it is just under two people.<sup>46</sup> The prevailing estimate of 40% to 79% ownership differs markedly from Bellesiles's claim that only about 15% owned guns.<sup>47</sup> In the remainder of this Section, I explain why.

#### 1. The Gun Censuses

Bellesiles bases his claims of low gun ownership primarily on probate records and counts of guns at militia musters. He also discusses censuses of all guns in private and public hands, but on closer examination, none of these turns out to be a general census of all guns.

The trend is set in Bellesiles's first count of guns in an American community—the 1630 count of all the guns in the Massachusetts Bay Colony of about 1000 people. Bellesiles's account is quite specific: "In 1630 the Massachusetts Bay Company reported in their possession: '80 bastard musketts,... [10] Fowlinge peeces,... 10 Full musketts....'
There were thus exactly one hundred firearms for use among seven towns

<sup>44.</sup> This results from my analysis of the March 2001 release of the National Opinion Research Center's General Social Survey. 2000 [hereinafter 2000 NORC GSS]. The data are also available at Nat! Opinion Research Ctr., General Social Survey, at http "www.iepst.umich.edu/ GSS/ (last visited Apr. 8, 2002). According to the survey, 32.5% of households owned any gun, 197% owned a rife, 18.6% owned a shotgun, and 19.7% owned a pistol or revolver. 2000 NORC GSS, supra. Only 1.2% of respondents refused to respond to the question. Id.

<sup>45.</sup> Inter-Univ. Consortium for Political & Soc. Research (ICPSR), Census Data for the Year 1790, http://lisher.lib.virginia.edu/cgi-local/censusbin/census/cen.pl?year=790 (last visited Aug. 10. 2001).

<sup>46. 2000</sup> NORC GSS, supra note 44. 47. BELLESILES, supra note 3, at 445 tbl.1.

Facts

"Facts," said John Adams, "are stubborn things," and so they make strong arguments, especially when readers believe they come from honest sources. Gathering such information and transmitting it faithfully practically define what we mean by professional journalism in one realm and scholarship in another. We'll even listen to people that we don't agree with if they can overwhelm us with evidence. Below, for example, a reviewer for the conservative magazine National Review praises the work of William Julius Wilson, a well-known liberal sociologist, because of how well he presents his case:

In his eagerly awaited new book, Wilson argues that ghetto blacks are worse off than ever, victimized by a near-total loss of low-skill jobs in and around inner-city neighborhoods. In support of this thesis, he musters mountains of data, plus excerpts from some of the thousands of surveys and face-to-face interviews that he and his research team conducted among inner-city Chicagoans. It is a book that deserves a wide audience among thinking conservatives.

—John J. Dilulio Jr., "When Decency Disappears" (emphasis added)

In this instance, the facts are respected even when the reviewer (Dilulio) has a very different political stance from that of the author of the book

When your facts are compelling, they may stand on their own in a (Wilson). low-stakes argument, supported by little more saying where they come from. Consider the power of phrases such as "reported by the Wall Street Journal," "according to MSNBC," or "in a book published by Cambridge University Press." Such sources gain credibility if they have, in readers' experience, reported facts accurately and reliably over time. In fact, one reason that you document the sources you use in an argument is to let the credibility of those sources reflect positively on you.

But arguing with facts also sometimes involves challenging the biases of even the most reputable sources if they lead to unfair or selective reporting. You don't have to search hard to find critics of the Wall Street Journal or MSNBC these days. In recent years, bloggers and other online critics have enjoyed pointing out the biases or factual mistakes of what conservatives like to call "mainstream media" (MSM) outlets (some liberals prefer "corporate media" or "traditional media"). These criticisms often deal not just with specific facts and coverage but with the overall way that an issue is presented or "framed."

In the following passage, for example, blogger Andrew Sullivan, who unlike many of his fellow conservatives strongly opposes using waterboarding and other extreme interrogation techniques against suspected terrorists, takes on the New York Times. Conservatives often accuse the Times of having a liberal bias in its news coverage, but in this case Sullivan attacks the newspaper for framing the issue in what he considers an unjustifiably neutral way:

The front-page piece in the NYT today on Obama's thorny task in staffing the CIA, after seven years of its violation of the Geneva Conventions. is revealing in many ways. Like many in the MSM, the NYT cannot bring itself to describe the techniques that the CIA has used as "torture." And yet we know that the CIA has tortured prisoners under the plain legal definition of torture, and we know that this was the whole point of giving the CIA explicit legislative permission for this in 2006. [Yet], the only time the word "torture" is used in the NYT piece is to describe techniques practiced by other countries. This is an important point because it shows how the NYT is now actively deceiving its readers about this matter. Here is the NYT's locution on waterboarding, a torture technique used for centuries:

the near-drowning tactic considered by many legal authorities to be torture.

Can the NYT cite one legal authority . . . that says waterboarding is not torture? Can they cite one instance in American legal history in which is was not so defined? If not, why this absurd avoidance of the truth in the paper of record? . . .

This is the strategy of the torture defenders: render this debate once again a red-blue, right-left ding-dong, culture war struggle. It isn't. It's a foundational, moral and constitutional issue that transcends all those categories. And the NYT does its readers a disservice in occluding that.

-Andrew Sullivan, "The NYT and the T-Word"

In an ideal world, good information would always drive out bad. But you already know that we don't live in an ideal world, so sometimes bad information gets repeated in an echo chamber that amplifies the errors: if reputable media say that waterboarding or similar techniques may not constitute torture, how long will it take for people to begin to believe this?

And many media have no pretenses at all about being reputable. During the 2008 presidential campaign, the Internet buzzed with statements proclaiming that Barack Obama was Muslim, even after dozens of sources, including many people with whom Obama had worshipped, testified to his Christianity. As a reader and researcher, you should look beyond headlines, bylines, reputations, and especially rumors that fly about the Internet. Scrutinize any facts you collect before  $% \left( 1\right) =\left( 1\right) \left( 1\right)$ passing them on yourself. Test their reliability, and admit any problems at the start.

## Statistics

The New York Times suggests an

consumption when it offers visual

representations of statistical data.

..... LINK TO P. 840

argument about bottled water

Let's deal with a cliché right up front: figures lie and liars figure. Like most clichés, it contains a grain of truth. It's possible to lie with numbers, even those that are accurate, because numbers rarely speak for themselves. They need to be interpreted by writers—and writers almost always have agendas that shape the interpretations.

For example, suppose the crime rate in the city where you live has fallen from one hundred crimes per thousand residents four years ago to fifty per thousand this year. The mayor and the police chief, who are running for reelection, crow The crime rate has been cut in half during our time in office! But their opponents spin the figure another way—One out of every twenty citizens of Springfield will be a crime victim this year!—and point out that the crime rate in a nearby city has fallen by two-thirds over the same period. Suddenly that fifty per thousand looks like a sobering number. Sometimes the same statistic can be cited as a cause for celebration or for alarm.

We're not suggesting that numbers are meaningless or that you have license to use them in any way that serves your purposes. Quite the contrary. But you do have to understand the role you play in giving numbers a voice and a presence. Consider the way Armen Keteyian, writing for the Sporting News, raises serious questions about the safety of aluminum bats in high school and college sports, despite the insistence by many sports officials that they're safe. Keteyian makes his case by focusing on statistics and numbers—which we've italicized—suggesting otherwise:

Bat companies point to the NCAA's annual injury report ranking baseball as one of the safest collegiate sports. The report also shows "there is no . . . significant increase in batted ball injuries." But last December, after an 18-month study, the U.S. Consumer Product Safety Commission released a report that called the NCAA's injury statistics "inconclusive ... and not complete enough" to determine whether current aluminum bats are more dangerous than wood.

"Let's be honest," says Anderson. "Bat manufacturers have been wonderful for college baseball. So you get caught up in that, the free product, the fact it's saving you money. But all of a sudden I see my young man lying on the ground, and I'm going, 'Is this the right

[Many college players have been] struck-and in some cases nearly killed-by balls hit off aluminum bats certified by the NCAA and the national high school federation. To be approved, an aluminum bat must not cause a batted ball to travel any faster than the best wood bat does. But there's a catch: Bats are tested in a laboratory on a machine set at a 70 mph pitch speed and a 66 mph swing speed. Why not test at far more realistic numbers, say, 85 mph pitches and 80 mph swings?

Simple, says MacKay: "It would scare people to death."

Why? Reaction time. Experts say the fastest batted ball a pitcher can defend against is about 97 mph. Translation: Less than four-tenths of a second.

Ninety-seven mph also is the fastest a ball can be hit by a certified bat in the lab test. Sounds safe, right? But what about on the field? Well, it turns out nobody officially tests balls hit by aluminum bats under game conditions.

"We've seen some things on our radar gun-108 miles per hour, 110 at different times," says Anderson. "I've witnessed 114 myself. Makes you question whether we are doing the right thing."

-Armen Keteyian, "Bats Should Crack, Not Skulls" (emphasis added)

This is hardly the last word on aluminum bats. In fact, since Keteyian's article was published, the Little League has pronounced that aluminum bats are as safe as wooden bats even as high school leagues across the country were banning them. Nor is the controversy likely to end any time soon, unless a persistent spike in injuries brings about consensus.

## Surveys and Polls

Some of the most influential forms of statistics are those produced by surveys and polls. These measures play so large a role in people's social and political lives that writers, whether interpreting them or fashioning surveys themselves, need to give them special attention.

When they verify the popularity of an idea or proposal, surveys and polls provide persuasive appeals because, in a democracy, majority opinion offers a compelling warrant: a government should do what most people want. Polls come as close to expressing the will of the people as anything short of an election—the most decisive poll of all. (For more on

Cook's Country's taste test for chocolate chip cookies gave the surveyors a result they did not expect-homemade cookies didn't place first.

LINK TO P. 843

81

Fathers are more likely than mothers (33% vs. 26%) to say they sometimes play video games with their teens ages 12 to



USA Today is famous for the tables, pie charts, and graphs it creates to present statistics and poll results. What claims might the evidence in this graph support? How does the design of the item influence your reading of it?

warrants, see Chapter 7, pp. 186–92.) However, surveys and polls can do much more than help politicians make decisions. They can also provide persuasive reasons for action or intervention. When surveys show, for example, that most American sixth-graders can't locate France or Wyoming on a map—not to mention Turkey or Afghanistan—that's an appeal for better instruction in geography. When polls suggest that consumer confidence is declining, businesses may have reason to worry about their bulging inventories.

It always makes sense, however, to push back against any poll numbers reported—especially when they support your own point of view. Ask who commissioned the poll, who is publishing its outcome, who was surveyed (and in what proportions), and what stakes these parties might have in its outcome.

Are we being too suspicious? No. In fact, this sort of scrutiny is exactly what you should anticipate from your readers whenever you do surveys of your own to explore an issue. You should be confident that you've surveyed enough people to be accurate, that the people you chose for the study were representative of the selected population as a whole, and that you chose them randomly—not selecting those most likely to say what you hoped to hear.

On the other hand, as with other kinds of factual evidence, don't make the opposite mistake by discounting or ignoring polls whose findings are not what you had hoped for. In the following excerpts from a

column in the Dallas News, conservative Rod Dreher forthrightly faces up to the results from a poll of registered Texas voters after the 2008 election—results that he finds ominous for his Texas Republican Party:

The full report, which will be released today, knocks the legs out from under two principles cherished by the party's grassroots: staunch social conservatism and hard-line immigration policies. At the state level, few voters care much about abortion, school prayer and other hot-button issues. Immigration is the only conservative stand-by that rates much mention – and by hitting it too hard, Republicans lose both the Hispanics and independents that make up what the pollster defines as the "Critical Middle." . . .

This is not going to go down well with the activist core of the Texas GOP, especially people like me: a social conservative with firm views on illegal immigration. But reality has a way of focusing the mind, forcing one to realize that political parties are not dogma-driven churches, but coalitions that unavoidably shift over time.

-Rod Dreher, "Poll's Shocking SOS for Texas GOP"

Dreher's frank acknowledgment of findings that were unpleasant to him—which included his pointing out that the poll was conducted by a Republican polling firm—also helps him to create a positive ethos, presenting himself as a trustworthy, credible writer who follows the facts wherever they lead.

The meaning of polls and surveys is also affected by the way that questions are asked. Recent research has shown, for example, that questions about same-sex unions get differing responses according to how they are worded. When people are asked whether gay and lesbian couples should be eligible for the same inheritance and partner health benefits that heterosexual couples receive, a majority of those polled give positive responses—unless the word marriage appears in the question; then the responses are primarily negative. As a result, you need to be careful in constructing questions for any poll or survey you want to conduct.

You often also need to read beyond headlines and journalists' (or pollsters') summaries of poll results to be sure that you understand all the details of the findings and the ways that they are being interpreted. In a blog posting in which Dreher discusses the column excerpted above, for example, he notes:

The news is actually even worse for Republicans than I was able to indicate in the space constrictions of a newspaper column. The

support Democrats have is strong, according to the poll, whereas those who back the GOP are lukewarm.

-Rod Dreher, "Is Texas Going Democratic?"

Finally, always keep in mind that the date of a poll may strongly affect the results—and their usefulness in an argument. On July 31, 2008, for example, the Orange County (California) Registrar carried an article with the headline "Poll; Californians Now Favor Offshore Drilling." The article reported that 51 percent of those polled favored offshore drilling for oil, which a majority of California residents had previously opposed, and noted that this was an increase of ten percentage points from a survey done a year earlier. But it also noted that the poll was conducted at a time of sharply rising gasoline prices. Within a few months, prices were falling dramatically amid the global economic recession, so an argument in favor of drilling would have to take into account the possibility that public sentiment might have shifted significantly again.

## **Testimonies and Narratives**

Numbers and statistics are not the only good evidence that writers need. You can support arguments with all kinds of human experiences, particularly those that you or others have undergone or reported. In a court,

A drilling platform off the California coast. Polls on allowing offshore drilling tend to track fluctuations in oil prices.



for example, decisions are often based on detailed descriptions of what happened. Following is a reporter's account of a court case in which a panel of judges decided, based on the testimony presented, that a man had been sexually harassed by another man. The narrative, in this case, supplies the evidence:

The Seventh Circuit, in a 1997 case known as Doe v. City of Belleville, drew a sweeping conclusion allowing for same-sex harassment cases of many kinds. Title VII was sex-neutral, the court ruled; it didn't specifically prohibit discrimination against men or women. Moreover, the judges argued, there was such a thing as gender stereotyping, and if someone was harassed on that basis, it was unlawful. This case, for example, centered on teenage twin brothers working a summer job cutting grass in the city cemetery of Belleville, Ill. One boy wore an earring, which caused him no end of grief that particular summerincluding a lot of menacing talk among his co-workers about sexually assaulting him in the woods and sending him "back to San Francisco." One of his harassers, identified in court documents as a large former marine, culminated a verbal campaign by backing the earring-wearer against a wall and grabbing him by the testicles to see "if he was a girl or a guy." The teenager had been "singled out for this abuse." the court ruled, "because the way in which he projected the sexual aspect of his personality"-meaning his gender-"did not conform to his coworkers' view of appropriate masculine behavior."

-Margaret Talbot, "Men Behaving Badly"

Personal experience carefully reported can also support a claim convincingly, especially if a writer has earned the trust of readers. In the following excerpt, Christian Zawodniak describes his experiences as a student in a first-year college writing course. Not impressed by his instructor's performance, Zawodniak provides specific evidence of the instructor's failings:

My most vivid memory of Jeff's rigidness was the day he responded to our criticisms of the class. Students were given a chance anonymously to write our biggest criticisms one Monday, and the following Wednesday Jeff responded, staunchly answering all criticisms of his teaching: "Some of you complained that I didn't come to class prepared. It took me five years to learn all this." Then he pointed to the blackboard on which he had written all the concepts we had discussed that quarter. His responses didn't seem genuine or aimed at improving his teaching or helping students to understand him. He thought he was always right. Jeff's position gave him responsibilities that he officially met. But he didn't take responsibility in all the ways he had led us to expect.

—Christian Zawodniak, "Teacher Power, Student Pedagogy"

This portrait of a defensive instructor gives readers details by which to assess the argument. If readers believe Zawodniak, they learn something about teaching. (For more on establishing credibility with readers, see Chapter 3.)

## Using Reason and Common Sense

In the absence of hard facts, claims may be supported with other kinds of compelling reasons. The formal study of principles of reasoning is called logic, but few people (except perhaps mathematicians and philosophers) use formal logic to present their arguments. Many people might recognize the most famous of all syllogisms (a vehicle of deductive reasoning), but that's about the extent of what they know about formal logic:

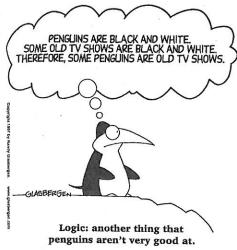
All human beings are mortal.

Socrates is a human being.

Therefore, Socrates is mortal.

In valid syllogisms, the conclusion follows logically—and technically from the premises that lead up to it. Many have criticized syllogistic reasoning for being limited, and some say that the conclusion of a syllogism is really only a restatement of the premises. Others have poked fun at the syllogism, as in the cartoon on the facing page, which demonstrates an error in reasoning known as the undistributed middle term (in this case, the term is "black and white").

Even as gifted a logician as Aristotle recognized that most people argue perfectly well using informal rather than formal logic. Consciously or not, we are constantly stating claims, drawing conclusions, and making and questioning assumptions whenever we read or write. People mostly rely on the habits of mind and cultural assumptions that they share with their readers or listeners.



@ Randy Glasbergen

In Chapter 7, we describe a system of informal logic that you may find useful in shaping credible arguments-Toulmin argument. Here, we briefly examine some ways that people use informal logic in their daily lives. Once again, we begin with Aristotle, who used the term enthymeme to describe an ordinary kind of sentence that includes both a claim and a reason but depends on the audience's agreement with an assumption that is left implicit rather than spelled out. The following sentences are all enthymemes:

We'd better cancel the picnic because it's going to rain.

Flat taxes are fair because they treat everyone the same.

I'll buy a PC laptop instead of a Mac because it's cheaper.

NCAA football needs a real play-off to crown a real national champion.

On their own, enthymemes can be persuasive statements when most readers agree with the assumptions on which they're based. Perhaps

that's why enthymemes lie at the heart of many humorous statements, like this one from Will Rogers:

I am not a member of any organized political party. I am a Democrat.

Rogers is counting here on his audience filling in what is implicit: because historically the Democrats have been diverse and given to fighting among themselves, they are a "disorganized" rather than an "orga-

Sometimes enthymemes seem so obvious that readers don't realize nized" party. that they're drawing inferences when they agree with them. Consider the first example on p. 85:

We'd better cancel the picnic because it's going to rain.

Let's expand the enthymeme a bit to say more of what the speaker may mean:

We'd better cancel the picnic this afternoon because the weather bureau is predicting a 70 percent chance of rain for the remainder of the day.

Embedded in this brief argument are all sorts of assumptions and fragments of cultural information that are left implicit but that help to make it persuasive:

Picnics are ordinarily held outdoors.

When the weather is bad, it's best to cancel picnics.

Rain is bad weather for picnics.

A 70 percent chance of rain means that rain is more likely to occur than not.

When rain is more likely to occur than not, it makes sense to cancel

The weather bureau's predictions are reliable enough to warrant action.

For most people, the original statement carries all this information on its own; it's a compressed argument, based on what audiences know and will accept.

But sometimes enthymemes aren't self-evident:

Be wary of environmentalism because it's religion disguised as science.

iPods are undermining civil society by making us even more focused on ourselves.

It's time to make all public toilets unisex because to do otherwise is discriminatory.

In those cases, you'll have to work much harder to defend both the claim and the implicit assumptions that it's based on by drawing out the inferences that seem self-evident in other enthymemes. And you'll likely also have to supply credible evidence. A simple declaration of fact won't suffice.

## **Cultural Assumptions and Values**

Some of the assumptions in an argument will be based on shared values derived from culture and history. In the United States, for example, few arguments work better than those based on principles of fairness and equity. Since the Declaration of Independence announces these principles, they are deeply inscribed in U.S. culture and represent a cherished value. As a result, most Americans will say that they believe all people should be treated the same way, no matter who they are or where they come from.

Because fairness is so deeply endorsed in American culture, enthymemes that rely on principles of fairness and equity need less formal support than those that challenge them. That's why, for example, both sides in debates over affirmative-action programs seek the high ground of fairness: proponents claim that affirmative action is needed to correct enduring inequities from the past; opponents suggest that the preferential policies should be overturned because they cause inequity today. Here, Linda Chavez assumes that her audience will value principles of equity:

Ultimately, entitlements based on their status as "victims" rob Hispanics of real power. The history of American ethnic groups is one of overcoming disadvantage, of competing with those who were already here and proving themselves as competent as any who came before. Their fight was always to be treated the same as other Americans, never to be treated as special, certainly not to turn the temporary disadvantages they suffered into permanent entitlement. Anyone who thinks this fight was easier in the earlier part of this century when it was waged by other ethnic groups does not know history.

-Linda Chavez, "Towards a New Politics of Hispanic Assimilation"

Chavez expects Hispanics to accept her claims because she believes that they don't wish to be treated differently from other ethnic groups in the

Societies in other times and places have held their own cultural valsociety. ues and principles derived from them. Medieval Europe, for example, valued aristocratic birth, and the effectiveness of many arguments in that time and place counted on widespread consensus on that principle. Other cultures, including some in Africa, have valued cooperation and community rather than individualism and based arguments on such a

Writers need to understand the values and cultural assumptions held value. by their audiences, but even an assumption that seems pervasive—like that of equity and fairness—will still be open to interpretation. In the case of Linda Chavez's argument, for instance, many citizens—whether Hispanic or not—disagreed vehemently with her arguments against affirmative action because they held different definitions of what fair and equal mean.

## **Providing Logical Structures for Argument**

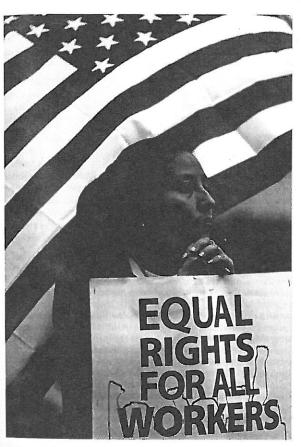
Some arguments are not tied to cultural assumptions but rather depend on particular logical structures to make their points. In the following pages, we identify a few of these logical structures.

## Degree

Arguments based on degree are so common that people barely notice them. Nor do people pay much attention to how they work because they seem self-evident. Most audiences will readily accept that more of a good thing or less of a bad thing is good. In her novel The Fountainhead, Ayn Rand asks: "If physical slavery is repulsive, how much more repulsive is the concept of servility of the spirit?" Most readers immediately comprehend the point Rand intends to make about slavery of the spirit because they already know that physical slavery is cruel and would reject any forms of slavery that were even crueler on the principle that more of  $\mathfrak a$ bad thing is bad. Rand still needs to offer evidence that "servility of the spirit" is, in fact, worse than bodily servitude, but she has begun with a

Kathy Freston's "Vegetarian Is the New Prius" depends on arguments based on degree as she compares the environmental damage created by livestock with that created by cars.

LINK TO P. 800



A demonstrator at an immigrant-rights rally in New York City in 2007. Arguments based on values that are widely shared within a society—such as the idea of equal rights in American culture have an automatic advantage with audiences.

logical structure readers can grasp. Here are other arguments that work similarly:

If I can get a ten-year warranty on a humble Kia, shouldn't I get the same or better warranty from Lexus?

The health benefits from using stem cells in research will surely outweigh the ethical risks.

Better a conventional war now than a nuclear confrontation later.

## Analogies

Analogies explain one idea or concept by comparing it to something else. People understand comparisons intuitively. Indeed, people habitually think in comparative terms, through similes and metaphors: he is as slow as molasses; love is never having to say you're sorry; war is hell. An analogy is typically a complex or extended comparison. Following is an excerpt from an extended analogy in a New York Times op-ed column by Thomas Friedman, entitled "9/11 and 4/11" (the 4/11 refers to the price of gas, then at \$4.11):

We don't have a "gasoline price problem." We have an addiction problem. We are addicted to dirty fossil fuels, and this addiction is driving a whole set of toxic trends that are harming our nation in different ways....

When a person is addicted to crack cocaine, his problem is not that the price of crack is going up. His problem is what that crack addiction is doing to his whole body. The cure is not cheaper crack, which would only perpetuate the addiction and all the problems it is creating. The cure is to break the addiction.

Ditto for us. Our cure is not cheaper gasoline, but a clean energy system. And the key to building that is to keep the price of gasoline and coal—our crack—higher, not lower, so consumers are moved to break their addiction to these dirty fuels and inventors are moved to create clean alternatives.

-Thomas L. Friedman, "9/11 and 4/11"

Many would resist Friedman's analogy here, perhaps arguing that it oversimplifies a complex issue and challenging his details of the analogy. And analogies of argument are routinely abused, so much so that faulty analogy (see p. 533) is one of the most familiar fallacies of argument.

## Precedent

Arguments from precedent are related to arguments of analogy in that they both involve comparisons. Sometimes an argument of precedent focuses on comparable institutions. Consider an assertion like the following:

If motorists in most other states can pump their own gas safely, surely the state of Oregon can trust its own drivers to be as capable. It's time for Oregon to permit self-service gas stations.

You could pull a lot of inferences out of this claim to explain its reasonableness: people in Oregon are as capable as people in other states, people with equivalent capabilities can do the same thing, pumping gas is not hard, and so forth. But you don't have to because most readers get the argument simply because of the way it is put together.

Here's an excerpt from an extended argument by a columnist for the student newspaper of the University of Massachusetts at Amherst calling for "bathroom reform." Note the ways in which this student calls on a number of precedents in making her case:

Several semesters ago, transgender students began to protest the bathroom situation at UMass, demanding gender-neutral bathrooms in many dorms. This was so students who do not identify with their assigned gender at birth or with either gender could feel comfortable entering the bathrooms without going into the "wrong" bathroom. This movement filled The Massachusetts Daily Collegian with many columns for and against doing so, along with a table that was always manned by someone in the Campus Center. Since then, the movement for a "restroom revolution" to transform the way we think about bathrooms has died down, either due to the UMass administration's unwillingness to bend or lack of energy and time.

Often I find male bathrooms to be empty while a long line stretched out the door from female bathrooms. This is due to the evident fact that males are quicker than females at relieving themselves; yet, whenever bathrooms are built, both the female and male bathrooms are built of an equal size. . . .

Just several decades ago, UMass dorms were either all-female or all-male, and females could attend a male dorm only one Sunday a month, in which case the dormitory room door had to stay open and three feet had to be on the ground at all time. Today's co-ed dorms are an idea that was unheard of at that time, an idea as strange as co-ed bathrooms are today. Today, schools such as Harvard University and



As more and more restrooms go gender-neutral, they provide precedents for future arguments. This one, at Kent State University in Ohio, accommodates transgendered people, designated by the symbol at the bottom right.

the University of New Hampshire, as well as many others, have co-ed bathrooms with no problems.

At UMass, sexual assault does remain a problem and an issue that needs to be dealt with. The fact is that gender-specific bathrooms have not shown in the past to prevent sexual assaults and a perpetrator is not prevented from entering such a bathroom simply by a "no men allowed" sign. Statistically, most assaults on women are not done by complete strangers, but rather by someone that the victim already knew. By creating gender-neutral bathrooms, a greater number of people would be allowed to enter these facilities, making them less empty and isolated. . . .

Fifty years ago, women wearing men's clothing, such as pants, was taboo and unthinkable, and co-ed gym classes was an inconceivable concept. Imagine how ridiculous a notion those ideas must have been then. I don't think society will crumble now if we allow all genders to use the same bathrooms in college. Gender-segregated bathrooms are an example of an attempt to hold onto the past, but we are in a new age of equality. Why not create some equally accessible bathrooms?

—Gilad Skolnick, "A Plea for Bathroom Reform"

Other precedents deal with issues of time. For example, what courts have decided in the past often determines how courts will rule on a similar or related issue. The near avalanche of lawsuits brought by the Recording Industry Association of America (RIAA) in an attempt to stop online file sharing has over the last decade aimed at establishing a set of legal precedents that would make it harder for consumers to share music, films, and so on. In this case, opponents of the RIAA are working to establish their own legal precedents, and experts expect this argument to go on for years.

You'll encounter additional kinds of logical structures as you create your own arguments. You'll find some of them in Chapter 7 on Toulmin argument and still more in Chapter 17, "Fallacies of Argument."

## RESPOND .

 Discuss whether the following statements are examples of hard evidence or rational appeals. Not all cases are clear-cut.

The bigger they are, the harder they fall.

Drunk drivers are involved in more than 50 percent of traffic deaths.

DNA tests of skin found under the victim's fingernails suggest that the defendant was responsible for the assault.

Polls suggest that a slim majority of Americans favor a constitutional amendment to ban same-sex marriage.

A psychologist testified that teenage violence could not be blamed on video games.

An apple a day keeps the doctor away.

History proves that cutting tax rates increases government revenues because people work harder when they can keep more of what they earn.

"The only thing we have to fear is fear itself."

Air bags ought to be removed from vehicles because they can kill young children and small-frame adults.

Take a look at comedian Rita Rudner's fairly complicated enthymematic argument:

I was going to have cosmetic surgery until I noticed that the doctor's office was full of portraits by Picasso.

Rhetorical Analysis

Working with two other students, analyze this enthymeme. What information is left implicit? What inference or conclusion does Rudner ask us to draw from this enthymeme? What causes the humor in this statement?

- 3. We suggest in this chapter that statistical evidence becomes useful only when responsible authors interpret the data fairly and reasonably. As an exercise, go to the USA Today Web site or to the newspaper itself and look for the daily graph, chart, or table called the USA Today snapshot. (On the Web site, you'll have a series of these items to choose from.) Pick a snapshot, and use the information in it to support at least three different claims. See if you can get at least two of the claims to make opposing or very different points. Share your claims with classmates. (The point is not to learn to use data dishonestly but to see firsthand how the same statistics can serve a variety of arguments.)
- 4. Testimony can be as suspect as statistics. For example, check out the newspaper ads for some recent movies. How lengthy are the quotes from reviewers? A reviewer's stinging indictment of a violent action film—"this blockbuster may prove to be a great success at the box office, but it stinks as filmmaking"—could be reduced to "A great success." Bring to class a full review of a recent film that you enjoyed. (If you haven't enjoyed any films lately, select a review of one you disliked.) Using testimony from that review, write a brief argument to your classmates explaining why they should see that movie (or why they should avoid it). Be sure to use the evidence from the review fairly and reasonably, as support for a claim that you're making. Then exchange arguments with a classmate, and decide whether the evidence in your peer's argument helps to change your opinion about the movie. What's convincing about the evidence? If it doesn't convince you, why not?
- 5. Choose an issue of some consequence, locally or nationally, and then create a series of questions designed to poll public opinion on the issue. But design the questions to evoke a range of responses. See if you can design a reasonable question that would make people strongly inclined to favor or approve an issue, a second question that would lead them to oppose the same proposition just as intensely, a third that tries to be more neutral, and additional questions that provoke different degrees of approval or disapproval. If possible, try out your questions on your classmates.



When the thirty-second spot first aired in late March 2004, many viewers reacted with disbelief: What the  $\dots$ ?! The guy with the mustache  $\dots$  and a sexy underwear model  $\dots$  it couldn't be  $\dots$  could it?

But it was—counterculture folk legend pop icon Bob Dylan crooning "Love Sick" in a TV ad for Victoria's Secret, a purveyor of women's underclothes. Dylan, who had never before pitched a product other than his own recordings, now traded glances with an alluring young woman in wings and high heels. The bard who'd penned "The Times They Are A-Changin'" and "Blowin' in the Wind" had sold his birthright, disillusioned critics charged, for—yikes—a bra and blue panties. (Check YouTube for a series of related ads and videos.)

Media critic Seth Stevenson, writing in Slate, devoted a full column to analyzing this particular pitch, trying first to figure out why an artist of Dylan's stature would do a commercial: For money? Whimsy? Exposure?