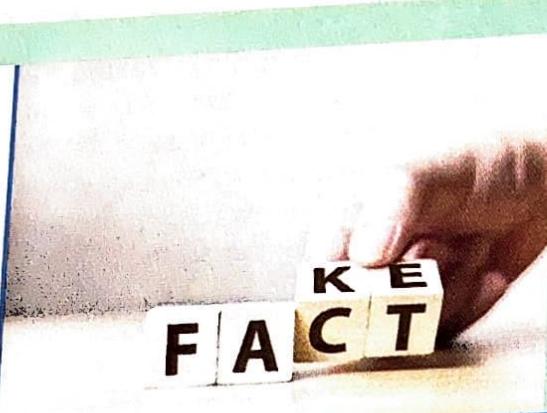


4

Arguments Based on Facts and Reason: Logos



LEFT TO RIGHT: Harley Schwadron/CartoonStock.com; Monster Zstudio/Shutterstock; Charles Krupa/AP Images

In 2018, it feels like facts are under siege, as these three images suggest. Cartoonists are having a field day with a “post-fact” world, while serious scientists are hard at work trying to understand “why facts don’t change our minds.” From Kellyanne Conway’s evocation of “alternative facts” to Donald Trump’s tendency to label reports that do not support his views as “fake news,” we are witnessing a world in which the statement by *Through the Looking-Glass*’s White Queen that “sometimes I’ve believed as many as six impossible things before breakfast” seems, well, unremarkable. After the 2016 election, for example, President Trump declared that there was “serious voter fraud” in Virginia, in New Hampshire, in California, and elsewhere, although researchers could find no evidence to back up his claim, and fact-checkers across the board found the “fact” to be baseless. In June 2017, three CNN employees resigned after the network retracted a story that claimed Congress was investigating a “Russian investment fund with ties to Trump officials”; the journalists had used only one unreliable source to back up this supposedly factual

claim. We could go on and on with such examples from across the political spectrum, and no doubt you could add your own to the list.

In "Why Facts Don't Change Our Minds," Elizabeth Kolbert surveys cognitive science research that's trying to understand why this is so, pointing to a series of experiments at Stanford University that found that "Even after the evidence for their beliefs had been totally refuted, people fail to make appropriate revisions to those beliefs":

Thousands of subsequent experiments have confirmed (and elaborated on) this finding. As everyone who's followed the research—or even occasionally picked up a copy of *Psychology Today*—knows, any graduate student with a clipboard can demonstrate that reasonable-seeming people are often totally irrational. Rarely has this insight seemed more relevant than it does now.

Scientists working on this issue point to the "confirmation" or "myside" bias, the strong tendency to accept information that supports our beliefs and values and to reject information that opposes them, as well as to our tendency to think we know a whole lot more than we actually do. A study at Yale asked graduate students to rate their knowledge of everyday items, including toilets, and to write up an explanation of how such devices worked. While the graduate students rated their knowledge/understanding as high before they wrote up the explanations, that exercise showed them that they didn't really know how toilets worked, and their self-assessment dropped significantly. The researchers, Steven Sloman and Philip Fernbach, call this effect the "illusion of explanatory depth" and find that it is very widespread. "Where it gets us into trouble," they say, is in "the political domain." As Kolbert writes, "It's one thing for me to flush a toilet without knowing how it operates, and another for me to favor (or oppose) an immigration ban without knowing what I'm talking about." Sloman and Fernbach explain: "As a rule, strong feelings about issues do not emerge from deep understanding. . . . This is how a community of knowledge can become dangerous."

Such findings are important to all of us, and they suggest several steps all writers, readers, and speakers should take as they deal with arguments based on facts and reason. First, examine your own beliefs in particular facts and pieces of information: do you really know what you're talking about or are you simply echoing what others you know say or think? Second, you need to become a conscientious fact-checker, digging deep to make sure claims are backed by evidence. Doing so is

especially important with information you get from social media, where misinformation, disinformation, and even outright lies may be presented as “facts” that you might retweet or post, thus perpetuating false or questionable information.

Finally, don’t give up on facts. The researchers discussed above also show that, when given a choice, most people still say they respect and even prefer appeals to claims based on facts, evidence, and reason. Just make sure that the logical appeals you are using are factually correct and ethical as well.

Thinking Critically about Hard Evidence

Aristotle helps us out in classifying arguments by distinguishing two kinds:

Artistic Proofs	Arguments the writer/speaker creates	Constructed arguments	Appeals to reason; common sense
Inartistic Proofs	Arguments the writer/speaker is given	Hard evidence	Facts, statistics, testimonies, witnesses, contracts, documents

We can see these different kinds of logical appeals at work in a passage from a statement made on September 5, 2017, by Attorney General Jeff Sessions:

Good morning. I am here today to announce that the program known as DACA that was effectuated under the Obama Administration is being rescinded. The DACA program was implemented in 2012 and essentially provided a legal status for recipients for a renewable two-year term, work authorization and other benefits, including participation in the social security program, to 800,000 mostly-adult illegal aliens. This policy was implemented unilaterally to great controversy and legal concern after Congress rejected legislative proposals to extend similar benefits on numerous occasions to this same group of illegal aliens.

In other words, the executive branch, through DACA, deliberately sought to achieve what the legislative branch specifically refused to authorize on multiple occasions. Such an open-ended circumvention of immigration laws was an unconstitutional exercise of authority by the Executive Branch. The effect of this unilateral executive amnesty, among other things, contributed to a surge of unaccompanied minors

on the southern border that yielded terrible humanitarian consequences. It also denied jobs to hundreds of thousands of Americans by allowing those same jobs to go to illegal aliens.



Jeff Sessions announcing that DACA would be rescinded by the Trump administration Alex Wong/Getty Images

Sessions opens his statement with a simple “good morning” and a direct announcement of his purpose: to rescind the Deferred Action for Childhood Arrivals (DACA) program initiated by the Obama administration in 2012. In the next sentence, he uses “inartistic” evidence of what DACA provided (it was renewable and provided work authorization and other benefits) for “800,000 mostly-adult illegal aliens.” Noting that Congress had refused on several occasions to extend benefits to the “same group of illegal aliens,” Sessions offers the constructed argument that Obama’s “open-ended circumvention of immigration laws was an unconstitutional exercise of authority.” Presumably now drawing on hard evidence, Sessions argues that DACA led to “a surge of unaccompanied minors,” that it denied jobs to “hundreds of thousands” of Americans, and, by neglecting the “rule of law,” it subjected the United States to “the risk of crime, violence, and even terrorism.”

Sessions says early on in his statement that DACA was implemented amidst “great controversy,” and indeed that fact checks out. Other claims made in the statement, however, were quickly challenged. The nonpartisan FactCheck.org, for example, calls out Sessions’s description of DACA recipients as “mostly-adult illegal aliens” (a label he uses several times),

citing research by Professor Tom Wong of the University of California, San Diego, whose national survey of 3,063 DACA holders in summer 2017 found that “on average they were six and a half years old when they arrived in the U.S. Most of them—54 percent—were under the age of 7.” So while they are adults today, they were not adults when they were brought to the United States. Likewise, FactCheck.org points out that Sessions’s claim that DACA contributed to a “surge of unaccompanied minors” is, at best, misleading and out of context:

It is true that there was a surge of unaccompanied children that caught the Obama administration off guard in fiscal 2012. The number of unaccompanied minors crossing the border peaked in fiscal 2014 at 68,541, dropping 42 percent to 39,970 in fiscal 2015 before rising again in fiscal year 2016 to 59,692.

But the children who crossed the border illegally were not eligible for DACA. As we said earlier, the criteria for DACA is continuous residence in the United States since June 15, 2007.

If you were reading or listening to this statement and wanted to do some fact-checking of your own, you might well begin by determining whether DACA really led to the loss of hundreds of thousands of jobs. In today’s political climate, in fact, it’s important that every one of us read with a critical eye, refusing to accept claims without proof, constructed arguments, or even “hard evidence” that we can’t fact-check for ourselves.



DACA “Dreamers” protesting near Trump Tower in New York the day after Sessions’s statement rescinding the program
Moore/Getty Images

RESPOND.

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

1. Drunk drivers are involved in more than 50 percent of traffic deaths.
2. DNA tests of skin found under the victim's fingernails suggest that the defendant was responsible for the assault.
3. A psychologist testified that teenage violence could not be blamed on video games.
4. The crowds at President Trump's inauguration were the largest on record.
5. "The only thing we have to fear is fear itself."
6. Air bags ought to be removed from vehicles because they can kill young children and small-framed adults.

Facts

Gathering factual information and transmitting it faithfully practically define what we mean by professional journalism and scholarship. Carole Cadwalladr, a reviewer for the British newspaper the *Guardian*, praises the research underlying *It's Complicated: The Networked Lives of Teens*. Drawing on almost a decade of research by assistant professor danah boyd of New York University,

the book is grounded in hard academic research: proper interviews conducted with actual teenagers. What comes across most strongly, more so than the various "myths" and "panics" that the author describes, is just how narrow and circumscribed many of these teenagers' lives have become.

Here the "hard academic research" the reviewer mentions is the ethnographic research that yields an accurate description of these young people's lives.

When your facts are compelling, they might stand on their own in a low-stakes argument, supported by little more than saying where they come from. Consider the power of phrases such as "reported by the *Wall Street Journal*" or "according to FactCheck.org." Such sources gain credibility if they have reported facts accurately and reliably over time. Using such credible sources in an argument can also reflect positively on you.

In scholarly arguments, which have higher expectations for accuracy, what counts is drawing sober conclusions from the evidence turned up

through detailed research or empirical studies. The language of such material may seem dryly factual to you, even when the content is inherently interesting. But presenting new knowledge dispassionately is (ideally at least) the whole point of scholarly writing, marking a contrast between it and the kind of intellectual warfare that occurs in many media forums, especially news programs and blogs. Here for example is a portion of a lengthy opening paragraph in the “Discussion and Conclusions” section of a scholarly paper arguing that people who spend a great deal of time on Facebook often frame their lives by what they observe there:

As expected in the first hypothesis, the results show that the longer people have used Facebook, the stronger was their belief that others were happier than themselves, and the less they agreed that life is fair. Furthermore, as predicted in the second hypothesis, this research found that the more “friends” people included on their Facebook whom they did not know personally, the stronger they believed that others had better lives than themselves. In other words, looking at happy pictures of others on Facebook gives people an impression that others are “always” happy and having good lives, as evident from these pictures of happy moments.

—Hui-Tzu Grace Chou, PhD, and Nicholas Edge, BS,
“They Are Happier and Having Better Lives Than I Am”:
The Impact of Using Facebook on Perceptions of Others’ Lives”

There are no fireworks in this conclusion, no slanted or hot language, no unfair or selective reporting of data, just a careful attention to the facts and behaviors uncovered by the study. But one can easily imagine these facts being subsequently used to support overdramatized claims about the dangers of social networks. That’s often what happens to scholarly studies when they are read and interpreted in the popular media.

Of course, arguing with facts can involve challenging even the most reputable sources if they lead to unfair or selective reporting or if the stories are presented or “framed” unfairly.

In an ideal world, good information—no matter where it comes from—would always drive out bad. But you already know that we don’t live in an ideal world, so all too often bad information gets repeated in an echo chamber that amplifies the errors.

Statistics

You’ve probably heard the old saying “There are three kinds of lies: lies, damned lies, and statistics,” and it is certainly 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.

Of course, just because they are often misused doesn't mean that statistics are meaningless, but it does suggest that you need to use them carefully and to remember that your careful reading of numbers is essential. Consider the attention-grabbing map below that went viral in June 2014. Created by Mark Gongloff of the Huffington Post in the wake of a school shooting in Oregon, it plotted the location of all seventy-four school shootings that had occurred in the United States since the Sandy Hook tragedy in December 2012, when twenty elementary school children and six adults were gunned down by a rifle-wielding killer. For the graphic, Gongloff drew on a list assembled by the group Everytown for Gun Safety, an organization formed by former New York City mayor and billionaire Michael Bloomberg to counter the influence of the National Rifle Association (NRA). Both the map and Everytown's sobering list of shootings received wide attention in the media, given the startling number of incidents it recorded.

It didn't take long before questions were raised about their accuracy. Were American elementary and secondary school children under such frequent assault as the map based on Everytown's list suggested? Well, yes and no. Guns were going off on and around school campuses, but the firearms weren't always aimed at children. The Washington Post, CNN, and other news outlets soon found themselves pulling back on

Lindsay McKenzie cites statistics in her Web article about how secure students feel in protecting themselves from cyberattacks.

LINK TO P. 698



their initial reporting, offering a more nuanced view of the controversial number. To do that, the *Washington Post* began by posing an important question:

What constitutes a school shooting?

That five-word question has no simple answer, a fact underscored by the backlash to an advocacy group's recent list of school shootings. The list, maintained by Everytown, a group that backs policies to limit gun violence, was updated last week to reflect what it identified as the 74 school shootings since the massacre in Newtown, Conn., a massacre that sparked a national debate over gun control.

Multiple news outlets, including this one, reported on Everytown's data, prompting a backlash over the broad methodology used. As we wrote in our original post, the group considered any instance of a firearm discharging on school property as a shooting—thus casting a broad net that includes homicides, suicides, accidental discharges and, in a handful of cases, shootings that had no relation to the schools themselves and occurred with no students apparently present.

—Niraj Chokshi, “Fight over School Shooting List Underscores Difficulty in Quantifying Gun Violence”

CNN followed the same path, re-evaluating its original reporting in light of criticism from groups not on the same page as Everytown for Gun Safety:

Without a doubt, that number is startling.

So . . . CNN took a closer look at the list, delving into the circumstances of each incident Everytown included. . . .

CNN determined that 15 of the incidents Everytown included were situations similar to the violence in Newtown or Oregon—a minor or adult actively shooting inside or near a school. That works out to about one such shooting every five weeks, a startling figure in its own right.

Some of the other incidents on Everytown's list included personal arguments, accidents and alleged gang activities and drug deals.

—Ashley Fantz, Lindsey Knight, and Kevin Wang, “A Closer Look: How Many Newtown-like School Shootings since Sandy Hook?”

Other news organizations came up with their own revised numbers, but clearly the interpretation of a number can be as important as the statistic itself. And what were Mark Gongloff's Twitter reactions to these reassessments? They made an argument as well:

Mark Gongloff  Follow
Map critics unhappy not all shootings = madmen stalking halls. But gangs/suicides /accidents are OK?

Mark Gongloff  Follow
CNN: of 74 school shootings since Sandy Hook, *only* 15 were just like it. What a relief cnn.com/2014/06/11/us/ ...

Arguments over gun violence in schools reached a new peak in 2018 after seventeen students and staff members were killed at Marjory Stoneman Douglas High School in Florida, leading to a nationwide student walkout on March 14 and massive protests at eight hundred sites around the world on March 24 (including over half a million in Washington, D.C., alone), all organized and led by students. Articulate and media savvy, the student leaders knew to rely on “hard evidence” and solid, fact-checked statistics, and they conducted the research necessary to do so. Students across the United States learned a lesson well: when you rely on statistics in your arguments, make sure you understand where they come from, what they mean, and what their limitations might be. Check and double-check them or get help in doing so: you don’t want to be accused of using fictitious data based on questionable assumptions.

RESPOND.

Statistical evidence becomes useful only when interpreted fairly and reasonably. Go to the *Business Insider Australia* Web site and look for one or more charts of the day (www.businessinsider.com/au/category/chart-of-the-day). Choose one, and use the information in it to support three different claims, at least two of which make 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.)

Surveys and Polls

When they verify the popularity of an idea or a proposal, surveys and polls provide strong persuasive appeals because they come as

close to expressing the will of the people as anything short of an election—the most decisive poll of all. However, surveys and polls can do much more than help politicians make decisions. They can be important elements in scientific research, documenting the complexities of human behavior. 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 Ukraine or Afghanistan—that's an appeal for better instruction in geography. It always makes sense, however, to question poll numbers, especially when they support our 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? Not at all, and especially not today. In fact, this sort of scrutiny is exactly what you might anticipate from your readers whenever you use (or create) surveys to explore an issue. You should be confident that enough subjects have been surveyed to be accurate, that the people chosen for the study were representative of the selected population as a whole, and that they were chosen randomly—not selected because of what they were likely to say. In a splendid article on how women can make research-based choices during pregnancy, economist Emily Oster explores, for example, whether an expectant mother might in fact be able to drink responsibly. She researches not only the results of the data, but also who was surveyed, and how their participation might have influenced the results. One 2001 study of pregnant women's drinking habits and their children's behavior years later cautioned that even a single drink per day while pregnant could cause behavioral issues. However, Oster uncovered a serious flaw in the study, noting that

18% of the women who didn't drink at all and 45% of the women who had one drink a day reported using cocaine during pregnancy.... [R]eally? Cocaine? Perhaps the problem is that cocaine, not the occasional glass of Chardonnay, makes your child more likely to have behavior problems.

—Emily Oster, "Take Back Your Pregnancy"

Clearly, polls, surveys, and studies need to be examined critically. You can't take even academic research at face value until you have explored its details.

The meaning of polls and surveys is also affected by the way that questions are posed. In the past, research revealed, for example, that polling about same-sex unions got differing responses according to how questions were worded. When people were 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 said yes—unless the word *marriage* appeared in the question; then the responses were primarily negative. If anything, the differences here reveal how conflicted people may have been about the issue and how quickly opinions might shift—as they have clearly done. Remember, then, to be very careful in reviewing the wording of survey or poll questions.

Finally, always keep in mind that the date of a poll may strongly affect the results—and their usefulness in an argument. In 2014, for example, a Reuters poll found that 20 percent of California residents said they supported “CalExit,” a proposal for California to secede from the United States and become a country in its own right. In 2017, however, the same poll found that figure had jumped from 20 percent to 32 percent. The pollsters note, however, that the “margin of error for the California answers was plus or minus 5 percentage points.” On public and political issues, you need to be sure that you are using the most timely information you can get.

RESPOND.

Choose an important issue and design a series of questions to evoke a range of responses in a poll. Try to design a question that would make people strongly inclined to agree, another question that would lead them to oppose the same proposition, and a third that tries to be more neutral. Then try out your questions on your classmates and note what you learn about how to improve your questions.

Testimonies and Narratives

Writers often support arguments by presenting human experiences in the form of narrative or testimony—particularly if those experiences are their own. When Republican Senator Orrin Hatch condemned KKK, neo-Nazi, and white nationalist protests in Charlottesville, Virginia, in August 2017, he did so by calling on personal experience:

In his article “Thick of Tongue,” linguist John McWhorter shares his personal experience as a black man whom others insist “sounds white.”

[LINK TO P. 657](#)

 Senator Hatch Office •
@senominhatch

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We should call evil by its name. My brother
didn't give his life fighting Hitler for Nazi
ideas to go unchallenged here at home. -
OGH

2:41 PM - 12 Aug 2017

In courts, judges and juries often take into consideration detailed descriptions and narratives of exactly what occurred. In the case of *Doe v. City of Belleville*, the judges of the Seventh Circuit Court of Appeals decided, based on the testimony presented, that a man (known as H.) had been sexually harassed by other men in his workplace. The narrative, in this case, supplies the evidence, noting that one coworker

constantly referred to H. as “queer” and “fag” and urged H. to “go back to San Francisco with the rest of the queers.” . . . The verbal taunting of H. turned physical one day when [a coworker] trapped [him] against a wall, proceeded to grab H. by the testicles and, having done so, announced to the assemblage of co-workers present, “Well, I guess he’s a guy.”

Personal perspectives can support a claim convincingly and logically, especially if a writer has earned the trust of readers. In arguing that Tea Party supporters of a government shutdown had no business being offended when some opponents described them as “terrorists,” Froma Harrop, one of the writers who used the term, argued logically and from experience why the characterization was appropriate:

[T]he hurt the tea party writers most complained of was to their feelings. I had engaged in name-calling, they kept saying. One professing to want more civility in our national conversation, as I do, should not be flinging around the terrorist word.

May I presume to disagree? Civility is a subjective concept, to be sure, but hurting people’s feelings in the course of making solid arguments is fair and square. The decline in the quality of our public discourse results not so much from an excess of spleen, but a deficit of well-constructed arguments. Few things upset partisans more than when the other side makes a case that bats home.

"Most of us know that effectively scoring on a point of argument opens us to the accusation of mean-spiritedness," writes Frank Partsch, who leads the National Conference of Editorial Writers' Civility Project. "It comes with the territory, and a commitment to civility should not suggest that punches will be pulled in order to avoid such accusations."

—Froma Harrop, "Hurt Feelings Can
Be a Consequence of Strong Arguments"

This narrative introduction gives a rationale for supporting the claim Harrop is making: we can expect consequences when we argue ineffectively. (For more on establishing credibility with readers, see Chapter 3.)

RESPOND •

Bring to class a full review of a recent film that you either enjoyed or did not enjoy. 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), being sure to use evidence from the review fairly and reasonably. 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 doesn't it?

Using Reason and Common Sense

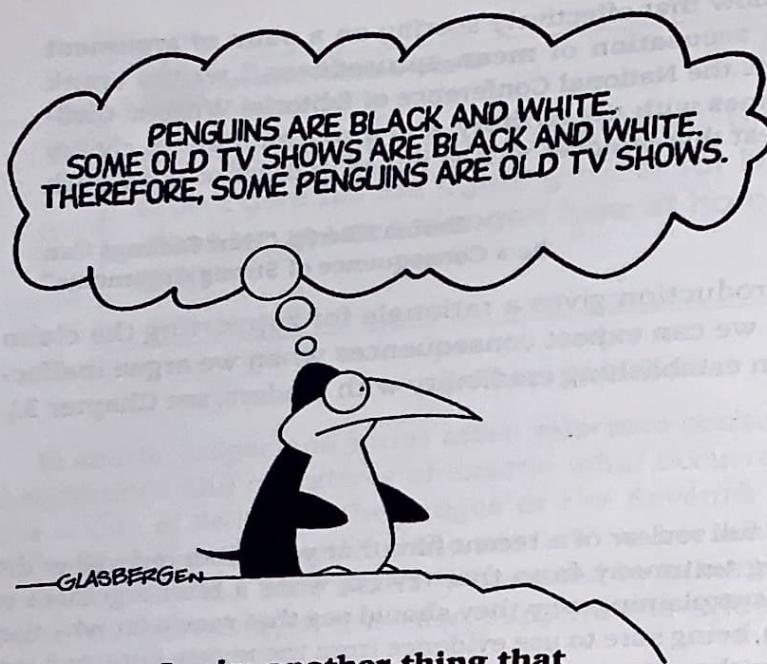
If you don't have "hard facts," you can turn to those arguments Aristotle describes as "constructed" from reason and common sense. The formal study of such reasoning is called logic, and you probably recognize a famous example of deductive reasoning, called a syllogism:

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 others have poked fun at it, as in the cartoon on page 72.



**Logic: another thing that
penguins aren't very good at.**

© Randy Glasbergen/glasbergen.com

But we routinely see something like syllogistic reasoning operating in public arguments, particularly when writers take the time to explain key principles. Consider the step-by-step reasoning Michael Gerson uses to explain why exactly it was wrong for the Internal Revenue Service in 2010–2011 to target specific political groups, making it more difficult for them to organize politically:

Why does this matter deserve heightened scrutiny from the rest of us? Because crimes against democracy are particularly insidious. Representative government involves a type of trade. As citizens, we cede power to public officials for important purposes that require centralized power: defending the country, imposing order, collecting taxes to promote the common good. In exchange, we expect public institutions to be evenhanded and disinterested. When the stewards of power—biased judges or corrupt policemen or politically motivated IRS officials—act unfairly, it undermines trust in the whole system.

—Michael Gerson, “An Arrogant and Lawless IRS”

Gerson's criticism of the IRS actions might be mapped out by the following sequence of statements.

Crimes against democracy undermine trust in the system.

Treating taxpayers differently because of their political beliefs is a crime against democracy.

Therefore, IRS actions that target political groups undermine the American system.

Few writers, of course, think about formal deductive reasoning when they support their claims. Even Aristotle recognized that most people argue perfectly well using informal logic. To do so, they rely mostly on habits of mind and assumptions that they share with their readers or listeners—as Gerson essentially does in his paragraph.

In Chapter 7, we describe a system of informal logic that you may find useful in shaping credible appeals to reason—Toulmin argument. Here, we briefly examine some ways that people use informal logic in their everyday 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. Enthymemes can be very persuasive when most people agree with the assumptions they rest on. 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 instead of a Mac because it's cheaper.

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

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 picnics.

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

CULTURAL CONTEXTS FOR ARGUMENT

Logos

In the United States, student writers are expected to draw on "hard facts" and evidence as often as possible in supporting their claims: while ethical and emotional appeals are increasingly important and often used in making decisions, logical appeals still tend to hold sway in academic writing. So statistics and facts speak volumes, as does reasoning based on time-honored values such as fairness and equity. In writing to global audiences, you need to remember that not all cultures value the same kinds of appeals. If you want to write to audiences across cultures, you need to know about the norms and values in those cultures. Chinese culture, for example, values authority and often indirect allusion over "facts" alone. Some African cultures value cooperation and community over individualism, and still other cultures value religious texts as providing compelling evidence. So think carefully about what you consider strong evidence, and pay attention to what counts as evidence to others. You can begin by asking yourself questions like:

- What evidence is most valued by your audience: Facts? Concrete examples? Firsthand experience? Religious or philosophical texts? Something else?
- Will analogies count as support? How about precedents?
- Will the testimony of experts count? If so, what kinds of experts are valued most?

But sometimes enthymemes aren't self-evident:

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

iPhones 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 these 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; just calling something a fact doesn't make it one, so a simple declaration of fact won't suffice.

Providing Logical Structures for Argument

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

If I can get a ten-year warranty on an inexpensive Kia, shouldn't I get the same or better warranty from a more expensive 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.

A demonstrator at an immigrants' 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 a strong advantage with audiences.

AP Photo/Seth Wenig



Analogy

Analogy, typically complex or extended comparisons, explain one idea or concept by comparing it to something else.

Here, writer and founder of literacy project 826 Valencia, Dave Eggers, uses an analogy in arguing that we do not value teachers as much as we should:

When we don't get the results we want in our military endeavors, we don't blame the soldiers. We don't say, "It's these lazy soldiers and their bloated benefits plans! That's why we haven't done better in Afghanistan!" No, if the results aren't there, we blame the planners.... No one contemplates blaming the men and women fighting every day in the trenches for little pay and scant recognition. And yet in education we do just that. When we don't like the way our students score on international standardized tests, we blame the teachers.

—Dave Eggers and Nínive Calegari,
"The High Cost of Low Teacher Salaries"

Precedent

Arguments from precedent and arguments of analogy both involve comparisons. Consider an assertion like this one, which uses a comparison as a precedent:

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 tease out several inferences from 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. In any case, that argument has begun to have traction: as of January 2018, Oregon began permitting self-service pumps in fifteen rural counties, though doing so called forth virulent pushback on social media. So the debate goes on!

Here is an excerpt from an analytical argument by Kriston Capps that examines attempts by the sculptor of Wall Street's Charging Bull to have a

Alli Joseph discusses the portrayal of Pacific Islanders in Disney's *Moana* and compares it to the studio's previous depictions of ethnic minorities.

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Anadolu Agency/Getty Images

new, competing sculpture, *Fearless Girl*, removed on the basis of legal precedents supporting the rights of visual artists. Sculptor Arturo Di Modica's assertion,

that Visbal's work infringes on his own, is unlikely to hold sway, under recent readings of the Visual Artists Rights Act. . . . The argument that *Fearless Girl* modifies or destroys *Charging Bull* by blocking its path would represent a leap that courts have been reluctant to take even in clearer cases.

—Kriston Capps, "Why Wall Street's *Charging Bull* Sculptor Has No Real Case against *Fearless Girl*"

You'll encounter additional kinds of logical structures as you create your own arguments. You'll find some of them in Chapter 5, "Fallacies of Argument," and still more in Chapter 7 on Toulmin argument.