2 COMMUNICATION RESEARCH AND INQUIRY



iStock.com/PeopleImages

CHAPTER OUTLINE

- **2.1** Theory and Scientific Inquiry
- 2.2 Three Philosophical Questions That Shape Scientific Inquiry
- **2.3** Traditions of Communication Inquiry
- **2.4** Tools of Observation: Research Methods

For the first time, you are taking advantage of your communication professor's office hours. You hope she can answer what seems to you a simple question.

After reading the first chapter of the text, you tell her, you noticed that most of the important ideas seemed not to come from the discipline of communication. Instead, they were related to sociology, philosophy, political science, psychology, anthropology, linguistics, and literary criticism. Yes, Wilbur Schramm was a communication scholar, and James Carey, according to the text, studied communication as well as sociology, but still, many of the big concepts came from other fields. "Am I right about this?" you ask her.

"Aren't I supposed to be getting an introduction to *communication*? You gird yourself for a condescending smile.

But your instructor surprises you. "Nice observation," she replies. "You caught something that most students miss." She explains that all social sciences are cross-disciplinary, so their theories often overlap. In reality, when you sit in an introductory communication class, you are actually getting an introduction to the social sciences because they all have the same questions at their core: How do we know our world and how it works? How do we know who we are and how to make our place in that world? How do we best use what we learn about that world and ourselves to make things better for ourselves and others? All these questions, she says, have the same answer: "Through communication." Because communication uses ideas, theories, and research common to the other social sciences, there are many of them. What's more, they are always evolving—some live, some die, some gain influence, others lose it. In this chapter, we will investigate the values, philosophies, and research methods that enrich not only the discipline of communication but all the social sciences.

LEARNING OBJECTIVES

- **2.1** Define theory and scientific inquiry.
- **2.2** Describe the different ontologies, epistemologies, and axiologies providing philosophical support to scientific inquiry in communication.
- **2.3** Differentiate between traditions of communication inquiry.
- **2.4** Describe the benefits and drawbacks of the most common research methods employed in communication inquiry.

THEORY AND SCIENTIFIC INQUIRY

At the height of the coronavirus pandemic, Nevada gubernatorial candidate Dean Heller explained his opposition to vaccination and mask mandates to slow the disease's spread. "Everybody thinks they're an expert, everybody thinks they're a scientist," said the unsuccessful contender, "And every one of these scientists change[s] their opinions every two weeks. So, what are we to rely on except people's common sense?" (Dentzer, 2021). In some ways, Mr. Heller was correct—yes, scientists did offer contradictory information about the value of masks, how long the virus lives on surfaces, the need to shelter in place, and other potentially lifesaving matters—but he was incorrect about scientists "changing their minds." As the pandemic wore on, scientists did not "change their minds"; they did what scientists are supposed to do: they undertook the process of scientific inquiry to develop new thinking based on the latest data. It is a "badge of honor for a scientist to update their thinking when confronted with new evidence," explained physician and professor Vinay Prasad. The best scientists, he said, are "continually re-evaluating themselves to see what we got right and what we got wrong" (in Farr, 2020).

Mr. Heller's error, a common one, was mistaking the scientists' expressions of the latest available knowledge for their *opinions*. That is not how scientific inquiry works. In fact, it is precisely this ongoing correction that makes science *science*, rather than Mr. Heller's preferred

mode of knowing the world, *common sense*. Science does not deal in common sense. Science exists to challenge common sense. After all, it's just common sense that the world is flat; you can see the edge.

Defining Theory

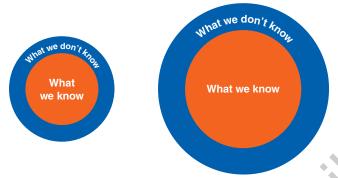
Scientists do the work of collecting information that can then be assembled into **theories**: unified, coherent, and organized sets of explanations, concepts, and principles describing some aspect of the world. For social scientists, that aspect of the world is human social life. But it is important to understand, as scientists do, that a theory is not a fact. That's why scientists seem to "change their minds" when new information challenges existing theory. For instance, scientists dropped the miasma theory of disease—the idea that people become sick from "bad air"—once they discovered germs. Today, germ theory—the idea that microorganisms such as bacteria and viruses make people sick—prevails. A theory is also not a *guess*, although most of us use the word in this way in everyday conversation: "Why did the football team lose by three touchdowns?" "I'm guessing it was the refs, although that's *just a theory*." But as science writer Tia Ghose explains, "The word 'theory' means something very different in lay language than it does in science." It is not "just an idea that lives in someone's head; [it is] an explanation rooted in experiment and testing" (2013).

Theories provide explanations; they are a "grand synthesis," the best available descriptions of the sum of our knowledge of specific phenomena (Moore, 1984). Not only is a theory not a fact, but good science is dedicated to demonstrating that the "best available description" is always inadequate and in need of updating. "A good theory," writes social critic Stephen Kearse, "clarifies things, aids our understanding. It's prepared for us to scrutinize and audit, testing its explanatory power. The strongest ones have been refined, continually, until the case they make is as resilient as it is persuasive" (2018, p. 9). "Science," wrote renowned astrophysicist Carl Sagan, "is a self-correcting process" (in Zimmer, 2011, p. SR12).

In science, every answer should produce new questions—an idea known as the specification of ignorance. "Questions not asked are questions seldom answered. The specification of ignorance amounts to problem-finding as a prelude to problem solving," explains sociologist Robert Merton (1967, p. 68). Neuroscientist Stuart Firestein (2013) quotes Nobel laureate physicist David Gross, who argues that "the most important product of science is ignorance," and then himself adds that science's ability to find "truth" is "a challenge on par with finding a black cat in a dark room that may contain no cats whatsoever." Another Nobel laureate physicist, Albert Einstein, chose to liken the knowledge generated by scientific inquiry to a spotlight (see Figure 2.1). As the spotlight's circle of light increases (illuminating what we know), so does the circumference of the darkness around it (the number of things we still don't know).

But if a theory is not *fact*, how do we know whether a theory is good? We consider its usefulness. How useful is the theory in explaining as accurately and thoroughly as possible the aspect of the world that needs explaining? "Questioning a theory's usefulness is wiser than questioning its truthfulness," write communication theorists Stephen Littlejohn and Karen Foss. "In matters of human life, no single theory will ever reveal the whole 'truth' or be able to address the subject of investigation totally. Theories function as guidebooks that help us understand, explain, interpret, judge, and participate in the communication happening around us" (2011, pp. 19–20). As

FIGURE 2.1 ■ Every Answer Produces New Questions



we saw in Chapter 1, George Herbert Mead wanted an explanation for how people developed their identities in interaction with others, and Erving Goffman wondered how individuals could so seamlessly coordinate their behaviors and interactions in different and constantly changing settings. These social scientists developed the theories of symbolic interactionism and frame analysis, respectively.

Another communication theorist, Em Griffin (2009, pp. 5–6), offers a valuable way of thinking about a theory's usefulness. Griffin suggests that we think metaphorically. Think of theory as

- A net—Griffin quoted philosopher of science Karl Popper: "Theories are nets cast to catch what we call the 'world' . . . We endeavor to make the mesh even finer and finer" (1959, p. 59). Much as a fisherman uses a net, theory is one of communication researchers' most vital tools. They cast about the world, working to apprehend the reality that is human experience.
- *Lenses*—Theories are not mirrors; they do not reflect the world. They are camera lenses or eyeglasses that shape researchers' "perception by focusing attention on some feature of communication. . . . Two theorists could analyze the same communication event . . . and depending on the lenses each uses" come to different conclusions.
- A map—"Communication theories are maps of the way communication works.... We need theory to guide us through unfamiliar territory." Theories, like maps, lay out the roads others have traveled, show us where we are, and offer directions about where we want to go.

Whether we imagine theories as nets, lenses, or maps, we need to keep several things in mind:

• Theories are human constructions—they are developed by people who have biases, interests, skills, and values. Theories always present someone's take on the issue at hand. People interested in intercultural communication, for example, will inevitably approach their work from a specific set of cultural assumptions. People who study conflict in families may develop one theory about why that conflict occurs, while those who look at conflict in the workplace will develop another. It's important, too, to remember that the people in position to develop the theories—academics—have

historically been anything but a diverse bunch. But as more people of varied genders, races, ethnicities, and classes join communication scholarship, the field's theories will change.

- Theories are *dynamic*—they are always changing. As the world changes, so, too, must our understanding of it. Theories about the harmful effects of violent media on children from the days of black-and-white movies will certainly differ from those developed in the era of virtual reality, single-shooter video games. Theories shaping our understanding of interpersonal communication among friends are much different in the age of social media than they were just a few decades ago.
- Theories are abstractions—they reduce the issue at hand to categories, variables, propositions, and assumptions. They inevitably leave something out, which leads to the specification of ignorance and the requirement that researchers use different nets of varying mesh sizes, different or sharper lenses, or more up-to-date and more detailed maps.



Media violence theories from the days of black-and-white movies will certainly differ from those developed today. Mirrorpix/via Getty Images

Scientific Inquiry

Because theories are dynamic and abstract human constructions, scholars are constantly at work refining them, making them better, or sometimes even discarding them. They do this through scientific inquiry: the active, systematic process of discovery, leading scholars from observation to knowledge and, eventually, to theory. That's why our "theory" of why the football team lost by three touchdowns is not a theory as we're using the term here: it's not the product of scientific inquiry. Because there are many different theories of interest to people who study communication, there are many different ways to conduct scientific inquiry (that is, many different ways to do research). But all scientific inquiry includes three steps:

- Ask scientifically testable questions. "Should I give my roommate a birthday gift, even though we aren't that close?" is not testable. In the social sciences, testable questions are typically "How," "Why," "What if," and "Does" inquiries. "How do people know when it's their turn to talk when in conversation with others?" "Why do people choose to live life's most intimate moments on Instagram?" "What would happen if kids were specifically taught to distinguish between the commercials and the television shows they watch?" "Does scaring teens about the dangers of texting while driving produce more responsible behavior than appealing to them with statistics?" These questions revolve around people, events, relationships, and other interesting phenomena in the social world. They have to do with scientific concepts, not opinions, feelings, or beliefs. They are open to investigation using some form of systematic observation. The process of answering scientifically testable questions produces evidence and data that can be used to explain how the social world works.
- Engage in systematic observation; in other words, conduct research, the systematic gathering of data to answer a question, resolve a problem, or reach a greater understanding of a phenomenon. The answers to researchers' questions reside in the evidence they gather through that process. Social scientists look for patterns, relationships, and consistencies in the social world. They engage in observation to learn why a particular phenomenon happens the way it does, to explain something in the social world that seems new or different, or sometimes even to challenge or test the prevailing understanding that others, particularly other researchers, have of the social world. The nature of those observations—the research methods—varies among different scholars coming from different research traditions who are looking at different research questions; nonetheless, their observation is planned and systematic.
- Develop answers. Researchers then have to explain what they observed. This always
 involves definitions and descriptions based on evidence. This doesn't mean that
 scientists do not bring interpretation and judgment to bear on what they have observed.
 But it does mean that the answers they construct from their observations must be
 evidence-based. This is what makes science different from opinion.

Thinking logically, looking for connections, and marshalling and evaluating evidence are the hallmarks of scholarly inquiry, but they are also the products of a college education, signs of an educated critical thinker, and keys to success on the job, as you can read in this chapter's "Communication in the Workplace" feature, and you can see just how much of a critical thinker *you* are in the "Challenge Yourself" feature.

COMMUNICATION IN THE WORKPLACE

The Benefits of Critical Thinking

Beyond particular technical skills, says career expert Nadia Reckmann (2022), what employers desire most in their people is critical thinking—that is, the "the ability to solve problems effectively by systematically gathering information about an issue, generating further ideas involving a variety of perspectives, evaluating the information using logic, and making sure everyone involved is on board." They value critical thinking because it improves employees' communication, creativity, and emotional intelligence, and it saves their organizations time and money.

Who are these critical thinkers? These are people who

- analyze information;
- think outside the box:
- develop creative solutions to unexpected or sudden problems;
- craft well-conceived, systematic plans; and
- require less supervision.

Management consultant Chris Jones, who describes on-the-job critical thinking as "the ability to seek a deep, rigorous understanding of our challenges," argues that it tends to escape people when they need it most, so he offers seven steps for keeping critical thinking at the ready (2011):

- 1. Use data to drive decisions. Replace guesswork with facts and data; challenge decisions unsupported by meaningful data.
- 2. Do your homework and share it. Citing sources for your evidence makes a stronger case and helps you explain and defend your decision.
- 3. Vet your conclusions. Talk to others because a diversity of perspectives usually ensures a better solution
- **4.** Know your social media experts. All workplaces have in-house experts as well as links to outside experts. Find them, get to know them, and engage them on social media.
- 5. Reject "face value." Reject easy assumptions; do not accept the conventional wisdom; think outside the box.
- **6.** Build your skills. Read, write, and engage others with in-depth conversations on important, complex topics.
- 7. Prioritize "think time." Time pressure is the enemy of critical thinking. Make time for deep thought.

You can assess your own critical thinking abilities in the chapter's "Challenge Yourself"

CHALLENGE YOURSELF

Am I a Critical Thinker?

Critical thinking carries with it significant personal and professional benefits. It keeps you mentally sharp, makes you a better communicator, improves your decision-making abilities, and makes you a more interesting person to others... and to yourself. What about you? How good a critical thinker are you? For each statement, give yourself a

1 for Never, 2 for Rarely, 3 for Sometimes, 4 for Often, 5 for Very Often
After responding to all 10 statements, total your score and see how you rate as a critical
thinker. And remember, your response shouldn't be what you wish were true but how you
actually think and act.

- 1. I get my news and information from a variety of sources.
- 2. When I encounter a new device or technology, I'm curious about how it works. ___
- 3. I can have rational conversations with people on the other side of an issue important to me. _____
- 4. When confronted by a problem, I look for alternative solutions beyond my first take.
- $\textbf{5.} \ \ \textbf{I} \ \textbf{am} \ \textbf{annoyed} \ \textbf{by people who use personal insults in their social media commentary}.$
- **6.** On any given day I ask as many questions as I have answers. _____
- 7. I easily change my mind when I learn I am wrong. _____
- **8.** My friends comment on how often I have good ideas.
- 9. I am more concerned about getting it right than being right. _____
- 10. I accept responsibility when things go wrong and try to learn from my mistakes.

Scoring

10–20: You are not yet a critical thinker. Try to find opportunities to be more reflective about others, the environment around you, and yourself.

21–39: You have the makings of a decent critical thinker, but you can keep improving. Look past the obvious.

40–50: You are a strong critical thinker, but don't rest on your laurels. Everyone can strengthen their critical thinking skills.

THREE PHILOSOPHICAL QUESTIONS THAT SHAPE SCIENTIFIC INQUIRY

Social scientists approach inquiry from many different perspectives; of course, this shapes the kinds of questions they ask, the observations they undertake, and the answers they produce. These approaches differ in large part because they grow out of distinct philosophical questions about the world and how best to study it. These are questions of

- Ontology—What is the nature of reality; what is knowable?
- Epistemology—How is knowledge best created and expanded?
- Axiology—What is the proper role of values in research and theory building?

The Nature of Reality: Ontology

The ontology of natural sciences like chemistry and physics is simple. If something can be measured, it's real. Things aren't this simple for researchers studying communication. How do they measure affection, fear, patriotism, or beauty? Communication scholars, then, consider three perspectives on the nature of reality. The *realist position* says the world is real, tangible, and measurable. It exists apart from anyone's effort to study it. If you think a tree falling in the woods makes a noise even if no one's there to hear it, you're a realist. But is the effective flow of information up and down a large corporation real and tangible if no one is there to measure it? A realist would say, "Of course!"

The *nominalist position* says that reality exists only to the extent that we humans are able to experience it through the names and labels we give to the things we find in it. For a nominalist, there is no such thing as "love"; it is not a real, tangible thing. It exists only in the sense that we've given it a name.

There is a middle position, however, the social-construction position, which says that reality is a combination of the real world "out there" and our experiences with and of it. There can be no doubt that there is something that happens between a father and his child and between two young people about to wed. We choose to call it "love," and we may even give it various names to better make meaning of it-for example, "paternal love" or "romantic love." Most scientific inquiry in communication operates from a social-construction perspective; after all, communication is about meaning making, so it's only logical that communication researchers would be interested in how people make meaning of the world out there.



If you think a tree falling in the woods makes a noise even if no one's there to hear it, you subscribe to the realist ontology.

Jacky Parker Photography/Moment/via Getty Images



The social-construction ontology sees a father's love for his children as real and measurable. iStock.com/fizkes

How Knowledge Is Created and Expanded: Epistemology

The epistemology of chemistry and physics is simple too. Knowledge is best created and expanded when a lot of different scientists, all operating independently, ask similar questions, employ similar methods, and produce similar results. This community of scholars relies on the *scientific method:* they propose explanations of the phenomena of interest (hypotheses) and conduct experimental studies to test these hypotheses. Their research must be replicable; that is, researchers must provide enough information on how they did their work so they, or anyone else, can repeat the study.

Again, things aren't that simple for communication researchers. While some do subscribe to the *objectivist position*—the scientific method-based approach just described—others take a *subjectivist position*. Subjectivists argue that the objects of communication research—people—are not as predictable as the objects of study of physics and chemistry researchers. The speed of light is always the speed of light; a water molecule always has two hydrogen and one oxygen atom. But no two people are ever alike, nor are they likely to make precisely the same meaning from a communication experience. In fact, no one individual is the same from one moment to the next; at the very minimum, they've aged. Because of this variability, subjectivists believe that understanding can only come from getting close to the topic of interest, from studying communication from the point of view of those who are communicating. Different communication scholars fall at different points along the continuum from objectivist to subjectivist.

The Role of Values in Research: Axiology

The axiology of chemistry and physics is, again, simple: Keep values out of inquiry. Many social scientists accept this standard. "Scientists, like all men and women, are opinionated, dogmatic, ideological," wrote behavioral researcher Fred Kerlinger. "That is the very reason for insisting on procedural objectivity; to get the whole business outside of ourselves" (1979, p. 264). There is a second position, however, one that realizes that it is impossible to completely keep values out of any human activity. As a result, researchers, after admitting this reality, either do their best to limit the influence of those values on their inquiry (they "bracket" them) or embrace



No feminist scholars would expect us to believe that their research on the portrayal of working women on prime-time television is value-free.

CBS Photo Archive/CBS/via Getty Images

Ultimately, scholars' ontological, epistemological, and axiological positions will be determined by the questions they want to answer, the nature of the observations they want to make, and the kinds of evidence they require to build the theory they think will be most useful. And still, communication

the word and those with a more subjective approach to the study of society, who see themselves more as

humanists than as scientists" (1982, p. 5).

researchers, like all social scientists, must confront the "messiness" of human behavior, as you can read in this chapter's "Personally Responsible Communication" feature.

PERSONALLY RESPONSIBLE COMMUNICATION

Solving Not-So-Well-Posed Problems

When he was in graduate school, MIT physicist Alan Lightman learned the concept of the "well-posed problem," that is, clear and precisely stated research questions that promise "clear and definite answers" (2011). In physics, a well-posed problem must satisfy three conditions. It must have a solution; that solution must be unique; and that solution must be stable ("Well Posed," 2022).

But rarely do questions about communication—about human social life—offer such certainty. Lightman recognizes this. Why does some literature move us, he asks. Under what conditions might parents give their own lives to save their children's? Where is the proof that it is either right or wrong to steal food in order to feed our families? Can we, he continues, "even agree on a definition of 'right' and 'wrong' [?] We cannot prove the meaning of our life, or whether life has any meaning at all. For these questions, we can gather evidence and debate, but, in the end, we cannot arrive at any system of analysis akin to the way in which a physicist decides how many seconds it will take a one-foot-long pendulum to make a complete swing."

Although he was talking about the value of the arts and humanities, Lightman could not have better expressed the challenge (or the excitement) inherent in trying to solve the not-so-well-posed problems (or in physicists' terms, ill-posed problems) that interest communication researchers. It may be much more difficult to measure a parent's love or to determine how a culture negotiates what is "right" and "wrong" than it is to compute the time it takes a pendulum to complete a swing. But that's no reason not to do it, and communication researchers make it their responsibility to seek knowledge in the messy world of the social sciences. What about you? What issues of human social interaction interest you? Do you ever ask yourself questions about how we create meaning? If you do, how clear and definite are the answers?

TRADITIONS OF COMMUNICATION INQUIRY

All communication research and the theories it produces are the products of three broad traditions of inquiry that differ in their ontology, epistemology, and axiology. They are the postpositivist, interpretive, and critical traditions.

Postpositivist Theory and Research

In the early days of communication research, social scientists wanted to be "scientific," so they looked to the traditional natural sciences for models of how to do research and develop theory. They saw that people studying in fields such as physics and chemistry based their work on *positivism*. Positivists believed that only quantifiable, observable, measurable phenomena were the legitimate building blocks of knowledge and theory. But there was a problem for social scientists. A gram of sulphur is always a gram of sulphur, and a hydrogen molecule always contains two atoms. But what is a gram of friendship? How many parts make up a family?

So, social scientists who are committed to developing theory using quantifiable, observable, measurable phenomena practice **postpositivism**. It's as close as possible to what natural scientists

do, but it recognizes that humans living in a social world are not as constant or predictable as are the measurable elements of the physical world. "Humans are not like billiard balls propelled solely by forces external to them," explains cognitive psychologist Albert Bandura. "Billiard balls cannot change the shape of the table, the size of the pockets, or intervene in the paths they take, or even decide whether to play the game at all. In contrast, humans not only think, but, individually and collectively, shape the form those external forces take and even determine whether or not they come into play" (2008, pp. 95–96).



Research in physics is easy because "billiard balls cannot change the shape of the table, the size of the pockets, or intervene in the paths they take, or even decide whether to play the game at all" (Bandura, 2008, p. 95).

Susan Baran

The theories that grow out of the postpositivist approach, much like those of positivist research in the natural sciences, seek *explanation*, *prediction*, *and control*. For example, researchers who want to *explain* the operation of health-oriented public service campaigns deployed through social media, to *predict* which appeals will be most effective, and to *control* the health-related behaviors of a targeted group would rely on postpositivist theory. Researchers in this tradition believe that the world, even humans acting in a social world, exists apart from people's perceptions of it and that human behavior is predictable and patterned enough to be systematically studied. But because they believe that the social world has more variation than the physical world and that humans manage that variation by assigning meaning to it (remember Bandura's billiard balls), postpositivists adopt a social-construction ontology. Like the positivists, they adopt an objectivist epistemology, arguing that knowledge is best advanced through the systematic, logical search for regularities and causal relationships employing the scientific method. And this reliance on the scientific method defines postpositivism's axiology—the objectivity inherent in the scientific method keeps researchers' and theorists' values out of the search for knowledge as much as humanly possible.

So, what questions might postpositivist researchers ask? As you read later chapters in this text, you'll see postpositivist questions asked and answered such as: What makes people

credible? What are the most effective ways to handle conflict? Have social media affected kids' ability to succeed in school? Do emotional appeals persuade people? Here are a few other examples:

- Can different levels of Instagram usage affect people's sense of well-being (Trifiro & Prena, 2021)?
- Does embedding health information in dramatic video narratives produce more learning about health than the direct delivery of facts (Murphy et al., 2013)?
- Can the look of your face predict the likelihood that you will suffer social exclusion (Rudert et al., 2017)?
- Are women more likely to be interrupted by their conversational partners than men are (Hancock & Rubin, 2015)?

Interpretive Theory and Research

But many communication scholars do not want to explain, predict, and control social behavior. Their goal is to *understand how and why* that behavior occurs in the social world and how it is transacted through communication. Their **interpretive research** is the study of understanding, especially through the systematic interpretation of social actions or texts.

There are different types of interpretive research and theory. For example, some communication researchers want to understand how people in a social situation interpret their own communication behavior in that situation. Another type of interpretive work looks for hidden or deep interpretations in the way people make meaning from different symbol systems—for example, in media texts. An important idea running through the interpretive tradition of research and theory is that any text, any product of social interaction—a video on TikTok, an argument between a teen brother and sister, tattoo sleeves, a blockbuster movie, or a best-selling novel—can be a source of understanding.

The ontology of interpretive theory accepts that there is no "real," measurable social reality. Instead, "people construct an image of reality based on their own preferences and prejudices and their interactions with others, and this is as true of scientists as it is of everyone else in the social world" (Schutt, 2009, p. 92). Put another way, knowledge is *local*; that is, it is specific to the interaction of the knower and the known. Because this is just as true of the researchers as it is of the texts they study, interpretivists' epistemology, how they believe knowledge is advanced, relies on the subjective interaction between the observers (the researchers or theorists) and their community. Naturally, then, the axiology of interpretive theory accepts, rather than rejects, the influence of the researcher's and theorist's values. Personal and professional values, according to communication theorist Katherine Miller, are a "lens through which social phenomena are observed" (2005, p. 58).

So, what questions might interpretive researchers ask? As you read later chapters in this text, you'll see interpretivist questions asked and answered such as: What cultural values are embedded in a language's metaphors? How do people from different cultures interpret physical distance? What do stories about an organization's heroes say to the people who work in them? What pro-consumption messages are hidden in kids' video games? Here are a few other examples:

 Have the representations of gender roles in Super Bowl commercials changed over time (Leonidas & Boutsouki, 2016)?

- What comedic drama devices do satirical newspeople use to effectively shift public discourse on important social and political issues (Day, 2013)?
- How were the 2020 Black Lives Matter protests covered on social media around the world (Harlow et al., 2020)?
- Do police speak with differing levels of respect when interacting with people of various races (Voight et al., 2017)?



Any product of social interaction, even secrets passed between teen sisters, can serve as a text worthy of inquiry. iStock.com/AntonioGuillem

Critical Theory and Research

Some communication scholars do not want explanation, prediction, and control of the social world. Nor do they seek understanding of the social world. They believe that they understand it quite well and argue that certain aspects of the social world are flawed and in need of change. Their goal is to *challenge existing ways of organizing the social world* and the people and institutions exercising power in it. They want to gain knowledge of the social world so they can make it better. **Critical theory** is openly political, and therefore its axiology is proudly value-laden. Critical theorists study inequality and oppression. Their theories do more than observe, describe, or interpret; they criticize. Critical mass communication scholars, for example, view "media as sites of (and weapons in) struggles over social, economic, symbolic, and political power (as well as struggles over control of, and access to, the media themselves)" (Meyrowitz, 2008, p. 642). Critical organizational communication scholars would view traditional workplace structures, processes, and practices as reinforcing and maintaining patriarchy (Stamarski & Son Hing, 2015).

Critical scholars argue that knowledge is advanced only when it serves to free people and communities from the influence of those more powerful than themselves. Their epistemology,

then, seeks **emancipatory knowledge**. In his critique of the contemporary music industry, for example, critic Damon Krukowski offered this articulation of emancipatory knowledge. "People deserve better," he said. "They deserve more, and they often hanker for it but just don't know where to turn or how to start constructing it. I do think that's the gift of criticism, just to alert people when you can reach them that there's more. There might be another way to do this. There might be another way to think about how we organize ourselves and how we make decisions about things" (in Geffen, 2019).

The ontology of critical theory and research, however, is a bit more complex. For critical researchers, what is real and knowable in the social world is the product of the interaction between **structure** (the social world's rules, norms, and beliefs) and **agency** (how humans act and interact in that world). Reality, then, to critical theorists, is constantly being shaped and reshaped by the **dialectic** (the ongoing struggle or debate) between the two. When elites control the struggle, they define reality (in other words, their control of the structure defines people's realities). When people are emancipated, *they* define reality through their behaviors and interactions (agency), and furthermore, that agency can indeed change structure.

For example, despite formal laws and religious and community traditions that long defined the "reality" of same-sex relationships in the United States as illegal or shameful, contemporary U.S. Americans, through their behaviors and actions, rejected those structures. Now, new structures—new realities—around LGBTQ people have been constituted. Same-sex marriage is legal across the United States; openly gay people serve in the military and work in all professions, and it is illegal to discriminate against people based on their sexual orientation. In this instance, people's everyday interactions surrounding LGBTQ Americans challenged the structures erected by the powerful (religion, law, long-standing tradition) and, through that agency, emancipated themselves from those very structures that constrained those interactions.

So, what questions might critical researchers ask? As you read later chapters in this text, you'll see critical questions asked and answered such as: How does concentration in America's media industries produce news that reinforces the status quo? Why do U.S. Americans have a low average life expectancy when their health care industry is the world's most expensive? Why is the United States the only nation in the world that allows unregulated advertising to children? Here are a few other examples:

- Do journalists routinely adopt the perspective on important events favored by political elites (Rowling, Jones, & Sheets, 2011)?
- Does sexism in online video games reinforce conformity to masculine norms and a social dominance orientation (Fox & Tang, 2014)?
- Does the perception that young Black men are bigger, stronger, and therefore more dangerous lead to more aggressive police behavior (Wilson, Hugenberg, & Rule, 2017)?
- Can subtle gender bias by science faculty favor their male students (Moss-Racusin et al., 2012)?

Critical researchers believe that they confront the "big issues" of the day, as you can read in this chapter's "Socially Responsible Communication" feature.

SOCIALLY RESPONSIBLE COMMUNICATION

Communication Inquiry Needs to Be Bigger!

Communication researcher Dietram Scheufele (2010, p. 2) wrote, "Communication as a discipline has come to a crossroads. . . . [The] changes in how content is produced and communicated are paralleled by much more far-reaching shifts in how some cohorts in society interpret traditional notions of privacy, objectivity, and source credibility. And so far, our discipline has not done a very good job at offering answers to what have become increasingly pressing questions in various societal debates."

His argument is that communication researchers think too small. He quotes another professor who claims that social scientists "often speak in terms of 'an interesting puzzle,' a small intellectual conundrum . . . that tests the ingenuity of the solver, rather than the large, sloppy and unmanageable problems that occur in real life." Racism? Misogyny? Cruelty and disdain for others? Depression? Loneliness? Political and social mistrust and division? A threatened planet? These, and similar problems, are real life's "sloppy and unmanageable" problems. And unless communication researchers can offer solutions, they "will increasingly be marginalized as a discipline" (p. 2).

Scheufele's worry is less about the welfare of the discipline than it is about the well-being of the world in which it operates. We face "big, upcoming challenges" that can best be met by solid research and theory, he argues, and those who are skilled in communication inquiry have an obligation to use their skills to meet those challenges. But inquiry in and of itself is insufficient, he argues; communication researchers should undertake socially responsible inquiry, research, and theory that serve the larger good. How can this happen? Can you speculate on what communication has to do with sloppy, unmanageable problems like racism, misogyny, cruelty and disdain for others, depression, loneliness, political and social mistrust and division, and a threatened planet?

TOOLS OF OBSERVATION: RESEARCH METHODS

The richness and variety of communication, its centrality to all human social and cultural interaction, and the multitude of questions communication raises require that researchers use a variety of methods to find their answers and build their theory. Some methods are rightly associated with specific approaches to inquiry, but most often, the question at hand dictates the method used. Communication research employs both quantitative research—inquiry relying on the collection and analysis of numerical data—and qualitative research—inquiry relying on the collection and analysis of symbolic data such as language and other cultural products. These data are collected using primarily three methods: experiments, surveys, and textual analysis. But don't be fooled. As with much else in this chapter, things aren't really that simple.

Experiments

Experiments involve the manipulation of one variable (the *independent variable*) in order to measure its influence on another variable (the *dependent variable*). All other possible agents of influence are held constant, or controlled for. In this way, any change observed in the dependent variable is sure to be the product of the manipulation of the independent variable.

Take a classic television violence study as an example. Researchers show one group of children a violent cartoon and a second group a nonviolent cartoon. Cartoon violence is our independent variable; it is what we've manipulated. After the kids watch their cartoon, they are given 20 minutes of free play in a room filled with all kinds of toys. They are monitored through a

two-way mirror, and the researchers count the number of blows each child delivers to the room's inflatable clown doll. "Blows to the doll" is our dependent variable. Experiments like this almost always employ a *control group*, participants who see no cartoon at all; they are not subjected to the experiment's manipulation of the independent variable.

Once the data are tallied, the researchers learn that the kids who saw the violent cartoon delivered more blows to the clown doll, on average, than did the kids who saw the nonviolent cartoon and those who saw no cartoon. In the logic of the experiment, then, because those kids who saw the violent cartoon exhibited more "aggression" against the doll than did those who saw the nonviolent cartoon, the cartoon violence must have "caused" that aggression. And the fact that the kids who didn't see a cartoon showed the same nonaggression as the kids in the nonviolent cartoon condition means that it wasn't the cartoons themselves that caused more blows, but the violence in them. After all, video violence is the only variable not common to any two groups.

But is hitting an inflatable doll really aggression? In a social-scientific experiment, researchers *operationalize* their variables; that is, they define the abstract concept they want to investigate (in this case, aggression) in terms of a concrete, observable behavior or phenomenon that's easy to mea-

sure (doll punches). Other researchers may question the particular operationalization, but they must admit that the kids who saw the violent cartoon did indeed hit the doll more times than did the kids in the other two groups. But did the violence in the cartoon "cause" the kids to deliver those blows? In the logic of the experiment, they certainly did. If all else was held constant—the children were randomly assigned to their groups; each cartoon was exactly eight minutes long and used precisely the same characters, settings, and plot (except for the violence, of course); the playroom was identically equipped for each kid; the observer used the same definition of "hit" for all children and was unaware of which kids had seen which cartoon or if they had seen one at all—then the only thing that could have caused the increased aggression must have been the one thing that was different.



Experiments are the method of choice in demonstrating the causal link between media violence and aggressive behavior.

iStock.com/vitapix

This is **causality**—when one event precedes a second event and that second event is deemed to be a consequence of the first. And this is why experiments are postpositivists' favorite research method: they are the only method that can demonstrate causality. Experiments are helpful for other reasons too. They grant researchers complete control over their inquiry; they permit precision (in our example, researchers may want to vary the kinds of cartoon violence and the age of the animated characters to refine their definition of cartoon violence even more precisely); and they are repeatable, as the scientific method requires.

But these benefits come at a price. It is difficult to generalize from a highly structured and controlled experimental setting to the larger world. Children don't view eight-minute cartoons under the watchful eye of an adult and then immediately go to 20 minutes of free play. They watch all kinds of television, as well as other media; they have different family situations, different personalities, different genetic makeups, and different daily frustrations. Lack of generalizability is closely related to two other problems. First, in exchange for the experiment's control and precision, researchers must limit the number of variables or inputs they include in their work. As economist Angus Deaton explains, an "experiment that has been constrained enough to be

scientifically rigorous might be too narrow to provide useful guidance" (in Fry, 2020, p. 69). Second, even if other experimenters can replicate the procedures of the experiment, the original experiment is still a one-time event. In our example, a replication would, at the very minimum, use different children. The replicating researcher can't even use the same kids from the original experiment because (a) they are not the same people they were the first time around—they're older for one thing—and (b) they've already seen the cartoon, so any increased aggression could be a product of the kids' frustration at having to watch the same cartoon again.

Surveys

Surveys rely on questionnaires and interviews to solicit self-reported data from respondents. Researchers identify a population they want to know something about, draw a sample of respondents from that group, and ask them verbal or written questions either in person, on the phone, by mail, or online. So, let's use as our example a survey designed to measure the impact of a political candidate's debate performance. Our researchers might be interested specifically in what voting-age women in Ohio think. "Voting-age women in Ohio" is the *population*. But the researchers can't interview every single one of those women, so they draw a *sample*, a statistically adequate number of those people whose responses they assume will be representative of the population. That sample might be *random* (all population members have an equal likelihood of appearing in it)—or it may not be. Researchers sometimes draw *nonrandom*, or *stratified*, samples to ensure that particular categories of people are included. In our example, they may want to make sure that single moms are sufficiently represented, as they typically decline to take the time to answer surveys. Once these quantitative data are collected, the researchers will subject them to analysis, determine what the sample's members thought of the candidate's performance in the debate, and then argue that that's how voting-age women in Ohio reacted.

Survey research offers scholars a number of advantages. Survey findings can be confidently generalized to a large population. Surveys can be conducted over time; for example, to get an even clearer picture of the debate's effects on public opinion, our researchers might survey voting-age women in Ohio at the start of the campaign, the day before the debate, the day after the debate, and the morning of the election. Using surveys, researchers can investigate the influence of a large number of variables. In our experimental example, the likely variables beyond watching cartoon violence, at best, could have been the children's age and gender. In our survey, the variables could include rental or ownership of home, level of education, marital status, number of children living at home, political party affiliation, likelihood of voting, household income, and on and on. This gives the product of survey researchers' inquiry greater breadth. Yes, the population of interest may have been voting-age women in Ohio, but the researchers can now comment on Democratic, married, voting-age women in Ohio who own their own homes, have some college education, no longer have children living at home, earn more than \$75,000 a year, and are likely to vote. Surveys also offer greater breadth when considering the form of communication under examination. In our experiment, the communication variable was cartoon violence, either the presence of cartoon violence, no cartoon violence, or no cartoon at all. The survey, on the other hand, could have investigated the candidate's appearance, expertise, forcefulness, credibility, level of detail provided, quality of argument on housing, quality of argument on the economy, quality of argument on women's reproductive rights, quality of argument on education, and on and on.

But surveys aren't perfect research tools. For one, they cannot demonstrate causality. If our Ohio women of voting age loved the candidate's performance and that candidate did indeed prevail in the election, the survey data would not tell us if the positive debate performance caused those women to vote the way they did. Survey researchers also cede some control over their

inquiry. For example, some other event might occur that is as powerful or more powerful than the debate itself in shaping respondents' answers. What if, the morning after the debate, the local paper revealed that the candidate had a long drunk-driving record? Finally, survey data are self-report data, and people are often the worst reporters of their personal data. For instance, in our survey, age and gender may be easy answers to provide, but what about household income, political party affiliation, and likelihood of voting? Now imagine a different survey, perhaps one examining verbal spousal abuse in homes suffering from long-term parental unemployment. How accurate and trustworthy do you think this work's self-reported data would be?



Surveys permit the investigation of a large number of variables. iStock.com/PeopleImages

Textual Analysis

Many communication scholars engage in **textual analysis**, the deep reading of an individual message or group of messages. Those texts, as we've already seen, can be any product of human social interaction, and the goal of the analysis is description and interpretation of the text. Researchers who engage in textual analysis usually do so from a specific point of view, so their work is subjective (although, as we've read, some interpretive scholars attempt to bracket, or set aside, their personal experiences when undertaking these analyses). Nonetheless, this method's subjective orientation is its strength. It acknowledges that meaning making is local; it occurs between the reader and the text. But this is also its weakness. It lacks objectivity; different readers may make different meanings from the same text. Textual analysis also lacks generalizability. This is intentional—meaning is made between text and "reader," so there is no intention to generalize. "But," ask the method's critics, "Now what? That's your reading, and it kind of makes sense, but now what?" The interpretive researcher's response would be something along the lines of, "Now nothing. I have offered a deeper understanding of this text, its creator, and (possibly) the time and context of its delivery. That's valuable in and of itself. Feel free to find other analyses or even do your own."

One example of textual analysis might be a rhetorician's analysis of a retiring religious leader's final sermon. What themes dominated? Was there a call to action or a plea for social justice? Did the sermon's narrative revolve around the life of the congregation or the pastor's personal experiences with the faithful? Or, like researcher Laura Sizer, you can do a reading of tattoos (2020), distinguishing artistic tattoos from other uses of tattooing and forms of visual art. You might ask how essential to a tattoo's aesthetic is the human body and what that body contributes to the tattoo's meaning. Or, if your interest is a deeper understanding of the lyrics in heavy metal songs, you might listen to 1,152 metal tunes, as Joyce Cheunga and Desheng Feng did (2019), to see if band members use their lyrics to construct their self-identities. Why is there so much talk of insecurity, loneliness, sadness, and desire? Are themes of fearlessness, freedom, and condemnation of social injustice more prevalent? Why is there so much representation of unpleasant or even disgusting objects, including death? Are heavy metal lyrics reactions to different types of social oppression?

Mixing Methods and Traditions

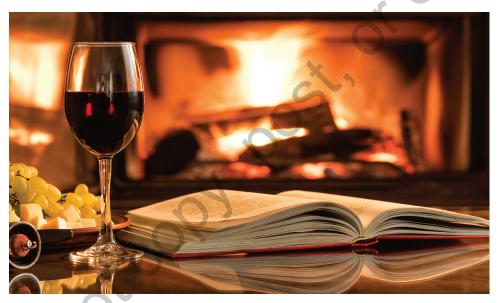
Another example of textual analysis might be the work of researchers interested in how employees in a large organization ask for time off for important family matters. They might collect two months' worth of emails between workers, their supervisors, and the human resources office and analyze the nature of the appeals for time off that they contained. Their reading of these qualitative data might suggest to them that workers usually take one or more of six approaches—for example, asking only for what they know they can have and couching their requests in terms of organizational interests. So, they compute the proportion of the total number of appeals represented by each of those six themes to determine which are most and least used. But when they notice that men tend to disproportionately employ certain strategies, they create a strategy typology by gender. They also see that newer employees differ from company veterans in the kinds of appeals they usually make, so they expand their model to include type of appeal, gender, and years on the job. But all these new data are quantitative: six types of appeal, three broad gender categories for men, women, and nonbinary employees, zero to 44 years on the job. This work is content analysis, quantitative textual analysis that depends not on researchers' deep reading but on objective categorization and accurate measurement based on their deep reading. This is clearly textual analysis, but it is from an objective rather than subjective orientation.

Another example of textual analysis might be the work of researchers who move into a correctional facility for teens convicted of delinquency offenses and become part of the institution's daily routine. They observe, record, and take notes on every conversation the residents have with their instructors in order to understand the nature of student-teacher interaction during class as well as in the general daily life of the facility. These conversations are text, and the researchers' transcriptions and observations are qualitative data, so this work is in the interpretive tradition. But this method represents another kind of interpretive research, **ethnography**—the study of human social interaction from the inside, in this case, by a *participant observer*.

A researcher working in the critical tradition might also use content analysis and ethnography. Why should employees, when approaching their managers, be forced to strategize to get time off to tend to family? Shouldn't family be more important than work? If employees have earned time off, why do they have to provide an explanation at all? Doesn't the making and shaping of requests reinforce the power disparity between employees and managers? And why does the criminal legal system isolate troubled teenagers? Quite possibly, if these kids were more fully integrated into the life of regular school, they might be better and more traditionally socialized. Who benefits from these "special" schools?

There is a relationship between theory and research traditions—postpositive, interpretive, and critical—and the methods *typically* associated with each. But that's the point—*typically* associated. Critical scholars use experiments. The experimental (postpositivist) study of the effects of cartoon violence is designed to give voice to the less powerful (parents and kids) in their interactions with the more powerful (the media industry). Content analysis—part quantitative, part qualitative—is often used by people working in the interpretive tradition. As a result, social science scholars often mix, match, and blend their approaches as they work.

For example, one groundbreaking piece of textual analysis is Janice Radway's study of romance novels (1991). Her own reading revealed that the characters and plots in these books are drawn from patriarchal myths that support the ideology that the male-dominated social order is natural and just. Men in these books were strong and aggressive; women were weak, passive, and dependent. But Radway then began meeting regularly with groups of women who also read these novels, asking them in person and through a questionnaire what they thought was happening inside those pages. Undertaking a statistical analysis of their responses and meeting with them in groups, she discovered that many of her respondents used the novels to construct personally important interpretations that rejected that patriarchal ideology. Reading the romance novel, Radway discovered, was their "declaration of independence" (1991, p. 11).



 $Romance\ novels-reinforcement\ of\ patriarchal\ myths\ or\ readers'\ declaration\ of\ independence?$ iStock.com/Rasulovs

More recently, Raúl Pérez and Viveca S. Greene investigated the question of why some people find misogynistic humor, specifically jokes about sexual assault, funny. First, they conducted an interpretive textual analysis of a televised debate between a stand-up comedian (a man) and a feminist writer (a woman) on the issue. Then, they undertook face-to-face interviews with groups of college students to see how those young men and women interpreted not only the jokes but also the arguments for and against their use in comedy. They discovered that "young men's complicity in telling and uncritically consuming misogynistic humor, and young women's overall desensitization to—and internalization of—such jokes as ones they should readily enjoy, reflect and reinforce a *dominant patriarchal frame*" (2016). Are these works textual analysis or survey? Are they interpretive or critical inquiry? Is the Radway research

quantitative or qualitative? The answers to these questions are not as important as the fact that these are very good works of communication inquiry; they have advanced our knowledge of meaning making.

As we've seen, different researchers adopt different methodological approaches, and they sometimes even mix and match them, given their preferred ontology, epistemology, and axiology. But all communication researchers should approach their work with a commitment to right and wrong. But that distinction is not always clear-cut, as you can read in this chapter's "Ethical Communication" feature.

ETHICAL COMMUNICATION

Where Do You Draw the Line?

You are a communication researcher. You work to understand communication and human behavior because you believe that the more knowledge people have about communication, the better they can make personally useful meaning. That seems to be a noble goal. You could advise companies on the best way to inform employees about a new benefits package, or you could consult with the health department on a designated driver campaign, or you could help a school system distinguish between threatening and harmless student tweets.

But what if a tobacco company wants you to use your communication research skills to help it improve the promotional campaign for its new fruit-scented cigarette? They'd like you to conduct interviews with young adults, survey college students in response to the TikTok influencers that the company's hired (who do not seem to be connecting with viewers), and offer a deep reading of those clips. The pay is more than you'd make just about anywhere else; these are tough times to get a job; and smoking is legal for people over 18, so why not? But what if your best friend had lost a parent to a smoking-related disease? What if you had lost your mother, a smoker, to lung cancer? Would your personal connection to tobacco-related loss influence your decision? Should it? Why or why not?

These are not imaginary situations. Communication researchers are asked to confront issues such as this all the time, and they have to make a decision—how do they use their communication inquiry skills? In these scenarios, how would you? Would you take the job? Why or why not?

CHAPTER REVIEW

Review of Learning Objectives

2.1 Define theory and scientific inquiry.

A theory is a unified, coherent, and organized set of explanations, concepts, and principles describing some aspect of the world. It is a grand synthesis of the sum of our knowledge of a given phenomenon. Theories are nets designed to capture the world; lenses that focus attention on some aspect of the world; and maps that show the roads traveled, where knowledge currently exists, and where social scientists should go in their search for knowledge. Communication inquiry involves asking scientifically testable questions, engaging in systematic observation, and developing answers. The nature of the questions determines the method of observation, which shapes the character of the resulting answers.

2.2 Describe the different ontologies, epistemologies, and axiologies providing philosophical support to scientific inquiry in communication.

Communication researchers conduct their work against the backdrop of three important philosophical questions of research and theory building. Ontological questions deal with the nature of reality—that is, what is knowable and measurable? Epistemological questions revolve around the issue of the best way to create and expand knowledge. Axiological questions examine the proper role of human values in research and theory building.

2.3 Differentiate between traditions of communication inquiry.

Communication research and theory are products of three broad traditions of inquiry differing in their ontology, epistemology, and axiology. They are the postpositivist tradition, which seeks explanation, prediction, and control; the interpretive tradition, which seeks understanding; and the critical tradition, which seeks emancipatory knowledge, that is, knowledge of the social world that will free people from the influence of those more powerful than themselves.

2.4 Describe the benefits and drawbacks of the most common research methods employed in communication inquiry.

Communication scholars use a variety of research methods, including experiments, surveys, and textual analysis. Experiments offer the only method for the demonstration of causality, significant researcher control over inquiry, and precision of measurement. However, the number of variables that can be investigated at one time is limited, and experiments are one-time events that may not be easily generalized to the larger world.

Surveys rely on questionnaires and interviews to solicit self-reported data from a sample, the results of which can then be generalized to a larger population. In addition to the ability to confidently generalize, surveys' other advantages are that they can be conducted over time and they offer great breadth of inquiry; that is, they can include a large number of variables. Surveys, however, cannot demonstrate causality; researchers have limited control over the environment in which they are doing their work; and survey data are self-reported, which can be unreliable.

Textual analysis is the deep reading of an individual message or group of messages. This method's subjective orientation is its greatest strength but also its greatest drawback.

KEY TERMS

agency postpositivism
axiology qualitative research
causality quantitative research
content analysis research

critical theory scientific inquiry

dialectic specification of ignorance

emancipatory knowledge structure epistemology surveys ethnography text

experiments textual analysis

interpretive research theories

ontology

QUESTIONS FOR REVIEW

- 1. Define theory. Is a theory the same as a fact? What is the specification of ignorance?
- 2. What three metaphors can we use to judge the usefulness of a theory?
- **3.** What are the three steps of scientific inquiry? What is research?
- 4. What questions are considered by researchers' ontology, epistemology, and axiology?
- 5. What is postpositivist theory? What are its ontology, epistemology, and axiology?
- 6. What is interpretive theory? What are its ontology, epistemology, and axiology?
- 7. What is critical theory? What are its ontology, epistemology, and axiology?
- **8.** Distinguish between quantitative and qualitative research.
- 9. What are the benefits and shortcomings of experimental, survey, and textual analysis?
- **10.** What are content analysis and ethnography?

QUESTIONS FOR DISCUSSION

- 1. The ontology of critical theory revolves around the dialectic between agency and structure. Can you think of a contemporary social issue (other than acceptance of gay people) where human activity (agency) has reshaped structure (rules and norms)? What was the nature of the debate? How was communication utilized in that dialectic?
- **2.** The axiology of communication research ranges from limiting the influence of values on inquiry as much as possible to the open celebration of values in the shaping and conduct of the work. Where do *you* think values belong in the search for knowledge?
- 3. Critical researchers and theorists believe that the communication cards are stacked against everyday people as corporations and other elites shape public discourse surrounding important issues through their control of the mass media and government. But can you describe an important public issue—other than the text's LGBTQ example—where people's agency changed larger cultural or social structures? What was communication's role in that change?
- 4. You've just started your new career as a communication researcher. Explain what research question will most dominate your time, why you chose it, and your preferred research method. Explain why your chosen method is best suited for answering your question.