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For Niko, Cruz, Michelle, Harrison, Daniel, Keenan, and Cam.
May the work of those reported here and those reading this book leave
a more sustainable and just world for you.

Environmental Communication
and the *Public Sphere*

5 EDITION

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Brief Contents

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The first part of this book defines the field of environmental communication and provides a brief history of key terms we use to communicate for/about the environment, such as "nature" or "the commons," to illustrate how intertwined our understanding of "the environment" is with communication. When you look at an urban park like Central Park in New York City (pictured here), what words, feelings, and events do you associate with it? How is its value communicated or not to you?

Defining Environmental Communication

All of us engage in environmental communication on a daily basis—whether or not we are wearing a T-shirt with an environmental message, bringing a reusable water bottle to class, debating with a peer about the ethics of eating burgers, joining a campus petition online about divesting from fossil fuel industries, voting to choose candidates who have strong environmental records, or biking home. No matter what we do, we are using verbal or nonverbal communication to reflect our attitudes about the environment. We also are shaped by countless environmental communication practices every day—from our peers, family, religious leaders, teachers, journalists, bloggers, politicians, corporations, entertainers, and more.

This chapter describes environmental communication as a subject of study and a set of practices that matter, shaping the world in which we live. As a timely and

Chapter Preview

- The first section of this chapter provides a definition of *environmental communication;* then we identify seven areas of environmental communication in this ever-changing field, as well as why we define environmental communication as both a crisis discipline and a care discipline.
- The second section introduces three themes that constitute the framework for this book:

  1. Communication as *symbolic action*

  2. The significance of communication to our understanding of and behavior toward the *environment*

  3. The public sphere (or spheres) as a vital discursive space in which competing voices engage about environmental matters

- The final section describes some of these diverse voices, whose communication practices we'll study in this book.

significant field of study, our understanding of the environment and our actions within it depend not only on the information and technology available but also on the ways in which communication shapes our environmental values, choices, and actions in news, films, social networks, public debate, popular culture, everyday conversations, and more.

After reading this chapter, you should have an understanding of environmental communication as an area of study and an important practice in public life.

Defining Environmental Communication

The words *nature* and *environment* are contested terms whose meanings have evolved throughout history. We trace some of these meanings in Chapter 2. In this book, however, we introduce a specific way in which we come to know about—and relate to—the environment: the study of communication.

What Is "Environmental Communication"?

At first glance, a definition of *environmental communication* can be confusing if we define it simply as information or "talk" about environmental topics—water pollution, forests, climate change, pesticides, grizzly bears, and more. A clearer definition takes into account the roles of language, visual images, protests, music, or even scientific reports as different forms of **symbolic action**. This term comes from Kenneth Burke (1966). In his book *Language as Symbolic Action,* Burke stated that even the most unemotional language is necessarily persuasive. This is so because our language and other symbolic acts *do* something, as well as *say* something. Language actively shapes our understanding, creates meaning, and orients us to a wider world. Burke (1966) went so far as to claim that "much that we take as observations about 'reality' may be but the spinning out of possibilities implicit in our particular choice of terms" (p. 46). From this perspective, communication may focus on what we express (emotions, information, hierarchies, power, etc.), how we express it (in which style, through which media, when, by whom, and where, etc.), and/or with what *consequences* (cultural norms, political decisions, popular trends, etc.).

The view of communication as a form of symbolic action might be clearer if we contrast it with an earlier view. After World War II, Warren Weaver attempted to translate the work of Claude Elwood Shannon, a founder of information theory. Shannon himself imagined communication as a process of decrypting—that is, trying to clarify a complex message. When communication scholars refer to a "Shannon-Weaver model of communication," it is used to symbolize how communication can be imagined as the transmission of information from a source to a receiver through a specific channel to be decoded (Shannon & Weaver, 1949). Though Shannon and Weaver were interested in the infrastructure of telephone systems, David Berlo (1960) and others drew on their research to promote a "sender-message-channel-receiver"

(SMCR) model of communication. There was, however, little effort in this model to account for meaning or reception; instead, the focus was on what information was being shared with whom, and how.

Unlike the SMCR, symbolic action assumes that communication does more than transmit information one way, from experts to lay audiences. Sometimes, we misunderstand what someone is communicating. Sometimes, we reject what we're told. Sometimes, we reach consensus through dialogue with others. Although information is important, it is not the only facet relevant to communication that affects, moves, or persuades us (or not).

By focusing on symbolic action, then, we can offer a more robust definition of environmental communication that better reflects the complicated world in which we live. In this book, we use the phrase **environmental communication** to mean *the pragmatic and constitutive modes of expression—the naming, shaping, orienting, and negotiating—of our ecological relationships in the world, including those with nonhuman systems, elements, and species.* Defined this way, environmental communication serves two different functions:

1. *Environmental communication is* **pragmatic**: It consists of verbal and nonverbal modes of interaction that convey an instrumental purpose. Pragmatic communication greets, informs, demands, promises, requests, educates, alerts, persuades, rejects, and more. For example, a pragmatic function of communication occurs when an environmental organization educates its supporters and rallies public support for protecting a wilderness area or when the electric utility industry attempts to change public perceptions of coal with TV ads promoting "clean coal" as an energy source. "Buy this shampoo" or "vote for this candidate" are explicit verbal pragmatic appeals.

2. *Environmental communication is* **constitutive**: It entails verbal and nonverbal modes of interaction that *shape, orient,* and *negotiate* meaning, values, and relationships. Constitutive communication invites a particular perspective, evokes certain beliefs and feelings (and not others), fosters particular ways of relating to others, and thus creates palpable feelings that may move us. Let's illustrate this a little further.

University of Cincinnati Professor Stephen Depoe invites his students reading this textbook to Tweet examples of functions of environmental communication. In 2016, one student, @SornKelly, tweeted an image of a glass filled halfway with water, with the words *half empty* on one side and the words *half full* on the other. This classic English expression is a wonderful way to think about constitutive communication. By naming the same glass "empty" or "full," we are not only *describing* what we perceive and wish others to perceive; we are also *defining* the object in a way that *imbues an entire attitude.* Consider, for example, whether you have a half-empty or half-full attitude about climate change: How does that shape everything from your attitude in everyday life to which politicians garner your vote?

Constitutive communication, therefore, can have profound effects on when we do or do not define certain subjects as "problems." When climate scientists call our attention to "tipping points," they are naming thresholds beyond which warming "could trigger a runaway thaw of Greenland's ice sheet and other abrupt shifts such as a

dieback of the Amazon rainforest" (Doyle, 2008). Such communication orients our consciousness of the possibility of an abrupt shift in climate and its effects; it therefore constitutes, or raises, this possibility as a subject for our understanding—as opposed to being simply another number to signify carbon levels.

Act Locally!

Pragmatic and Constitutive Functions of Climate Communication

Communication about climate change occurs daily in news media, TV ads, social media, popular culture, and other sources. Select one example that interests you—from a news report about rising sea levels, a documentary on food scarcity or acidification of oceans, a TV show about electric cars, an ad for organic clothes, or a local event.

Find an example that uses both pragmatic and constitutive functions—that is, communication that may educate, alert, persuade, and so on, while also subtly creating meaning and orienting your consciousness. Then answer these questions:

1. What pragmatic function does this communication serve? Who is its intended audience? What is it trying to persuade this audience to think or do? How? What does the communication assume about the audience?

2. Does your example illustrate constitutive functions in its use of words or visual images? How do these invite a particular perspective or orient you to a set of concerns that establish or invoke a belief about a specific idea, practice, or event? How is something or someone imbued with meaning, value, or affective associations?

Symbolic action about the environment, then, not only describes but also defines who we are and want to be in relation to a wide range of environmental topics. Following are just some of these ways in which we can study environmental communication.

Ways of Studying Environmental Communication

Since the 1980s, environmental communication has proliferated as a professional field. Associated with such disciplines as communication, media, journalism, and information, it has emerged as a broad and vibrant area of study. Pezzullo (2017a) has identified seven general approaches existing today:

1. Environmental communication research focused on *environmental personal identity and interpersonal relationships* may involve assessing one's ecological footprint, autoethnography, consumption studies, a sense of self-in-place (Cantrill, 1998), environmental education practices, or studying groups' environmental attitudes and practices. This approach might also focus on intercultural distinctions and dialogues, such as varying perspectives on discourses of dwelling (Carbaugh & Cerulli, 2012) or ways of engaging the nonhuman (Salvador & Clarke, 2011). Although the emphasis of this book is on interactions in the public sphere, we hope that bringing in our own

stories and inviting you to act locally will help open up opportunities for you to make connections between personal and public life.

2. *Environmental organizational communication studies* inquire how certain institutions or networks talk about or organize around environmental matters. This area explores the hierarchal language, stories, rituals, roles, and/or rules of environmental and anti-environmental discourse affecting both our public and our everyday lives. Notable research includes, for example, scholarship on the discourses surrounding the U.S. government's production of nuclear energy, secrecy around those practices, and debates over the disposal of nuclear waste (Taylor, Kinsella, Depoe, & Metzler, 2007).

3. *Environmental science, technology, and health communication* explore a range of subjects, from personal choices about technology and interpersonal communication in labs and hospital rooms to risk assessments of environmental policymakers. These approaches focus less on public and popular discourses and more on personal or technical discourse communities, such as doctor–patient interactions, public health campaigns, and how scientists may communicate more effectively with the public. Some of this scholarship values structural critique, such as Mohan Dutta's (2015) compelling communication research in southeast Asia on how subaltern communities can embrace a culture-centered approach to public health decisions related to agriculture.

4. *Public participation in environmental decision making* draws on rhetoric, discourse studies, and organizational communication and reflects a commitment to democratic practices, principally ways to resolve or navigate controversies over public goods and the commons. When protest has not been successful or is desired to be avoided, studies of public participation inquire about the ways in which various stakeholders (for example, loggers, forest activists, and businesses) contribute to decisions about environmental policies and projects; studies include the diverse voices and interactions (verbal and nonverbal) that shape choices, such as management of a community's water supply (Sprain, Carcasson, & Merolla, 2014).

5. *Environmental mass media studies* have become popular at a time when climate scientists increasingly are eager to reach broader audiences. Drawing more on a social scientific perspective, this approach includes discourse analysis of mainstream news coverage of environmental topics, studies of the social construction and/or framing of the environment in the media, visual green brands, and environmental media effects, including framing, cultivation analysis, and narrative analysis (Boykoff, 2007; Carvalho & Peterson, 2012).

6. *Green applied media and arts* is a broad umbrella term for those environmental practitioners and scholars who focus on *production*: in a specific medium, its circulation, its intermediation, and/or technology-based arts (including photo imaging, video, digital designs, sound, and live performance). This category may focus on environmental journalism, public relations, green design, environmental architecture, and more. Green applied media and arts could involve, for example, how environmental journalists are moving from a primarily print form to digital and

social media platforms, such as producing or linking to a documentary short within a story. Green arts might also involve community poetry slam performances to raise awareness about farmworker lives in the global South or environmental scientists and artists who work collaboratively to raise awareness through exhibits in public spaces.

7. *Environmental rhetoric and cultural studies* bridge fiction and nonfiction; individual and collective expression; verbal and nonverbal interactions; communication face-to-face or face-to-screen; concerns for meaning, materiality, and affect; and more. Rhetoric and cultural studies primarily may involve analysis of a range of communicative phenomena—language, discourse, visual texts, popular culture, place, environmental advocacy campaigns, movements, staged performances, and/or controversies in a public sphere. For such studies, thinking about context, voice, creativity, and judgment are vital. Less interested in universal claims, rhetoric and cultural studies explore the relationship among bodies, institutions, and power within specific situations or conjunctures. Topics vary widely, including the environmental justice movement's foregrounding the relationship between racial injustices and environmental degradation; the commodification of human–nonhuman animal relationships on eco-tours; and the cultural salience of environmental documentary films or cli-fi films.

Given the breadth of these broad approaches, can there be a common thread in their undertakings? We believe that there is, and we propose in the next section that this tread is *an ethical dynamic or dialectic between crisis and care.*

The Ethics of Crisis and Care

In the inaugural issue of *Environmental Communication: A Journal of Nature and Culture,* Cox (2007) proposed that environmental communication is a **crisis discipline**. This argument drew on the Society for Conservation Biology's stance that, like cancer biology, conservation biology has an ethical norm as a "crisis-oriented" discipline in addressing the threat of species extinction. Similarly, we embrace a crisis discipline frame for environmental communication as a field—and practice—dedicated to addressing some of the greatest challenges of our times, but a frame that also foregrounds the *ethical* implications of this orientation.

While work in environmental communication addresses cancer, climate chaos, disappearance of wildlife habitat, toxic pollution, and more as crises, we also believe the stakes of such crises invite a dialogue or dynamic relationship with an ethic of concern or care. As Cox (2007) observed,

> scholars, teachers, and practitioners have a duty to educate, question, critically evaluate, or otherwise speak in appropriate forums when social/symbolic representations of "environment," knowledge claims, or other communication practices are constrained or suborned for harmful or unsustainable policies toward human communities and the natural world. Relatedly, we have a responsibility through our work to identify and recommend practices that fulfill the first normative tenet: *to enhance the ability of society to respond appropriately to environmental signals relevant to the well-being of both human civilization and natural biological systems.* (p. 16, emphasis in original)

This ethical duty gives value to humans and nonhuman systems, as well as to our communication both inside and outside the academy. It assists those who want to assert that environmental communication scholarship is contributing not solely to existing literature, but also to the wider struggles of which research is a part. Indeed, some scholars have argued that environmental communication as an *ethic of crisis and care* should incorporate nature that cannot speak for itself, listening to a broader range of signals.

As a consequence, while we endorse the field as a crisis discipline, we also embrace environmental communication as a "care discipline" (Pezzullo, 2017a). As a **care discipline**, environmental communication involves research devoted to unearthing human and nonhuman interconnections, interdependence, biodiversity, and system limits. This means that we have not only a duty to *prevent* harm but also a duty to *honor* the people, places, and nonhuman species with which we share our world. This ethic may be witnessed in indigenous and feminist thought (Whyte & Cuomo, 2015), documentaries, and stage performances that express, for example, a love of place, the cultural centrality of a particular food, the millions who visit national parks annually as tourists with limited vacation time and money, animal studies of affectionate interspecies relations, and intergenerational rights policy in international law.

As a care discipline, there are phrases circulating in environmental discourse that capture this sentiment, including the goal of *not just surviving but thriving* and of *not just bouncing back from a disaster but bouncing forward as well.* These discourses aim to foster a world that exceeds reactionary practices and includes hope for generative community building in which our dreams and ideals may help shape our plans and platforms. Although dialogue that allows *only* space for happiness and optimism can feel oppressive, the opposite also rings true: Creating spaces that enable only sadness and cynicism can feel oppressive as well.

Crisis is a vital motivation for environmental communication, but other drives are important as well, including those spaces (environments) and conversations that are inspirational, healing, spiritual, profitable, and/or transformative. By coupling crisis and care as a dynamic and intertwined dialectic, we arguably might enable recognition of existing and emergent environmental communication on the wider range of emotional, physical, and political responses that warrant our attention.

Let's now bring to these perspectives on the field of environmental communication three core principles that serve as the framework for the remaining chapters of this book:

1. Human communication is *symbolic action.*

2. As a result, our beliefs, choices, and behaviors about the *environment* are imagined, shared, and judged through *communication.*

3. The *public sphere* (or spheres) is a discursive space in which competing voices engage each other about environmental matters as a cornerstone of democratic life.

Communication, the Environment, and the Public Sphere

The three principles organizing the chapters in this book obviously overlap (for example, our beliefs about an environmental topic occur as we converse with others in public spaces), but here, we want to introduce and illustrate these three briefly and then draw on them in each of the remaining chapters.

Communication as Symbolic Action: Wolves

Earlier, we defined environmental communication as a form of symbolic action. Whether considered as pragmatic or constitutive functions, our symbolic acts *do* something. Films, websites, apps, photographs, popular magazines, and other forms of human symbolic behavior are produced by us and act on us.

As such, communication leads to real-world outcomes. Consider the American gray wolf. Concern for the extinction of wolves has not always been a concern of many Americans. Wolves, for example, had been extirpated from the Northern Rocky Mountains by the mid-20th century through intensive "predator control" (trapping, poisoning, or shooting). It was not until the mid-1990s that the U.S. Fish and Wildlife Service initiated a restoration plan for wolves.

In 1995, Secretary of the Interior Bruce Babbitt celebrated the return of the first American gray wolf to Yellowstone National Park in a speech marking the event. Earlier that year, he had helped carry and release the wolf into the transition area in the park where she would mate with other wolves also being returned. After setting down the wolf, Babbitt (1995) recalled, "I looked . . . into the green eyes of this magnificent creature, within this spectacular landscape, and was profoundly moved by the elevating nature of America's conservation laws: laws with the power to make creation whole" (para. 3).

Babbitt's purpose in speaking that day was to support the beleaguered Endangered Species Act, which was under attack in the Congress at the time. In recalling a Judeo-Christian biblical story of a flood, Babbitt evoked a powerful cultural narrative for revaluing wolves and other endangered species for his audience. In retelling this ancient story, he invited them to embrace a similar ethic in the present day:

> In the words of the covenant with Noah, "when the rainbow appears in the clouds, I will see it and remember the everlasting covenant between me and all living things on earth." . . . Thus we are instructed that this everlasting covenant was made to protect the whole of creation. We are living between the flood and the rainbow: between the threats to creation on the one side and God's covenant to protect life on the other." (Babbitt, 1995, para. 56)

Communication orients us toward events, people, and, yes, wildlife. And because different individuals may value nature in diverse ways, we find our voices to be a part of a conversation with others. Secretary Babbitt invoked an ancient story of survival to invite the American public to appreciate anew the Endangered Species Act. So, too,

Photo 1.2   Secretary of the Interior Bruce Babbitt, releasing the first American gray wolf back into Yellowstone National Park in 1995. States and various organizations continue to debate wolf reintroduction as a result of the pragmatic and constitutive communication associated with the species.

our own contemporary communication helps us make sense of our own relationships with nature, what we value, and how we shall act.

Wolf reintroduction policies continue to be negotiated in the United States, from children's books to state and federal wildlife debates. How people debate the reintroduction of wolves reflects the dual functions of symbolic action we highlighted earlier. Wolf policy might be a pragmatic debate with a clear decision (will we or won't we?), yet the discourse creating the grounds for those judgments is constitutive: What does a wolf symbolize? Are wolves a keystone species in an ecosystem? Are they a predator of livestock and, therefore, livelihoods? Does "the fierce green fire" in their eyes hold intrinsic value and insight beyond human comprehension (Leopold, 1949, p. 138)? Your responses to these questions constitute what a wolf means to you and shapes whether you might support wolf reintroduction.

Human communication, therefore, is symbolic action because we draw on symbols to construct a framework for understanding and valuing and to bring the wider world to others' attention.

Why Communication Matters to "the Environment"

It may seem odd to place "the environment" in quotation marks. After all, the environment exists: Lead in water can cause brain damage, large glaciers in Antarctica are

calving into the Southern Ocean due to planetary warming, and we need oxygen to breathe. So, what's going on?

Simply put, whatever else "the environment" may be, it is deeply entangled with our very human ways of interacting with, knowing, and addressing the wider world. As Norwegian environmentalist Arne Naess (2000) once exclaimed, "Having been taken at least twice by avalanches, I have never felt them to be social constructions. But every word I utter about them may have social origins" (p. 335). At a basic level, our beliefs, attitudes, and behaviors toward the environment are shaped by human ways of communicating.

Consider, for example, *naming* (which we define and address in more detail in Chapter 3). When we name, we also orient ourselves. Naming can reflect how we value or devalue, understand or are confounded by, or find hardship or rejuvenation in the environment. As Christine Oravec (2004) observed in her essay on Utah's Cedar Breaks National Monument, this act of naming is not only a mode by which we socially construct and know the natural world; it also orients us and thus "influences our interaction with it" (p. 3). For instance, is *wilderness* a place of primeval beauty, or is it a territory that is dark, dangerous, and alien to humans? Many European colonizers in New England viewed North American forests and the indigenous peoples living in them as forbidding and dangerous. Puritan writer Michael Wigglesworth, for example, named or described the region as

A waste and howling wilderness,

Where none inhabited

But hellish fiends, and brutish men

That Devils worshiped. (quoted in Nash, 2001, p. 36)

As a result of these different orientations to the environment, writers, citizens, conservationists, poets, scientists, business lobbyists, and more have communicated for centuries over whether or not forests should be logged, rivers dammed, air quality regulated, and endangered species protected.

Public Spheres as Democratic Spaces

A third principle central to this book is the idea of the public sphere—or, more accurately, public spheres. Earlier, we defined a *public sphere* as the forums and interactions in which different individuals engage each other about subjects of shared concern or that affect a wider community, from neighborhoods to international relations.

The German social theorist Jürgen Habermas (1974) offered a similar definition of the ideal of the public sphere when he observed that "a portion of the public sphere comes into being in every conversation in which private individuals assemble to form a public body" (p. 49). As we engage with others, we translate our private or technical topics into public ones and, thus, create circles of influence that affect how we

imagine the environment and our relationships within it. Such translations of private concerns into public matters occur in a range of forums and practices that give rise to something akin to an environmental public sphere—from a talk at a campus environmental forum to a scientist's testimony before a congressional committee. In public hearings, newspaper editorials, blog posts, speeches at rallies, street festivals, and countless other occasions in which we engage others in conversation or debate, the public sphere emerges as a potential sphere of influence.

But private concerns are not always translated into public action, and technical information about the environment may remain in scientific journals or proprietary files of corporations. Therefore, it is important to note that other spheres of influence exist parallel to the public sphere. Communication scholar Thomas Goodnight (1982), for example, named two other areas of influence the *personal* and *technical* spheres; the personal is one's private opinion, and the technical is scientific, specialized knowledge. The public sphere, the primary focus of this book, is collective opinion, knowledge, and action. All spheres shape the world we live in, but all do not carry the same values, particularly when considering democratic governance.

The idea of the public sphere itself, however, can be misunderstood. We want to dispel a few misconceptions early on. First, the public sphere is not only, or even primarily, an official space. Although there are officially sponsored spaces such as public hearings that invite citizens to communicate about the environment, these forums do not exhaust the public sphere. In fact, discussion and debate about environmental concerns often occur outside of government meeting rooms and courts. The early 5th-century (BCE) Greeks called these meeting spaces of everyday life *agoras,* the public squares or marketplaces where citizens gathered to exchange ideas about the life of their community. Similarly, we find everyday spaces and opportunities today, publicly, to voice our concerns and influence the judgment of others about environmental concerns, from social media apps to marches in the streets.

Second, the public sphere is neither monolithic nor a uniform assembly of all citizens. As realms of influence are created when individuals engage others, public spheres may assume concrete and local forms, including calls to talk radio programs, blogs, letters to the editor of newspapers, or local meetings where citizens question public officials. Rarely does every person impacted participate equally or is every idea expressed.

Third, far from elite conversation or "rational" forms of communication based on norms of which cultures and bodies are imaged as "reasonable" or not, public spheres are most often the arenas in which popular, passionate, and democratic communication occurs. Such a view of the public sphere acknowledges the *diverse* voices and styles that characterize a robust, participatory democracy. In fact, in this book, we introduce the voices of ordinary citizens and the special challenges they face in gaining a hearing about matters of environmental and personal survival in their communities.

Diverse Environmental Voices in the Public Sphere

The landscape of environmental communication is complex, as is the possibility of having one's voice heard. As communication scholar Eric King Watts (2001) emphasizes, "voice" is not merely predicated upon if one is speaking but might be better appreciated as an embodied, ethical, and emotional occurrence that cannot be heard or ignored void of communal contexts and commitments. Whether or not someone feels capable of expressing his or her voice and feels heard is connected to the health of the public sphere. While Watts's research has focused on race and conservative voices, his argument is relevant to the ways in which environmental communication scholars have long studied voice (Peeples & Depoe, 2014).

In this final section, we describe some of the voices you may hear in the public sphere on environmental matters. Individuals in these six groups take on multiple communication roles—writers, press officers, group spokespersons, community or campus organizers, information technology specialists, communication directors, marketing and campaign consultants, and more. As we discuss in the book, their embodied identities and styles of communicating matter to the ways in which they are heard or not. In this introduction to the topic, we want to emphasize how various voices in public spheres that communicate about the environment may be motivated for different reasons and play different roles.

Citizens and Civil Society

Residents who engage public officials about the local environment—such as dealing with asbestos in their children's school or establishing a neighborhood park—and who organize their neighbors to take action are the common sources of environmental change. Citizens or residents of a community are considered part of **civil society**, growing out of families and the private sphere. Let us explore how these spheres interact with an extended example.

In 1978, Lois Gibbs and her neighbors in the working-class community of Love Canal in upstate New York became concerned when, after they noticed odors and oily substances surfacing in the local school's playground, their children developed headaches and became sick. At first, these illnesses were just private concerns: *My kid doesn't feel well.* Then, Gibbs began talking with some of her neighbors about their similar struggles, which made her begin to think this was a public issue, something worth thinking about as more than just her private family but related to her larger community (see Photo 1.3). She also read in a newspaper report that Hooker Chemical Company, a subsidiary of Occidental Petroleum, had buried dangerous chemicals on land it later sold to the school board (Center for Health, Environment, and Justice, 2003), giving her a source of pollution to make what once were private health concerns feel like a matter for political debate.

Despite an initial denial of the problem by state officials, including bias against the possibility that housewives might be experts worth hearing, Gibbs and her neighbors sought media coverage, carried symbolic coffins to the state capital, marched on

Associated Press/Alex Milan Tracy

Photo 1.3 Everyday people can make a difference when they don't give up sharing their concerns with family and neighbors. Organizing collective action can start with a conversation at the grocery store, knocking on a door, making a phone call, or any number of communication actions anyone can take any day. Some, like those pictured here, turn to protests to defend their homes.

Mother's Day, and lobbied health officials to take their concerns seriously. Finally, in 1982, the residents succeeded in persuading the federal government to relocate many of those who wanted to leave Love Canal. The U.S. Justice Department also prosecuted Hooker Chemical Company, imposing large fines (Shabecoff, 2003, pp. 227–229). Today, Lois Gibbs leads a nongovernmental organization, the Center for Health, Environment & Justice (CHEJ), to provide a clearinghouse of technical and firsthand knowledge to those seeking help in assessing risks (see http://chej.org).

Nongovernmental Organizations

The United Nations defines a *nongovernmental organization* (NGO) as a nonprofit, voluntary citizens' group that is organized locally, nationally, or internationally and speaks. Environmental NGOs are among the most visible sources of environmental communication in public spheres. These groups come in a wide array of organizational types and networks, online and on the ground.

NGOs range from grassroots groups in local communities to nationwide and internationally established organizations. In every country, NGOs exist to advocate for a wide range of environmental concerns and hopes. In India, for example, Navdanya, meaning "nine seeds" (navdanya.org), is a women-centered movement for protecting

native seeds and biological diversity, while the African Conservation Foundation (africanconservation.org) is a continent-wide effort to protect Africa's endangered wildlife and their habitats. Other groups, such as Greenpeace (greenpeace.org) and Avaaz (avaaz.org), organize on an international scale in the fight against climate change and for environmental sustainability. Notably, students and campus groups have been at the forefront of environmental change throughout history. For example, in the United States, environmental activists are coordinating with wider networks and environmental organizations like the Sierra Student Coalition's "Beyond Coal" campaign and 350.org's global push for divestment from fossil fuel companies.

Anti-environmental NGOs also exist. Sometimes, these are grassroots-driven, and sometimes, they are industry front groups attempting to sound like civil society voices. Though this book primarily focuses on the wide range of environmental advocates, we also bring your attention to voices like those who oppose wolf reintroduction or actions to address climate change to emphasize the ways in which the public sphere is a space of contest, in which the challenge is not just deciding what you want to communicate but also finding ways to move others who may not agree. Finding common ground with those who might seem to disagree can be an important first step for NGOs working across political affiliations.

Politicians and Public Officials

Governments are organized at a wide range of scale, including but not limited to cities, states, nations, and intergovernmental organizations. Within any of these governing bodies, there is a range of public figures in charge of managing and communicating about environmental matters, including politicians and public officials. Politicians and public officials are charged with making decisions about public goods, such as utilities, public squares, national forests, and more, as well as making decisions about private interests. They also reflect whether or not a society is democratic, legislating, judging, policing, and protecting access to public goods, public speech, public participation, public spaces, public policy, and other elements that indicate the health of a democracy. While publics may exist without a government, governmental support can ideally enable under-heard, more diverse voices to have greater opportunities to be heard. Furthermore, the environment is a significant topic in most elections; the voices running for office or working in government, therefore, reflect the whole spectrum of political opinions.

Businesses

The United Nations organizes environmental and other intergovernmental decision making around three sectors: civil society and NGOs, governments, and business. The business sector represents corporations or what sometimes is referred to as "the private sector." This realm of public life is referred to as "private" because, unlike governments, these organizations have little legal requirement to make decisions, knowledge, or opinions public.

As with all other voices we note here, the voices of corporations span the spectrum of environmental communication. Some corporations are building solar panels as

thin as hair and imagining how to improve public health. Other businesses may prioritize private financial gain over improving the world we all live in, launch disinformation campaigns, avoid paying taxes for the greater good, pollute, and impede environmental legislation. No matter the intent or impact, the voices of businesses in the public sphere are undeniably present, from lobbying governments on decision making to promoting public relations through multimedia campaigns.

Scientists and Scholars

Much of what we know and believe about communication, the environment, and the public sphere has been established and studied by scientists and other scholars. In public spheres more broadly, environmental scholars play many roles: as organizers and advisors in civil society, with NGOs, as consultants for governments and businesses, and in communicating their findings in published reports, public testimony, editorials, blogs, documentaries, performances, and more.

In 2011, environmental scholars and practitioners established the International Environmental Communication Association (theieca.org) to coordinate research worldwide. Interest has grown not only in North America, the United Kingdom, and Europe, where "environmental communication has grown substantially as a field" (Carvalho, 2009, para. 1), but also throughout the world. We draw on these voices throughout the book.

Notably, scientists working for universities, governments, and corporations face different limitations and possibilities when communicating in the public sphere than in other areas. Climate scientists, for example, have provided vital research and testimony that has shaped public understanding of anthropogenic climate change, prompting public debate over actions by governments. Early warnings of scientists have contributed substantially to public awareness, debate, and corrective actions on everything from asthma in children to how species may adapt, resist, and evolve in relation to climate changes. Scientists also can help us, for example, identify keystone species and make connections between plankton in the ocean and our ability to breathe. Given the resistance to science that many have observed, particularly since the 2016 U.S. presidential election, more and more climate scientists specifically are considering how to improve the communication of their findings to the public in more effective and urgent ways.

Journalists

It would be difficult to overstate the impact of journalism—both "old" and new—on environmental communication and the public sphere. Journalists not only share information but also may act as conduits to amplify other voices—citizens, public officials, corporate spokespersons, academics, and more—seeking to influence public attitudes and decisions about environmental matters. A healthy democracy long has been gauged by the health of the press.

Journalism has gone through a great transformation in our lifetime, given changes in communication technologies. With more people having greater access to share information more quickly, over farther distances, the role of journalists has adapted.

Today, most of us do not worry about a lack of information; instead, the greater challenge is figuring out how to sort through, critically think about, and make judgments about environmental news. Who can we trust not to be driven by bias over evidence? Which sources of information can help us make links to causes and outcomes instead of just presenting isolated segments that can grab our attention momentarily? How will news organizations raise funds for long-term investigative research to hold governments and industry accountable?

SUMMARY

This chapter defined environmental communication, its major areas of study, and the principal concepts around which the chapters of this book are organized:

- The term *environmental communication* itself was defined as the *pragmatic and constitutive modes of expression—the naming, shaping, orienting, and negotiating—of our ecological relationships in the world, including those with nonhuman systems, elements, and species.*
- Using this definition, the framework for the chapters in this book builds on three core principles:
  1. Human communication is symbolic action.
  2. As a result, our beliefs, choices, and behaviors about the environment are imagined, shared, and judged through communication.
  3. The public sphere (or spheres) is a discursive space in which competing voices engage each other about environmental matters as a cornerstone of democratic life.

Now that you've learned something about the field of environmental communication, we hope you're ready to engage the range of topics—from the challenge of communicating about climate change to your right to know about pollution in your community—that make up the practice of speaking for/about the environment. And along the way, we hope you'll feel inspired to join the public conversations about environmental crisis and care.

SUGGESTED RESOURCES

- Comedian John Oliver hosts popular scientist Bill Nye on his show to try to explain what "consensus" is: *Last Week Tonight with John Oliver: Climate Change Debate.* (2014, May 11). HBO. Available at https://www.youtube.com/watch?v=cjuGCJJUGsg.
- To consider more about the relationship between environmental communication and ethics, read the following article: Bruner, M., & Oelschlaeger, M.

(1994). Rhetoric, environmentalism, and environmental ethics. *Environmental Ethics, 16*(4), 377–396.
- The following book explores how people give voice to, and listen to the voices of, the environment: Peeples, J., & Depoe, S. (Eds.). (2014). *Voice and environmental communication.* Basingstoke, UK: Palgrave Macmillan.
- Follow or subscribe to an environmental daily news site, like one of the following: Environmental News Network (enn.com), Grist (grist.org), *The Guardian*'s Climate Change page (theguardian.com/environment/climate-change), or Al Jazeera's Environment News page (aljazeera.com/topics/categories/environment.html).

KEY TERMS

Care discipline   17

Civil society   22

Constitutive   13

Crisis discipline   16

Environmental communication   13

Pragmatic   13

Symbolic action   12

DISCUSSION QUESTIONS

1. Is nature ethically and politically silent? What does this mean? If nature is politically silent, does this mean it has no value apart from human meaning? Which environmental voices are you trying to hear?

2. The rhetorical theorist Kenneth Burke (1966) claims that "much that we take as observations about 'reality' may be but the spinning out of possibilities implicit in our particular choice of terms." Does this mean we cannot know "reality" outside of the words we use to describe it? What did Burke mean by this? Do you agree or disagree?

3. With some people living in segregated neighborhoods and many using personalized digital media newsfeeds, do we hear a diversity of voices in our everyday lives? What steps do you take to hear voices and opinions that differ from your own?

4. Watch this toy store ad on YouTube: https://www.youtube.com/watch?v=WHhBaU4cFDQ. Pragmatically, this company wants its audience to go to its toy stores and buy more toys that it sells; what is less obvious is the constitutive communication of the ad, deliberate or not: How does the company constitute its toys in contrast to nature? What assumptions does it make? What stereotypes does it reinforce or challenge about people? How does its constitutive communication reflect or challenge your values?