CHAPTER 10

Mobilizing the Ecological Society

We have a purpose. We are many. For this purpose we will rise, and we will act.

—Al Gore, 2007
There is an old fable that I enjoyed telling to my children when they were young, “Androcles and the Lion.” It is indeed old, 2,000 years at least. Some say it dates from the time of Caligula, who ruled the Roman empire from 37 to 41 CE, and that it was written by Apion, a scholar from that day, and that it may descend from a real incident. Others say that it originally comes from Aesop, the Greek storyteller from the sixth century BCE. The earliest extant version of it is in the *Noctes Atticae*, or *Attic Nights*, of Aulus Gellius—20 volumes of random stuff that Gellius, a minor Roman official, scribbled down to pass the time while on a posting to Athens, which is in Attica. Gellius himself, at least, says he got it from Apion, not Aesop, and that Apion claimed to have been an eyewitness to the story. In any event, it is plenty old. The more I reflect on it, the more I see why people have continued to tell it for so long. The more I reflect on it, the more I see it is not just a story for the young. The more I reflect on it, the more I see it has an important message about community and environment and how to bring the two together into that biggest community of all.

Here’s how it goes (or at least how I like to tell it). There once was a slave named Androcles who belonged to the Roman governor of Africa. The governor was a cruel master and used to beat Androcles mercilessly. One day, Androcles saw his chance to escape, and he ran away into the wilderness. After running for hours, he spied a cave where he thought he could rest, hide, and spend the night. But as he approached the cave, he heard a terrible roaring echoing from inside it, and a huge lion came out into the cave’s mouth. Androcles was frightened, of course, but he noticed that the lion was favoring one of his feet. Androcles looked more closely and could see something sticking out of the paw of the hurt foot. It was an old nail. Forgetting his own safety, for he probably could have outrun the lame lion, Androcles cautiously approached the brute. He took the hurt paw into his hands and pulled out the nail, and then did his best to clean up the infected sore. It just seemed like the right thing to do. After all, Androcles knew what it was like to suffer.

The lion was ecstatic and gratefully licked Androcles’s face. The two, man and lion, became fast friends. They lived together in the cave and learned to hunt together, using the lion’s teeth and claws and Androcles’s hands and wit. They became inseparable, despite their differences, and in many ways precisely because of those differences.

But they were a little careless one day. Some of the Emperor Caligula’s soldiers were out hunting for a lion for a show in the Circus Maximus back in Rome and caught the beast in a net. One of the soldiers recognized Androcles as the governor’s escaped slave, so they captured him, too. When the soldiers brought Androcles back to the governor, he flew into a rage about the poor slave. In those days before television, people enjoyed going to the circus to watch lions eat defenseless captives and other gruesome sports. The governor condemned Androcles to the Circus Maximus to be used for this unhappy purpose.

On the day of the event, great excitement filled the air. Even the Emperor Caligula was there. After all, it was good for an emperor’s popularity to be seen putting on a satisfyingly bloody circus show, and Caligula was in political trouble because of his lavish spending on an expansion of his palace. Besides, Caligula was a rather bloodthirsty fellow himself. Tension mounted as the preliminary acts—foot races, weight lifting, gladiator fights, a chariot race—were held. Finally, Androcles was thrown into the ring, naked and unarmed. The lion, who had been starved for days, was also released into the ring.

Snarling and roaring, the lion approached Androcles and prepared for a lethal pounce onto the modest frame of this gentle soul. But as he drew near to Androcles, the lion recognized who it was. The mighty cat laid down in front of Androcles, looked up at him, and began to mew softly.

A few people in the stands began to jeer. They wanted blood. So some of the Circus Maximus’s
animal handlers came out with long pikes to poke and anger the lion into action. But the lion rose up, shook his great mane, and roared fiercely at the handlers until they retreated. Then, the lion lay down once again at Androcles’s feet, purring and swishing his tail.

The Circus crowd fell absolutely silent. Caligula too was astonished. He asked to have Androcles brought near to his viewing platform so he could question him. Androcles explained the strange history of his friendship with the lion, shouting up to the emperor high above on his portable throne. Caligula thought for a moment and then commanded that the story be written out on a tablet and passed through the crowd so all would know. After all, there were no loud-speakers in those days. Once the tablet had made its way through the multitudes, with those who could read explaining the matter to those who could not, Caligula rose up. Everyone immediately fell silent again to hear. Caligula shouted out, “Should we release Androcles and the lion?” The crowd roared its approval. Caligula held up his hand to silence them again, and then proclaimed, “The vote is clear. Let them both go free!” The crowd’s roar after that could be heard clear across Rome.

For the next few months, Androcles and the lion walked through the city together, the lion on a light leash so as not to frighten anyone. People would give Androcles money and sprinkle the lion with flowers. And everyone who met them anywhere exclaimed, “This is the lion, a man’s friend; this is the man, a lion’s doctor.”

But eventually, Androcles and the lion grew tired of the fuss, even though they now had plenty of money to live on. They returned to the wilderness and lived out the rest of their days together, the closest of companions.

And so we learn that no act of kindness is ever wasted. Androcles had the ecological conceptions to begin with. Because of his own experiences as a slave, he could relate to what the lion was going through. The two then built a strong solidarity of mutual connections that carried them through the years. Finally, based on that solidarity, the lion contested the government’s animal handlers, and Androcles made a compelling appeal, winning a remarkable political victory that brought freedom for human and lion alike. Whether the story is fact or fiction—and it has certainly had its share of reshaping over the years by various storytellers, including me—it is true in a deeper sense. As we shall see.

Mobilizing Ecological Conceptions

One of the oldest answers to the question of how to mobilize an ecological society is education. The environmental movement has put a huge amount
of effort into environmental education. There are literally thousands of local environmental education centers and school programs across the world. There are dozens (it could even be into the hundreds) of professional associations of environmental educators at the regional, national, and international levels—for example, the North American Association for Environmental Education, founded in 1971; the Australian Environmental Education Association, founded in 1980; the Maine Environmental Education Association, founded in 1982; and the Japan Society of Environmental Education, founded in 1990. Many countries publish environmental education journals, including Australia, Canada, Hungary, South Africa, the United States, and more, and there are several international journals. Since 2003, there has been an annual World Environmental Education Congress. There can hardly be an environmental organization, either governmental or nongovernmental, that does not put significant effort into education and public outreach. And think of all the TV programs and popular magazines that have carried environmental stories, from the Nature Channel to National Geographic. In these many ways, the environmental movement has been working to put into practice the widely cited definition of environmental education from UNESCO’s (United Nations Educational, Scientific and Cultural Organization) 1978 “Tbilisi Declaration,” to whit,

Environmental education is a learning process that increases people’s knowledge and awareness about the environment and associated challenges, develops the necessary skills and expertise to address the challenges, and fosters attitudes, motivations, and commitments to make informed decisions and take responsible action.7

Sounds great. It is great. Much good has come of it. Nonetheless, after decades of environmental education, we still have massive environmental problems and significant issues with every goal mentioned in the Tbilisi Declaration’s definition of environmental education.

The trouble is, knowing something doesn’t mean you can do much about it. If people find their lives organized so that it is hard for them to put their ecological knowledge into practice, then they are unlikely to do so. Why? For exactly that reason: because it is hard—especially when one tries to act as an individual. The pattern of our economy, technology, built environment, and ideologies present tremendous obstacles to getting something changed when you try to act on your own.

Plus, when people hear that they are doing something wrong that they feel they can’t do much about, they will likely resist the implied sense of guilt by resisting knowledge. They may well accuse the bearer of environmental knowledge as playing a game of shame and blame to gain a position of moral superiority over the ecologically guilty. So they turn the page. They click the remote. They surf to another site.

Does this mean that environmental education doesn’t accomplish anything? Hardly. I wouldn’t be writing this book if I believed that. But it does mean we should be wary of a behaviorist approach to environmental problems—the idea that if we change an individual’s attitudes, his or her behaviors will soon follow. Rather, we need to look at knowledge situationally, understanding the social contexts by which, and in which, people find themselves motivated to take action. Counseling individual action overwhelms and disappoints people. Plus, the “knowledge and awareness” the Tbilisi Declaration advocates is not something one can insert into someone’s brain as he or she comes down an assembly line, a missing part that we slot into a skull as it goes by. These are social matters, not ones of individual mechanics.

The Cultivation of Knowledge

Think about what goes on in anyone’s day. It is awash with information. For it is not just the environmental movement that is trying to grab
people’s attention. Every social movement, industry, and government agency is out there trying, as the Tbilisi Declaration describes, to increase “knowledge and awareness,” develop “skills and expertise,” and foster “attitudes, motivations, and commitments” that result in what each of those organizations regards as “informed decisions” and, we must hope, “responsible action.” The Internet. The newspaper. Television. Radio. Mail campaigns. Flyers passed out on the street. Advertisements on buses, billboards, and T-shirts. Everyone is trying it all. And no one can pay attention to it all. There is simply too much. So which sources will someone key into, and which will they ignore?

Plus, the sources often do not agree. Indeed, if they did agree, they probably wouldn’t feel a need to put out a message of their own. Which is confusing and confounding (two more con- words), as none of us is an expert in everything, even within our own fields of endeavor. I think I know quite a bit about environmentalism and environmental issues after many years of studying these matters. But there is a lot I don’t know. For example, I’ve had a good look through the 4th Assessment Report of the United Nations Intergovernmental Panel on Climate Change (IPCC), the one that states that climate change is “unequivocal” and that there is “very high confidence” that this change is influenced by human actions. I even have a degree in geology and another in forestry (and several joint degrees in environmental studies and sociology), so I have some technical background in some of the relevant natural sciences. But these are interdisciplinary matters, as I think pretty much everyone agrees now. And if something is recognized as being an interdisciplinary concern, that is another way of saying that no one person understands the whole thing. Moreover, who has read every one of the citations in the IPCC 4th Assessment Report? There are thousands of them. Not that reading them is enough to be sure of their veracity. Maybe the experiments and measurements and models were done wrong. Scientists make mistakes. Everyone does. Scientists sometimes misunderstand what they see. We all do. But I don’t have the time or the resources or the expertise to do all those experiments for myself to see if they got it wrong.

Which means each of us has to trust someone else who knows more about some aspect of something than we can determine on our own. Not just about technical matters of environmental science. Throughout the day, we ask others about things that have worked for them or that they have heard worked for others. Do I need to sample every poisonous mushroom for myself to believe that they are poisonous? That would kill me. Do I need to read every book, newspaper, and Web site myself to decide which ones are worthwhile? I’ll never live so long. So we each rely on others—others we trust—to help guide us successfully through the day.

But what if my friends are wrong? What if that supposedly poisonous mushroom was, in fact, safe and delicious? What if some bit of the knowledge in all those books, newspapers, and Web sites that my friends indicated, either explicitly or implicitly, that I shouldn’t bother with was, in fact, exactly what I needed both to be better to myself and better to the world? I may never know.

The point is that education is not just about communicating facts. It never has been. It is also fundamentally about trust and the social relations in which I gain a sense of what knowledge to pay attention to and what knowledge I can safely not pay attention to. Because of the centrality of trust, then, knowledge is not just knowledge. Knowledge is a social relation. And education is a social relation, too.

I like to think of it as a matter of the cultivation of knowledge. By that I mean, what I take to be knowledge is a matter of my identity and a matter of the social relations of trust that shape my identity and come from my identity. It’s an interactive matter. It’s ongoing. And it’s cultivated within culture and my resulting sense of lines of difference and lines of similarity with others.

What I know is who I am. Who I am is what I know. And who I am and what I know is whom I know and whom I trust. A person’s identity is
who their friends are and who their friends are not. Given that your knowledge is linked to your identity and that both your knowledge and your identity are linked to others, a lot is at stake in the cultivation of knowledge. Your self. Your friends. Your confidence. Your confidences. These are matters that are close to the bone of how we consider our location in the world. These are matters that are hard to change.

To cultivate knowledge is also to cultivate a sense of the ignorable. I don’t mean ignorance. I don’t mean stupidity about reality. Rather, the ignorable is central to knowledge. We gain knowledge by paying attention. But to pay attention to one thing is to not pay attention to something else—indeed, it is to not pay attention to far more than we pay attention to. To be where I am, in tune and attentive to the place and the people, is to be not everywhere else and not with all those other people. To decide what counts for knowledge—useful knowledge that is appropriate to my life, as I understand it—I must have some way to screen out far more that I will never know. I can try to read the New York Times every day (and I do). But can I also read the Washington Post, the Los Angeles Times, the Wall Street Journal, the Times of London, Der Speigel, Le Monde, and Al Jazeera? Every day? Cover to cover? And how about Sierra Magazine, the Ecologist, E/The Environmental Magazine, High Country News, and Environment Times? When you are already reading the National Review, The Spectator, and The Economist? So how do I know that what I focus on is what I should focus on if I haven’t looked at those things I am not looking at and will never look at? From the cues of culture, the culture with which I identify and find trust in my navigation of the world.

Cultivating Knowledge in the Fields of Iowa

How, then, does anyone ever change and begin to tune into other cultivations of knowledge, other conceptions of self and reality such as, say, ecological ones?

I found myself asking this question some years ago when I lived in Iowa and encountered a marvelously successful organization: Practical Farmers of Iowa, or PFI for short. PFI is Iowa’s largest sustainable agriculture organization, with about 700 members, roughly half of whom are farmers. That may not seem a lot when one considers that Iowa, a major farm state, has over 90,000 farms. But in 1985, the year the group began, there were hardly any sustainable farmers in Iowa, which has as industrialized an agricultural landscape as one can find anywhere on the planet. Some 60 percent of the state is covered by just two species of plants: corn and soybeans. Each spring, Iowa’s grain farmers gear up the machinery and chemistry to keep yanking this biomass out of the ground and into the mouths of hogs and cattle and, increasingly, into the mouths of ethanol and biodiesel factories. We’re talking factory farming in the extreme. (See Figure 10.1.) This is what most Iowa farmers do. But they don’t have to farm this way. In the years since 1985, PFI farmers and many other farmers have shown that sustainable agriculture works. It produces strong yields and solid incomes, while supporting families, communities, and ecologies. So why don’t more farmers change, and, conversely, if so few do, why do any at all?

The standard answer is that the structure of agriculture—markets, laws, subsidies, technologies—prevents them from changing to sustainable methods. After all, the government pours vast subsidies into corn and soybean production, which mightily maintain the existing pattern of markets, laws, and technologies, while giving a direct boost to farmers’ bottom line. But that doesn’t explain why some farmers change, especially as PFI farmers mostly come from the same situations as their conventionally farming neighbors. PFI farmers drive tractors. They wear feed caps. They were mostly raised in the communities where they now live, and often on the same farms. They are not a bunch of old hippies gone to seed.

Plus, conventional farmers in Iowa have plenty of incentive to change. The structure of agriculture is not kind to most of them. That’s why farm numbers have continued to plummet.
in Iowa long after the fabled farm crisis of the 1980s and, in fact, were plummeting well before the farm crisis, too. As farm numbers continue to fall, so do the number of local businesses that service the farm economy. The loss of those businesses boards up main streets, churches, schools, and even houses across rural Iowa. The result is an odd paradox: lush fields worked by expensive, modern equipment spreading out to the horizon and away from abandoned Victorian homes with sagging porches and glassless windows and small-town main streets lined by plywood instead of plate glass. (See Figure 10.2.) So the structure of agriculture is rough on farmers’ communities. The stress of the work is often equally rough on their families. The danger of the work is hard on their own health. And the monocultures in the fields—pumped up and propped up by can’t-miss chemistry and “Big Iron,” as farmers say—literally send the land down the creek. In other words, the structure of agriculture is hard on the environment, too.

Yes, given that their farms, communities, land, and sometimes their families and health are all eroding away, there is plenty of reason for conventional farmers to change to sustainable practices. They rarely do change, though, because what they are really farming out in their fields is something far more important to them than their crops. They are farming their selves. They are farming their sense of themselves as men (9 in 10 Iowa farmers are men), knowledgeable about and competent in what they do, maintaining a respectable place for themselves in the fabric of their communities, in which they have lived most of their lives, and sometimes all their lives. They do this farming with a stock of knowledge, built up over many years, often hard won, that serves as a continual investment in their identities, the more they draw on and add to this knowledge. It’s a lot to give up.

Now, conventional farmers could be going to the series of field days that PFI puts on at members’ farms across the state, demonstrating sustainable practices. Sometimes they do. They could be accessing the information on sustainable practices offered by Iowa State University’s College of Agriculture and agricultural extension staff. Again, sometimes they do. They could be attending the winter meetings that the state’s organic and sustainable farmers put on that discuss the strong markets for sustainably raised farm products and that bring farmers together with eaters interested in helping promote agricultural change. At times, indeed, they do go. And when conventional farmers tune in to these events, they are often surprised to find out that PFI farmers have most of the same passions for farming life that they do—that there is a network of friends here that one can trust to help navigate through the poison mushrooms and the flood of potential knowledge each day brings. That discovery brings them back, again and again.
One of the main leaders of PFI, a man I’ll call Earl, explained this discovery to me one hot summer afternoon at a field day at a PFI member’s farm. 10 About 25 people were huddled under the shade of an old oak, and a few of us, including me, in the shadow of a huge John Deere tractor. Most of the crowd were PFI members. But there were several new faces, too. The farmer (not Earl) was explaining the importance of not putting too much fertilizer on a corn crop.

“If your corn is looking dark green right through to the end of the year, you’re throwing your money away,” he told the crowd—meaning that if your corn is dark green that long you’ve spent more on fertilizer than you’ll get back in yield, however good the crop may look. Plus, you’ve just polluted the groundwater because you’ve probably used more fertilizer than the crop can absorb. In farming, as in other endeavors, wasting money often means wasting the environment.

I knew Earl, whose own farm was just up the road, from earlier PFI events. He must have been finding it hard to concentrate in the heat, too, and he wandered back from the group by the oak to where I was standing. “All this fertility stuff must be a bit boring for you,” he said to me, in a kind of classroom whisper between naughty pupils. Earl knew by then that I was a sociologist and that I didn’t have a farm background.

“Well,” I replied, a bit uncertainly, not knowing where this was going, “there’s a lot of it I can’t follow.”

“Besides,” said Earl, “it’s all social. That’s where the real change has to come from. All this, this is just technical.”

But how do these social relations of knowledge get going? The nine years of research I conducted on PFI with my colleagues Sue Jarnagin, Greg Peter, and Donna Bauer led us to this conclusion: It most commonly starts with what we came to call a phenomenological rupture in people’s existing cultivation of knowledge, a wrenching experience that causes them suddenly to doubt the bases of trust upon which they had long committed themselves to this cultivation. That rupture is not something PFI creates. The strains of industrial agriculture are what rips the fabric of trust, often through a financial crisis or a health crisis, according to the farmers we

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**Figure 10.2** The smoke and dust rises as a 1907 Victorian farmhouse in Pocahontas County, Iowa, is razed to the ground. Industrialization of agriculture has increased farm sizes so much that many farmhouses are abandoned and fall into ruin, and rural communities with them.

*Source: Photo by Helen D. Gunderson. Used with permission of Helen D. Gunderson.*
interviewed who had switched from conventional farming to sustainable practices.

Dick and Sharon Thompson (their real names) are perhaps the best-known PFI farmers, and they have won several major environmental awards for their work. (See Figure 10.3.) They were among the first to switch to sustainable practices, back in the 1960s, in fact, and went on to help found PFI in 1985. Here’s how Dick described the rupture, and his spiritual experience of it, in response to a crisis in the health of his livestock and his own overworked body:

In January of 1968, while chopping stalks in field number six, going north, I was—I’d had it. All the work. The pigs were sick. My cattle were sick. I hollered “help.” That’s the only way I know how to explain this. But some things started to happen. And a lot of things that happened seem to happen early in the morning. That thoughts come into my mind that I know that are not mine. So I want to share this. The creator wants to put a receiver, a still small voice, way down deep inside each one of us, for communication. It’s our choice. It’s not forced on us. If you want it, you can have it.12

Other farmers also described the unsettling period of rejecting a valued knowledge cultivation as a spiritual crisis. For example, one experienced it as a calling from God, down from the sky one day when he was up on a ladder, painting his barn, and closer to the heavens.13 Another called it a “planned event” orchestrated by a higher being.14

Figure 10.3  Dick and Sharon Thompson, winners of many environmental awards, at their farm in Boone, Iowa, 1999.

Source: Photo by Helen D. Gunderson. Used with permission of Helen D. Gunderson.
Dale, another PFI member, explained the disorientation of the rupture well. He had been one of those market-oriented farmers, spending every free moment in front of a computer, watching the movement of prices on the Chicago Board of Trade. He made some good choices about when to sell and on futures contracts he signed, but also some bad choices. He had dug himself into a big hole with a string of bad guesses, but then thought he had the situation pegged. He had accumulated a good stock of grain to sell, even though it hadn’t rained in Iowa for a while. Because of the lack of rain, prices were good, and getting better day by day. Monday, he thought, I’ll sell. But that was two days too long.

“You know, I had the boat loaded. But it rained over the weekend, so that was the end of that deal.” Dale laughed, wistfully. “The boat sunk in the harbor!”

The financial crisis that ensued nearly drove him out of farming, like so many others before. And he began to doubt everything that he thought he knew about how to be a successful farmer. “I kind of lost confidence in myself, because some of the things I was doing before failed me. Naturally after your ideas and things had failed, well, then, soon you get kind of gun-shy. It’s taken me probably a couple years to gain my confidence back, so to speak.”

How did he get it back? He happened on a notice for a PFI field day. He’d seen such notices before. He knew a couple of other farmers in his area were members. But this time he decided he would go. Two years later, he has his confidence back, in himself and in others. He has a cultivation of knowledge back.

He is farming differently, too. No longer a fence-row-to-fence-row grain farmer, he has a diversified operation based on integrating grass, livestock, and some grain crops through a five-to-seven year rotation that breaks up pest cycles and fertilizes the ground without chemicals and with very little erosion. He is getting a lot more money per acre, too, because he is spending less and getting better prices by not emphasizing low-value commodities like grain. So he is no longer in the game of forever plotting to get his neighbor’s land to make a low-margin, high-volume income. In so doing, he is making space for more farmers and a stronger local community. And he also likes himself better.

“But you know, going back, all these chains of events that have happened in my life, I’d have to say that I’ve been a better person because of it. And I have no remorse for the money I’ve lost or whatever. Because, the thing is, to me, it made me a better person.”


Cultivating Dialogic Consciousness

Central to knowledge cultivation is not only the existence of social relations of knowledge but also the character of those relations. As I’ll come to, PFI emphasizes a horizontal, dialogic process of engaging others and linking knowledge and identity. There are top-down, monologic ways, too. These monologic ways are by no means uncommon or unsuccessful, at least in the short term. Think of the “you” ads discussed in Chapter 2. Think of promotional campaigns fronted by a good-looking and famous person that many people would like to consider as a personal friend. Think of the religious leader who pitches a particular value by connecting it to traditions. Think of the manipulation of nationalist sympathies by unscrupulous politicians. These are all common practices.

The theory of frame analysis describes top-down methods of knowledge cultivation well. Monologic ways of cultivation depend on framing issues so that people will respond to them as the framer desires. This is the skill of the “good communicator”—the orator who takes the symbols of the day and uses them to his or her
advantage, or reframes them to the same effect. The key process is what David Snow and Robert Benford call frame alignment, by which an individual's frames become congruent or complementary with a knowledge cultivation.18 Snow and Benford identify four basic tactics: frame bridging, which links frames; frame amplification, which invigorates the values behind a frame; frame extension, which widens a frame's boundaries; and frame transformation, which reconfigures a frame's meaning. Throughout, the effort is to link knowledge to social relations, often subtly (and, to those on the outside, often not-so-subtly) reshaping them.

Probably any social movement, or indeed any social encounter, engages in at least a bit of framing. After all, rhetoric is inescapable. We are always representing, always engaging in social construction. There are many ways to describe any situation. As Chapter 8 discusses, you can never describe absolutely everything about anything. We all have to choose our words, and we do so with our audience in mind. Aristotle used to distinguish between three aspects of rhetoric that we call upon to persuade, generally using all three at once: ethos, convincing by getting the audience to feel that the speaker is ethical and trustworthy; pathos, convincing by getting the audience to emotionally experience the speaker's point of view; and logos, convincing based on the logic of the argument (yes, even social constructionists agree this is important).19 Frame analysis restates (and reframes) this ancient insight.

Many environmental sociologists have applied frame analysis to understanding the success of the environmental movement and the success of countermovements to environmentalism. Barbara Grey has used it to understand conflicts over Voyageurs National Park in Minnesota.20 Dorceta Taylor has used it to understand the success of the environmental justice movement.21 Andrew Rhys Jones has used it to understand how the media portrays global warming.22 Brian Walton and Connor Bailey have used it to understand the recent success of the wilderness preservation movement in Alabama, after years of little success.23 At least a bit of monologue is part of every social situation and every social movement.

But do we want an environmental movement that stresses monologue as its main technique of knowledge cultivation? Paulo Freire, the great Brazilian philosopher of pedagogy, would say no. If we want a humane, liberatory education that is truly based on trust, and not the appearance of trust, the main approach should be what Freire called conscientization—the building not of head-nodding agreement, but of critical consciousness in dialogue with the world.24 Head nodding leads to nodding off. Critical consciousness leads to a wide-awake creativity. Thus, dialogic education, and a dialogic knowledge cultivation, does not emphasize persuasion. Rather, it develops people's critical capacities and welcomes their differences and disagreements as ways we grow and grow together.

PFI wonderfully cultivates this critical friendship in which friends stimulate each other to new knowledge for everyone, as I came to appreciate. PFI farmers, I discovered, love to argue with each other—not with negative, alienating disagreement, but through fostering mutual checks and balances with the experiences and insights of others, developing the ties of cultivation as they develop knowledge.

Central to PFI’s critical approach are the group’s participatory research trials, conducted on-farm and often with the help of university researchers, in which farmers become scientists and scientists become farmers. Many of the techniques of sustainable agriculture are new or have been little-studied by the professional research community. Plus, being a better scientist is a great way to be a better farmer. And as Chapter 8 discussed, to do science is to be open about one’s reasoning and to be open to the reasoning of others. On-farm, participatory research trials exemplify both of these opennesses by using methods that are accessible and explainable and by
presenting the results to other farmer-scientists
and scientist-farmers for their critical feedback.

One tool of mutual critique that PFI uses is
randomized, replicated plots, where you lay out
an experiment on your farm in a way that allows
you to take account of the variability of the soil
and microclimate, so you know your result is due
to your treatment and not due to an unrecog-
nized environmental difference. And knowing
what your result is due to also means you can
explain your result to someone else. Plus, you
write down what you do. That, too, makes it a lot
easier to explain your experiment. (See Figure
10.4.) The university scientists use the same logic
of openness. Glen, a PFI farmer who recently
switched his farm over to organics, explained
how PFI’s dialogic approach helped him make
the change.

“I probably wouldn’t have taken that step and
if I hadn’t had the knowledge to be able to docu-
ment what I was doing, and some people there
to hold my hand,” Glen described. “Just sitting
down with people and arguing about how do we
structure our costs and things.”

I was really struck by his use of the word
“arguing,” something that midwesterners are
generally known for trying to avoid.

“It has been very valuable. In my organic opera-
tion now, I have weed control issues using the flame
weeding and rotary hoeing and things.” Flame
weeding is when farmers pass a gas flame along the
rows of a crop when the weeds first start to come
up, not to burn them but to superheat their sap so
it bursts plant capillaries and wilts the weed; you
have to do it when the crop is strong enough to take
the heat, but before the weeds are. Rotary hoeing is

Figure 10.4  Cultivating knowledge in a machine shed. PFI farmers discuss the results of the
group’s research trials, along with a university researcher, Iowa State University
professor Kathleen Delate.

Source: Photo by Helen D. Gunderson. Used with permission of Helen D. Gunderson.
another way to control weeds without chemicals. You use an array of barbed disks to crumble the surface of the ground, breaking up the contact of weeds with the soil; again, you have to do it when the weeds are small. Organic farmers in PFI, and elsewhere, have been trying to figure out when to use one versus the other.

“Actually, that was my PFI trial this year,” Glen explained. PFI farmers get together in the winter to coordinate their research trials for the group and then debate the results everyone gets on their individual farms. “I had a statistically significant difference in weeds and yield. So I was pretty pleased with the trial.”

“Using the flamer versus the rotary hoe?” I asked.

Glen nodded. “In my mind, the flamer is the last tool in the toolbox for early season weed control… I choose to use the flamer last because I think it is the most severe to the crop. There are people that argue that point with me, and that’s next year’s trial.”

So the dialogue of critical consciousness continues, ever-developing the knowledge cultivation of PFI. Which is exactly what the word consciousness means: con-, for “together,” and sci-, another root meaning “to know”—yielding “knowing together.” Indeed, it’s the only way we ever really know.

Mobilizing Ecological Connections

How do we get that togetherness together? According to Garrett Hardin, it won’t be easy.

The Tragedy of the Commons

In a famous 1968 article, “The Tragedy of the Commons,” Hardin described the problem in stark terms. Imagine you are a shepherd grazing your sheep on your village’s common pastureland, back in the hills above the village. As a member of the village, you have the right to graze your sheep there, just as every other village member does. You’ve got only 10 sheep, though, and after a while you think, “Well, I’d be a bit better off if I added a few more to my flock.” Meanwhile, your fellow villagers are thinking the same thing about their own flocks. Pretty soon, as everyone adds a few more animals, there are a lot more sheep in the common pastureland.

The pastureland is only so big, though. Eventually, overgrazing occurs. The grass cover gets thin, and the land starts to erode. Everybody’s sheep start to die. You wind up with fewer sheep than you began with, and the eroded common land is no longer capable of supporting as many sheep as it originally could: economic and environmental disaster.

Here’s how Hardin, rather melodramatically, described the situation:

The inherent logic of the commons remorselessly generates tragedy. . . . The rational herdsman concludes that the only sensible course for him to pursue is to add another animal to his herd. And another; and another. . . . But this is the conclusion reached by each and every rational herdsman sharing a commons. Therein is the tragedy. Each man is locked into a system that compels him to increase his herd without limit—in a world that is limited. Ruin is the destination toward which all men rush, each pursuing his own best interest in a society that believes in the freedom of the commons.

Hardin intended this parable as a master allegory for all environmental problems. Three examples he mentioned in the article are traffic, pollution, and overfishing. Think of streets as a kind of commons, something we all collectively own—which, in fact, they usually are. As a member of the community, I am free to drive on my city’s streets as much as I want. But what if
everybody decides to get about this way? The result is traffic jams, smog, and the loss of alternatives as mass transit shuts down.

Or think of the lake where your summer cabin sits as a kind of commons. It’s expensive to put in a good septic system, and it wouldn’t hurt you much to flush into a shallow leaching field close to the water’s edge, where, as it happens, it would be the cheapest and easiest place to put the field. The lake is pretty big, and it can handle a little bit of pollution. Besides, it would be hard for anyone to determine that you’re the one with the shallow leaching field close to the shoreline. Lots of cabins ring the lake. But what if everybody on the lake did what you’re doing?

The oceans are a commons, too. If I fish for a living, I might as well cast as big a net as I can. What I do myself won’t have that much effect on overall fish stocks. Anyway, the other fishers are probably going to do the same, right? And soon the fish are gone.

Hardin’s analysis is far from perfect, as I’ll come to in a moment. But it is hard to ignore the fact that traffic jams, for example, are on the rise. In the car-dependent United States, traffic congestion cost Americans a collective 4.2 billion hours and 2.9 billion gallons of fuel in 2007. That’s close to an hour a week per traveler in the United States. And it’s getting much worse, year by year. By comparison, traffic congestion wasted a collective 0.8 billion hours in 1982.27 As for pollution, another of Hardin’s examples, many recreational lakes have been badly polluted by their users, and total annual air pollution deaths worldwide are huge: 2.6 million per year worldwide, as Chapter 9 discussed. And as for fishing, stocks are in terrible shape in many parts of the oceans and have simply collapsed in the Grand Banks, leaving hundreds of fishing communities from Newfoundland to New England economically devastated.

These are all examples of a more general class of circumstances, what social scientists call the problem of collective action: In a world of self-interested actors, how can we get people to cooperate for their own benefit? Individual actors pursuing their rational self-interest often lead us to irrational collective outcomes that, in fact, undermine the interests of those who enact them. The result is a striking paradox of social life: We often do not act in our own interests when we act in our own interests. Or, to put it another way, when we all do what we want, it often leads to outcomes nobody wants.

Why It Really Isn’t as Bad as All That

Hardin’s account of the “tragedy of the commons” remains one of the most discussed theories in environmental sociology, even 40 years after it was written. The phrase “tragedy of the commons” is familiar to many in the general populace. Academics regularly employ it in analyses. In a quick search of databases at my university library, I found dozens of academic articles from the last 10 years that discussed the concept. In as specialized a realm as academia, this is a lot. Several of these articles extend the allegory of the commons far beyond environmental concerns, applying it to analyses of management-employee relations, prisons, political action committees, and open source software.28

Much of the reason for the continuing attention, though, is to point out how spectacularly oversimplified and overstated Hardin’s allegory is and how it diverts attention from some fundamental social processes at work in environmental problems.29

To begin with, Hardin seemed to blame common ownership of resources for the tragedy. But, in fact, we can find countless examples of highly successful use of commons for resource management. Grazing lands all across Africa, Asia, and South America; traditional systems of fisheries management in India and Brazil; even the private homes of modern families, which are a kind of commons in miniature and remain a highly popular form of social arrangement—these are just a few of the many examples of generally successful
commons management. Indeed, common ownership is the primary way that people have managed their affairs for centuries. And it has, at least until recent years, largely worked.

Rather than the tragedy of the commons, Hardin’s allegory is better characterized as the tragedy of individualism. For what breaks down Hardin’s commons is not collective ownership itself, but rather the inability (and perhaps unwillingness) of the herders to take a view wider than their own narrowly conceived self-interests.

Herders, in fact, are unlikely to conceive of their interests so narrowly, at least in traditional commons. For one thing, Hardin assumes that no one will notice the overgrazing until it is too late. But herders out there in the pasture every day with their sheep are likely very quickly to note the deteriorating condition of the grass. For another thing, Hardin assumes that the herders do not communicate with one another. More likely, as soon as the herders notice the beginnings of overgrazing, they will walk over to each other’s houses in the village and have a few words about the situation. They will likely convene a gathering of some sort to try to work out an arrangement that restores the grass, while following local norms about the number of sheep each herder is fairly entitled to graze.

More significant, however, is the reliance of Hardin’s allegory on a rational choice view of human motivation. People are, simply put, more complex—and thankfully so. We are moved by more than our own narrowly conceived self-interests, as Chapters 2 and 9 described. Equally important are the sentiments—the norms, the feelings of affection, and lack of affection, for others—we have in social life. These sentiments are a crucial aspect not only of our humanity but, as we shall see, of our interests as well.

The Dialogue of Solidarities

Let’s return to the story of “Androcles and the Lion” and the home truths it recounts, despite being a fable. It is not the usual sort of evidence that sociologists draw upon, but hear me out.

To begin with, why did the lion spare Androcles in the ring, as he came up to him, all snarl and roar? At that moment, the lion could have had no idea that refusing to eat his former partner would result in freedom. Indeed, the Circus Maximus animal handlers might have decided to kill this apparently hopeless lion for failing to put on a good show. (The Circus Maximus was like that.)

And why did Androcles initially pull the nail from the lion’s paw? At that moment, Androcles could have had no idea that pulling the nail would result in his gaining a friend and hunting partner. (Hunting partnerships between humans and lions are, after all, rather unusual.) And neither could he have known that they would eventually be able to return to the forest to live out their days together.

The reason was, according to Apion, that the lion and Androcles were moved by more than narrow calculations of their own pure self-interests. They were moved as well by their sentiments: Androcles for a lion in pain, and the lion for a friend and former companion; Androcles for reasons of commitment to certain norms of behavior, and the lion for reasons of friendship, of affective commitment. These sentimental commitments, in turn, led to the promotion of their interests although they could not know that at the time. This is a crucial point of criticism of the rational actor model described in the tragedy of the commons. What it means is that sentiments may promote interests but do not reduce to them.

At the same time, interests promote sentiments. A large part of the reason Androcles and the lion liked each other is that, beginning with Androcles’s act of pulling the nail and extending through the lion’s refusal to eat Androcles, they had learned to rely on each other to promote each other’s interests. Because they helped each other out, they liked each other and shared a sense of commitment to common norms of
social behavior. And because they liked each other and shared a commitment to common norms, they helped each other out. The story is thus another example of a dialogue, this time what I like to call the dialogue of solidarities.

I use the plural because this dialogue is based on the interaction between two mutually supporting bases for social commitment: a solidarity of interests and a solidarity of sentiments. The interests of both Androcles and the lion were served through their relationship. But as well, they sensed the existence of sentimental ties—affection and common norms—between them. And the one constantly shaped and maintained the other.

All this emphasis on sentiment may sound a little idealistic, the kind of rare altruism we sometimes hear about in stories or, as in this case, in an ancient fable. But sentiment is actually quite common—and quite necessary—in social relationships, at least those that endure across time and space.

Consider, for example, a domestic union of some kind, two recent college graduates perhaps. They each have interests, such as careers. They support each other through graduate school. They make their job choices with the other partner’s interests in mind. They manage their home in ways that allow each to succeed at work. And thus they maintain a solidarity of interests.

These domestic partners may not each be getting the same interest satisfied through their domestic union, however. Indeed, likely not, for everyone is different, as we know, which means everyone’s interests are at least a bit different. Maybe only one of these domestic partners actually wants to go to graduate school. Or maybe one is a musician and the other a school teacher, leading to quite different rhythms of time demands and resource needs. As long as they can work out a way to coordinate these different interests, that’s fine. The important thing is not that their interests are the same, but that they are complementary.

However, there are always time delays involved in complementary and cooperative action. How does one partner know that the other will come through when it is the other partner’s turn to make a career sacrifice? There are also always issues of space in complementary and cooperative action. The two domestic partners cannot keep each other under constant surveillance. How does each know that the other can be relied upon to coordinate shopping, to maintain monogamy (if the union is based on that understanding), to cover for each other when situations require it?

The answer is, again, trust. This trust can exist because each believes the relationship to be based upon more than the narrow calculation of self-interests. Because each has affection for the other or because each has a sense of common commitment to common norms of interaction—or both—they can trust that the other will come through across the isolating reaches of time and space. Without this sense of trust that a solidarity of sentiments gives, no solidarity of interests can last long.

The process works the other way, too. The persistence of a solidarity of interests is one of the principal ways that each partner comes to sense real affection and common normative commitment on the part of the other. If one partner violates that trust by not looking out for the other’s interests, chances are, frankly, that pretty soon they won’t like each other anymore, nor have faith that they share some crucial norms. Trust is the essential glue of both a solidarity of interests and a solidarity of sentiments.

So, to return finally to the tragedy of the commons, one of the main reasons why herders on a commons have usually managed to keep from overgrazing the pastures is that they trust each other. These are their neighbors, after all, and likely their kinfolk, too. These are the people they relax with, dance with, worship with, and marry. Of course, villages sometimes fall into considerable internal conflict, and when they do, those sentimental ties may go. If so, the grass on the pastures will likely go, too.
The dialogue of solidarities is a kind of eco-
logic dialogue, a constant and mutually constitut-
ing interaction between the realm of the material
(a solidarity of interests) and the realm of the
ideal (a solidarity of sentiments). From this
dialogue emerge solidarities of solidarities, if you
will, within families, organizations, businesses,
neighborhoods, towns, cities, counties,
provinces, states, nations, species, ecosystems, and
all other kinds of commons. What I mean is, from
this dialogue emerges community.

Not only is there dialogue in the philosophical
sense at work. A dialogue of solidarities depends
upon dialogue in the everyday sense of the term:
dialogue as communication. And communica-
tion means the mobilization of the social rela-
tions of knowledge. In other words, right in the
center of a dialogue of solidarities is the cultivat-
ion of knowledge, all mutually building and
depending upon trust and upon each other. For
from the cultivation of knowledge, we gain iden-
tification with norms and commitments—with
sentiments. From the cultivation of knowledge,
we also gain identification with where our
interests lie. Neither interests nor sentiments
are given in this life. Rather, they are created, and
re-created, throughout our lives in interaction
with each other and the world.

If the paradox of collective action is that
people often do not act in their own interests
when they act in their own interests, the solution
is clear: Also act on your sentiments. But consider
those sentiments and those interests broadly and
openly. That is, consider them dialogically.

A Tale of Two Villages

At least this is the everyday wisdom my
colleague Peggy Petrzelka found among the
Imazighen people of the Atlas Mountains of
Morocco, widely known as the Berber. (Imazighen
is the name they prefer.) Along the Imdrias River
Valley lie two villages, some 13 kilometers apart:
Tilmi and M’semrir. (See Figure 10.5.) It’s not great
cropland, and the Imazighen in the area have tra-
ditionally relied on grazing sheep and goats for
income and sustenance. It’s not great grazing land
either, however. The land is steep and the climate
is dry. So local villages use what they call the agdal
system of collective management of the grazing
lands, which have traditionally been held almost
entirely in common.

Under agdal, grazing schedules and any dis-
putes are worked out through a local representa-
tive council of herders, known as the jemaa. The
head of the jemaa is called the Amghrar, and he
(it is always a he) is elected by the local villagers.

Source: Petrzelka, Peggy, & Bell, Michael M. 2000.
“Rationality and Solidarity: The Social Organization
of Common Property Resources in the Imdrias Valley
If signs of overgrazing start showing up or if there's been a particularly dry spell, the *jemaa* will close certain areas of the commons to allow regeneration. The *nuadar*, two men from each village, are selected annually to keep watch on the commons to make sure that the guidelines of the *jemaa* are being followed. If someone violates the guidelines, they may be forced to pay an *izma*, a penalty. When fence repair, harvesting, or other work needs to be done, the villagers organize *touiza*—communal work teams. It's a system that has worked for centuries.

Has worked. Peggy, who speaks Arabic, got a chance to live for most of a year in the area, during the course of a fellowship. She soon noted what many in the area now frequently complain about: that in M'semrir, the *agdal* system is breaking down. The grass looks bad. Stocking rates are double what they should be. Violators are getting away without paying *izmas*. Much of the land has been privatized. Some people seem to be getting quite a bit richer, and satellite TV dishes have sprouted from a number of rooftops. *Touiza* is disappearing. People are scared of the *Amghrar*. The *jemaa* is increasingly an in-group who distribute grazing rights to each other and their friends. People are angry with each other.

But in Tilmi, the grass still looks good. Stocking rates are just what they should be. Very little of the traditional commons land has been privatized. The *jemaa* distributes grazing rights in ways that everyone Peggy spoke with found generally equitable. *Touiza* is still going strong. There are very few satellite dishes. When they disagree with him, Tilmi residents tell the *Amghrar* to his face. That's because they like him and are confident that he likes them, even when there are disagreements. Which there aren't very often, because people in Tilmi still like each other.

In fact, the people in Tilmi like each other so much that they dance together. A lot. It may sound romantic, but most evenings when the weather is fine and the work is done, a group of villagers get together to sing and dance in the village center. When there are family celebrations—a wedding, a circumcision—virtually the entire village attends, and the dancing can go on for days, until 2 or 3 in the morning. And they sing when they practice *touiza*, helping each other harvest their personal garden plots, or as they repair the road or clear snow. All this astounded Peggy. Yes, it may sound romantic, because it is romantic. But it is also what they really do.

In M’semrir, however, people don’t dance much anymore. There may be a bit at family celebrations, but the whole village is no longer invited. Just close family and friends. In Tilmi, weddings are usually held together during the same season of the year, and the brides walk through the village together amid the throwing of dates, almonds, and figs from the roofs of the grooms’ houses to the crowds below. But in M’semrir, weddings are individual and scattered throughout the year, and the rich and festive foods are thrown only to the guests.

Peggy went for a walk one day with Amina, a woman from M’semrir, up into the hills above the village. They paused for a rest on a high rock, overlooking M’semrir and the Imdrhas Valley below. They got to talking about changing traditions in M’semrir.

“We used to gather everyone and had one big party—now everyone has their own tradition,” Amina remarked.

She pointed out what used to be the communal property, now divided into small private plots.

“Notha,” she said, using the Arabic name locals informally conferred on Peggy, “the words of today are not like the words of yesterday, and that which we did early is not that which we do today.”

Why, then, this difference between the two villages? The Moroccan government has been working hard to “develop” the local economy, trying to increase the nation’s productivity and also people’s personal incomes. So they’ve developed regional market centers and have begun promoting tourism. They have also promoted privatizing much of the communal land, figuring
that production would go up. But in the rugged terrain of the Atlas Mountains, it’s harder to bring “development” to the more remote villages. M’semrir is lower down the Imdrhas Valley, more accessible to the Jeeps of government officials and the delivery vans of the central Moroccan economy. Tilmī may be only 13 kilometers from M’semrir, but that 13 kilometers is up a twisty, rutted, dirt road, and the officials, tourists, and other bearers of “development” just don’t make it up there so often.

People in Tilmī have heard of privatization, though. They aren’t that isolated. After all, they often go to M’semrir for its bigger, more vibrant marketplace. And they’ve toyed with some of the practices that the people of M’semrir have taken to. But thus far, they’ve only toyed with them. Thus far, they are still singing and dancing together. Thus far, they still have a dialogue of solidarities. Thus far, the grass is still green.

How Big Is Your Solidarity?

But can we create a dialogue of solidarities with aspects of our world that do not speak? Can we create community with nonhumans?

Apion said yes. Androcles and the lion managed it, even though the lion did not know how to speak Latin and Androcles, as far as we know, did not mew and growl. The philosopher Bruno Latour says yes, too. One of the most basic points of actor network theory is that networks of actors (what Latour prefers to call actants, as Chapter 8 describes) extend well beyond the human, forming a broader coalition that he sometimes calls a “collective.” Now, this collective, this solidarity, is not necessarily symmetrical. Yes, we can imagine that lions have interests and sentiments and can form relations of trust, as anyone intimate with nonhuman mammals and other vertebrates can attest. They have ways of communicating their interests, sentiments, and trust. But butterflies and clams, rocks and soil, grass and trees? Here the interests and sentiments and trust will lie in our part of the collective, not theirs.

The environmental sociologist Ray Murphy has suggested that, as we do not communicate with the nonarticulate actants in our collectives, an easier terminology is to think of these interactions as dancers who prompt each other. “The concept of ‘prompt’ captures the influence of nature’s dynamics on conceptions, discourse, and practices, without claiming the latter are determined by those dynamics,” Murphy writes. He goes on to say,

Human agents dance with the moves of nature’s actants to form hybrid constructions, with both influencing the other and both having some autonomy. The dance can be adroitly or ineptly performed. An approach that analyzes movements between human agents and nature’s actants, like partners in a dance influenced by the other’s creative movements, can bridge the nature/culture divide in sociology and transcend the limitations of a one-sided approach that focuses solely on nature’s determinisms or human social constructions. The metaphor of dance captures the autonomous movements of nature’s dynamics without implying intentionality by the non-human partner, only movement.35

In other words, an actant does not have to be able to speak to be part of an environmental movement. What an actant needs is enough connections to be invited to the dance.

Mobilizing Ecological Contestations

So, you’ve got the conceptions your group needs, having developed a cultivation of knowledge, one that I hope emphasizes dialogue and conscientization, not monologue and PR. And you’ve got connections going, bringing interests and sentiments into solidarity and dialogue through trust and through your cultivation of knowledge, and I hope also bringing nonhuman actants into
the collective. Great. Your grassroots environmental movement is well on the way.

But what if government or corporations or the broader society don’t agree with what your movement is trying to do? What if their interests and sentiments lead them in other directions? What if they’d really prefer if you and your connected community of environmental conceptions just went away?

Indeed, if your group felt motivated to get something going and make a change, the chances are not everyone will welcome what you want to do. Otherwise, it probably would have been done already. So let’s explore the environmental sociology of contestation: how environmental social movements successfully confront resistance and, in the end, often broaden their solidarities.

Double Politics and the Political Opportunity Structure

Saul Alinsky was a tough old bird, but an inspiring one. Starting with the people of the “Back of the Yards” neighborhood of Chicago in the 1930s, Alinsky more or less invented the notion of grassroots community organizing. Back of the Yards is next to where Chicago’s stock yards used to be—the district that Upton Sinclair made infamous in *The Jungle*. In the 1930s, Back of the Yards had appalling health conditions, poor housing, and the disorganized social life one often encounters among the disenfranchised and downtrodden. What Alinsky catalyzed, with notable success, was perhaps the first environmental justice movement, although no one called it that back then. Through the Back of the Yards Neighborhood Council, set up with Alinsky’s help, local people organized a cleanup of the stock yards, built homes, developed local businesses, and were instrumental in the founding of the National School Lunch Program. The Council is still going strong. Alinsky’s passions are also in the thousands of grassroots groups that have taken inspiration from what the Back of Yards neighborhood has accomplished. Here is perhaps Alinsky’s most famous quotation, from his *Rules for Radicals*:

> Change means movement. Movement means friction. Only in the frictionless vacuum of a nonexistent abstract world can movement or change occur without that abrasive friction of conflict.36

In other words, to think a grassroots movement can avoid friction is fiction. If there is something worth doing that hasn’t been done, it is probably because some powerful interests out there stand in the way. And if there is something worth doing that hasn’t been done, it probably won’t be easy. Indeed, most anything worth doing isn’t easy, or, again, it would already be done. So be ready to embrace conflict. Be ready for the sit-in, the march, the confrontation, the rough treatment. That was Alinsky’s message and method. (See Figure 10.6.)

Other organizers, though, worry that this conflict-based approach can be off-putting to potential allies and works more by fighting fire with fire instead of with water. It resists the material expression of power as embodied in laws, regulations, police, locks, and fences with the material power of people out there on the street, blocking traffic and ready to fill the holding cells. But maybe a better strategy is to look to changing the minds of those who make the laws, write the rules, instruct the police, smith the locks, and build the fences. Rather than a conflict model of contestation, organizers in the tradition of Michael Eichler argue for a consensus-based approach. “Instead of taking power from those who have it,” Eichler has written, “consensus organizers build relationships in which power is shared for mutual benefit.”37 Rather than a materialist approach, Eichler works on the side of ideas.

So who is right? Which way is in fact the most successful?

It’s yet another dialogue. The community sociologist Randy Stoecker suggests there is both a “vinegar” and a “honey” side to successful organizing—that both conflict and consensus have their place, and that most organizing involves...
a good bit of both. I like to call it the double politics of contestation.

Stoecker suggests that a grassroots movement begin this double politics by first analyzing the political opportunity structure that it will have to contend to gain its goals. Political opportunity theory originally comes from Peter Eisinger, who defined political opportunity as “the degree to which groups are likely to be able to gain access to power and to manipulate the political system”—which sounds very instrumental, with its bald use of the term “manipulate.” But that’s exactly the point. We’re talking about strategy here. Many environmental sociologists have used this form of analysis to understand why some environmental movements, like the anti-nuclear power movement, have been so spectacularly successful, while others, like the anti-global warming movement in the United States, have gained so little traction. Plus, many authors have elaborated and refined political opportunity theory over the years. Stoecker usefully synthesizes these insights and adds a few twists of his own, pointing to four factors a grassroots group should think out in planning a successful strategy and in deciding whether to use more honey or more vinegar:

- The openness of decision makers to hearing grassroots concerns
- The implementation power decision makers have to do something about those concerns
- The structure of alliances that shape how decision makers will feel compelled to act
- The stability of all of the above

So there you are having a meeting one evening with your grassroots environmental group, sitting in a local church basement on some old folding chairs, drinking watery coffee and munching brownies while someone stands at the flip chart. Here’s what the group’s first line of questions should be, advises Stoecker: Who are the relevant decision makers we have to contend with, and are they likely to be open to what we have to say? Not likely to be very open? A definite minus. Here’s your second line of questions: But do those decision makers actually have the resources to

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**Figure 10.6** Town sign for Defiance, Iowa.

*Source: Photo by Helen D. Gunderson. Used with permission of Helen D. Gunderson.*
implement what we’d like them to do—plenty of budget, staff, and legislative leeway? Yes? Well, that’s a plus for sure. The third line of questions: How about the interest groups that shape these decision makers’ sense of the politically possible and politically necessary. Are they for us or against us? A bit mixed? Could be worse. And the fourth line of questions, which concerns the stability of the answers to the other three: Do the alliances have some internal divisiveness? Nice. Does that divisiveness leave the decision makers a bit uncertain as to what to do? Double nice, at least for us. And the implementation power of the decision makers seems pretty secure? If we can get things turned our way, that will be great. Sounds like a mixed strategy of judicious applications of honey and vinegar both is the way to go. Double politics to the rescue.

Most times, suggests Stoecker, the appropriate strategy will be like the above: some kind of mix of conflict making and consensus building. The specifics will vary, of course, and it will be important to pay close attention to those. Maybe you’ll be able to identify a decision maker from the start who is with you. Maybe the trouble will be that the decision maker doesn’t have the budget and staff to do much about your concerns and has to deal with alliances that don’t agree with you, with mixed stabilities for these. The honey and the vinegar will have to be doled out differently, then, but you’ll still want to use both.

Sometimes, though, the honey and vinegar scorecard will come up pretty much all vinegar. Decision makers aren’t welcoming. Their implementation power is weak. The alliances are against you. And the situation seems quite stable. So do you get out your battered copy of *Rules for Radicals* and take to the streets, perhaps in some situations risking tear gas, rubber bullets, and worse? That is not an easy decision for any group, on both practical and ethical grounds. It’s a tricky matter. So don’t try it alone. Conflict is dangerous, of course. But also, the old adage of “good cop/bad cop” is one of the most successful strategies of double politics. The people doing the conflict making don’t have to be the same people doing the consensus building. In fact, they usually are not.

The history of PFI is a good example of double politics.

The 1980s was a difficult time in rural America. The “farm crisis” came about after a period of massive industrialization in American agriculture, funded by constantly rising farmland values in the 1970s. The Soviet Union was buying lots of grain, keeping prices high. The new machinery, chemicals, and hybrid crop varieties were yielding strong production. Banks were telling farmers to borrow and buy, borrow and buy, and borrow and buy. Farms got bigger. Tractors got bigger. The costs of both skyrocketed, but there was plenty of money around and nobody seemed worried. Then, President Carter tried to punish the Soviet Union for their December 27, 1979, invasion of Afghanistan by ordering a grain embargo. U.S. grain prices...
immediately plummeted. Farmland values went south soon afterward. Plus, inflation pushed interest rates to shocking levels. In January 1981, the U.S. prime rate hit 20 percent. Money got tight and so did the banks. No more easy farm loans. The spending spree was over, and there was little way to pay for the binge.

It was awful for rural life. Suicide rates tripled in rural states like Kansas and Nebraska. A farmer in Iowa shot his banker, and a farmer and son in Minnesota shot two of theirs. A Farmers Home Administration official in South Dakota, depressed from foreclosing farms, shot his family, his dog, and finally himself. New farm advocacy groups—the American Agriculture Movement, the National Family Farm Coalition, and Prairie Fire Rural Action, to name a few—organized protests. In March 1986, hundreds of farmers blockaded a Farmers Home Administration building in Chillicothe, Missouri, with their tractors, and stayed until the end of the summer. Jesse Jackson showed up at that one, wearing bib overalls. Farmers also organized local protests to disrupt farm auctions and foreclosures, including one in March 1985 in Plattsburg, Missouri, that brought 1,500 protestors and turned ugly, with injuries and arrests. Rural people don’t usually do this kind of thing.

As far as the officials at the College of Agriculture at Iowa State University in Ames, Iowa, were concerned, there were plenty of bad cops around. Farmers were angry with the university, too, for having led them down a rosy path of happy industrialism. Farm advocates were writing blistering critiques of their research priorities. Even some academics were among the bad cops, publishing their own critiques. So when a new farm group, Practical Farmers of Iowa, formed in 1985 in the next county over, the university was suspicious and standoffish. The university’s face was under considerable challenge, with its structure of alliances increasingly in tatters, and the university mainly responded by distancing itself from the threat.

But in 1987, it all changed when the associate dean of extension at Iowa State at the time, Professor Jerry DeWitt, showed up in a three-piece suit to a PFI field day at Dick and Sharon Thompson’s farm. It began earlier that year when the Plant Pathology Department at Iowa State courageously invited Dick Thompson, the first president of PFI, to give a talk at a seminar series it was hosting on the farm crisis. Jerry DeWitt described the moment to me in his cluttered campus office, soda can in hand:

It was the most formal I have ever seen Dick Thompson. I do remember that Dick Thompson was extremely nervous. And that was probably equal to the anxiety in the room of what was this guy going to say and what was he going to do. So it was sort of a moment of like two dogs looking at each other and not quite knowing what the other was gonna do, or who was gonna move first. It was sort of a stalemate. He was nervous, we were nervous. It was a quietly electric moment in Iowa State’s history.

But Dick didn’t yell. He didn’t run down the university. He didn’t blockade the auditorium door with his tractor. He gave a measured talk in which he asked the university to do some research to help farmers interested in something other than the Big Iron, Big Chemical way. He also asked the university to have a look at the scientific research trials that PFI farmers had already started doing on their farms, set up with the help of a visionary, in my view, Iowa State graduate student in agronomy, Rick Exner. In other words, Dick talked like the good cop of science.

The university didn’t trust how PFI was doing science, though. PFI farmers were doing randomized, replicated plots, but they were doing them on a large scale that they could farm. When you are trying to control for unrecognized environmental effects in an experiment, a big dilemma in agronomic research is controlling the problem of field variability, as agronomists call it. Fields vary in
slope, soil quality, and other environmental factors, often in significant ways over, say, a 100 feet. One field, or even one side of a field, might give very different results than another. So agronomists typically do their research in small plots on the order of a few tens of feet square, or even smaller, and use the fact that there will still be many plants in even a small plot to do statistical comparisons. But you can’t profitably farm little plots like that. Dick Thompson had started out doing research more on the half-field scale of things, so he could still farm it. The trouble was, the results of his trials might just have been measuring environmental differences across one of his fields, and not differences in his farming methods.

Dick had recognized that this was a problem. And he had gotten friendly with Rick Exner, a graduate student who later helped PFI set up its research trials. As a graduate student, Rick was not so tightly a part of the structure of alliances that kept the university moving along in its inertial way. He was one of those nodal people—someone who was positioned at the intersection of social networks—so valuable to any social movement. Rick was someone Dick could approach without anyone losing face. They discussed the problem of field variability, and Rick presented it to Chuck Francis, an agronomist at the University of Nebraska, safely distant from Iowa State but still part of the network of university scientists. (In fact, Chuck has gone on to become a very well-known agronomist and advocate of sustainable practices. But this was early on in the acceptability of sustainable agriculture in colleges of agriculture.) Chuck suggested that PFI try what agronomists call paired comparisons. Rick brought that back to Dick, and Dick came up with the idea of doing the pairs in field-length strips, one pass of the tractor each, so the field could still be farmed. A farmer could do one practice up the field, get off the tractor and make whatever changes to the equipment the experiment required, and do the comparison back down the field on the next pass, randomizing which strips got which treatment. By doing the trials one tractor pass wide, meaning just a few rows per strip, field variability could be assumed to vary equally for each strip. Then any difference in the comparison would not be a result of differences across the field.

It had never been done at the university, though. A few weeks after Dick’s talk at the university, Rick talked Jerry DeWitt and another professor at Iowa State into sitting down with him and Dick. They met at a McDonald’s, the most nonthreatening location Dick could think of—off campus and anonymous.

“That was a very tense meeting,” Jerry remembered to me. “We went in there not knowing if we were going to argue or not. They said, ‘We’ve got something we think you ought to recognize.’ And I represented, in a sense of body, [the view] that probably was saying, ‘Well, what you’re doing is not valid.’ Across that little table there was a lot of tension.”

But Jerry took away with him their little diagram of randomized, replicated, field-length paired comparisons. A few days later, he brought it to yet another university professor, Reggie Voss.

“‘What do you think?’” Jerry recalled asking him. “Reggie looked it over and said, ‘Yep, that’ll work. That’s valid.’ Poof! When I heard Reggie Voss say, ‘Yes, that’s valid, that’ll work, that’s fine,’ it was like, now wait a minute. For how many years have we been discounting what they’re doing as not workable? And they have been thinking, we will never recognize their work. It took one meeting, an hour meeting, a piece of paper, and a why-don’t-you-look-at-it. It took me 10 minutes to give it to somebody and Dr. Voss to simply look at it, and poof! All of that tension was over with.”

Jerry had heard there was a field day that day at Dick and Sharon’s farm, just a few miles from the university. He was so excited he got into his university car and drove out there, in the three-piece suit of a dean, to shake Dick’s hand. It was quite a scene when he arrived. A big crowd of farmers in jeans and feed caps. Dick standing 10 feet above them in the bucket of a front-end loader so he could be heard. Jerry in his suit. Rick Exner remembered the moment this way.
“So Dick got out of the bucket, talked to Jerry for about a minute, came back. He was quite pleased. DeWitt had gotten back in his car and left, and Dick said, ‘Sounds like we’re going to work together.’” Rick chuckled, happily thinking it over in his mind.

“So this was at Jerry’s initiative?” I asked him. “Jerry really gets the credit for this, yes.”

Over the next year or so, Jerry used his implementation power as associate dean to broker an unusual collaboration between a university and a farmer’s group. He found an office for PFI on campus and found some money to steer toward the group so they could hire a staff person for the office. PFI and the university would have equal say in hiring that person, and that person would be considered a university employee, with the university’s health care and retirement benefits. And who became that employee? Rick Exner. Over the years, PFI has grown to the seven staff it had as of 2007, with both the university office and what is now its main office, off-campus in downtown Ames. By now, dozens of university faculty and students have conducted hundreds of research trials with PFI farmers, using the field-length paired comparisons and other techniques and always bringing farmers and researchers together as partners through participatory research. And by now, PFI has helped hundreds of farmers implement sustainable practices through the group’s cultivation of knowledge and dialogic sense of solidarity.

As for Jerry DeWitt, as of 2007, he is the director of the Leopold Center for Sustainable Agriculture at Iowa State. Twenty years later, he is a different kind of administrator at a different kind of college of agriculture. And he doesn’t wear three-piece suits to farms anymore.

“PFI has meant a lot to me personally,” Jerry explained at the end of our interview. “I would not be who I am today—I would not be where I am today or doing what I’m doing today—if it weren’t for PFI. It’s been that important. Sometimes you look back and you can see events that were real turning points in your life that you might not have realized were at the time. Well, PFI has been that for me.”

In other words, Jerry assigns the credit for this successful double politics just the other way around—a sure sign of a solidarity that is both wide and truly in dialogue.

The Pros of the Three Cons

As the success of PFI shows, cons can be pros—at least when we are talking about bringing together the three cons of conceptions, connections, and contestations. But the main thing is togetherness itself. In fact, if the reader will forgive me, the three words that I choose to represent the three cons did not derive from each form of con-. Rather, they all derive from the “together” form. Conception means to put together. Connection means to tie together. And contestation means to bear witness together. Grassroots environmental movements succeed through this togetherness of togethernesses.

The trick is how to get a togetherness of togethernesses together. Environmental grassroots movements are not always as successful as a group like PFI has been, of course. If they were, environmental sociologists would not devote so much research into understanding how such achievements come about, and environmental activists would not be so interested in hearing the findings.

Environmental sociology has no precise recipes to offer, however. The origins of movement success are often best understand after the fact, so dependent are they upon the contingencies of, say, a phenomenological rupture or having a willing and visionary nodal person at hand. These are matters of what I like to call dialogic providence—not luck, exactly, but situational opportunities that provide scope for agency and change. The reason why this providence is not just luck is that we can help create situations that invite these opportunities, even if we cannot predict what they will look like, when they will appear, or how they will turn out. The skill of a
grassroots movement is in creating the situations as much as it is in acting upon the opportunities they may occasion. Like inviting people to a meeting at, of all places, a McDonald’s restaurant.

No, there can be no recipe for success, just conditions that welcome success. Otherwise, there would be no success—only ineluctable outcomes in which agency is merely the working out of some socioenvironmental mechanism, and is thus not agency at all. And ineluctable outcomes are exactly what grassroots environmental groups are mobilizing to prevent.
CHAPTER 11

Governing the Ecological Society

The Earth is one but the world is not.

—Bruntland Commission, 1987
I own a car. I admit it. And I often use it. I live in an 1,850-square-foot house with four bedrooms, plus two bathrooms. It is not a solar house. We also own a share in a vacation house on the St. Lawrence River. My family owns a washing machine, a television, a stereo system, an answering machine, several phones, three clock radios, two laptop computers, and an MP3 player. I own nine pairs of footwear of various sorts; nevertheless I just bought another pair. Our closet is filled with clothes we rarely wear, and yet we buy more. We have loads of books. I’m a semi-pro musician on the side, so we have a small orchestra of musical instruments, including a piano, and some recording equipment. We also have a range of shop and yard tools, bicycles for everyone in the family, a kitchen full of dishes and cookware, and a house worth of furniture. We moved to a new state a few years ago, and the bill of lading from the moving company came to about 12,000 pounds. Plus, at the vacation home, there is another houseful of furniture, another collection of tools, and another collection of dishes and cookware—not to mention seven boats of various sorts, a pile of recreational gear, and a boathouse to fit them all during the summer and an old barn to store them all during the winter. That’s a lot of stuff, an awful lot of stuff. And did I mention that I eat meat? Plus, we have two children.

So how could I fancy to call myself an environmentalist—let alone an environmental sociologist? There are a few things I could point to in my defense. My wife and I own only one car, a 1995 used model. (We kept our previous car until it was 18 years old. Reuse is as environmentally important as recycling and reduction.) We’ve been averaging about 9,000 miles a year of late, 4,500 per driver—3,000 per driver if you count our 18-year-old son who now has a license—well below the U.S. average of 14,908 annual miles per driver.¹ We bicycle to work (it’s about 2 miles each way for both of us), and we bike for most of our shopping, even in winter (which gets pretty forbidding in Wisconsin, where we now live). We made sure to buy a house in a location that was relatively convenient for bicycling, and also for getting around by bus when the weather is bad. Although we own a washing machine, we use a solar-powered clothes drier in the summer—a clothesline, that is—and a line strung across the basement in the winter. (We don’t have a mechanical clothes drier.) The television lives in the closet. It’s just an old 17-inch model we picked up at a yard sale once. (You can’t even hook cable to it.) We haven’t watched it at all in the past year, as far as I can recall. The kids can use the TV whenever they want to, but they’re not much interested in it, either. As it’s not out in a room, they don’t think of it often. They easily enough find amusement in other ways.

Let’s see . . . what else? We have no microwave oven, no cell phone, no VCR, no camcorder, no DVD player. There was a dishwasher already installed in our new house, but it’s broken now. We haven’t missed it. When it was still working, we hardly ever used it. There was also central air-conditioning already installed, as in almost every home in our neighborhood. But we use it only once or twice a year, in part just to keep the thing in working order, should we ever decide to sell our house. We keep the house comfortable during a heat wave by shutting all the windows during the day and opening them all at night, when the temperature drops. Plus, we have a well-placed tree for shading the house. We keep no cupboard or closet full of household poisons. We grow some of our own vegetables during the summer, all organically, and we mow our small lawn, which is also organic, with a manual reel mower. We compost all our leaves, garden waste, and kitchen waste. The previous owners of the house installed a “rain garden” to promote infiltration and groundwater recharge, thus lessening the storm water and pollution load on the beleaguered lake in the park near our house. (Many of the sewers for our neighborhood dump into that poor little lake.) We’ve long used energy-efficient light bulbs almost everywhere in the house, and we’re very good about turning them off when a room’s not in use. Our furnace is a new, high-efficiency model, and during the heating season we keep the thermostat at 62 degrees Fahrenheit.
for the day and 56 degrees Fahrenheit when we go to bed and when we’re out, although we sometimes bump it up a degree or two in the evenings.

All told, we use about 285 kilowatt hours of electricity a month, less than half of the 624 average for all households in Madison, Wisconsin, our city. Considering that my household size is almost double the Madison average of 2.19, we use about 25 percent as much electricity per person as the average local resident does. And we pay an extra fee with our local utility to support the small wind farm they’ve bought into. Our gas use is quite low; our local utility puts us in their “excellent” category in terms of BTUs of gas use per square foot. Although we do have a lot of books, as well as a few CDs, we’ve pretty much stopped buying them now. We use the library instead. (We pop down to our local branch several times a week.)

We’re avid recyclers, too. Plus, we use almost no paper goods in the kitchen; we use cloth towels and napkins, which are reusable and usually better for the task. We cook almost everything from scratch—we like to cook—so there is no sodden mass of food-stained packaging to pitch out at the end of the day, aside from the occasional can or bottle. We produce about a paper shopping bag of nonrecyclable garbage a week, which isn’t bad for an American family of four.

Then there’s our diet. Most of the meat one can buy in the supermarket packs a huge environmental wallop. The grain that conventional farming shovels through livestock erodes the land, sucks the water, burns the tractor fuel, and relies on chemical pesticides and fertilizers. The feed efficiency of that grain—the pounds of grain it takes to produce a pound of meat on your table—is around 2 to 1 for chickens, 4 to 1 for pigs, and 7 to 1 for cattle, greatly decreasing world grain stores. Plus, the animals live so close-packed that farmers include daily pharmaceuticals with the grain, not just when the animals get sick. Vegetarians often point to these stark facts, and fair enough—but only if one is talking about grain-fed livestock. We buy only grass-fed meat, which leaves the land covered year-round so there is little erosion and relies on rainwater, not irrigation. Pastures normally require few chemical pesticides and fertilizers, and none at all if the farmer has got the hang of organic techniques. The animals fertilize the fields as they go, and they do the harvesting for the farmer too, so there’s no need to burn much tractor fuel. Furthermore, the animals convert something humans can’t eat—grass—into something we are able eat, and 71 percent of agricultural land around the world is pasture anyway.

So grass-fed meat is ecologically very efficient. Plus, rotating grass through cropland every so often is a great way to break up pest cycles without chemical pesticides. The animals live well, too, getting exercise and fresh air, and don’t require constant dosing with antibiotics and other medicines. We usually buy our grass-fed meat directly from farmers, whom we’ve gotten to know well enough to be sure that their practices are kind to the land and to the animals. Moreover, we only eat meat a few times a week.

And we aren’t having any more kids.

I’m not a complete sinner, I think, but I’m certainly no environmental saint either. According to an online “ecological footprint” analysis I worked through once, my footprint is 16 biologically productive acres, in comparison with the U.S. average of 24. Not bad, huh? And my footprint is actually probably quite a bit smaller than that, as I took a four-acre hit just for my meat eating. The online site didn’t distinguish between grain-fed and grass-fed meat or the amount of meat one eats. I probably should take some hit for my meat eating, though, maybe an acre I’ll guess, giving me a total footprint of 13 biologically productive acres, almost half the American average. But according to footprint analysts, there are only 4.5 biologically productive acres per person on the planet. If everyone lived like I do, we’d need 3.6 planets assuming my footprint is 16 acres, and 2.9 planets assuming my footprint is 13 acres. Either way, that’s pretty dire. So, am I just another environmental hypocrite, big on the guilt trip and fairly small on action, mostly talk and little walk?

From a certain political perspective, yes. As that is a perspective I share—the perspective of the committed environmental moralist—my
environmental inadequacies often pain me deeply. Yet from a sociological perspective, my situation does not necessarily indicate some deep personal moral failing. In fact, to the extent that my situation is typical of others, it represents some important opportunities for social and environmental change. It suggests the possibility of collective action toward making a society that more closely resembles what we say we want it to be. And indeed, the overwhelming majority of the public in both rich nations and poor are concerned about the environment, even though very few could be said to have yet put that concern into full action.

The previous chapter took up how to move into environmental action from the grassroots up, through the three cons of conceptions, connections, and contestations. But do we only want an environmentalism that we have to move along ourselves? How about an environmentalism that also moves us? This concluding chapter considers this latter potential, focusing on the place of governance in an ecological society.

The A-B Split

But before we get to governance, let’s take a closer look at my footprint problem and, by extension, that of many, many others.

Maybe I flatter myself, but I don’t think my problem comes from a lack of environmentally committed attitudes. I am a classic example of the limits to what Chapter 10 called a “behaviorist approach” to environmentalism—the idea that environmentally committed attitudes lead to environmentally committed behaviors. Social psychologists have long noted that there is often a sharp disjunction between what people profess to value and believe and how they really act. I like to call it the A-B split, standing for “attitude-behavior split,” and it is a characteristic that probably all of us share, at least to some degree.

Sometimes we consciously recognize some of these inconsistencies in our lives (perhaps with a little help from family, friends, and others in our circles of personal critics). As behaviorism suggests, this recognition can at times impel us to adjust our behaviors to fit our attitudes. But other times, social psychologists find, we work to adjust our attitudes to fit our behaviors. This second direction of adjustment typically goes on unconsciously. Consider the way student radicals often become more conservative when they start raising families and enter the world of paid employment. Without deliberate intent, they find themselves taking on the very attitudes—and enacting the very behaviors—that they had protested against only a few years earlier.

But the point of the A-B split is not to suggest that today’s radicals are tomorrow’s hypocrites. Nor necessarily are all the rest of us—the rest of us who have adjusted what we believe to what we do or have gone on doing things that do not fit what we believe, which probably includes just about everyone on the planet. It is very hard to maintain a conscious sense of an A-B split. Such inconsistency strikes at the very core of our identities, our sense of who we are. (Consequently, we do not always respond gently to that circle of personal critics.) Understandably, people tend to avoid conscious recognition of an ideological mismatch if they can. But often they can’t, and they try to adjust their lives and their thinking accordingly—which is also hard. In other words, an A-B split is a source of internal struggle and conflict. Contrary to the image of the complacent hypocrite, such a split is hardly something about which most people feel comfortable.

The sociological point here is that one of the main reasons people find their attitudes at odds with their behaviors (and often find themselves adjusting those attitudes to fit or putting the conflict out of their mind as much as possible) is the social constitution of daily life, a concept introduced in Chapter 1. We do not have complete choice. We face material constraints that limit what we can do and influence what we are likely to do, to paraphrase Fred Cottrel once again. I own a car and use a car because the automobile-based planning of the past 50 years has led to the scattering of businesses, shopping, schools, parks, and homes. Our city has, for the United States, a pretty good system of bike paths and an okay bus
system. But they can’t make up for the structured inconvenience of sprawl, so I often feel strongly pressured to use my car, and sometimes I do.

These material constraints, in turn, influence what I am likely to think. I’m not sure they limit what we can think—the mind seems boundlessly imaginative—but they sure mightily influence it. OK, one might come up with an infinity of possible social constructions about one’s life experience. But a person is unlikely to hold on long to those that simply do not fit their circumstances. Unless they can change those circumstances. The A-B split not only shows the constraints we face but also presents us with opportunities—the opportunities of ecological dialogue. When we as a community consider our collective attitudes and our collective behaviors—when we consider the ideal and the material implications of the current arrangement of our social and ecological lives—we have an opportunity to reconsider them as well. The social constitution of our communities may be a large part of our problems, but the social reconstitution of our communities can be a large part of the solutions. Together we can create new social structures, new constraining influences that shape and guide our lives.

Social structures are not necessarily bad things. It depends on what they guide us into doing. Social structures do not necessarily create the A-B split (or what is really an ideal-material split). Properly rearranged, properly reconsidered, social structures can help heal the splits in our communities—including that biggest community of all, the environment of which we are (thankfully, I say) an inescapable part.

Virtual Environmentalism

But people are busy, terribly busy, caught as we are on the treadmills of production and consumption. Although we are surrounded by modernity’s supposed inducements of choice and leisure, modernity equally induces us into a treadmill-driven rush from home to work to the point that work becomes home. And when we come home—late, probably—we’re still in such a rush that what we do at home becomes work, as the sociologist Arlie Hochschild observes. The supper has to be cooked, the dishes done, the children put to bed, the toys picked up, the floor swept, the clothes washed, and the bills paid.

When work becomes home and home becomes work, daily decisions have to be made fast. This isn’t going to change soon. If being environmental means a lot of extra thought about the consequences of each act of consumption, if it means switching to everyday practices that take a lot of time to do and to learn about, then daily decisions are unlikely to be made with the environment in mind. Environmentalism on these terms is unlikely to become a significant part of everyday life in a modern world. Our daily experience is too full already. And if being environmental costs a lot extra, one doesn’t have to be a social scientist to recognize that will put a significant damper on its feasibility, too. People have mostly already figured out what they are going to do with the money they have.

Let’s cut to the quick of it: If it is hard for people to be environmental, well, then being environmental will be hard.

What we need, then, is what might be termed virtual environmentalism—environmentalism you don’t have to worry about because you just find yourself doing it anyway. Virtual environmentalism is environmentalism that lies behind and beneath our daily lives. Like environmentalism in the usual sense, virtual environmentalism is walking or taking your bicycle to work, buying food produced with sustainable production methods, replacing old appliances with energy-efficient ones, and using less heating, cooling, construction materials, and water. But virtual environmentalism means doing these things not because you’ve made a conscious decision to be environmentally good today, but because they were the cheapest, most convenient, and most enjoyable things to do. Virtual environmentalism is being environmentally good without having to be environmentally good.

I think it is safe to say that virtual environmentalism is a lot more likely to be popular with the general public than environmentalism by
guilt, cajoling, shaming, issuing court summons, imposing fines, and locking offenders in jail. But it will become popular only if we change the structures of the cheap, convenient, and enjoyable by reorganizing the social organization of production and consumption.

Take walking or bicycling to work. In the Netherlands, nearly half of all trips are by bike or by foot, compared with 16 percent of all trips in Britain and just 7 percent of all trips in the United States; Germany is somewhere in between, with a third of all trips by foot or bike.11 And no wonder. Germany and the Netherlands have made vast investments in infrastructure to accommodate people-powered transport. Bike lanes. Raised crosswalks. Pedestrian lights. Pedestrianized shopping districts. Snug and coordinated urban planning that puts shopping, schools, and workplaces close to where people live. As a result of this infrastructure, foot and bike travel is also pleasant and safe. Both per trip and per mile traveled, American pedestrians and bicyclists are killed at three times the rate of German pedestrians and cyclists and six times the rate of Dutch pedestrians and cyclists.12 Not 25 percent more or even, say, 75 percent more—300 percent and 600 percent more. (See Figures 11.1 and 11.2.)

There is no law that requires a third of Germans and half of the Dutch to leave their cars behind when they head out the door. There is no vast supplier of halos of environmental virtue that these third and these half don on their heads when they step outside. They are just going about the business of the day in ways that are expedient, economical, and agreeable.

![Figure 11.1](image.png)

**Figure 11.1** The bike parking lot at the train station at Ede, a small Dutch town. Scenes like this are common throughout the Netherlands, where half of all trips take place by bike or by foot. The Dutch also often combine bike transport with train transport, and may even keep a bike at each end of their commute, biking from home to train and then train to work or school.

*Source: Author.*
In short, virtual environmentalism means making environmentalism easy. The trouble is, it is often hard to make things easy. Social reconstitution usually requires a terrific effort. But when you do reconstitute society, you’ve really done something, something lasting and important—precisely because it is so hard to do. If social reconstitution were easy, it probably wouldn’t be social reconstitution at all. But it can be done. And it is done, all the time. But you have to do it. We can become environmental without trying—but only if we try.

Which means that social reconstitution depends as much upon our social constructions as it does upon our material constraints and possibilities. Maybe we’ll try if we must. But think how much easier it will all work out if we try to reconstitute our lives because we also want to.

Seen in this way, the A-B split is not a problem that stands in the way of virtual environmentalism. Rather, it is what leads to getting virtual environmentalism going, when we think and act collectively. And when we do get that social reconstitution into place, we may well find that we’re not completely satisfied with it—that the behaviors it encourages are not fully in line with our attitudes, maybe because we didn’t get the result we wanted or because our attitudes changed once we did get it. That’s OK. We’re learning. We’re always learning, for it’s another dialogue, an ecological dialogue that virtual environmentalism depends upon. Or, put another

**Figure 11.2** A three-level street in Wageningen, a Dutch university town. Vast government investments in infrastructure have made biking and walking safe and convenient in the Netherlands. Commonly, Dutch cities install raised bike lanes on either side of the car lanes, but lower than the sidewalks, helping separate all three modes of transport: car, bike, and foot. As well, raised crosswalks make pedestrians more visible and slow cars down exactly where a pedestrian might be, as this picture shows. Furthermore, the bike lanes narrow the space for cars, forcing them to slow down, especially when passing an oncoming vehicle.

*Source: Author.*
way, virtual environmentalism means turning the A-B split into the “A-B dialogue,” where the difference between our attitudes and our behaviors is not a sign of our hypocrisy but a sign of our growing collective wisdom about what it is we’d like to do and how best to make it possible.

The Bottom and Top of Change

When we think and act collectively, that is. Chapter 10 discussed how collective action can emerge from the grassroots, as often it must, and overcome the “tragedy of the commons” and other challenges to social mobilization. Through knowledge cultivation, the dialogue of solidarities, and double politics, a grassroots group can gain the pros of the three cons.

But there are limits to what the grassroots can do on its own, especially if we want to make environmentalism something people do without trying to. There is both a “bottom” and a “top” to effective change in the social and environmental circumstances of our lives—an interactivity of the grassroots with the shovels and rakes of government, economy, technology, and other social structures that govern daily life. It’s another (you guessed it) manifestation of ecological dialogue. Let’s call it the dialogue of bottom and top. Local communities and civil society represent more the ideal side of the dialogue, contributing beliefs and values, and the structures of governance represent more the material side.

Sometimes we hear advocates argue for a purely “bottom-up” approach, though. There is much wisdom in this suggestion, especially when we consider the legacy of the “top-down” way. Who likes rules and regulations, especially when they are of the one-size-fits-nobody variety? Who likes being told no? Who likes living with bad planning decisions, made mainly on behalf of some well-positioned political interest? Who likes having one’s choices dictated by corporate power? Who likes being coerced or even forced, sometimes by the barrel of the police officer’s or soldier’s gun? Who likes losing freedom?

But a purely bottom-up approach would face many challenges of its own. Not least of these is that there is not one local community in the world, but many. The grassroots are plural. Each is at least somewhat differently situated in the world and will have at least somewhat different interests in, and sentiments for, the world. If nothing else, this pluralism complicates coordination, should the issue at hand be significant for more than one group or locality. As it probably is. But it also raises the issue of how we draw the boundary of a locality or group and who are the relevant stakeholders—and who are not. A bottom-up community may have a strong dialogue of solidarities going, and thus a strong sense of the mutualism of interests and sentimental ties. But what of the interests of those defined as outside the community? Can we be sure that there will be sentimental commitment to the interests of those others? Additionally, there is no guarantee, just because an effort starts from the grassroots, that it is truly inclusive of even those in the local community. Local areas have their political moves, too. So, although a bottom-up approach sounds inherently democratic, it may wind up denying voice to at least as many as it gives voice.

Moreover, working bottom-up presents many resource needs for time, money, and people. A local community organization may have a fierce commitment to saving a nearby forest, say, or to ending the fumes coming from the vicinity’s factory. But the company that owns the forestland or the one that owns the factory likely has people working 9/5, and maybe even 24/7, representing its interests. Local groups may do well to get a meeting together once or twice a week, and maybe to hire a part-time staff person—even if there are thousands of affected residents. It’s hard to raise money, especially for a long effort, and to find committed people to serve on volunteer boards. In these cases, a purely bottom-up approach would be denying voice to itself.

Plus, bottom-up groups often lack the relevant expertise. Take the factory example again. The smokestack may have a constant brown plume coming out of it that can be smelled miles
away. Nevertheless, in order to make the case that
the pollution harms the local area, there will
probably have to be a scientifically valid sampling
regime and analysis of what the stack spews out
and how far into the neighborhood the spew
travels. Likely too, the locality’s argument with
the factory will require some way, say, to connect
the excess cases of childhood asthma the area is
infamous for, or the unusual rate of lung cancer,
with the kinds of chemicals the plume contains.
These were precisely the issues faced by the
people of Diamond, Louisiana, a small African
American community living in the shadow of a
Shell facility in Louisiana’s “cancer alley” of
chemical plants along the Mississippi River. 14 Yet
documenting such harm is a difficult technical
matter, likely requiring several different sorts of
graduate-level training. And people with graduate-
level training probably had the financial
resources to avoid living in a community like
Diamond to begin with.

And then there is political influence. The dou-
ble politics of contestation may help a group gain
the face needed to navigate the political opportu-
nity structure. But wouldn’t it be better if the top
actively facilitated giving face to a grassroots
group and voice to its demands?

The top potentially has a lot to offer the
bottom with regard to these challenges of coordi-
nation, democracy, resources, expertise, and
influence. It can provide communication for
coordination, rules of fair dealing for ensuring
local democracy, money and people for getting
work done, knowledge and technology for docu-
menting issues of concern, and balanced access
to its structuring ability. And it can implement
the changes that turn environmental virtue into
virtual environmentalism.

The good news is that the top often finds that
it needs the bottom as much as the bottom needs
it. Changes that come only from on high encour-
age foot dragging on the part of those down
below. The top can resist the bottom, as we well
know, but the bottom can also resist the top,
often covertly through the “arts of resistance,” as
the political scientist James Scott has called the
techniques of keeping your head down while qui-
ely obstructing the aims of the powerful. 15
Consequently, it is far easier to lead the willing
than the unwilling—particularly if the top has to
operate within legal restrictions on its use of
coercive force, as fortunately is now generally the
case. Plus, surveillance and policing is quite
expensive even for government. It is always one
thing to put a law or regulation on the books. It
is quite another to implement it. The rulebook of
the state is filled with stuff the police and regula-
tory agencies don’t bother to enforce (sometimes
blessedly so). Moreover, one-size-fits-nobody is a
problem for the top, too, although the top may
not always clearly recognize it. The top seeks par-
ticular outcomes through the application of laws
and regulations and has to contend with how
lack of fit for particular localities may compro-
mise those outcomes. If people on the bottom
have a say in how laws and regulations are imple-
mented and agree with the implementation to
begin with, the grain of attainment of the top’s
desired outcomes is likely to be far finer.

Plus, the top faces the constant potential that
its legitimacy may crumble—that it may experi-
ence what the sociologist Jürgen Habermas
called a “legitimation crisis.” 16 People are rarely
unaware that hierarchy exists in society, and the
top is in continual need of justifying its authority
so people will continue to put up with it.
Consequently, even if the top really couldn’t care
a fig for the needs and concerns of the bottom, it
generally behooves it to give the impression that
it does. And giving that impression will likely
require at least a degree of actually attending to
those needs and concerns. The skeptical are
always eyeing the spectacle.

What I’m talking about here, of course, is
power. For the bottom to have power, it needs the
top. For the top to have power, it needs the bot-
tom. And for effective social reconstitution to
occur from either perspective, they both need
to be in dialogue. That is, they both need,
as Anthony Giddens has termed it, “dialogic
democracy”—a democracy in which all, includ-
ing the environment, are taken into account. 17
But I am also talking about community. The dialogue of bottom and top depends upon a dialogue of solidarities—a dialogue of our interests and our sentiments and the species of mutual power that come from each. Otherwise it will fall apart. And the dialogue of solidarities likely requires a dialogue of bottom and top to coordinate the complementaries of people’s interests and sentiments. The time gaps and space gaps of solidarity can be mightily, if warily, helped by a bit of bottom and top. A bit, and be careful. But the inequality of the bottom and the top does not necessarily imply injustice, although it is indeed all too frequently associated with it. Recall the discussion of environmental justice in Chapter 4. As the political philosopher John Rawls argued, justice requires that any inequality serve everyone’s interests, and I would argue their sentiments, too. We’re all different, and that’s why we need community—including that biggest community of all.

Participatory Governance

The feeling that we have to find ways to bring bottom and top together has prompted a huge range of new programs and projects, as well as a vast literature that studies them. Command-and-control environmentalism is no route to virtual environmentalism, as many years of poached endangered species, midnight dumping, continued deforestation, and many other troubles now show us. There is widespread agreement that governing the ecological society will entail more than the work of government, in the narrow sense of the word. It will require the work of citizens, too. It will require a shift from government to what is often called participatory governance.

Consequently, a new language of management has spread across the world, with phrases like the following: participatory management, comanagement, collaborative management, community-based management, deliberative environmentalism, community forestry, participatory rural appraisal, participatory development, participatory planning, participatory research, and participatory action research. Behind these phrases are still more: stakeholder analysis, civic engagement, civil society, social capital, deliberative democracy, dialogic democracy (which I mentioned earlier), focus groups, town meetings, citizen juries, citizen advisory committees, local knowledge, and more. These are all ways that environmental managers and environmental sociologists have articulated the importance of the dialogue of bottom and top.18

Why so many phrases for the same basic idea? For a good reason. Most observers concur that the “participatory turn”—yet another phrase—is a wonderfully fertile idea, with equally wonderful material potential. And some of the efforts to put it into practice have been tremendously successful, both for environmental quality and for the quality of our societies. Chapter 10 already discussed one such success, the participatory research of the group Practical Farmers of Iowa. Participatory governance doesn’t always work out, though, and I’ll come to some of the troubles shortly. But first, let’s consider a few more examples of its many successes.

Supplying Water in a Costa Rican Village

For years, international agencies have been drilling wells, planting trees, providing new crop varieties, building dams, and promoting tourism in “less-developed” communities across the world, hoping to spur economic development. Sometimes this form of international aid has worked, but very often it has not. Local people have often looked on with pleasant smiles while the dams were put up and have shaken hands in apparent thanks when given trees to plant, only to fail to maintain the dams and the trees later. Eventually—after the development reports were filed away back at the international aid agency’s headquarters—the dams crumbled and the trees died.

Astonishing as it seems in retrospect, supporters of this 1970s-style approach to development...
rarely bothered to ask a crucial question of local people: What do you want? Such a top-down style of development assistance not only alienated the people it was supposed to help, but because of the development officials’ lack of knowledge of local conditions, top-down approaches often resulted in increased social inequality and environmental damage.

In the early 1990s, though, development agencies began to see both the practical and the democratic value of what has come to be called participatory development. Involving local people as equal partners and leaders in development projects ensures a sense of ownership—of sentimental commitment—to a project. It also ensures that the project is more likely to do what people want, making the project fit their interests as well. This approach is so totally obvious in retrospect that it may seem incredible that development efforts ever took another course. But early development thinking often had little respect for the views of local people, seeing them as backward and incapable of understanding all the advantages of the modern techniques that were being offered to them, while assuming (rather contradictorily) that the modern way was what everyone wanted.

In 1994, I was fortunate enough to see firsthand the results of a more participatory approach to local development. An old friend lives in Platanillo, Costa Rica, a farming village of about 500 people in the foothills of the Talamanca Mountains. We had lost touch since meeting in the 1970s, but I happened to be in the country on university business. The village has no phone, and I wasn’t even sure he was living there anymore. So I quite literally looked him up. I took the Platanillo bus up the dirt road into the mountains on a Saturday afternoon, got some directions from the barkeeper in the local tavern, and surprised my friend as he was returning from his fields for the day. He recognized me almost immediately, even after 17 years, and excitedly led me around his farm and the village.

One of the places he brought me to, with considerable pride, was the new water supply dam that he and some other villagers had installed earlier that year. The dam made a small impoundment on a stream up in the mountains above the village—not big enough to cause much damage should it give way some day, but large enough to supply all the houses on that side of the valley with running water. Before the dam was built, everyone was drawing water by hand from household wells, often dug dangerously close to outdoor toilets. Now everyone in the neighborhood had safe running water piped into their houses.

The people in Platanillo had some outside help in building the water system. My friend mentioned that several development agencies were involved, although he didn’t mention which ones. That didn’t seem important. Instead, he talked about the neighbors with whom he had worked on the project, about the way the sluice gate worked, about the way they arranged for the land where the dam sat, about the village committee that is maintaining the dam, and other local details. This clearly was the villagers’ own water supply.

What really struck me, as my friend described the new system, was how much he knew about it—far, far more than I know about the water supply system in my own community. After all, my friend had helped build and design the one in his community. Should those pipes or that dam or the watershed up above or down below ever develop any problems, he and his neighbors would know what to do and would feel a sense of investment and responsibility for carrying out any repairs. Which was a good thing, I thought. In such a remote place, if the local people didn’t take care of a problem, it would be a long time before anyone else would.

As I took the bus back down the valley that evening, I passed a building in the next village down the road from Platanillo with a sign on it that said “U.S. Peace Corps.” I don’t know if Peace Corps volunteers were involved in Platanillo’s dam—my friend never said. But if they were, I thought, they sure understood the value of participation, and also of a helping hand from the top.
Growing Local Knowledge in Honduras

Jeff Bentley is not your typical social scientist. I knew that as soon as I laid eyes on him in 1993, when he gave a seminar in my department. The title of his talk was suitably academic sounding—something like “Farmer-Scientists and Integrated Pest Management in Honduras,” as I recall. But rarely, even in this informal age, is a seminar delivered by someone wearing old jeans whose bottom hems are frayed from continually catching beneath the wearer’s construction-style boots. He did wear a sport coat, a tweed one, but it only made his jeans and uncombed hair seem that much more incongruous in a university seminar room.

And yet Bentley held the packed room (including several conservatively dressed scientists from the entomology department) absolutely spellbound. Bentley had been employed over the past few years in the Department of Crop Protection at the Escuela Agricola Panamericana in Zamorano, Honduras, trying out a radical new way of doing research on the farm problems of Honduras, working with the country’s poor peasant farmers. In collaboration with Werner Melara and others at Zamorano, Bentley had been going into Honduran villages and conducting entomology seminars with local farmers. “We don’t tell them what to do to solve their pest problems,” Bentley said. “We try to give them the intellectual tools for solving the problems themselves.”

Over the past 40 years, the typical approach of agricultural scientists working on the problems of tropical agriculture has been to encourage peasant farmers to adopt hybrid crop varieties developed by the scientists themselves. Such varieties generally yield more but also have fewer defenses against pests. The scientists have developed an answer for that problem, too, though: pesticides. (It’s a package deal.) But farmers have to buy the hybrid varieties and pesticides, rather than relying on seed saved from the previous crop and on lower-cost pest control practices.

And if you’re a poor Honduran farmer, money is something you don’t have a lot of. Capital-intensive agriculture also promotes international economic inequality by draining scarce cash from the Honduran countryside. Plus, a high degree of literacy is required to read the label warnings on the safe and appropriate use of the pesticides. Thousands of people have been poisoned.

Bentley’s view is that any solutions farmers devise for themselves are far more likely to be relevant to their ecological, economic, cultural, and agricultural circumstances. Also, Bentley stresses the importance and validity of farmers’ own knowledge about local conditions and local farming practices—their local knowledge.22 Honduran peasant farmers are poor, not stupid, and they know a lot of relevant things that the scientists don’t. After all, the peasant farmers live there.

University scientists do have a lot to offer local people, though, particularly concerning phenomena that are not easily observed. In Bentley’s rural seminars, he helps the farmers see inconspicuous connections that the university scientists have figured out. Most local farmers don’t understand insect life cycles, so he puts larvae in glass jars for several days so that people can watch caterpillars and grubs develop into adult insects. Local farmers almost never go out into their fields at night, so Bentley takes them out to watch insect activities by flashlight. And then he steps back and lets them apply the knowledge.

In one village, the local farmers had been spending quite a bit of money on pesticides to eradicate the fire ants that were infesting their fields, although they had no evidence that the ants were harming their yields. When Bentley took them out at night, though, they watched as the ants crawled up their corn plants and ate some other insects that were harming the crop. A local woman was very impressed with this observation and wondered how to encourage the ants. She recalled that ants were often attracted to the sugar in her kitchen, and she came up with the idea of making a dilute solution of sugar water and spraying it on infested plants to attract the ants.
This idea, suggested Bentley, has several advantages typical of local innovations. First, it’s cheap, as sugar is relatively inexpensive. Second, it relies on easily accessible local materials—sugar and water. Third, it is something that the local people understand completely, which should allow them to refine the idea, generating further innovations. Fourth, it is safe, both for the environment and for the farmers. And fifth, as it is their own idea, local farmers feel a sense of ownership and are far more likely to be committed to making the idea work.

But does this idea from the bottom actually help control insect pests? Here’s where the top—the scientists—can step in again, performing experiments and helping local people design their own experiments to assess the validity of the idea. With the Zamorano approach, scientists are still very important, but, as Bentley and Melara explain, “We depend on farmers to help tell us what to study and to work with us in actually carrying out experiments in their fields, fine-tuning the technologies to their conditions.”23

The point of participatory development, in other words, is not that local people always know best. Rather, the point is to get a dialogue going between local people and scientists, between local knowledge and expert knowledge. Such a dialogue encourages the respect and concern of each party for the other and perhaps even genuine friendships, as each comes to know the other better: solidarities of interests and sentiments. Participatory development is thus dialogic development.

Clearing the Air in Three British Cities

Like Jeff Bentley, Steven Yearley often wears jeans with his sport coat. And he doesn’t comb his hair very carefully, either. After all, Yearley is also an academic. And he is just as radical in his experimentation with participatory techniques of environmental management. But his jeans are black, instead of blue like Bentley’s. His favorite coat is leather, not tweed. Plus, most significantly, he works in rich countries, usually Britain, rather than poor ones. (Rich countries need participatory governance, too.) I remember first meeting Steve at a conference in Britain and going on a long walk together in the countryside in which we debated postmodernism and democratic theory.

People drive too much in Britain, as in many other rich countries. The resulting air pollution load is now widely recognized as a major health hazard, as I have described earlier in the book. Now, what to do? In Britain, the approach has been to have cities declare Air Quality Management Areas (AQMAs) where the air pollution exceeds government standards, and then to put into place an action plan to reduce the pollution back below the standards. Straightforward enough. Scatter some pollution-monitoring stations around the city, do a study of traffic trends, include any notable stationary air pollution sources, factor in the effects of climate, put it all onto a map, and bang: Local officials have an air pollution model they can use to establish the AQMA and devise the action plan.

Still, there’s a trouble: A model is a model. There are inevitable limits in the number of monitoring stations a city can establish and inevitable questions about their appropriate placement. But ordinarily, city officials don’t worry all that much about these issues. The AQMA process is pretty much a top-down approach. Officials have lives to live, too—homes to return to at the end of the day and retirement accounts to make deposits into. The central government in London says that it is to be done a certain way... so let’s make them happy, and then we’ll be happy. (There are tops within the top.)

Hang on, said Yearley and his colleagues.24 Local people have local knowledge that would be useful to get into the models. After all, they are out there every day. Each one of them is a monitoring station, a monitoring station that even talks. Plus, they will have to live with the results of the action plan—which will likely mean finding ways to encourage reduced automobile use, as well as impacts on property values. The whole
business will go down better if they are involved in the process.

So Yearley and his colleagues held a series of focus groups in three cities that were implementing the AQMA process: Bristol, Sheffield, and York. They contacted bicycling advocates and traffic-calming campaigners, as well as advertising the events through newspapers and posters. At the focus groups, they put up a map of the city and drew people’s impressions of air quality right onto it. Then they showed people the resulting map in a second series of meetings and through individual contacts, to check it and refine it. They digitized the result, put it at the same scale as the officials’ map, and brought it to the city government offices.

In all three cases, local people’s results largely matched the official maps, but with some significant points of difference. Local people usually had good explanations for the places where their assessments differed. The officials’ models, they felt, understated the pollution from factories, as the officials assumed that the factories never exceeded the permitted levels of pollution releases. But local people knew from their own experience and from talking to factory employees that the factories often exceeded the permitted releases. Local people also felt the models’ assumption of average levels of pollution from all motor vehicles did not take into consideration that in poorer areas the vehicles are likely older and in worse repair, and thus pollute more. Plus, cyclists contended that the scatter of monitoring stations did not accurately reflect how certain streets act as canyons that trap poor quality air close to the ground.

Yearley and his colleagues call the process “participatory modeling.” In all three cities, Bristol, Sheffield, and York, the officials took it seriously. Unfortunately, the participatory modeling in Bristol wasn’t completed until after the AQMA for Bristol was designated, and in Sheffield the AQMA process had been subcontracted and officials had less control of the procedures. But in York, officials revised their model in light of citizen input—not only their model of air pollution but their model of government and how it should relate to the citizenry that, after all, it is supposed to represent. As Yearley notes, “Public engagement can assist in bridging knowledge and policy.”25 For better participation means better science. Better science means better government. And better government, in turn, means better participation.

Governing Participation

So we know participatory governance can work to help alleviate environmental problems. We know because it has been done, hundreds if not thousands of times by now.

But, as I say, it has not always worked out well.26 It can be hard to get people to show up at the meetings. Some get frustrated by all the talk when they do. The group process sometimes simply hasn’t gelled, and misunderstandings have developed, in one documented case leaving the participants more at odds than when the process began.27 There are often instances of those who felt they should have participated but did not feel invited to, leading to feelings of exclusion.

In response, some researchers and practitioners have devised guidelines for “best practices” for ensuring successful participatory processes.28 Their goal generally is to ensure that all voices are heard and are welcome, that communication is open and available to all, and that the agenda is always open to change. These best practices typically advise a set of formal procedures—a kind of Robert’s Rules of Order for participation—that practitioners can use. Participation can be a bit unruly, and they suggest, in effect, how to govern it.

But as Caroline Lee has argued, formal procedures imply a particular form of political culture that not everyone necessarily shares: a culture of the formal.29 The non-elites that formal methods are intended to give voice to are often turned off by the fussy proceduralism and may be culturally ill-equipped to navigate it. Moreover, given the popularity of participatory methods, elites can gain some kudos from their colleagues and
associates by agreeing to take part in the formal process—a process in which they are likely to perform well anyway, as it was likely designed by someone of a similar cultural background. The emphasis on proper procedures for participation can also encourage suspicousness of those who, perhaps inadvertently, violate the protocols and engage in informal communication outside the approved venues.

Think of it as a thinning of solidarity. Formal procedures for participation run the risk, if overemphasized, of turning the participatory encounter into a mere exchange of interests. Lost is the chance to build the sentimental ties of friendship, which are rarely a formal matter, ungluing trust. As Francesca Polletta has observed, “Friends are unlikely to suspect each other of cutting corners or cutting deals, and their affection for each other makes the deliberative process tolerable, even pleasurable.”

But nor should we forget the troubles that come when informal communication reverts to an “old boys” or “old girls” network. It’s a tough balance to maintain, and many efforts at participatory governance have not hit it right.

Another trouble builds on the kudos factor for elites of using participatory approaches. Given the way the top needs the bottom for legitimacy, there is often a strong temptation for government or corporations to call in the participation consultants—there are loads of these now—and have them prepare the process so that the public gets the “right” answer. For example, in early 2008 in Britain, a flap emerged over the government’s plan to start building nuclear power plants again. The government officials backed up their plan by pointing to a public consultancy process they had hired in. When presented with the facts chosen by the consultant, a plurality of participants said bringing nuclear power back was the best option. Critics cried foul as the consultant—eager to serve its paying client, the government—hardly seemed disinterested in the outcome.

And if the public gets the “wrong” answer in a participatory process, the skeptics doubt they would be listened to, anyway. As one such skeptic from California put it, “San Diego’s history is littered with the skulls of bureaucratic brain-picking sessions that invited people from the neighborhoods to contribute, then discarded their ideas.” Call it “participation-washing.”

As a result, phrases like “participation fatigue,” “participation-itis,” and even the “tyranny of participation” are starting to show up. There is much to be learned from these critiques. Let me suggest a few aphorisms that capture some of that learning. Participatory practices are not above power; rather they are all about power. One-size-fits-all formal procedures of participation are no way to solve the problem of one-size-fits-all governance. You can’t govern trust, but you need trust to govern.

Do we want to go back to letting the top call all the shots? No, nor are we likely to. The thing about dialogue is that it is so satisfying when we get it right that it ever encourages us to get it even better. This is one of the most important of all dialogues: dialogue about dialogue itself.

The Reconstitution of Daily Life

The dialogue of bottom and top is not only about participatory governance, however. It is about all the ways of getting the bottom and top to work together to bring about virtual environmentalism and other features of an ecological society. This will mean changing how we socially organize our lives, and it will mean changing how we socially construct our lives. It is a matter of both the material and the ideal factors, and bottom and top factors, that shape the ways our daily lives are socially constituted.

It is also a matter of recognizing that we are each, in a way, both bottom and top. The existential philosopher Jean-Paul Sartre, a noted misanthrope, used to like to trot out this little definition of hell: other people. What this means is that all actions are, in fact, interactions. What any one of us does has consequences of some sort for the world, and thus for others in the world.
In this way, whether deliberately or not, we constrain what others can do and thus govern them to some degree. We also enable them, too, at least for some actions, to be more optimistic (and I think more accurately balanced) observers, the sociologist Anthony Giddens points out. My virtual environmentalism can ease yours, and vice versa, as the bottom extends to the top and the top extends to the bottom, and we reconstitute each other’s daily lives.

**Greening Capitalism**

Perhaps the most important feature of our daily lives that we need to reconstitute, argue many, is our economy. As the great British sociologist Raymond Williams wrote, it is vital that we overcome “the intellectual separation between economics and ecology. It will be a sign that we are beginning to think in some necessary ways when we can conceive of these becoming, as they ought to become, a single discipline.” Indeed, each has the same etymological root in the Greek word *ecos*, or “home,” that deepest center of daily life.

The first step is to beware of the easy populism of the-market-knows-best arguments. I mean this kind of claim: Got a problem? Just let the wonderfully adjusting and democratic market take care of it. Every dollar, Euro, and pound another vote. As for government? Just get it out of the way and let the popular voice come through in people’s buying decisions. Or like the new law in the United States that bans energy-sucking incandescent bulbs by 2014, as Australia will by 2010 and Ireland will by 2009, creating the market incentive to make energy-sipping compact fluorescents far cheaper.

One route to the positive externalities of virtual environmentalism is through structuring real estate development so that what gets built uses land efficiently, promotes community, builds tax base, and is beautiful enough that people will want to live there. Smart growth is what planners call it, and cities across the industrialized world are discovering its ecologic, economic, and social good sense. The basic idea of smart growth is to reject the standard polarization between anti-growth naysayers and pro-growth yaysayers, familiar to development controversies across the country. Smart growth says, yes, there are serious problems with how development usually goes on in the United States. But we can use the power of development forces to “grow out of” sprawl. Pressures for growth provide the capital to reshape what we have done and give us the opportunity to rethink what we might do. Besides, there are good economic reasons for reshaping what we’ve done and might do—let alone the environmental...
reasons. It’s expensive to construct and maintain the necessary roads, sewer lines, and power lines and to provide police, fire, and emergency services to spread-out developments. Although sprawl is often defended for adding tax base to a community, the cost of providing for it can easily be more than the added government revenue. Plus, developers are figuring out that sprawl raises their own costs and, as distances increase beyond tolerable commuting, limits their market.

Smart growth is often coupled with an architectural style and approach to planning called *new urbanism.* The basic idea of new urbanism is to model new developments on the kind of traditional neighborhoods that cities routinely turn into historic districts. If we think such areas are nice enough to make special efforts to preserve them and to visit them as tourists, new urbanists ask, why not design all our neighborhoods that way? New urbanism is thus in many ways the traditional urbanism, the urbanism of a time when cities were built for people rather than cars. And if we build with people first in mind instead of cars, the result will be not only pleasing to the eye but pleasing to the balance sheets of local governments and local developers, because of new urbanism’s efficient land use. That’s the smart-growth part. But also, new urbanism advocates argue that such an approach helps reduce the impact of development on community in the ecological sense and helps promote more interactiveness in the community in the social sense. (See Figure 11.3.)

New urbanism designers typically recommend the following guidelines for people-friendly...
development: Build houses up, not out, so lots can be narrower and land use efficiency can go up. Bring back the front porch, the sidewalk, and the alleyway, all zones of interaction between neighbors. Make most streets through-streets so all the traffic doesn’t get channeled onto a few trunk roads, causing traffic jams even in suburbs. Bring back the corner shop. Provide a diversity of housing types within a neighborhood so that people with all kinds of household situations can live there, from singles, to families with children, to the elderly. Locate stores and schools and workplaces near homes—and without the traffic and oversized parking lots that make most commercial life so unappealing and environmentally unsound today. Don’t mix stores and housing types higgledy-piggledy, but instead institute far more detailed zoning plans than the current big-blob style of zoning with huge areas devoted to a single type of use. Increase density, so walking and public transit are more realistic options. (See Figure 11.4.)

Another route to virtual environmentalism is internalizing costs. That is the goal of green taxes, sometimes called Pigouvian taxes, after Nicholas Pigou, the English economist who proposed the idea in the early 1900s. Green taxes are an attempt to make the price of goods and services reflect their true costs and to shift the burden of government revenue generation away from regressive taxation schemes like sales taxes and value-added taxes. Finland, for example, now has a carbon tax aimed at internalizing the costs of global warming and other pollution issues associated with fossil fuel use. Britain has a landfill tax. The Netherlands and several Scandinavian

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Figure 11.4  A street in Providence, Rhode Island, developed in the 1890s. New urbanism takes as its model “old urbanism” developments like this one. Note here, too, the close-together houses, the small yards, the front porches. Also note the mixing of single-family homes with the duplex in the foreground.

Source: Author.
countries now have energy taxes. London, Singapore, Stockholm, and Valletta (the capital of Malta) have recently instituted “congestion pricing” that taxes drivers for bringing their cars into already congested areas, and New York City at this writing is seriously considering something similar.

Green taxes offer a lot of possibilities, but like any taxation scheme, they have to be handled with great care. Taxes are perhaps the most hotly contested of any issue these days. If they are not supported by public sentiment and if they harm public interests, perhaps by being instituted in regressive ways, green taxes will be a political disaster. The dialogue of bottom and top is crucial. Also, powerful interests often get the upper hand in taxation debates, as when Belgium instituted a pesticide tax that exempted farmers and when the early versions of energy taxes in Scandinavia exempted some energy-intensive industries. But we are learning the lessons of these early experiments and becoming wiser in how to use green taxes to help build an economy that reflects what things really cost.

There is also increasing excitement these days among business leaders about industrial ecology, as Chapter 7 discussed—about treating industry as a part of ecologic systems as opposed to a means of dominating ecologic systems. The key principle of industrial ecology is regarding pollution as a sign of inefficiency in an industry. Waste products should be regarded as wasted opportunities, not leftovers to be gotten rid of in the cheapest and fastest and least conspicuous way possible. “Closing the loop” is the way advocates of industrial ecology often describe the greener approach. Environmental standards such as ISO 14000 alert industry to places where the loop is perhaps not yet closed and opportunities are being wasted. Industrial ecology thus advises businesses to see environmental standards and environmental regulation as business opportunities rather than obstructions to be fought or dodged.

A related idea is dematerialization—finding ways to accomplish our economic goals with a lot less material use of ecology’s productive capacity. Think of it as a loop made from a much finer strand. “Factor 4” advocates argue that the technology is pretty much here already to reduce material use by a factor of 4 to 25 percent of what we now use—without materially affecting quality of life. “Factor 10” advocates push us to get it to 10 percent. Businesses that manage these reductions in material use will also be saving themselves that much in the cost of materials to produce their products. Here again, good ecology is good economics.

How is a customer to know that environmental standards have been followed or that dematerialization practices are in place at a company? Recent years have seen a great growth in green labeling schemes that emphasize transparency and traceability, verified through third-party certification. Many of these labels are backed by governmental bodies, such as the organic labels now so widespread in countries across the world. But many are operated by non-profits or on behalf of industries. For example, the Rainforest Alliance, a worldwide environmental nonprofit that works to protect biodiversity, offers the Rainforest Alliance Certified label. An industry-organized example is the EuroRetailer Produce Working Group Good Agricultural Practices, or EurepGAP, standards that are now widespread among European food retailers. Increasingly, fair trade labels have also been growing; they verify that producers of products have received a living wage for their labor. Fair trade coffee and tea are only the best-known of these certification schemes. Now fair trade practices have been set up for chocolate, fruit, sugar, wine, cotton, handicrafts, and more, involving, as of the end of 2007, some 1.4 million small producers around the world, and worth $2.4 billion annually. (See Figure 11.5.) Economists often talk about the importance of “value chains” in the economy, a sequence of economic activities that continually “add value” to a product. An example might be all the steps along the way to turn cotton plants into the shirt you may be wearing. But what green and fair
trade labels do might be called establishing value chains—adding values in the plural, not merely market value alone, as Thomas Lyson, George Stevenson, and Rick Welsh point out. Values chains operate in two directions, allowing producers and consumers to communicate their commitment to a wider sense of what is valuable, across this increasingly global world.

Sometimes green standards and fair trade standards have not gone hand in hand, however. Some criticize EurepGAP and organic labels for, in fact, discriminating against small farmers, especially in poorer countries, both through requiring low prices and by requiring procedures and record-keeping practices that small farmers do not have the equipment or training for. Small farmers often can’t pay the costs required to participate in these labels, giving an advantage to outside investors who then employ local people at lower wages, giving rise to what Hugh Campbell has called a new form of colonialism. Fortunately, efforts are growing to link the fair and the green, and many products are now reaching consumers certified with fair trade and green labels together.

Another concern is that the increasing growth of nongovernmental third-party certification is transferring environmental governance away from government. Because this is governance outside of government, citizens have little say in how the certifying is done, stretching the dialogic limits of trust and chains of values. This is particularly a concern for green standards controlled by an industry trade association such as EurepGAP, some scholars argue. As Lawrence Busch and Carmen Bain have written,

> While it may be true that the private sector has acted where governments have failed to do so, the growing shift in standards setting and enforcement from the public to the private arena is problematic. Standards are pervasive; therefore, debates surrounding their content and their organization have import for our lives not just as consumers but, more importantly, as citizens.44

In other words, let’s be careful here.

But the real heart of capitalism, with its treadmills of production and consumption, is property relations, as Karl Marx recognized long ago. Peter Barnes, a capitalist with a heart and a founder of the ethical investment fund Working Assets, argues that much can be done to green capitalism with a legal structure that is already on the books: trusts. Unlike a conventional corporation, the property of a trust is managed by trustees who are legally required to act on behalf of the beneficiaries of the trust. They are not allowed to act in their own interests. Barnes proposes that we establish trusts whose beneficiaries are the

Figure 11.5 A collection of green and fair trade labels from around the world. Backed by third party certification arrangements, such labels have become an important means for producers and consumers to communicate their values to each other. See Figure 5.4 for a collection of organic certification labels.

Source: Author.
common good of all citizens and future generations. The effect would be to reestablish common property as a major sector of the economy. This is no pipe dream. It's already happening. Land trusts have become an important tool of conservation and are now major holders of land in many regions, particularly in the United States, where there are now some 1,600 of them. The Vermont Land Trust is one of the most successful and has protected about 4.3 percent of the land area of the state, either through direct ownership or through easements—nearly half a million acres. This is not private land, as it ordinarily cannot be sold for profit, nor is it public land, as it is not held by government. It is, in effect, a form of commons—regulated commons, without the infamous tragedy that Garret Hardin worried about.

A related form of ownership, typically found in urban areas, is a “community land trust,” in which land is held in common but houses on the trust’s land are owned privately. The effect is to reduce the cost of housing by separating land value from the market value of a home, making it more affordable. Plus, houses in the trust cannot be sold speculatively; the resale price can be only a certain percentage over what the owner originally paid for it. But typically, ecological goals have not been part of community land trusts. A group of graduate students of mine have suggested a new form of trust, a hybrid of a conservation land trust and a community land trust they call an eco-community land trust. With an eco-community land trust, as they envision it, the focus would be on both affordable housing and land conservation, linking social justice and environmental goals in the best spirit of environmental justice.

There are even more radical proposals. An idea that is getting some serious attention these days, especially in Europe, is degrowth economics, or what is also called sustainable decrease economics—or, in French, décroissance soutenable. There is even a degrowth political party in France now, the Parti Pour La Décroissance. Serge Latouche, an emeritus professor of law and economics at the University of Paris-Sud, is perhaps the central figure behind this idea, which resonates strongly with the older steady-state economics of the American economist Herman Daly, and with Richard Douthwaite’s writings on what he calls the “ecology of money.” The central idea is to reject what Latouche calls the “faith system” that economies must always grow, but not to abandon the notion of markets. Rather, he argues that we need not just to dematerialize the economy; we need to make it nonmaterial. In Latouche’s words,

But it does not necessarily mean ceasing to create value through non-material products. In part, these could keep their market forms. Though the market and profit can still be incentives, the system must no longer revolve around them.

Are ideas like the above possible? One of the great benefits of capitalism, we are often told, is its openness to creativity. If so, then let’s use this creativity. Let’s use it for environmentally appropriate ends. Let’s try out a few different forms of economic relations that are kind to people and the environment and see if we can figure out how they might work. Let’s recognize as well that the bottom-up freedom to create is always contextual, always regulated, always governed—that the top will always be there, too. And let’s recognize that this is not necessarily a bad thing.

The Local and the Global

Another manifestation of bottom and top is the relationship of the local to the global. Here too, we need to encourage a dialogue. The famous phrase “Think global, act local” helps us along in seeing these connections. But the relationship should be just as much the other way around. We should think local when we act global, considering the local effects of global decisions.

The Dutch environmental sociologists Arthur Mol and Gert Spaargaren, along with the American environmental sociologist Fred Buttel,
suggest the concept of *environmental flows* as a way to describe this dialogue.\textsuperscript{50} Building on the work of John Urry and Manuel Castells, they ask us to recognize that our world is a fluid one.\textsuperscript{51} Air, water, food, wood, fossil fuels, other minerals, wildlife, people and their ideas—these are all constantly on the move. When a tanker load of oil makes its way through the Suez or Panama canals, it is not just a ship on the move. It is an ecological act. Part of the world is moving, flowing from one region to another, through another. It is no different when we bring a load of groceries home or carry out the trash, or even when we breathe in and out. The local is moving the global, and the global is moving the local.

In other words, our daily lives, as local as they may feel to us in the moment, are just as much manifestations of the global. This recognition, obvious enough when you think about it, suggests some fundamental redirecting of how we think about environmental issues. There should be nothing remote feeling about an international environmental treaty. We cannot govern our daily lives by considering only the local, or even a national, level. And conversely. When we act globally, we are acting locally. We are setting in motion flows that cross localities and help constitute what those localities now are, or we are stemming or redirecting such flows.

This does not mean that place no longer matters. If anything, it matters more, for the concept of environmental flows helps us to see that to do something in one place is probably also to do something in another. The world is not as bounded as we once thought it was, but it takes place in places now as ever.

One of the kinds of places that still matters is the state. As a number of observers have argued, the World Trade Organization (WTO), the World Bank, the United Nations, the European Union, and the recent great flowering of international treaties on environmental and other matters have not spelled the death of the state.\textsuperscript{52} National boundaries remain edged with a kind of a lip that impinges on environmental flows. Try bringing more than three ounces of fluids in your carry-on bags. Try getting work in another country. Try shipping something clearly benign, like a box of books, without filling out a customs form. Try inviting a group of landless peasants from Mexico to fill up the backseat of your car as you head back home to El Paso. Try setting up your own pipeline to send oil from the rain forests of Bolivia up to the United States, or from the tar sands of Canada down to the United States. People in uniforms will be getting close and personal with you very soon.

No, ours is an international world, not a non-national one. But it is moving more than it used to, way more. All those ships, planes, trains, cars, trucks, pipelines, transmission lines, wireless towers, and satellites, as well as the soil, dust, and chemical pollution in the water and the air, together mean that more sheer mass of atoms and electrons move from place to place on the surface of the earth today than was the case, say, 100 years ago. But our forms of governance have historically been based on thinking mainly about what goes on in one place at a time.\textsuperscript{53} This nation. This town. This forest. This piece of property. The concept of environmental flows does not ask us to abandon our boundaries, but rather to learn to flicker across them, seeing difference and seeing connections at the same time, governing with here, there, and everywhere in mind.\textsuperscript{54}

For if we are to make connections in a global world, there must still be difference. Otherwise, as I have earlier stressed, there will be nothing to connect.

**Reconstituting Ourselves**

In all these ways, we can achieve virtual environmentalism—the virtue of being environmental without being virtuous. And, I believe, we not only can. We must. For in the end, there is nothing virtual about virtual environmentalism. It’s the real thing.

We are, however, unlikely to work to change our relationships in the biggest community of all unless we have personally committed to change. We will need a new collective sense of who we are
and what we want to do. It’s going to take some virtue to become virtual environmentalists.

It’s important to recognize the interaction, the ecological dialogue, between the material organization of our lives and the ideas with which we construct our lives. We are more likely to regard the environment in environmentally appropriate ways when our community lives are constituted to encourage such regard. But we can’t simply wait around for that social reconstitution to happen. We need to make it happen. Individuals are the agents of community change as much as communities are the agents of individual change.

In other words, our personal values and actions matter. There is a crucial ethical dimension to our ecological dialogues. Our virtues, at least, need to be more than virtual.

Which brings us back to community, for ethical ideas are always ideas about community relationships. Aldo Leopold put it well in “The Land Ethic,” probably the twentieth century’s most influential essay on environmental ethics: “All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts.” But how we draw the boundary of community membership shapes (and is shaped by) our sense of interdependence, and thus what and whom we feel a sense of moral concern for. (Moral concern and interdependent parts—the interplay of sentiments and interests again.) Our fellowship with others implies that they are entitled to our moral concern, just as we are entitled to their moral concern.

My point is that in the idea of community is the idea of justice. There is a constant tension between commitment to those included within the community’s boundaries and lack of commitment, and consequent inattention, to the troubles of those excluded from the community. Ideas of community and the boundaries of moral concern are thus closely intertwined.

Each of the three central issues of environmentalism—sustainability, environmental justice, and the rights and beauty of habitat—challenges a different dimension of these boundaries of concern. Sustainability considers how we draw boundaries of concern between present and future generations. Environmental justice considers how we draw boundaries of concern between human groups. The rights and beauty of habitat considers how we draw boundaries of concern between humans and the rest of creation.

This last boundary is perhaps the most difficult. How can we form a sense of community with the ecosystem, something we’re not even sure is an intentional actor? How can we form a solidarity of interests and sentiments with something we’re not even sure has interests and sentiments? Would not such an “ethical extension,” as Leopold termed it, be mere anthropomorphism—treating the inherently nonhuman as the human—and therefore highly unstable?

The notions of the dialogue of solidarities and the dialogue of bottom and top can help us here, I think. We must begin by recognizing that all communities are imagined. This is why trust is so important. We cannot get into the mind of the other, so we are always guessing, trusting, and closely watching for the signs of solidarity.

The same may be the case for human-environmental interactions. We need to imagine this form of community, too. And this imagination is what the environmental movement has long promoted, at least as I interpret the two sides of what has long been the main debate in environmental ethics: anthropocentric environmentalism versus ecocentric environmentalism.

*Anthropocentric environmentalism* suggests that we consider our own interests first in our interactions with the environment—interests in sustainability and environmental justice—and also that we consider the environment’s interests in order to gain our own. (That last clause, I should point out, is what distinguishes anthropocentric environmentalism from mere anthropocentrism.) In other words, anthropocentric environmentalism says, treat the environment well and it will treat us well in return: hence, a solidarity of interests.

*Ecocentric environmentalism*, on the other hand, suggests that we consider the environment
as a moral entity in its own right and with its own beauty and that we see ourselves as a part of that moral entity. It argues that we need to go beyond questions of calculated human interest and recognize the importance of what the environmental philosopher Paul Taylor, for example, termed "respect for nature." But we are part of that beautiful entity for which respect is due: hence, a solidarity of sentiments.

As with purely human communities, the solidarity-of-sentiments side of environmental ethics is the harder argument to make. This difficulty stems, we cannot doubt, from the individual and instrumental thinking so characteristic of our time and place. The challenge of imagination is particularly hard here because the environment does not speak, at least not directly. Which may in part be why anthropomorphism, as in the story of Androcles and the lion in Chapter 10, is such a popular way to think about the environment: It helps us imagine the voice of the other in the ecological dialogue.

But I believe the environmental movement is right to try to make the case for a solidarity of environmental sentiments. Even though it is a hard case to make, the evidence suggests to me that it is a vital case. Moments that threaten to bust the glue of trust are too frequent. Also, we can’t always wait to figure out what part of the ecosystem is crucial to our interests before we act, and sentiments may add some efficiency here. If for no other reason than they are good for our interests, we need to have sentimental bonds with the ecosystem as well. Correspondingly, the bonds of sentiment are unlikely to last unless they are also good for our interests—which, I believe, they are.

Thus, the wise anthropocentrist is also an eco-centrist, and vice versa, not one or the other. And that means that the issues of democracy and governance, of bottom and top, and even of virtual environmentalism that this chapter has considered pertain to more than just us. We are not only governing humans. Therefore, fairness requires that not only humans do the governing.

So how do we bring the nonhuman world into the top of governance? The same way we do with humans: through dialogue, ecological dialogue. Maintaining this dialogue is the basic work of the democratic community, from the smallest to that biggest community of all. It is also the sustainable, just, right, and beautiful thing to do.