

TAKING ACTION, SAVING LIVES

Our Duties to Protect Environmental and Public Health

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Conclusion

When polluters use either private-interest science or flawed ethics to manipulate information about pollution, they undercut citizens' human rights to know and to consent, and they ultimately cause more citizen deaths. They create a situation about which Abraham Lincoln warned. If only a few informed people realize the severity of some problem—in this case, pollution—they can appear mentally ill, while uninformed people can appear sane. Polluters' manipulation and misuse of scientific knowledge thus can give them the power to define who is sane and who is not, who will live and who will not, and who will fulfill their human rights and who will not. They prove that Francis Bacon was right: knowledge is power.⁷⁵

How does one gain the knowledge of pollution and therefore the power to control it? Chapter 1 suggests that one way is to understand how pollution threatens life and health. Chapter 2 and this chapter suggest that another way is to uncover the social, political, and scientific factors that keep citizens from understanding these threats. While the evidence presented in these three chapters is not complete, it is sufficient to establish two *prima facie* principles. Dirty air and dirty water harm people, despite what special-interest PR and private-interest science say. Dirty air and dirty water also harm people in ways that often are preventable, inequitable, and threaten their rights to know, to consent, and to receive equal protection of life. The obvious question is what people should do about it. The remaining chapters begin to answer this question.

Human Rights and Duties Not to Harm

Adam Finkel was worried. His longtime employer, the U.S. Occupational Safety and Health Administration (OSHA), was charged with protecting citizens from workplace hazards. Yet it was not protecting thousands of its own inspectors who monitored U.S. manufacturing facilities—like those where beryllium alloys are used to make everything from golf clubs, cell phones, ceramics, and dental bridgework to lasers, satellites, and x-ray tubes. These current and former OSHA inspectors were not being told of their own workplace-induced beryllium risks. As former director of health standards for all of OSHA, Finkel knew these risks were significant. He also knew that beryllium is a toxic metal, able to cause both cancer and a fast-progressing, potentially fatal, lung disease. According to noted beryllium-disease physician Lee Newman, ounce for ounce, beryllium can be more toxic than plutonium. Newman says only a few millionths of a gram can trigger massive health problems.¹

Whistleblower Adam Finkel

By 1999, OSHA had determined preliminary procedures for testing its inspectors for sensitization to beryllium. In 2001, draft plans for it were complete. Finkel assumed the testing would go forward. In April 2002, however, OSHA head John Henshaw put the testing "on hold." Finkel was disturbed. As OSHA administrator for the Rocky Mountain Region, he knew that OSHA inspectors already worked under difficult conditions. Delaying the beryllium testing only added to their health risks. In Montana, for instance, there were only eight OSHA inspectors to cover the 150,000 square miles of the state. The inspectors were constantly on the road, walking into very dangerous places, often facing hostile employers. For dozens of operations in many different types of industries, these public servants had to know the relevant pollutants and their specific means of control. Finkel says the inspectors are

"consistently professional, fair and diligent...like New York's finest—the policemen and firemen who braved the World Trade Center towers on September 11, 2001, in order to protect the public." As protectors of U.S. workers, they "deserve especially good rather than especially bad treatment."²

Looking at about 500 exposure records, Finkel suspected that many inspectors were getting especially bad treatment. They had unknowingly been exposed to levels of beryllium up to hundreds of times what OSHA permitted. Yet even this OSHA standard, set in 1949, was far too lax. Newman and other scientists had shown that cumulative beryllium exposures 10,000 times lower (than what OSHA permits) can cause serious health problems. Other federal agencies, like the U.S. Department of Energy (DOE), already had beryllium regulations that were 10 times more protective than those of OSHA and were testing thousands of employees. Given such flawed standards, screening exposed OSHA inspectors for beryllium sensitization was doubly important. Besides, beryllium blood-screening costs only about \$150 per person. Finkel knew that the 1,000 currently exposed inspectors could be tested for only \$150,000. A federal watchdog group, Public Employees for Environmental Responsibility (PEER), estimated that OSHA likely paid out more in annual bonuses for its 20 senior executives than what was needed to test its own inspectors for beryllium.³

After 3 years of delaying the recommended blood screening, in April 2002 OSHA director John Henshaw made a startling announcement in an OSHA executives-only meeting. Over Finkel's objections, Henshaw said that the testing was "not going to happen anytime soon." He also decided that retired inspectors "would not be informed" of their health risks. Yet Finkel knew that the sooner the inspectors were tested, the better were their chances of surviving any possible disease. Why was OSHA prepared to "let them twist in the wind for many years"? Perhaps the agency feared the lawsuits and public outcry that might accompany disclosure of any problems. By late 2002, Finkel had exhausted internal channels in his push for testing. He knew he had to do something else.⁴

In the fall of 2002, over lunch with a reporter from *Inside OSHA*, Finkel revealed the inspectors' beryllium exposures and OSHA's 3-year inaction to protect them. On the day the reporter's article appeared, Finkel was summoned to Washington by John Henshaw, who had been an executive at Monsanto for 30 years before President G. W. Bush appointed him to head OSHA. Although Finkel had not been identified as the source of the *Inside OSHA* information, Henshaw told Finkel he was going to strip him of his Denver regional directorship, claimed he was not doing a good job, and re-assigned him to the National Safety Council in Washington. From supervising 150 OSHA employees, suddenly Finkel had to move his family East and begin work alone in a small office. Charging his OSHA bosses with retaliation, in January 2003, he filed a whistleblower complaint with the U.S. Office of Special Counsel (OSC). (The OSC hears all public-sector-employee whistleblower complaints). After OSC ruled against him in September 2003, Finkel appealed to a federal judge and to PEER, which agreed to defend him.

In October 2003, he filed a public disclosure, asking OSC to force OSHA to disclose the potential beryllium health problems and OSHA's failure to do testing. In January 2004, the OSC again ruled against him. It concluded that Finkel "had not presented facts about beryllium's dangers that merited any investigation." PEER, however, forced disclosure of damning emails that revealed OSHA's retaliation against Finkel. As a result, late in 2003 OSHA was forced to settle the retaliation claim. In return for Finkel's dropping his whistleblower-retaliation suit, OSHA gave him an undisclosed lump-sum settlement and 25 months of continued salary and benefits. This was enough to cover Finkel's expenses and additional damages.⁵

Finkel's attempt to force OSHA to disclose the beryllium threats and lack of testing, however, was less successful. In October 2003, OSHA administrator Henshaw sent an email to all employees, falsely claiming that beryllium-sensitization tests of its inspectors were "already underway." Yet 6 months later, *Chicago Tribune* reporter Sam Roe phoned OSHA and discovered that no testing had begun. Because OSHA did not want Roe to write about "the delay and past lies," in April 2004 the agency distributed brochures that offered its inspectors voluntary beryllium blood screening. Of the 1,200 inspectors contacted, 300 asked for screening. Even this offer, however, was not handled ethically. Because the inspectors' real risks were not disclosed to them, they could neither give nor withhold genuine informed consent to screening.⁶ Yet full disclosure would have been easy. Because "OSHA has exhaustive data on the precise beryllium levels that every inspector encountered," it would only have had to add each person's doses, "to estimate lifetime exposures." OSHA was still denying the beryllium risks in spring 2004, as it began screening. Suddenly, in November 2004, Finkel said, *Chicago Tribune* reporter Sam Roe called him. Roe revealed that, after only just beginning the beryllium screening, OSHA already had proved that Finkel's concerns were completely justified because many inspectors already had tested positive. One month later, in December 2004, Henshaw and his deputy, R. Davis Layne, both retired. In January 2005, the *Chicago Tribune* reported that Finkel's health predictions had been confirmed. For the first time ever, on March 24, 2005, OSHA was forced to admit that its inspectors had been harmed by beryllium exposure. It admitted that 4 percent of its inspectors, tested so far, had beryllium sensitization—a figure nearly four times higher than Finkel's original estimate of 1–2 percent. Yet in 2003 the U.S. OSC had dismissed Finkel's estimate as an "exaggeration." Soon after OSHA's admission, PEER sent a letter to Elaine Chao, the secretary of labor, asking her to investigate OSHA inspectors' exposure levels, explain the four-year testing delay, and admit OSHA deception and coverup about beryllium. In addition, PEER requested that OSHA warn retired inspectors and revise its more than 50-year-old beryllium standard—to make it consistent both with current science and with standards for other federal agencies. Chao has addressed none of these requests. Instead, she has only responded that OSHA wants to protect its inspectors.⁷

Part of what is surprising about the Finkel case is that, as scientist and policy expert, Adam Finkel is far better educated and "better connected" than any of

the whistleblower discussed so far in this book. He had 10 years at OSHA, a senior management position, and the support of other independent scientists and physicians. Ironically, neither this experience nor his Harvard doctorate protected him from retaliation. A second irony is that OSHA, the U.S. worker-protection agency for 130 million private-sector workers, "turned its back on the several thousand workers under its wing, casting doubt on its will to protect anyone." Yet "through 17 statutes, Congress has assigned to OSHA the responsibility to impartially hear the cases of whistleblowers, including most environmental, airline, and now financial (Enron) cases." A third irony is that OSHA protected its own employees against neither job hazards nor retaliation. Indeed, in Finkel's case, OSHA was the retaliator. Only a lawsuit was able to protect Finkel and OSHA's own workers. A fourth irony is that OSHA not only failed to protect whistleblowers and its own employees but also engaged in "going after the whistleblowers with malice." Most worrisome, these ironies do not seem limited to OSHA. Examining the more than 1,000 whistleblower complaints brought to the OSC during 2004–2005, PEER found that virtually all have been rejected without even an investigation, many without even contacting the whistleblower. Jeff Ruch, executive director of PEER, says "We do not know of any whistleblower retaliation complaint, received during [Bush-appointed special counsel Scott] Bloch's tenure, that his office has ultimately upheld."⁸

What has happened to whistleblower Finkel? As of late 2006, he is a professor at the University of Medicine and Dentistry of New Jersey and a visiting professor at Princeton University. Continuing his battle to protect public health and reform OSHA, Finkel is trying to help inspectors who have not been tested. Repeatedly he has used the Freedom of Information Act to request OSHA beryllium-exposure records, but OSHA has continued to refuse these requests. In November 2005, he filed suit in federal court to force OSHA to comply with the Freedom of Information Act. Finkel says his struggle has only just begun. He now hopes to convince OSHA to test its former beryllium inspectors and to recommend screening in the 21 states that have their own workplace safety and health programs. Epidemiologist David Michaels says the battle will take time. Michaels, who is former assistant U.S. energy secretary and now professor at George Washington University, says OSHA is "abdicating its responsibility." Even the nation's largest beryllium-alloy producer, Brush Wellman in Cleveland, agrees; it says current OSHA beryllium standards are too lenient.⁹

Speaking of his OSHA ordeal, Finkel says: "Some days I feel like the character in *The Shawshank Redemption*, who crawled through a river of s— and came out clean on the other side." Finkel claims that 90 percent of the reason he went into government service was that he thought he could "do the most good there." The other 10 percent of his reason? He says he "wanted to be part of an organization where hard work, creativity, and honesty were appreciated, and for which one of the rewards would be the kind of career and geographic stability that a new husband and father needed." Instead, he says, he found himself "part of a paramilitary cult where loyalty was a one-way street and where senior managers had to spend more time looking

over their shoulders at organizational psychodramas than looking outward to the mission of the agency." Several weeks before Henshaw told him he was being transferred from Denver to Washington, Henshaw specifically told Finkel and other OSHA employees that he did not want them "to put work ahead of family and faith." Yet OSHA's retaliation did exactly that. In transferring him, his bosses gave Finkel 60 days, at the beginning of a school year, to move his wife and family across the country.¹⁰

Lessons from the Finkel Case

To an outsider, Adam Finkel appears to have had the ideal situation from which to protect workers and promote public health. As an OSHA regional administrator, he had access to many relevant pollution-exposure records. He also had the opportunity, at least within the Rocky Mountain states, to promote deserving OSHA employees. He could reward them for their honesty, competence, and dedication to public service. Yet when Finkel sought to protect these very employees under him—safety inspectors—he ran into many of the problems already outlined in chapters 2 and 3.

Chapter 2 showed how special interests use strategies like revolving doors and regulatory capture to "orchestrate ignorance" about pollution. Finkel faced OSHA's attempts to "orchestrate ignorance" about inspectors' beryllium risks. He also faced revolving doors when President Bush appointed a 30-year Monsanto-Chemicals executive, John Henshaw, to lead OSHA. Typifying regulatory capture, Henshaw then suppressed information and used retaliation to promote whistle-swallowing. He limited full disclosure and rights to know.

As chapter 3 argued, regulatory capture is possible partly because special interests use devices like front groups and hire education to do private-interest science—not science at all. Finkel faced the blatantly flawed private-interest science of the U.S. OSC when it rejected his beryllium claims as "exaggerations." As chapter 3 showed, private-interest science is used not only to misrepresent regulatory-related science, but also to destroy the careers and misrepresent the work of scientists who warn of health threats. In Finkel's case, OSC attorneys claimed that the massive scientific literature, cited by Finkel to confirm beryllium risks, did not show that U.S. inspectors were at risk. Why not? They said the scientific analyses were about "different populations of workers than the one you are concerned about." They used what Finkel calls the "Thalidomide Argument." "Yes, European babies are being born without limbs, but how do we know Americans will react the same way?"¹¹

Chapter Overview

If Finkel is right, that his efforts succeeded in correcting only about 10 percent of OSHA's beryllium problem,¹² two obvious questions remain. Who will help correct the rest of the problem? Why should they do so? This chapter

begins to answer both questions. It builds on the earlier discussions of moral exemplars like Gwen Pearson, Kate Burns, Reason Warehouse, and Adam Finkel. Chapter 1 outlined the severity of pollution threats to health. Chapter 2 showed why factors like regulatory capture and media concentration keep most citizens from recognizing and giving legitimate consent to these threats. Chapter 3 described the characteristics of private-interest science, showing how it is used to deny health threats, delay regulation, and thwart rights to life and to equal protection. Building on these earlier arguments, this chapter first answers the *who* question. It does so by defending the responsibility argument. What is this argument? To the degree that citizens have participated in, or derived benefits from, social institutions that have helped cause life-threatening or rights-threatening environmental injustice, they have *prima facie* duties either to stop their participation in these institutions or to compensate for it by helping to reform them. (Environmental injustice occurs whenever children, poor people, minorities, blue collar workers, or other subgroups bear disproportionate burdens of life-threatening or seriously harmful pollution. *Prima facie* duties are those that one has in the absence of specific arguments to the contrary.) Next, this chapter offers a preliminary answer to the earlier *why* question. In the face of grave social wrongs to which citizens have partly contributed, like the Holocaust, justice requires citizens to act—to work to stop these wrongs.

Almost nothing can compare to the horrors of the Holocaust. Nevertheless, citizens facing public-health threats—caused by and covered up by polluters or by government—are in some ways like 1940s Red Cross workers. Inspecting the Nazis' concentration camp at Dachau during World War II, these workers faced orchestrated ignorance. The Nazis kept inspectors away from the incinerators. They showed them the barracks only of better treated political prisoners. They even hanged baskets of flowers from the wooden posts that were normally used as gallows.¹³ What are today's "flower baskets" in the fight against environmental injustice and health-related human-rights threats? They are the campaign contributions, PR, scientific front groups, and private-interest science all analyzed in chapters 2 and 3. Just as the Dachau flowers should have been obvious, for what they were, today's "flower baskets" should be equally obvious. So is the response demanded by justice. Citizens have duties to help stop threats to health and human rights, just as they had duties to help stop the Holocaust. Defending the responsibility argument, this chapter first outlines *why* such duties exist.

Justice, Not Charity

Why do all citizens have *prima facie* duties to stop life-threatening and rights-threatening pollution? The short answer, sketched in this chapter, is that because citizens have contributed to and benefited from these threats, they helped cause them. Consequently, they have an *ethical responsibility* to help stop them. Because they participate in nations and institutions that help cause

these threats, they also have a *democratic responsibility* to help stop them. There are longer answers to this question, of course—answers that do not appeal to human rights, as this chapter does. These additional answers rely on virtue ethics, consequentialist ethics, and other moral theories. (According to consequentialism, acts are right whenever they lead to a preponderance of good consequences. They are wrong otherwise.) Indeed, the factual data outlined in chapter 1 could provide a starting point for consequentialist arguments to prevent deadly pollution. These could build on the work of distinguished scholars like Princeton University philosopher Peter Singer and New York University philosopher Peter Unger, who already have given superb consequentialist arguments for ending world hunger.¹⁴ The strategy here, however, is slightly different. Using insights similar to those of Columbia University philosopher Thomas Pogge, this argument builds on the heavily and almost uniquely American emphasis on human rights, especially rights to life. In part, this argument provides the justification for many recommendations of the American Public Health Association (APHA), which says that human rights provide "the ethical framework for public health practice." Calling for a constitutional amendment that guarantees all Americans rights not to be harmed by pollutants, the APHA has provided a model for initiatives in 40 states to guarantee rights against environmental-health threats. Although this chapter does not provide the *legal* and political arguments required to implement such recommendations, it offers an initial *ethical* foundation for doing so. Chapter 6 suggests how this ethical argument might be put into practice. One way is by working with various non-governmental organizations, bottom-up, to reform laws, agencies, and institutions one by one. The other strategy is by working, top-down, to implement all the human-rights recommendations of the APHA.¹⁵

Using human-rights arguments, this chapter explains that charity ought not be the main response to the environmental-health problems outlined in chapters 1–3. Life-threatening and rights-threatening pollution, like the horrors of Dachau, demands justice. It demands stopping the deaths, not merely offering charity to victims. The reason? As already mentioned, justice requires virtually all citizens to help prevent pollution-related deaths and human-rights abuses because they *allow* them, *benefit from* them, and *participate* in institutions contributing to them. When people participate in institutions—like a government that suppresses health-related information or limits others' access to basic necessities, such as clean air and water—they are partly responsible for harm done by those institutions. The chapter shows that even if they intend no harm to anyone, citizens are partially causally responsible for pollution-caused injustice and human-rights violations.

Human Rights

As traditionally understood, human rights are a special class of moral protections with which compliance is mandatory, not discretionary. As philosopher

Ronald Dworkin puts it, human rights are "trumps." They are universal claims, in the sense that all humans have them simply by virtue of being human, independent of whether particular governments recognize or implement them. Protections against taking life or discrimination, human rights include protection of life and health, as in rights not to be tortured; protection of due process, as in rights to a fair trial; protection of political participation, as in rights to vote and to know; and protection of equal treatment, as in rights not to be discriminated against on grounds of race or gender. As such, human rights are negative protections. They represent minimal standards for *treatment of humans* that governments, societies, and individuals ought to respect. They also represent standards for social criticism and reform. Oppressed minorities can appeal to human rights, and civil disobedience is often justified as a way to stop threats to them. Because the concern here is narrow—public health, human rights, and environmental injustice—this book takes no stand on the question of who or what, beyond human beings, might be said to have rights. The author believes, however, that Peter Singer has the best treatment of this larger question.¹⁶

Although *legal* rights exist only because government has recognized them, as already noted, human rights exist prior to and independent of their legal recognition. If human rights did not exist independently, there would be no standard on the basis of which to criticize the atrocities of governments who do not recognize them. How, then, does one justify the existence of human rights? There are at least three main answers to this question.

(1) The first answer is negative. Some British utilitarian moral philosophers, like Jeremy Bentham, have doubted that human rights can be justified in any meaningful sense. For them, only legal rights exist. As a consequence, they have a difficult time justifying condemnations of human-rights abuses in nations that do not recognize these legal rights. (2) Illustrating the second sort of response to the justification question, some moral philosophers say that people have some special and equal capacity, like the ability to feel pain, that entitles them to rights. As a consequence, they say all beings (including other animals) that feel pain have rights to have their interests considered. According to moral philosophers in the tradition of Immanuel Kant, this rights-giving characteristic is the capacity to engage in rational choice. (3) Most moral philosophers, like Ronald Dworkin, however, accept a third answer to the question of justifying human rights. They say that, by definition, human rights belong at least to humans and that the characteristic by virtue of which humans have *prima facie* human rights, is procedural, not factual. They believe human rights are procedural in the sense that they depend on recognizing the fundamental moral requirement of consistent and equal processes. According to this moral requirement, humans have rights not because they are rational, or can exercise agency, but simply because they are human, and humans ought to be treated consistently or equally. Their claims for equal treatment are deserving of equal respect. As a result, they have equal human rights. Another way of formulating this procedural justification for human rights is to say that all humans (regardless of their

factual characteristics) are equal subjects of "moral value." Although they may differ in intelligence or physical strength, they are equally deserving of respect or consideration precisely because they are human. As a result, they have equal rights—that is, equal claims to have their basic interests or needs considered. Espousing this third or procedural position, most moral philosophers have two reasons for not basing human rights on some factual characteristic, like capacity for free choice. One reason is that many humans, like infants and comatose patients, seem to retain their rights but may not always possess this characteristic. Second, such a characteristic would not enable different people to resolve their conflicting rights claims in a reasonable way. Why not? No two people possess any factual characteristic in exactly the same way or can be treated in precisely the same way. Despite some shared factual characteristic, often there are legitimate moral grounds for discriminating against some people in some respect. That is, because different people merit/need/deserve different treatment, their rights may take precedence over the rights of others. Consequently many thinkers believe that such moral justifications (rather than merely justifications based on some shared factual characteristic) seem more reasonable ways to resolve rights conflicts. Besides, regardless of their factual differences, all people deserve just procedures and equal consideration of their interests—even if they do not always deserve the same treatment. But if they deserve this equal consideration, then they have equal human rights.¹⁷

The problem, of course, is how to ensure genuinely equal consideration of everyone, despite different people's conflicting rights claims. Most moral philosophers use one of at least three main strategies to handle rights conflicts and to try to ensure that everyone receives equal consideration. First, they build exceptions into human rights, so that virtually none is absolute. They might say, for instance, that if a patient tells his psychiatrist that he is going to shoot someone, the killer's rights to privacy end where another person's rights to bodily security begin. Second, sometimes ethicists distinguish different classes of rights, according to which some take precedence over others. Thus Dworkin distinguishes strong rights, like rights to life, from weak ones, like rights to property. Strong rights are strong precisely because they are essential to personhood and human autonomy. As a result, they ought never be overridden merely to serve community welfare. Weak rights are weak precisely because, while they benefit the holder, they are not essential to personhood or autonomy. As a consequence, weak rights may be overridden whenever community welfare requires it. Other ethicists provide ways of resolving rights conflicts by distinguishing the class of negative rights (not to be harmed, as through torture) from that of positive rights (to be benefited, as through health care). Consequently, they argue that negative rights take primacy over positive rights. Still other philosophers, like Henry Shue, argue that most rights have both positive and negative elements. As a result, they resolve conflicts by appealing to the primacy of different reasons for overriding some rights. Third, moral philosophers often avoid rights conflicts by distinguishing *prima facie* from *ultima facie* rights. *Prima facie* rights are

those that all humans possess, in the absence of any specific arguments to the contrary. They essentially guarantee that anyone who challenges some rights claim bears the burden of proof. *Ultima facie* rights are those that rights-holders possess in the actual situation, once all relevant factual and moral details are considered. Because basic moral arguments must be applicable to a wide variety of situations, by definition they do not take into account case-specific or conflict-specific factual and moral considerations. As a result, virtually all human-rights arguments are for particular *prima facie* human rights. The rights specified in the 1948 United Nations Universal Declaration of Human Rights, for instance, are *prima facie* rights—as are the various rights to know, to consent, and so on that are specified in all codes of medical ethics.¹⁸

As thus understood, human rights do not protect against all abuses. Nor do they protect any beings other than humans, as already mentioned. Rather, they protect against threats to human welfare and agency that arise when social systems or individuals show “official disrespect” for members’ basic needs and interests. Thus governments, educational institutions, labor unions, churches, or corporations might fail to respect human rights. Individuals alone rarely fail to do so, because their power to threaten rights typically comes from some institution, not from themselves alone. Governments often are the primary guardians of human rights, simply because they police other institutions. Ultimately, however, the people themselves are the final guardians of human rights. Why? At least in democratic societies, by definition, the people should control and reform the governments and social institutions on which they depend. People who assert their human rights to life thereby require all social systems to be organized so that all their members have equal and secure access to life and to what is necessary to protect it. Although people possess human rights, independent of such social systems, fulfilling those rights always takes place within the social institutions of which people are members. How are human rights fulfilled? By the many people who have causal influence over their recognition. “All humans in a position to [causally] effect” those rights must recognize them. What is recognized and fulfilled? People’s basic needs and interests. Following the strong/weak characterization given earlier, the most basic or strong human right is the right to life or bodily security. Close behind in importance are strong human rights to know and to consent to whatever could threaten life. These two human rights are the most basic, after rights to life, because they protect human agency, the main way people protect their lives. As thus sketched, human rights are recognized by most countries, many international treaties, and the United Nations. The Nuremberg war trials after World War II confirmed them. Consequently, human rights are largely noncontroversial, except among a few philosophical specialists. People might debate whether some particular threats are genuinely human-rights threats. Nevertheless, this book presupposes that human rights, as such, are not controversial. Nor is it controversial that, at the peak of their powers, the Nazis disregarded human rights.¹⁹

The Responsibility Argument

The basic human-rights argument here, against life-threatening environmental injustice, is not directed at condemning every assault suffered by every person. Rather, the argument is that some “official” assaults seriously threaten people’s personal security because their harm exceeds certain thresholds. Pollution that never causes anything worse than a simple cough, for instance, obviously does not exceed this threshold for a human-rights violation. What does exceed it? Many of the harms surveyed in chapter 1 do so—like those causing statistically significant increases in deaths or serious injuries—especially harms that are inequitably distributed. Obviously, however, the thresholds for human-rights violations are different depending on the different rights, people, situations, and circumstances involved. Human-rights threats of greater severity, probability, and immediacy have more stringent, more protective thresholds than threats whose severity, probability, and immediacy are lower. Likewise, the threshold for protecting children’s rights to life is far more stringent than that for protecting rights of others. Children deserve more protection because they are less able to protect themselves. Using such agreed-on moral principles (which are far too numerous to be listed here) as well as the techniques of deliberative democracy, people must carefully evaluate the case-specific threshold for human-rights violations.²⁰

According to chapters 1–3 and the preceding overview of human rights, one class of human-rights violations occurs when people participate in, or benefit from, social institutions that promote or allow life-threatening environmental injustice. As a consequence, these people bear partial responsibility for environmental injustice and thus should work to stop it. This argument can be formulated in five main premises, as follows.

1. If some institutional order, like government, displays radical inequality in the degree to which citizens’ human rights are fulfilled, this order is *prima facie* unjust, and consequently the burden of proof is on its defenders.
2. If citizens (to varying degrees) regulate this *prima facie* unjust institutional order, elect its leaders, and cooperate socioeconomically in it, citizens are partly responsible for this *prima facie* injustice.
3. If premises 1 and 2 are true, citizens must either defend this *prima facie* unjust order, withdraw from it, or compensate for the benefits they gain from participation in it.
4. If withdrawal from this unjust order is unrealistic, citizens must either defend it or compensate for their benefits gained from it. To defend this order, at least one of the following three “excusing” claims must be true.
 - 4.1. The radically unequal human-rights condition came about through no injustice, but solely through some natural occurrence, for example, some genetic inheritance.

- 4.2. Victims of this radical inequality (e.g., environmental injustice) receive adequate compensation for threats to their human rights to life, to know, and to consent.
- 4.3. Alternatives to these radically unequal human-rights conditions would either fail to improve the situation or cannot be achieved, that is, are unworkable.
5. If premises 3 and 4 are true, and claims 4.1-4.3 are false, the *prima facie* unjust order cannot be defended. To compensate for their benefits from it, citizens should work to stop injustice in this order.²¹

How might one argue for each of the preceding premises and apply them to cases of environmental injustice? Building on earlier chapters, subsequent sections defend and apply each of these premises.

Premise 1: Pollution Threats to Human Rights

According to premise 1, institutional orders that display radical inequality in the fulfillment of human rights are *prima facie* unjust, and this *prima facie* injustice places the burden of proof on the order's defenders. Why do some instances of pollution cause environmental injustice and therefore radical inequality in the fulfillment of human rights? Two main factors do so: the *severity* of pollution-caused harms (their high probability of leading to serious disease or death), and the *inequality* with which they are imposed. With respect to the severity, any institutional assault having a high probability of causing death or serious disease obviously is a threat to rights to life. But what is a high probability? If something causes an annual probability of death higher than one in a million, the U.S. government considers this an unacceptably high probability and initiates regulation. In the case of pollution, recall from chapter 1 that industrial and agricultural toxins cause some annual threats whose probability of fatality is far higher than one in a million. For instance, cancer is the leading premature killer of Americans, and the National Cancer Institute (NCI) says at least 10 percent of all annual cancer deaths (60,000 out of 600,000) are caused by industrial and agricultural toxins. Some biologists even claim that environmental toxins are responsible for about 40 percent of all premature disease and death. The APHA says industrial and agricultural toxins threaten the health of millions of Americans, and that occupational exposures, alone, kill at least 100,000 workers annually.²² Other data from chapter 1 also suggest that many pollutant releases meet the "severity standard" for a human-rights violation. That is, they have a high probability of causing serious threats to life. For example:

- A 2002 *New England Journal of Medicine* study of 90,000 people concluded that "the overwhelming contribution to the causation of cancer... was the environment," part of which includes pollution, and not genetics or infection.

- The Office of Technology Assessment says that up to 90 percent of all cancer is "environmentally induced and theoretically preventable."
- Current cancer incidence is increasing roughly five times faster than cancer mortality is decreasing. The average cancer victim dies 15 years prematurely.
- The 2003 NCI study of 500,000 Americans in cities throughout the United States showed that there is no safe level of air pollution. It annually causes between 50,000 and 100,000 U.S. deaths.
- The U.S. Environmental Protection Agency (EPA) says that 1 in 12 (and perhaps 1 in 5) U.S. women of childbearing age has blood levels of mercury (mainly from coal-fired plants) that can cause neurological and developmental impairment in their children.
- A 1996 U.S. National Academy of Sciences (NAS) study showed that 1 million Americans will die prematurely over the next 75 years from allowable pesticides on foods. Yet U.S. pesticide use has increased by 50 percent over the last three decades.
- The EPA says that 45 million U.S. citizens now drink water that does not meet the government's own safe-drinking-water standards.
- Just from arsenic alone, 35 million Americans drink water that (the state of California says) will cause 1 in every 100 of them to have bladder cancer.

The preceding statistics from chapter 1, all from reputable sources, are alone sufficient to show that at least some avoidable U.S. pollution threats are so severe that they constitute *prima facie* threats to citizens' rights to life. Recall that chapter 1 avoided taking a position on the precise percentage of U.S. cancer deaths (600,000 annually) that could be partly attributed to environmental toxins like industrial chemicals. For the argument here to succeed, likewise, it is not necessary to defend a precise threshold for severity—a specific probability of death at which any pollutant threatens rights to life. Why not? Given so many instances of pollutant-induced deaths, like those noted above, at least some serious harms obviously threaten rights to life because their probabilities are so high. Even if one of the lowest estimates for preventable, pollutant-induced cancer deaths is correct—60,000 annually, claimed by the NCI, U.S. Centers for Disease Control (CDC), and U.S. National Institutes of Health (NIH)—this obviously is a severe U.S. public-health and human-rights problem. Not only have victims' rights to life been jeopardized, but they probably never fulfilled their rights to know, to give or withhold consent to, or to receive due process regarding the bodily risks imposed on them.

The simple point here, about determining precise thresholds for all pollution-induced human-rights threats, is often used in other ethics cases. Confronted with examples of severe racism, like Ku Klux Klan lynching, one need not be able to specify all the border cases, or all the necessary and sufficient conditions for racism, in order to know that a particular case of

lynching was racist. Some harms are such severe instances of obvious, *prima facie* racism that they are noncontroversial. So also for many pollutant-induced human-rights threats. Confronted with damning health statistics like those given earlier, one need not specify a precise threshold, for *all cases* of pollution that threaten life and rights. For now, it is enough to know that obviously there are *many cases*.

Pollutants threaten human rights to life and bodily security, however, not only because of the *severity* of their assaults, but also because of the radical *inequities* they impose on citizens. Recall some of the evidence of pollution-induced inequalities from chapter 1.

- U.S. children's cancers are increasing at a rate of 1.4 percent annually, while adult cancers are increasing at an annual rate of about 1 percent.
- The World Health Organization says that up to half of all childhood cancers are probably associated with air pollution alone.
- Cancer causes more deaths (about 6,000 annually) of U.S. children ages 1–15 than any other disease.
- Among pesticides listed as reproductive toxins by the state of California, two-thirds are still in use.

The CDC say 900,000 U.S. children have blood-lead levels, much of it from industrial pollutants like waste incinerators, levels that are able to cause irreversible neurological-developmental damage.

- Half of the U.S. pediatric asthma population lives in areas that violate EPA's ozone standards, and asthma has increased by 40 percent in the last decade.
- Particulate air pollution, alone, causes 6.4 percent of all annual U.S. deaths of infants ages 0–4.
- Forty-one nations have better infant-mortality rates than the United States.
- In the United States, black children ages 5–14 are four times more likely to die of asthma than white children.
- Only 5 percent of whites, but 10 percent of blacks, live in areas that violate all five EPA air-quality standards.
- Statistics of the CDC show that 8 percent of poverty-level children, but only 1 percent of above-poverty-level children, are lead poisoned.
- Statistics of the CDC show that 11 percent of black children, but only 2 percent of white children, are lead poisoned.
- Cancer incidence among black males is 50 percent higher than among white males. Cancer incidence for black females is 30 percent higher than for white females.

- The percentage of U.S. minorities, living in counties with commercial hazardous-waste facilities, is three times higher than the percentage living in counties without them.

The preceding statistics suggest that, largely because of morally irrelevant factors (like age, race, or income level), some people's interests may receive far less consideration than others. Yet the standard account of human rights (surveyed earlier) requires equal consideration of people's interests—procedural equality. Age, race, or income level, alone, obviously are not morally defensible grounds for treating people unequally with respect to their needs for clean air or clean water. Therefore, such seriously unequal treatment constitutes *prima facie* injustice, *prima facie* threats to human rights to life.

Just as with the *severity* of some pollution threats, the *inequality* displayed in the preceding instances of *prima facie* environmental injustice is extreme. As a result, these inequalities are evidence of *prima facie* violations of human rights. Recognizing these violations, however, requires determining no *a priori* threshold for inequality. Why not? At least some of the preceding inequalities are so serious and so obvious—for example, five times more black than white children who are lead poisoned—that they clearly violate human rights. Likewise, as already argued in chapter 1, if 2,600 U.S. children annually die from murder, and another 1,400 die from child abuse, people should be even more alarmed that 6,000 children annually die of cancer, most of which is preventable and environmentally induced. After such severe and inequitable harms are addressed, there will be time to debate secondary issues, like the precise thresholds for calling any harm a “human-rights violation.” For now, enough evidence exists to show that, *prima facie*, at least some pollution is severe enough and unequal enough to threaten human rights to life.²³

Premise 2: Citizen Responsibility for Pollution and Environmental Injustice

Despite the evidence of chapters 2–3, polluters alone are not responsible for pollution-related threats to life and human rights. In a complex and interdependent society, this responsibility for human-rights problems like environmental injustice is shared, but is different for different people in different situations. Polluters typically are most responsible because they directly cause many citizens' unequal access to clean air, clean water, and protection of life. Insofar as special interests fail to follow the law, ignore obvious risks, or suppress health-related information, for instance, they contribute to citizens' failures to fulfill their equal human rights to life, to know, and to give or withhold consent to pollution-related risks. To the degree that government officials do not stop these threats, they are next most responsible. Yet to the degree that citizens in a democracy are able to influence government, they too are responsible for these threats. As philosopher Thomas Pogge puts it, discussing global hunger, many harms are caused by “economic arrangements

designed and imposed by our governments." Because "these governments are elected by us, responsible to our interests and preferences, [and] acting in our name in ways that benefit us," the "buck stops with us." Citizens thus bear partial *ethical responsibility* for pollution-induced health and human-rights threats because of *what disproportionate benefits* they derive from such pollution arrangements. They also bear *democratic responsibility* for them because of *who they elect* and *how they participate* in democratic self-government. If citizens did not bear democratic responsibility, it would make no sense to hold those in a democratic society more responsible than those in a totalitarian society. Because people do hold citizens in a democracy more responsible, citizens obviously have at least some accountability for injustices perpetrated by their governments and institutions.²⁴

How do citizen failures in democratic responsibility for pollution occur? Consider three ways—use of automobiles, pesticides, and waste incineration—in which virtually all citizens gain economically or medically as a result of their imposing higher pollution burdens on the most vulnerable members of society, like children.

Statistics from chapter 1 and from this chapter's discussion (of premise 1 of the responsibility argument) showed that children are particularly at disproportionate risk from ozone and from airborne particulates. Who and what cause the ozone and particulates that are implicated in so much disproportionate harm to children? The U.S. Environmental Protection Agency says motor vehicles cause at least half of ozone pollution, mainly because automobiles release most of the nitrogen oxides and reactive hydrocarbons that combine to produce ozone.²⁵ Even in California, with the strictest U.S. automobile-pollution standards, per mile each vehicle emits, on average, 2.1 grams of nitrogen oxides and 1.6 grams of hydrocarbons, for an annual California total of 1.2 million tons of nitrogen oxides and hydrocarbons.²⁶ Similarly, in Europe roughly half of all nitrogen oxides,²⁷ and half of urban airborne particulates, are released by motor vehicles.²⁸ This suggests that, to varying degrees, virtually everyone who drives an automobile is partly ethically responsible for the deaths resulting from ozone and particulates. People are more responsible by failing to purchase the most efficient, lowest-polluting, or zero-emission cars. They also are more responsible by failing to drive less, to carpool, to walk or ride a bike when possible, to shop by phone or mail, to ride public transit, to telecommute, to accelerate gradually, to use cruise control, to obey the speed limit, to combine errands into one trip, to keep cars tuned, to replace air filters frequently, to keep tires properly inflated, and so on.²⁹ By not driving lower-emissions cars (which the California Air Resources Board says would add about \$1,000 in per-car costs, once all proposed California regulations were phased in), drivers save this \$1,000;³⁰ impose much of their car's higher air-pollution risks on others, especially children; and thus fail to bear the full costs of their driving an automobile. As a consequence, they are responsible for some auto-related environmental injustice. As the chapter later mentions, they also are responsible for environmental injustice to indigenous people whose rights are violated because of questionable oil-extraction practices. Failure to control both auto emissions

and locally harmful oil-extraction practices save money for oil and auto companies and therefore for their customers. Yet if consumers gain financially from oil-related environmental injustice, they arguably have some duties to help end the harm, to compensate those harmed, to pay the full costs of their own petroleum and auto use—and not to impose these costs on unwilling others.

Similar environmental injustices occur because of pesticide use, injustices whose death tolls were outlined in chapter 1 and in the earlier discussion of premise 1 of the responsibility argument. As these data showed, a disproportionate number of pesticide-related fatalities and serious neurological and developmental injuries occurs among children. Although chapter 1 gave data showing that pesticide use could be cut by half, without serious economic consequences, instead U.S. pesticide use has increased by more than 50 percent in the last three decades. In the United States, it now amounts annually to 8 pounds per person.³¹ Consumers are clearly responsible for this pesticide-induced environmental injustice because pesticides save them money. Organic food averages about 50 percent more than inorganic. Yet these consumer cost-savings for pesticide-laden food come at the expense of children's (and farm workers') lives and health. Those who buy pesticide-laden food do not bear the full financial or health costs of the chemicals. Fairness suggests that consumers need to pay the full costs of foods they eat, not impose them on others, especially children.³²

Similar environmental injustice likewise occurs because of the ways that developed-nation citizens save on their health and economic costs by imposing waste-incineration risks on others, especially on the children of the poor. A 2005 WHO study showed that current levels of air pollution, including that from waste incinerators, are implicated in much childhood disease and death; at least in the United States, waste incinerators, metal-processing facilities and other industries annually release over one million tons of lead, other heavy metals, and dioxins that are known to cause immune dysfunction, cancer, hormonal changes, and developmental abnormalities.³³ Annual U.S. waste-incinerator ash annually totals 17 million tons, of which 51,000 tons are lead.³⁴ In part because children absorb much more of this lead than do adults, chapter 1 showed that the U.S. Centers for Disease Control confirm that sources like incinerators and lead paint have caused 900,000 U.S. children under age five—4.4 percent of all U.S. children—to have blood-lead levels able to cause irreversible cognitive, behavioral, internal-organ, blood-forming, and developmental damage, as well as reduced IQ, delinquency, and criminality. Moreover, as chapter 1 emphasized, the children who are hurt by airborne lead from waste incinerators tend to be the children of poor people and minorities, because more incinerators are sited in their neighborhoods. In poorer areas like south-side Chicago, waste from states far away is trucked in, to be burned. Because most upper-middle-class and wealthy people do not bear the waste-incinerator risks from their own garbage, but impose them on others, especially children, they fail to pay the full health costs of their own waste-generation. Consequently, they are partly ethically responsible for the health harms imposed on the children of the poor.

Whenever certain neighborhoods in northwest Indiana, New Jersey, Houston, or elsewhere receive disproportionately higher pollution, it is likely because other people receive undeserved economic benefits or less pollution. They do not bear the full costs of their own products or activities, and their money allows them to impose these costs on others. Consider the many metal-fabrication plants in the "Cancer Alley" of northwest Indiana, discussed in chapter 1. They produce goods whose consumer prices likely would be higher if the manufacturers controlled more pollution. Thus the consumers of these goods receive unearned economic benefits—borne on the backs of residents of northwest Indiana. Largely minority, south-side Chicago has filthy air partly because it has a disproportionate number of waste incinerators. To the degree that wealthy garbage-creators do not bear the full risks and costs of their own waste, they receive unearned and disproportionate economic benefits from what they impose on the poor. Although the wealthy may neither know nor intend this transfer of burdens, they have duties to inform themselves and are at least partly causally responsible for it.³⁵

Often people become causally and ethically responsible for health and human-rights threats because of where they shop and what they buy. Many people shop at Wal-Mart because it has lower prices. But critics charge that Wal-Mart has lower prices because it often pays and treats its own U.S. workers unfairly and because it purchases most of its goods from Chinese companies that use child laborers, slave laborers, or unfairly compensated workers, many of whom labor in environmental conditions harmful to their lives and health. If citizens either fail to try to inform themselves of these possible misdeeds or know about them but continue shopping at Wal-Mart, but without doing anything to help reform it, they are *prima facie* partly responsible for any harm done by Wal-Mart. Why? People have obvious negative duties not to uphold injustice. They have duties not to contribute to, profit from, or participate in, the unjust treatment of others. This is not to say, of course, that harm-causing institutions like Wal-Mart do no good. Virtually all organizations that contribute to life-threatening and rights-threatening environmental injustice also do great good. They may provide jobs to workers and cheaper goods to consumers. Yet such benefits do not completely excuse unjust behavior. A person would not be excused for committing murder merely because she also did much good in her life. Likewise, an institution is not fully exonerated from life-threatening environmental injustice, merely because it also generates significant benefits.³⁶

Sweatshops are another example of why citizens have partial ethical responsibility for environmental injustice. Recall the chapter 1 examples of Central-American sweatshops. In developing nations, sweatshops sometimes may provide the best work available. In the United States, however, such excuses do not work because sweatshops are illegal. In the United States sweatshops are defined as providing wages violating the federal minimum and working conditions violating the U.S. Fair Labor Standards Act. United States sweatshops typically rely on child, slave, or immigrant labor, and nonenforcement of labor laws. Numerous studies have shown that, beginning in the

early 1980s, sweatshops returned to the United States. Because some U.S. sweatshop laws are not enforced, female immigrants often work on apparel behind barbed wire, inside locked rooms, without legally required health and safety protections. They often work for \$1.60 an hour, for as long as 17 hours each day. Concentrated in New York, California, and Texas, these sweatshops produce merchandise destined for stores like Macy's, Filene's, and J. C. Penney's. The U.S. Labor Department estimates that more than half the garment shops in these U.S. areas violate U.S. laws. Other social scientists say 75 percent of U.S. apparel workers labor in sweatshop conditions—conditions of environmental injustice. Yet partly because they fail to protect workers' health and human rights, environmentally unsafe sweatshops provide much cheaper textiles to U.S. consumers. Currently, the average U.S. household spends about 4 percent of its annual income on clothing, of which roughly half is thought to be produced under sweatshop conditions. Partly as a consequence of such sweatshop purchases, the percentage of U.S. household income, now spent on clothing, is less than half of what it was 50 years ago. Sweatshop-produced apparel is now estimated to cost U.S. consumers only about 58 percent of non-sweatshop-produced clothing. These figures suggest that, without the environmental injustice of sweatshops, the average U.S. household might have to spend about 5.5 (as opposed to 4) percent of its annual income to purchase the same clothing.³⁷ The average U.S. household thus saves about \$650—1.5 percent of its annual income of \$43,300—because of its (perhaps unintentional) participation in the oppression of apparel workers and its not paying the full costs of its clothing.

In comparing what U.S. consumers save because of sweatshops, note that the average U.S. household gives about \$0.30 per day in government foreign aid, plus another \$0.12 per day in private donations to the global poor. This means the annual foreign-aid total (government and private) contribution of the average U.S. household is about \$153. Per person, this is about half of what the French and the English give, and about one-eighth of what the Norwegians give.³⁸ These figures suggest that the average U.S. household annually saves more than four times more money, just by buying sweatshop-produced apparel, than it spends on all its foreign-aid contributions, which are less than those in some other nations.

Because of environmental injustice, U.S. consumers also may fail to pay the true costs not only of sweatshop-produced clothing but of other goods, like automobiles, pesticides, and incinerator wastes, all discussed earlier. Consider the environmental injustice to indigenous people that is often associated with the extraction and use of oil.

Shell, for instance, has taken roughly a million barrels of oil, every day, from Nigeria during the last 60 years. At 2006 prices, this means that for 60 years, Shell has extracted Nigerian oil now worth up to about \$22 billion annually. During this time, it has paid only about \$9,600 annually (\$575,000 total) in compensation for oil-spill damages, despite the fact that 30,000 Ogoni tribespeople in Nigeria have been made homeless, and 2,000 Ogoni have been killed because of Shell operations. Shell has failed to clean up oil

spills, destroyed farmland, and flared virtually all of its natural gas. The flaring has released many developmental and neurological toxins and carcinogens—such as unburned polycyclic aromatic hydrocarbons, particulate matter, aldehydes, ketones, and volatile organic compounds like benzene, toluene, and xylene. When local people, like the Ogoni, nonviolently protest oil-company destruction of their homelands, Shell and other companies sometimes put pressure on the military to kill or injure the protestors. Although they typically give oil-related royalties to military dictatorships abroad, the companies often destroy the land of local agricultural people, who receive no compensation for their losses. The nonviolent indigenous group, Nigeria's Movement for the Survival of the Ogoni People says Shell owes it \$6 billion in royalties and \$4 billion for environmental devastation of its homelands. Is its demand reasonable? For comparison, recall that U.S. regulatory analysis presupposes that an environmentally induced death is worth at least \$5 million. If this U.S. standard were applied to the Ogoni demand, and if one ignored the 30,000 Ogoni made homeless by Shell, just the 2,000 Ogoni deaths could arguably deserve compensation of at least \$10 billion (2,000 x \$5 million). This \$10 billion is double what the Ogoni seek for loss of their lands and people, and it is only a fraction of the annual value of the Ogoni oil that has been extracted for 60 years. Should Shell pay the Ogoni? According to the U.S. Department of Energy, in June 2000 a Nigerian court found Shell guilty of a large leak that contaminated Ogoni land in the 1970s. The court ordered Shell to pay \$40 million in clean-up costs and damages. Instead Shell has filed appeals contesting the Nigerian court ruling and has claimed that the facts are not clear in the Ogoni case. Is such behavior justified? In 1995, most nations agreed that Shell encouraged the Nigerian government to hang 8 nonviolent Ogoni activists. As a result, virtually all developed nations protested Shell's behavior and withdrew their diplomats from Nigeria. Shell had to hire seven U.S. PR firms to try to clean up its image. A huge global coalition of nations, companies, and organizations has boycotted not only Shell but also ChevronTexaco and ExxonMobil.³⁹

ExxonMobil and ChevronTexaco, the top two U.S. oil companies, extract about half of Nigerian oil, and Shell extracts the other half. ExxonMobil and ChevronTexaco are expected to double their extractions by 2010, and they appear to behave in ways similar to Shell. ChevronTexaco, for instance, has leased helicopters to the African military for the purpose of attacking demonstrators whose lands and homes are being destroyed. ChevronTexaco has provided dollars and infrastructure to the Nigerian military that kills non-violent environmental activists.⁴⁰

Apart from their benefits to consumers and to the economy, oil and gas explorations in the Amazon, Africa, Asia, and the Arctic also have devastated scores of indigenous people around the globe. They have caused native peoples to lose their lives and health, their territories, their economic stability, and their collective identities. In this century alone, one-third of all indigenous cultures existing in Brazil have gone extinct—roughly one per year. This is what occurred, for instance, with the Teteres of Ecuador who disappeared after Texaco

began oil extraction on their lands in the 1970s. In such situations, indigenous people are able to exercise no rights of self-determination and consent. Often oil and gas companies will offer them medical and educational services, but only in exchange for giving up all their rights regarding petroleum extraction. As a result of oil projects like those in Nigeria, indigenous populations all over the globe have experienced air, water, and soil contamination—and thus increased respiratory diseases, reproductive and neurological disorders, and cancer. Water samples in oil-extraction regions of countries like Nigeria and Ecuador reveal levels of toxic contamination many times what is allowed in Western nations. Projects like the 620-mile Chad-Cameroon pipeline, built by ExxonMobil, ChevronTexaco, and Petronas, appear typical. It has displaced people against their wills, polluted their homelands, strengthened the Chad dictator, funded his new arms purchases, and begun the pattern of death, displacement, extinction, disease, and prostitution that marks oil development. The Gwich'in of Alaska, the Achuar and Naha of Peru, the U'wa of Colombia, the Kham-Mansy of Siberia, the Nukak and Mascho-Pro of the Amazon basin, and the Baka and Efe of the Congo basin all seek to end oil and gas projects imposed on them. Military dictatorships, relying on foreign dollars, often allow oil extractions to be done in ways that violate local people's rights to life, to consent, and to due process—as has occurred in places like Nigeria, Thailand, Ecuador, Colombia, and Myanmar. Trying to prevent such human-rights violations, the state of Massachusetts ruled that it would not provide government contracts to companies doing business with the military dictatorship in Myanmar. In response, oil companies like ChevronTexaco and the National Free Trade Council sued Massachusetts. In 1999, the U.S. Supreme Court ruled against the Massachusetts law, which was modeled on successful U.S. anti-apartheid laws of the 1990s. The ChevronTexaco behavior in Massachusetts suggests not only that oil companies sometimes participate in Third-World human-rights violations but also that they actively oppose those who seek to stop these violations. Interestingly, as CEO of Halliburton, U.S. vice-president Dick Cheney signed an *amicus* brief against the Massachusetts law about Myanmar.⁴¹

If the oil-company behavior outlined in the preceding paragraphs is typical, the 1997 Kyoto Olivatch Declaration may be correct. It argues that "climate change is only one part of the ecological debt accumulated by the industrialized countries through their exploitation of resources in the South." It claims that "transnational corporations and state-owned energy companies have primary responsibility for the exploitation of fossil fuel reserves" and for "the destruction of . . . biological and cultural diversity." According to the declaration, instead of promoting economic prosperity through ethically defensible oil extraction, companies often have done what saves them the most money. "Corruption, cultural destruction, involuntary resettlement, and violence are too often the outcomes of fossil-fuel development." Why? "Taxpayer funds from Northern countries that are intended for poverty alleviation and sustainable development, which must be paid back by Southern taxpayers, are instead being used by multilateral and bilateral aid agencies for

corporate welfare in the form of investments in fossil-fuel projects, which benefit mainly multinational corporations and local elites in the borrowing countries" because of the unethical ways these projects are designed and implemented. "Fossil fuels comprise the bulk of that energy lending."⁴²

Are U.S. citizens partly responsible for the environmental injustice often accompanying flawed ways of engaging in fossil-fuel development? After all, U.S. citizens comprise 4 percent of the global population but use 25 percent of global oil, more than half of which is imported.

One reason U.S. consumers are partly responsible for oil-related environmental injustice is that they use the oil that often has been obtained in questionable ways. That is, consumers participate in oil-related economic and trade relationships that are sometimes unethical. A second reason for their partial responsibility is that U.S. consumers elect the leaders who have subsidized the oil industry and, as a result, have subsidized or allowed environmental injustice like that in Nigeria. Annually the U.S. government alone provides about \$35.2 billion in subsidies to U.S. oil companies—or about \$350 per U.S. household; independent economists claim that the U.S. oil subsidy is actually roughly \$55 billion per year.⁴³ Of course, oil subsidies may not be cost effective, especially from an environmental perspective. Nevertheless, because subsidies and resulting environmental injustice may help current U.S. consumers pay less than the full price for gas, this is a third reason that they are partly responsible for the environmental injustice. All things being equal, consumers gain disproportionate and unethical economic advantages whenever oil companies treat indigenous people unjustly and destroy their lands. Oil companies' failure to pay the full costs of their oil extraction results in cheaper gas expenses for U.S. households.⁴⁴ Such costs include human-rights abuses, land and water degradation, the disappearance of native peoples and habitats, global warming, and so on. Because U.S. oil consumers receive the economic benefits of the failure to pay these full costs, they also are partly responsible for oil-related injustice. As citizens, they may not have worked to promote market fairness, to prevent subsidies that appear to allow environmental injustice, or to produce a system in which consumers bear the full costs of the products they use.

If the clothing, automobile, pesticides, waste-incinerator, and oil-industry examples are typical, they suggest that just in economic terms, U.S. consumers gain far more, from *prima facie* injustice abroad, than they offer in aid to the foreign poor. They also suggest that the average U.S. household may gain in many ways because it fails to pay the full, human-rights, environmental-injustice price of the goods it uses. Almost all Americans are thus partly complicit in human-rights abuses, even if they do not intend them, and even though there is no simple algorithm for determining each person's precise level of responsibility. Therefore, as the second premise of the responsibility argument maintains, they bear *ethical responsibility* for these abuses. This responsibility differs, depending on factors such as the level of harm caused, the benefits gained, whether beneficiaries intend the harm, whether they bear culpable ignorance for it, whether they try to prevent it, and so on. Each

person's level of ethical responsibility needs to be assessed, case by case, situation by situation. Regardless of these individual differences, however, because sweatshop-analogue arguments hold for many environmental and institutional harms, consumers bear partial responsibility for them. Many harms arise from market failures to take account of externalities like dirty air. Others arise from various trade agreements, like those discussed in chapter 1. For example, some economists say that in 2004, the United States "collected \$1.8 billion from tariffs—taxes—imposed on imported clothing and other goods from India, Indonesia, Sri Lanka, and Thailand, five times what it promised those tsunami-hit countries in emergency aid."⁴⁵ In various ways, wealthy members of developed nations participate in economic networks that save them money, often at the expense of the health and human rights of the poor. If so, they are complicit in this harm and bear partial ethical responsibility for it, as noted in premise 2. To varying degrees, they may contribute to what harms "innocent people for minor gains."⁴⁶

How do pollution-related failures in *democratic* responsibility occur? Instead of electing leaders who substantially reduce life-threatening pollution and then distribute it equally, many citizens elect those who do the opposite. In other ways citizens also fail to do the work of democracy, such as lobbying leaders to enforce pollution laws, or helping educate fellow citizens about pollution. The APHA suggests that one prominent way in which citizens fail in democratic responsibility is by electing leaders who spend the U.S. budget inappropriately. The APHA condemns budget cuts for things like health and pollution enforcement, while leaders increase spending on militarism. In its resolution 8531, for instance, the APHA said the "escalating military budget" harms "preventive public health" and has "serious actual and potential negative effects on the health of people in the United States."⁴⁷

It is not easy to distinguish different levels of democratic responsibility for the harms done by the government institutions of which people are a part. There is no simple algorithm, and instead responsibility must be determined, case by case, by means of a variety of ethical considerations. For instance, citizens have more democratic responsibility, all things being equal, to the degree that nation-caused harms are serious, citizens have personally benefited from them, and citizens have the ability to change things. To help distinguish different levels of democratic responsibility, consider the following six situations of responsibility, greatest to least. There is no space here to discuss levels of responsibility in detail. Nevertheless, all things being equal, polluters, government leaders, or other citizens bear less democratic responsibility (for life-threatening or rights-threatening environmental injustice) as one moves down the list. Citizens' democratic responsibility also varies, from most to least, insofar as they elect leaders (or do nothing to stop leaders) who err in the following ways.

1. *Legally requiring harm to others.* For instance, citizens do nothing when officials legally require polluters (who do not reduce pollution) either to buy pollution credits that create life-threatening "hot spots"

- or not to release information about life-threatening pollution—to which citizens have rights to know.
- 2. *Legally allowing harm to others.* For instance, citizens do nothing when leaders permit polluters either to buy pollution credits or not to release information about life-threatening pollution.
- 3. *Foreseeing but indirectly failing to prohibit or prevent harm to others when it could be prevented.* For instance, citizens do nothing when leaders fail to prevent polluters from withholding information about life-threatening pollution.
- 4. *Failing to enforce prohibitions against harms to others.* For instance, citizens do nothing when officials fail to enforce polluters' reporting their emissions through the Toxics Release Inventory to which citizens have rights to know.
- 5. *Failing to alleviate naturally induced harms.* For instance, citizens do nothing when leaders fail to alleviate pollution harms to those who were born genetically more susceptible to such harms.
- 6. *Failing to alleviate victim-induced harms.* For instance, citizens do nothing when leaders fail to alleviate additional harms to smokers that occur primarily because they smoke in an area of already high pollution.⁴⁸

Besides these six illustrations, many other sets of circumstances affect levels of democratic responsibility. For instance, consider citizens who work in a nongovernmental organization (NGO) that tries to protect against environmental injustice. Obviously, they are less responsible for environmental injustice than those who never do such work.

Without going through all the factors affecting citizen's democratic and ethical responsibility for environmental injustice and human-rights violations—a discussion too lengthy to be presented here—the preceding discussion is sufficient to show three important points. First, a variety of factors makes people more or less responsible for harms like environmental injustice. Second, each case must be analyzed individually to determine someone's precise level of responsibility. Third, most people probably bear far more responsibility for environmental injustice than they realize.

Premise 3: Duties Based on Responsibility for Harm

Earlier sections and chapters defended premises 1 and 2 of the responsibility argument. They show that citizens (premise 3) must either defend the *prima facie* unjust institutional order from which they unfairly benefit, or stop participating in it, or compensate for this injustice by working for reform.

Why do citizens face this either-or situation? If some *prima facie* unjust institutional order exists (premise 1), citizens are responsible for this injustice

if they either unfairly profit from it, bear culpable ignorance about it, or elect those who cause the injustice (premise 2). As a result, premise 3 requires them either to forgo their institutional membership (often not a realistic option); to compensate for their unethically obtained benefits; or to show that the alleged injustice is, *ultima facie*, just. Why? Justice requires avoiding complicity in pollution-related serious harms, and therefore justice also requires compensating for this complicity. All criminal and civil law is built on this same fundamental presupposition of compensation. Not to rectify some injustice or compensate for it would destroy the very concept of justice itself. The best compensation for some injustice is working to stop it—to change the social order that allows it. One also might work to benefit those most victimized by that injustice. Recognizing that such compensation is required, the APHA “urges affected communities and populations, patients, caregivers, and all concerned persons, to work in coalition,” to make “urgent efforts, through legislation . . . advocacy and litigation, to stem further” threats to public health. It even goes so far as to endorse public-interest law groups, saying they have “stimulated citizen participation in environmental decision-making, have brought suits on behalf of citizens seeking to stop pollution, have prevented the marketing of harmful drugs and pesticides . . . and . . . given support and backing to the actions of regulatory agencies involved in consumer and environmental protection.”⁴⁹ In short, the APHA presupposes something like the responsibility argument and its third premise when it urges citizens to work for public health and environmental justice.

Premise 4: Excuses for Environmentally Unjust Institutions

For the responsibility argument to establish someone's partial and *ultima facie* accountability for a specific case of environmental injustice in an institution in which she participates, however, one also would need to show that none of the three “excusing” claims mentioned earlier (claims 4.1–4.3) is true. That is, one would need to show that the *prima facie* environmental injustice cannot be excused, *ultima facie*, on grounds that it involves no real injustice and has occurred naturally (or without human causation), has been compensated, or cannot be remedied. If any of these excuses holds, ultimately one bears no (or less) responsibility for alleged environmental injustice.

To assess each of these three excuses for alleged environmental injustice, one must investigate case-specific details. For now, however, consider how one might respond, in general, to those who use these excuses to deny the responsibility argument. Objectors might say the alleged environmental injustice arose naturally (without human causation) rather than through injustice, was compensated, and cannot be fixed by means of any alternatives. I call these, respectively, the nature-versus-injustice objection, the compensation objection, and the no-viable-alternatives objection to the responsibility argument.

The Nature-Versus-Injustice Objection: Tax Policies

Perhaps the most common response to some case of life-threatening and rights-threatening environmental injustice is that the pollution is "just business" or has occurred naturally (without human causation), not because of any injustice. This nature-versus-injustice response is *correct*, insofar as there are some natural factors that exacerbate most pollution effects. Weather patterns like air inversions, for instance, might keep polluted air in a valley. This response is *incorrect*, however, insofar as none of the pollution harms outlined in chapter 1 arose only because of some natural occurrences. Rather, at least some of the harms have been worsened because of specific historical injustices. In general, environmental injustice typically is not wholly natural, as the APHA recognizes, because it is partly the result of information suppression, coverup, environmental crime, misrepresentation of science, and so on, all of which threaten rights to know, to consent, to life, and to equal treatment, as was outlined in chapters 2–3. Most manufacturers and government officials probably are not guilty of "orchestrating ignorance" about pollution. Nevertheless, to the degree that people are unable to give or withhold genuine consent to pollution, their rights are violated. To the degree that many are guilty, life-threatening pollution is not merely a natural occurrence. Indeed, the same factors responsible for attempts to cover up many threats to life and health are responsible for them in the first place. Both previous chapters and The APHA have argued that many coverups and life-threatening environmental crimes have occurred, for instance, in the institutional orders associated with some major chemical companies and with energy or nuclear interests. Since virtually all citizens participate in these two institutional orders, by virtue of using their products or consuming their energy, virtually all bear partial ethical responsibility for the harm done by these orders.⁵⁰

A second bit of evidence, suggesting that at least some pollution-induced harm is not wholly natural, is that it is not evenly distributed across the United States or across the world. Instead there are pockets of severe pollution, traceable to local contaminants imposed disproportionately (and therefore unfairly) on children, poor people, blue-collar workers, and minorities, often as a result of bearing others' burdens, like trucked-in garbage. The disparity of these burdens indicates that natural factors like poor genetics are not the main or sole cause of pollution-induced death and disease. Neither nature nor accidents has caused minorities and poor people to become the canaries in the coal mines of environmental injustice. In the case of minorities, as the APHA affirms (see chapter 1), environmental injustice in the United States is partly a legacy of slavery, civil-rights violations, and racism that continue to the present day. Given this history of racism, it will be difficult to excuse serious and disproportionate pollution threats to minorities.

In the case of poor people, environmental injustice also is not wholly natural. Instead, as the APHA—and earlier chapters and sections—have shown, it is partly the result of historically unjust U.S. tax and regulatory policies. At

least since the mid-1970s, these policies have benefited the rich at the expense of the poorer 80 percent of the U.S. population. Although environmental injustice has occurred because pollution policies threaten people's rights to life, to know, to consent, and so on, tax policies have exacerbated these rights violations. Higher taxes have made poor people more vulnerable both to deadly pollution and to information-suppression about it because they have fewer socioeconomic resources, like medical care and good education, to deal with pollution-related threats. Because of their poverty and powerlessness, dealing with life-threatening pollution is not their first priority. First, they must work harder than others just to survive, feed their families, and hold down several jobs. For them, the urgent comes before the important, and environmental justice is not the most urgent problem of their lives.

How has this partly natural, partly unjust "poverty creation" exacerbated pollution threats to life and human rights? Partly it has been caused by tax policies that have helped increase U.S. economic inequality. In 1949, the wealthiest 1 percent of the population held 22 percent of U.S. wealth. In 1990, the wealthiest 1 percent held 35 percent of the wealth. In 2002, the wealthiest 1 percent held just under 50 percent of U.S. wealth. In only a half century, the holdings of the top 1 percent of U.S. citizens doubled. Likewise, in 1970, the ratio between U.S. CEO pay and U.S. worker pay was roughly 33 to 1, whereas in 2001 it was roughly 465 to 1.⁵¹ By the year 2000, the United States

was the most unequal society in the advanced democratic world....

The bottom 40 percent of Americans owned less than 1 percent of the nation's wealth. The bottom 60 percent...less than 5 percent of wealth.... The typical African-American household had 54 cents of income...for every corresponding dollar in the typical white American household. Hispanics had 62 cents.⁵²

The U.S. Congressional Budget Office says such wealth concentration has not occurred purely naturally but has arisen partly because the rich have been taxed less.⁵³ In constant dollars over the last 25 years, the 400 richest Americans increased their net worth by 500 percent, while the top 1 percent increased it by 150 percent. Yet the net worth of the middle 20 percent of all Americans decreased by 10 percent. Today, the U.S. upper-middle class is effectively in a higher tax bracket than multimillionaires. This is largely because of tax legislation with "special provisions"—like the 650 loopholes in the 1986 so-called U.S. Tax Reform Act and the 1990 "tax reform" overhaul. These "special provisions" put families earning \$70,000–170,000 in the 33 percent tax bracket and those earning over \$170,000 in the 28 percent tax bracket. Yet in 1948, the median U.S. family's effective tax rate was 5.3 percent, while that of the top 1 percent of families was 77 percent. By 1985, both the median and top 1 percent rates were roughly 24 percent. Over the last half century, the bottom 80 percent of Americans has borne a 500 percent increase in its share of federal tax burdens. This is partly because corporations

and wealthy people have successfully lobbied to pay less. In 1950, corporations paid 27 percent of the federal tax burden, while workers' payroll taxes covered 7 percent. By 2000, corporations were paying only 10 percent of the federal tax burden, while payroll taxes covered 31 percent. Yet, in the last 20 years, U.S. corporate profits have increased by 80 percent, while hourly compensation in private industry has increased by only 2 percent.⁵⁴

Even without illegal activities, such lobby-based and campaign-contribution-based economic and tax policies have created a tilted playing field that contributes to environmental injustice. This tilted field makes it more difficult for ordinary citizens to have the time and money to get adequate information about, and to prevent, environmental-health threats. And such difficulties are continuing. The Washington-based Citizens for Tax Justice showed that 1980s tax cuts for the richest million Americans added \$1 trillion to the national debt—to be paid by future generations. The 2002 and 2003 U.S. tax cuts will have similar effects. Yet in 2000, with almost no public awareness, 12 of the largest U.S. corporations, including Goodyear, Texaco, Colgate-Palmolive, MCI, and Kmart, paid no corporate-income taxes whatsoever. They earned tax credits during the Clinton years of 1996–98, despite earning profits of tens of billions of dollars. During 1996–98 alone, U.S. corporate profits rose 23.5 percent, while corporate tax revenues rose only 7.7 percent. The data presented here, along with that in earlier chapters, is enough to make a *prima facie* case that special interests have influenced tax-related legislative outcomes, helped cause increasing economic inequality, and consequently threatened the ability of many poor and middle-class people to fulfill their rights to life, to know, and to consent to pollution-related risks.⁵⁵

United States citizens have become less able to protect their environmental health, all things being equal, because after adjusting for inflation, most Americans have lost economic and therefore political ground over the last 5 decades. In constant dollars over the last half-century, U.S. workers' taxes, debts, and hours have all increased. U.S. workers also have been laboring longer but earning less than many of their western European counterparts. Using market-exchange rates, Germany, Denmark, Netherlands, Norway, Sweden, and Switzerland now pay their average manufacturing-production workers, respectively, 51, 22, 11, 28, 19, and 31 percent higher hourly compensation than does the United States. Yet U.S. workers now have longer hours than they did in 1950 and longer hours than the Europeans.⁵⁶ Compared to Europeans, U.S. workers likewise have weaker pension coverage, health coverage, vacation time, and maternity leaves. Yet they have one of the highest rates of hypertension. As a consequence, virtually all social indicators show that U.S. quality of life, for the bottom 80 percent of the population, after adjusting for inflation, has been declining at least since the 1970s. Based on measures such as wages, unemployment, health care, child poverty, dropout rates, drug use, violent crime, elderly poverty, and infant mortality, the indices show that the current U.S. quality of life is about 66 percent of what it was 25 years ago. Since the middle 1970s, the poverty rate also has

been increasing, from about 11.5 percent in 1976, to about 12.7 percent (37 million people) in 2004. Such census data suggest that specific historical, socioeconomic policies of the government have contributed to poverty and racism, and thus to environmental injustice. Because this injustice has not occurred wholly naturally, citizens bear some responsibility for it—for what their government has done.⁵⁷

The Compensation Objection

To the preceding economic and tax statistics, however, objectors might make at least two responses. As a *general* response, proponents of the compensation objection may claim that these tax policies and environmental injustices have improved everyone's welfare. Without these government policies, they say, everyone would be poorer. As a *specific* response, objectors may say that particular sets of circumstances have compensated victims of environmental injustice.

Consider first the general objection. It is true that Americans today have a far greater array of consumer goods than they did three decades ago. Nevertheless, this increase in available goods and consumer gadgets hardly excuses or compensates for environmental injustice. Why not? Because the preceding census data show that for the last 30 years, the poverty rate in the United States has increased, and the bottom 80 percent of Americans has become worse off; both in terms of economic welfare and of quality-of-life indicators, this 80 percent has little access to increased goods. Consequently, those who deserve the most compensation for environmental-injustice are probably those who have received the least—because the poorest people are typically environmental-injustice victims, yet the United States has become more economically unequal, as the previous data show. Over these last three decades, the share of U.S. wealth held by the top 1 percent of people increased from 20 percent to 50 percent. Even during the stock-market gains between 1989 and 1997, the wealthiest 10 percent of Americans took 86 percent of the gains, and the bottom 90 percent took only 14 percent, mostly through their corporate-invested retirement funds. There was virtually no “trickle-down” to 90 percent of Americans. This increased economic inequality might be ethically justified, however, if it made everyone better off—if it increased overall welfare. But because earlier census data show that increased economic inequality and decreased quality of life have undercut the supposed benefits of economic expansion, there is no apparent “increased welfare” to compensate for environmental injustice, for the declining economic welfare of 80 percent of Americans, and for the increased percentage of people living in poverty.⁵⁸

More recent Internal Revenue Service data likewise illustrate that there has been little trickle-down in U.S. economic growth and therefore little compensation for environmental injustice. Between 2002 and 2004, the overall share of increased wealth going to 99 percent of Americans decreased.

Roughly 40 percent of the increased wealth went to the top 1 percent of wealthiest Americans, and 80 percent went to the top 10 percent of wealthiest Americans. Only about 20 percent of wealth went to the bottom 80 percent of Americans. Whose overall share of income increased during this period? Only the top one-tenth of 1 percent of Americans increased in wealth. At the same time, the effective-income-tax rates paid by this top one-tenth of 1 percent of wealthiest Americans declined at more than 10 times the rate reduction for middle-class taxpayers. Thus for 99 percent of all U.S. taxpayers, their incomes during this 2002–2004 period did not keep pace with inflation. Their overall economic welfare declined, as economic inequality increased. Yet their relative taxes increased. Only the incomes of the top 1 percent wealthiest Americans kept pace with or exceeded the rate of inflation. The top one-tenth of 1 percent had more income in 2003 than did the bottom third of the U.S. population. This is a sharp change from 1979, in which the poorest third of Americans had incomes that, together, tripled the incomes of the top one-tenth of 1 percent. Yet the reasons for this failed trickle-down are not purely natural. They are not only the intelligence or hard work of investors. Instead, economists studying the IRS and census data say, changed federal tax rules, large increases in CEO pay, and failures in worker pay to keep up with inflation have all caused 99 percent of Americans to receive no trickle-down—no increased economic benefits or increased quality of life—in exchange for increased economic inequality.⁵⁹

But perhaps proponents of the compensation argument believe victims of environmental injustice are somehow compensated noneconomically? Victims do not appear to have more democratic or human-rights opportunities, especially since earlier statistics show that U.S. quality of life is about 66 percent of what it was 25 years ago. All but the top 20 percent of wealthiest Americans are economically relatively worse off, in the early twenty-first century, than they were a quarter century ago. Consequently, as earlier chapters and sections showed, this increasing economic inequality has made it harder for most citizens to fulfill their human rights, equal opportunity, and democratic participation in government. The *urgent*, economic survival, has provided them with less time for the *important*, democratic citizenship.

Nor can proponents of the compensation argument easily show that victims of environmental injustice are compensated through better health or health care. If anything, those most deserving environmental-injustice compensation today are those least likely to have good health care, simply because the poorest people (without health care) are typically environmental-injustice victims. As chapter 1 noted, although the United States is the richest nation in the world, the average health of its citizens is poor, relative to that in other Western democracies. For instance, U.S. infant mortality is higher than in 41 other countries.⁶⁰

- Of all industrialized nations, U.S. rates of income inequality, poverty, and child poverty are the worst.⁶¹

- The U.S. premature-death rate is higher, and life expectancy is lower, than that in nearly all other industrialized nations.⁶²
- Women in the United States are 70 percent more likely to die in childbirth than in Europe. The U.S. CDC say U.S. black women die in childbirth at nearly four times the rate of white women.⁶³
- Harvard statistics show that mortality is strongly related to income inequality but not to median or per capita income.⁶⁴

The upshot? Proponents of the compensation argument err if they say quality-of-life, economic, democratic, or health-related opportunities somehow compensate victims of environmental injustice. In the last three decades in the United States, instead, these four opportunities appear to have decreased, as environmental injustice has increased.⁶⁵

Perhaps the same factors, responsible for environmental injustice, also are responsible for blocking its compensation and for increasing quality-of-life, economic, democratic, and health-related inequality. As Thomas Jefferson realized, whenever special interests have excessive concentrations of wealth, they can control life, information, and even democratic government.⁶⁶ The economic successes of the tobacco industry show how wealth can often trump democracy. Courts showed that this industry engaged in fraud, claimed its “light” brands were less hazardous, and deliberately made cigarettes addictive. Yet tobacco has weathered 50 years of legal challenges, including the federal government’s continuing attempts to claim \$280 billion in a racketeering case. Phillip Morris, which has half the market, has been a defendant in 454 U.S. tobacco cases and 151 cases in other countries. Just between 2002 and 2004, Phillip Morris spent \$933 million in legal costs. Still, tobacco stock remains high—a lucrative investment. The reason? Wall Street investment analysts say the cigarette industry can pay lawyers \$850, often \$1,000, per hour and beat its challengers in court. “With such legal [and economic] power, the tobacco companies have enjoyed a reasonable measure of success in court.” Since the large 1998 tobacco settlement, Phillip Morris has enjoyed 27 verdicts in its favor, while plaintiffs have had only 16. As Wall Street analysts put it, “if tobacco companies lose in one court, they [have the money to] simply move to the next [court].... In general the litigation environment has gotten better for them, and their stock prices reflect it.” Plaintiffs seeking damages from cigarettes, pollutants, or dangerous products, however, often do not have the money to keep appealing decisions. Nor can they afford to pay their attorneys \$1,000 per hour. What is the democratic result of pollution victims’ more limited economic resources? They bear higher evidentiary and informational burdens whenever they try to challenge those who harm them, withhold information, or threaten their human rights. At some point—a point already reached in tobacco and other cases—economic inequality thus tips the scales against democracy, human rights, and even life. For the *general* version of the compensation objection to succeed, however, proponents would have to show that, despite the increased

quality-of-life, economic, democratic, and health inequalities of the last three decades, victims have been compensated for environmental injustice. The preceding arguments do not suggest that proponents can easily do so.⁶⁷

Suppose proponents make a more *specific* compensation objection? Suppose they argue, as many libertarians do, that those who live in areas having dirty air or water are compensated in many specific ways? Libertarians claim these citizens pay less for housing and taxes, live closer to their jobs, and thus save in transportation costs. Are such compensation claims correct?⁶⁸

On the *positive side*, in principle, compensation for environmental injustice makes sense. It is better to compensate innocent people for injustice than merely to impose uncompensated harms on them. In addition, compensation often provides a practical way of siting needed but polluting facilities, so-called LULUs—locally unacceptable land uses. For instance, the 1982 Wisconsin provisions for landfill negotiation specify compensation provisions that have made siting successful. On the *negative side*, several reasons suggest that supposed housing, tax, or transportation benefits rarely compensate pollution victims. For one thing, pollution victims rarely consent to living in dirty air, in exchange for compensation. What poor person, worrying that her children were at risk, would willingly choose to live in dirty air, merely because housing prices were cheaper there? Rather, social-scientific data show that people often live in dangerous places, against their wills, because they have no other options. While they may be partially compensated through lower housing prices or better pay, they do not agree that this compensation is either adequate or worth the health of their children. Instead, they often say they are unaware of the health threats, that threats were not disclosed, or that they were exploited. Perhaps they “agreed” to cheap housing and dirty air involuntarily, merely because they had no other options. If these are the responses of pollution victims, then they have not consented to pollution risks. Whenever they have not genuinely consented, the compensation objection fails. Besides, if the supposed compensation were genuine, other people would willingly move into dirty areas, just to receive the supposed housing or tax “breaks.” But people, who are not forced to do so, typically do not choose to move into dirty areas. Therefore, benefits like cheaper housing probably do not adequately compensate for environmental injustice.⁶⁹

A third ethical problem with this more specific compensation objection is that while lower housing or tax costs theoretically might help compensate adults for their pollution burdens, children could never be compensated in this way. They are most damaged by pollution, least able to choose it, and largely innocent victims. For this objection to succeed, there can be no innocent third parties, seriously harmed by pollution, despite compensation. Yet as chapter 1 reveals, there are many innocent victims of pollution.

Even if pollution victims were somehow compensated, it is not obviously ethical to impose life-threatening pollutants on them. In cases of medical ethics, experimenters are not allowed to expose people to serious known harms, in exchange for compensation, because this would amount to treating

persons like commodities, to be bought and sold. Another classical, medical-ethics requirement is not to target vulnerable groups and thus exploit them. If nonvulnerable people do not agree to participate in some experiment, medical ethicists take this as *prima facie* evidence that the experiment is ethically suspect, and that vulnerable people are somehow being targeted and exploited. Both examples suggest that, because medical-risk victims have protections against being targeted or deliberately harmed in exchange for money, victims of environmental risk arguably also ought to have the same protections. Because they do not, the compensation argument is ethically suspect.⁷⁰

Apart from ethics, for the compensation objection to succeed, proponents must show that pollution victims actually receive housing or tax breaks because they breathe dirtier air. Yet much economic literature says the opposite. Especially among the poorest people with the least socioeconomic power, supposed compensation is limited or nonexistent. In poor neighborhoods, landlords often are able to get away with almost anything, including high rents and substandard housing. Why? Their clients are poor and thus less powerful. Typically, even grocery stores in low-income neighborhoods are overpriced, and their food is beyond the package-expiration dates. Typically, even the risky jobs of the poor have no hazard pay. Many studies show that only college-educated, unionized, male, skilled, non-minority, or non-low-wage workers enjoy a compensating wage differential or hazard pay, while all others do not.⁷¹ Indeed, many economists say that for nonunionized and nonskilled workers, there is a *negative* compensating wage differential; they say that wages get lower as environmental-health threats increase.⁷² This negative compensating wage differential likely occurs because, in many hazardous jobs, workers do not know the environmental-health threats they face, and they do not have other employment options, so they must work for whatever pay they can get. In other words, the same socioeconomic factors, that are responsible for environmental injustice, also limit compensation for that injustice. Consequently, both factual and ethical reasons suggest that the compensation objection fails.⁷³

The No-Viable-Alternatives Objection

Citizens might be absolved from their *prima facie* responsibility for pollution-induced health and human-rights threats, however, if there were no alternatives to such threats. On the *positive side*, proponents of the no-viable-alternatives objection are partly correct. A bloody loaf of bread is better than no bread at all. Besides, people are morally obliged to do only what is possible. If it is not possible to reduce life- and rights-threatening pollution, people have no duty to try to reduce it. After all, ethicists agree that “ought implies can.” Consequently, “cannot implies the absence of an ought.” On the *negative side*, the objection errs in that it begs the question. To assume there are no alternatives to some environmental injustice, rather than to do a detailed empirical investigation in a specific case, merely creates a self-fulfilling

prophecy. Besides, showing that there are "no alternatives" to some deadly pollution seems unlikely, because of advancing technology and the impossibility of proving negatives. For pesticidal chemicals, for instance, alternatives exist. As chapter 1 noted, at least half of pesticides are not necessary, and can be replaced with economically viable, biological forms of pest control.⁷⁴

Instead, those who make the no-viable-alternatives objection may be claiming that "it is too costly" to remedy pollution-induced human-rights violations. But this begs a second question: "Costly for whom?" For the victims of pollution or for those who profit from pollution? Obviously objectors are wrong if they assume that some people have rights to jeopardize others' lives and health simply because their own profits are at stake. This assumption relies on free-market environmentalism and the cost-benefit state criticized in earlier chapters. Even when polluters bear high pollution-abatement costs, two reasons suggest these costs alone do not always outweigh pollution victims' claims to equal human rights, to equal protection from deadly pollution. The first reason is that, historically, the only ethically legitimate argument, considered sufficient for allowing some inequity to persist, is that it would lead to greater overall equality or fairness in the long run. This means that, at best, the no-viable-alternatives objection is incomplete. In addition to demonstrating empirically that there are no viable alternatives to some situation of environmental injustice, objectors also would have to show that the pollution and associated harms would lead to greater overall equality in the long run. Yet this would be something notoriously difficult to do, because economic expansion, as such, does not decrease inequality—as the just-discussed U.S. economic and tax history illustrates. The second reason (that high pollution-abatement costs do not outweigh claims to equal human rights) is that victims of life-threatening pollution typically are not requesting charity. They want an end to injustice from which other people have profited. Given polluters' profits, their imposition of injustice, and deadly threats to life, it is not reasonable for polluters to say that because pollution control is not cost effective for them, therefore it need not be pursued. Why not? An analogous argument would not work in the case of murder. People are not allowed to murder others, merely because doing so is more cost effective than not murdering them. Consequently proponents of the no-alternatives objection face overwhelming ethical and factual obstacles.⁷⁵

The No-Will-to-Reform Objection

Perhaps those who object to the responsibility argument are making a different point. Regardless of what is technically or economically possible, perhaps they mean to claim that citizens *do not have the will* to accomplish significant reductions in environmental injustice or in life-threatening pollution. On the one hand, this objection might be right. Given the lobbying and advertising schemes outlined in earlier chapters, polluters seem to be persuading some people not to reduce pollution. Yet manipulated consumer

preferences may not indicate genuine consumer opinion. On the other hand, several factors suggest that people either have, or can develop, the will to reduce harmful pollution. For one thing, as chapter 1 showed, Europeans and Japanese often enjoy greater longevity and have better pollution-control than Americans. Even if there is no causal connection between pollution-control and longevity, European and Japanese successes suggest that Americans also could be convinced to reduce pollution. They suggest that developed countries can have a strong sense of community, corporate ethical obligation, and commitment to the norm that individual polluters ought not gain at the expense of the entire community.⁷⁶

Earlier chapters' accounts of polluter information-suppression also suggest that once people have more accurate information, they may have the will to control pollution. If most people were surprised by the public-health statistics outlined in chapter 1, this fact alone suggests that these data have not played a role in their thinking about pollution. Perhaps such data will do so in the future. After all, there could hardly be a more powerful motivator than people's desire to avoid bodily harm to themselves and their children. Asking whether or not people have the moral will to help reduce life-threatening pollution is like asking people on a runaway train whether they want to stop it. As epidemiologist Devra Davis emphasized, we already have a scientific blueprint for what must be done, and we should waste no more time in getting started.⁷⁷

People also might have the will to control pollution if they recognized, as chapter 1 notes, that polluters often appeal to economics when it does not support their position. Economics rarely justifies some pollutant's massive death toll and other externalities or social costs. Earlier chapters' arguments against free-market environmentalism and the cost-benefit state show why not. So do the earlier examples of heavily subsidized nuclear energy, criticized by *The Economist*. The nuclear industry, like many other polluters, claims to make an economic argument for atomic energy. In reality, however, it is making a purely self-interested argument, one dependent more on subsidies than on actual market performance. Yet history shows that, once people recognize egoistic or self-interested arguments, they are not sympathetic to them and instead can be mobilized to support what is right. Moral force helped mobilize the nineteenth-century abolitionist movement, forcing the British government to suppress the slave trade. Moral force also was mobilized to end apartheid in South Africa. It was behind the 1964 U.S. Civil Rights Act. Similar moral force might be mobilized to reduce life- and rights-threatening pollution.⁷⁸

Contemporary decision theorists, examining the prisoner's dilemma, help explain why moral force often helps mobilize people. They have shown empirically that often it is rational to be moral, that life is not a zero-sum game, and that all parties can gain when everyone cooperates. After all, failing to help those in need, failing to pay one's debts, failing to forgive, being envious, killing people with pollution, or allowing environmental injustice do not make people happy. They make people miserable. Many people cannot

even be happy when they travel to a Second-World or Third-World resort for vacation. After seeing the poverty and injustice around them, they find it difficult to relax. Plato, Aristotle, Aquinas, and others explained why. They argued that humans are inherently social and other-directed. As a consequence, they said human happiness depends on living in a social and other-directed way—caring for others. But because only good people genuinely care for others, only good people fulfill their deepest natures and are thus authentically happy, that is, joyful and peaceful. Only good people lead a social, other-directed life of purpose and meaning—rather than a life focused largely on their own money, power, or pleasure. Zen Buddhists and other Asian thinkers also located the source of happiness in being good or virtuous, not in things like money, power, or pleasure. Their insights suggest that people can be motivated to recognize the *prima facie* duty to reduce life-threatening environmental-injustice because accepting this duty fulfills their essentially social, other-directed nature. As a consequence, it also will make them authentically happy. Accepting this argument also may promote one's own survival, not just that of environmental-injustice victims. Speaking of his experiences in a Nazi concentration camp, Viennese Jewish psychologist Viktor Frankl claimed that the only inmates who were able to survive the horrific conditions were those who looked out for others, who remained idealistic, or who found meaning in something beyond themselves. Those who did not turn outward, he said, succumbed to torture, despair, infection, or injury. They eventually died. Frankl even quotes the German philosopher Nietzsche: "He who has a why to live for can bear almost any how."⁷⁹

Princeton philosopher Peter Singer makes a related point. People who have spent their lives working to reduce injustice to others will know that they have not lived and died for nothing. Harvard University child psychiatrist Robert Coles said something similar. He won a Pulitzer Prize for telling the stories of people who found rich and full lives by giving themselves to others. They lived lives of service and idealism. University of California sociologist Robert Bellah has documented the same thing. Humans share a deep sense of justice and community. These give them the will and the ability to help undo environmental threats to life and to human rights.⁸⁰

Conclusion

This chapter argues that the three "excuses" fail, and thus that the responsibility argument has at least a *prima facie* plausibility. How should people respond to this argument? What should they do? Chapter 6 begins to address both these questions in more detail. For now, it is important to remember that what this argument requires is the efforts of ordinary people. The museum of Yad Vashem, established in Jerusalem to commemorate victims of the Holocaust, is a dramatic reminder of what ordinary people can accomplish. Leading toward Yad Vashem is a long, tree-lined avenue, the Aléc des Justes, on which every tree commemorates a non-Jewish person who risked her life

to save a Jew during the Nazi era. Each helper's case is carefully evaluated by a committee before a tree is planted. In many cases, these ordinary people who helped Jews were helping complete strangers. Only those who helped without hope of any reward have a tree planted for them. There are now more than 6,000 trees, spilling over onto a hillside, but the trees needed may number 500,000. Most of those who helped Jews were not famous—like businessman Oskar Schindler, who rescued those who were being taken to concentration camps by arguing that their special skills were needed for his factory. The Yad Vashem stories instead are mainly those of ordinary citizens who helped Jews. One was a Dutch mother of eight who, during 1944, went hungry herself and rationed food for her own children so that she could feed her hidden Jewish guests.⁸¹

The power of ordinary people also was evident in the American Revolution. Commenting on the era, some historians claim that only about 17 percent of the colonial population supported breaking away from the British. The merchant and industry class did not because it was bad for business.⁸² The task of fighting for justice was left to others, just as it is today. What would happen today if 17 percent of people became aware of environmental-health threats and their responsibility for them? What would happen if they were convinced by the health data, inspired by ethics, and committed to do something about them? This book argues for another revolution, an ethical transformation directed at full citizen participation and institutional reform, to "make democracy work." The preceding arguments show that this is not a revolution recommended merely by charity, but one demanded by justice. It also is not a revolution that relies on accepting some new ethics. Instead it asks only that people rededicate themselves to same goal that inspired our ancestors more than two centuries ago—universal human rights.