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Chapter 20

Social Change and the Environment

Social Issues in the News

“Governor Signs Texting Law Inspired by Teen’s Death,” the headline said. In June 2010, the governor of Georgia signed the Caleb Sorohan Act, named for an 18-year-old student who died in a car accident caused by his texting while driving. The bill made it illegal for any drivers in Georgia to text unless they were parked. After Caleb died, his family started a campaign, along with dozens of his high school classmates, to enact a texting while driving ban. They signed petitions, started a Facebook page, and used phone banks to lobby members of their state legislature. Vermont enacted a similar ban about the same time. The new laws in Georgia and Vermont increased the number of states banning texting while driving to 28. (Downey, 2010)Downey, M. (2010, June 4). Governor signs texting law inspired by teen’s death. *The Atlanta Journal-Constitution*. Retrieved from <http://blogs.ajc.com/get-schooled-blog/2010/06/04/governor-signs-texting-law-inspired-by-teens-death>

“Amherst Sleeps Out to Protest Climate Change,” another headline said. It was February 2010, and a student at the University of Massachusetts, Amherst, had been living in a tent for 121 days. His goal was to call attention to the importance of clean energy. The student was a member of a Massachusetts group, Students for a Just and Stable Future (SJSF), composed of college students across the state. To dramatize the problem of climate change, the group had engaged in sleep-outs in various parts of the state, including one on the Boston Common, a famed public park in that city, over a series of weekends in late 2009. About 200 students were arrested on trespassing charges for staying in the park after it was closed at 11:00 p.m. The UMass student in the tent thought he was making a difference; as he put it, “Hopefully people see me and realize that there are people out there who care about the Earth’s future and civilization’s stability enough to do something about it.” Yet he knew that improvements to the environment would take some time: “It’s not going to happen overnight.” (Vincent, 2010, p. A16)Vincent, L. (2010). Amherst sleeps out to protest climate change. *DailyCollegian.com*. Retrieved from <http://dailycollegian.com/2010/2002/2021/amherst-sleeps-out-to-protest-climate-change>

Societies change just as people do. The change we see in people is often very obvious, as when they have a growth spurt during adolescence, lose weight on a

diet, buy new clothes, or get a new hairstyle. The change we see in society is usually more gradual. Unless it is from a natural disaster like an earthquake or from a political revolution, social change is usually noticeable only months or years after it began. This sort of social change arises from many sources, including changes in a society's technology, as the news story on texting and driving illustrates; in the size and composition of its population, as Chapter 19 "Population and Urbanization" discussed; and in its culture. But some social change stems from the concerted efforts of people acting in social movements to alter social policy, as the news story on the student in the tent illustrates, or even the very structure of their government.

This chapter continues this book's examination of social change that began with the discussion of population and urbanization in Chapter 19 "Population and Urbanization". The chapter begins with a conceptual look at social change and modernization before turning to sociological perspectives on social change and the sources of social change. It then presents a sociological understanding of the natural and physical environment. This focus on the environment is certainly timely in today's world but also appropriate for a chapter beginning with social change, as environmental changes have enormous implications for changes in societies around the globe.

20.1 Understanding Social Change

LEARNING OBJECTIVES

1. Understand the changes that accompany modernization.
2. Discuss the functionalist and conflict perspectives on social change.

Social change¹ refers to the transformation of culture, behavior, social institutions, and social structure over time. We are familiar from [Chapter 5 "Social Structure and Social Interaction"](#) with the basic types of society: hunting-and-gathering, horticultural and pastoral, agricultural, industrial, and postindustrial. In looking at all of these societies, we have seen how they differ in such dimensions as size, technology, economy, inequality, and gender roles. In short, we have seen some of the ways in which societies change over time. Another way of saying this is that we have seen some of the ways in which societies change as they become more modern. To understand social change, then, we need to begin to understand what it means for a society to become more modern. We considered this briefly in [Chapter 5 "Social Structure and Social Interaction"](#) and expand on it here.

Modernization

Modernization² refers to the process and impact of becoming more modern. More specifically, it refers to the gradual shift from hunting-and-gathering societies to postmodern societies, as outlined in [Chapter 5 "Social Structure and Social Interaction"](#), and perhaps especially to the changes brought by the Industrial Revolution of the 19th century.

The terms *modern* and *modernization* have positive connotations; it sounds good to modernize and to be modern. Modernization implies that progress has been made and is continuing to be made, and who would not want progress? Yet modernization also has a downside, as we will see in this section and in the later discussion of the environment.

1. The transformation of culture (especially norms and values), behavior, social institutions, and social structure over time.
2. The process and impact of becoming more modern.

A related problem with the terms and concepts of modern and modernization is that many people think of Western nations when considering the most modern nations in the world today. This implies that Western society is the ideal to which other societies should aspire. While there are many good things about Western societies, it is important to avoid the ethnocentrism of assuming that Western societies are better because they are more modern. In fact, one reason that many

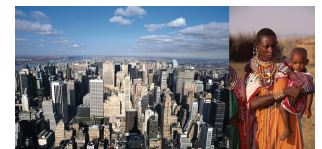
people in the Middle East and elsewhere dislike the United States is that they resent the “Westernization” of their societies from the influence of the United States and other wealthy Western nations. When they see Coca-Cola and Pepsi logos and the McDonald’s golden arches in their nations, they fear Western influence and the loss of their own beliefs and traditions.

These caveats notwithstanding, societies have become much more modern over time, to put it mildly. We thus cannot fully understand society and social life without appreciating how societies have changed as they have become more modern. Not surprisingly, sociologists have recognized the importance of modernization ever since the discipline of sociology began in the 19th century, and much of the work of sociology’s founders—Émile Durkheim, Max Weber, Karl Marx, and others—focused on how and why societies have changed as they became more modern.

We can draw on their efforts and related work by later sociologists and by anthropologists to develop an idea of the differences modernization has made for societies and individuals. Several dimensions and effects of modernization seem apparent (Nolan & Lenski, 2009). Nolan, P., & Lenski, G. (2009). *Human societies: An introduction to macrosociology* (11th ed.). Boulder, CO: Paradigm.

First, as societies evolve, they become much larger and more *heterogeneous*. This means that people are more different from each other than when societies were much smaller, and it also means that they ordinarily cannot know each other nearly as well. Larger, more modern societies thus typically have weaker social bonds and a weaker sense of community than small societies and place more of an emphasis on the needs of the individual.

We can begin to appreciate the differences between smaller and larger societies when we contrast a small college of 1,200 students with a large university of 40,000 students. Perhaps you had this contrast in mind when you were applying to college and had a preference for either a small or a large institution. In a small college, classes might average no more than 20 students; these students get to know each other well and often have a lot of interaction with the professor. In a large university, classes might hold 600 students or more, and everything is more impersonal. Large universities do have many advantages, but they probably do not have as strong a sense of community as is found at small colleges.



As societies become more modern, they begin to differ from nonmodern societies in several ways. In particular, they become larger and more heterogeneous, they lose their traditional ways of thinking, and they gain in

A second aspect of modernization is a loss of traditional ways of thinking. This allows a society to be more creative and to abandon old ways that may no longer be appropriate. However, it also means a weakening or even ending of the traditions that helped define the society and gave it a sense of identity.

individual freedom and autonomy.

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A third aspect of modernization is the growth of individual freedom and autonomy. As societies grow, become more impersonal, and lose their traditions and sense of community, their norms become weaker, and individuals thus become freer to think for themselves and to behave in new ways. Although most of us would applaud this growth in individual freedom, it also means, as Émile Durkheim (1895/1962) Durkheim, É. (1962). *The rules of sociological method* (S. Lukes, Ed.). New York, NY: Free Press. (Original work published 1895) recognized long ago, that people feel freer to deviate from society's norms and thus to commit deviance. If we want a society that values individual freedom, Durkheim said, we automatically must have a society with deviance.

Is modernization good or bad? This is a simplistic question about a very complex concept, but a quick answer is that it is both good and bad. We see evidence for both responses in the views of sociologists Ferdinand Tönnies, Weber, and Durkheim. As [Chapter 5 "Social Structure and Social Interaction"](#) discussed, Tönnies (1887/1963) Tönnies, F. (1963). *Community and society*. New York, NY: Harper and Row. (Original work published 1887) said that modernization meant a shift from *Gemeinschaft* (small societies with strong social bonds) to *Gesellschaft* (large societies with weaker social bonds and more impersonal social relations). Tönnies lamented the loss of close social bonds and of a strong sense of community resulting from modernization, and he feared that a sense of rootlessness begins to replace the feeling of stability and steadiness characteristic of small, older societies.

Weber (1921/1978) Weber, M. (1978). *Economy and society: An outline of interpretive sociology* (G. Roth & C. Wittich, Eds.). Berkeley: University of California Press. (Original work published 1921) was also concerned about modernization. The hallmarks of modernization, he thought, are rationalization, a loss of tradition, and the rise of impersonal bureaucracy. He despaired over the impersonal quality of rational thinking and bureaucratization, as he thought it was a dehumanizing influence.

3. Émile Durkheim's conception of the type of social bonds and community feeling in small, traditional societies resulting from their homogeneity.

Durkheim (1893/1933) Durkheim, É. (1933). *The division of labor in society*. London, England: The Free Press. (Original work published 1893) took a less negative view of modernization. He certainly appreciated the social bonds and community feeling, which he called **mechanical solidarity**³, characteristic of small, traditional

societies. However, he also thought that these societies stifled individual freedom and that social solidarity still exists in modern societies. This solidarity, which he termed **organic solidarity**⁴, stems from the division of labor, in which everyone has to depend on everyone else to perform their jobs. This *interdependence* of roles, Durkheim said, creates a solidarity that retains much of the bonding and sense of community found in premodern societies.

We have already commented on important benefits of modernization that are generally recognized: modernization promotes creativity and individual freedom and autonomy. These developments in turn usually mean that a society becomes more tolerant of beliefs and behaviors that it formerly would have disapproved and even condemned. Modern societies, then, generally feature more tolerance than older societies. Many people, undoubtedly including most sociologists, regard greater tolerance as a good thing, but others regard it as a bad thing because they favor traditional beliefs and behaviors.

Beyond these abstract concepts of social bonding, sense of community, and tolerance, modern societies are certainly a force for both good and bad in other ways. They have produced scientific discoveries that have saved lives, extended life spans, and made human existence much easier than imaginable in the distant past and even in the recent past. But they have also polluted the environment, engaged in wars that have killed tens of millions, and built up nuclear arsenals that, even with the end of the Cold War, still threaten the planet. Modernization, then, is a double-edged sword. It has given us benefits too numerous to count, but it also has made human existence very precarious.

Sociological Perspectives on Social Change

Sociological perspectives on social change fall into the functionalist and conflict approaches. As usual, both views together offer a more complete understanding of social change than either view by itself (Vago, 2004). Vago, S. (2004). *Social change* (5th ed.). Upper Saddle River, NJ: Prentice Hall. Table 20.1 "Theory Snapshot" summarizes their major assumptions.

Table 20.1 Theory Snapshot

Theoretical perspective	Major assumptions
Functionalism	Society is in a natural state of equilibrium. Gradual change is necessary and desirable and typically stems from such things as population growth, technological advances, and interaction with other societies that brings new ways of thinking and acting. However, sudden social change is

4. Émile Durkheim’s conception of the type of social bonds and community feeling in large, modern societies resulting from their division of labor and interdependence of roles.

Theoretical perspective	Major assumptions
	undesirable because it disrupts this equilibrium. To prevent this from happening, other parts of society must make appropriate adjustments if one part of society sees too sudden a change.
Conflict theory	Because the status quo is characterized by social inequality and other problems, sudden social change in the form of protest or revolution is both desirable and necessary to reduce or eliminate social inequality and to address other social ills.

The Functionalist Understanding

The functionalist understanding of social change is based on insights developed by different generations of sociologists. Early sociologists likened change in society to change in biological organisms. Taking a cue from the work of Charles Darwin, they said that societies evolved just as organisms do, from tiny, simple forms to much larger and more complex structures. When societies are small and simple, there are few roles to perform, and just about everyone can perform all of these roles. As societies grow and evolve, many new roles develop, and not everyone has the time or skill to perform every role. People thus start to *specialize* their roles and a *division of labor* begins. As noted earlier, sociologists such as Durkheim and Tönnies disputed the implications of this process for social bonding and a sense of community, and this basic debate continues today.

Several decades ago, Talcott Parsons (1966), Parsons, T. (1966). *Societies: Evolutionary and comparative perspectives*. Englewood Cliffs, NJ: Prentice Hall. the leading 20th-century figure in functionalist theory, presented an **equilibrium model**⁵ of social change. Parsons said that society is always in a natural state of equilibrium, defined as a state of equal balance among opposing forces. Gradual change is both necessary and desirable and typically stems from such things as population growth, technological advances, and interaction with other societies that brings new ways of thinking and acting. However, any sudden social change disrupts this equilibrium. To prevent this from happening, other parts of society must make appropriate adjustments if one part of society sees too sudden a change.

The functionalist perspective has been criticized on a few grounds. The perspective generally assumes that the change from simple to complex societies has been very positive, when in fact, as we have seen, this change has also proven costly in many ways. It might well have weakened social bonds, and it has certainly imperiled human existence. Functionalist theory also assumes that



5. Talcott Parsons's functionalist view that society's balance is disturbed by sudden social change.

sudden social change is highly undesirable, when such change may in fact be needed to correct inequality and other deficiencies in the status quo.

Conflict Theory

Whereas functional theory assumes the status quo is generally good and sudden social change is undesirable, conflict theory assumes the status quo is generally bad. It thus views sudden social change in the form of protest or revolution as both desirable and necessary to reduce or eliminate social inequality and to address other social ills. Another difference between the two approaches concerns industrialization, which functional theory views as a positive development that helped make modern society possible. In contrast, conflict theory, following the views of Karl Marx, says that industrialization exploited workers and thus increased social inequality.

Functionalist theory assumes that sudden social change, as by the protest depicted here, is highly undesirable, whereas conflict theory assumes that sudden social change may be needed to correct inequality and other deficiencies in the status quo.

Source: Photo courtesy of Kashfi Halford, <http://www.flickr.com/photos/kashklick/3406972544>.

In one other difference between the two approaches, functionalist sociologists view social change as the result of certain natural forces, which we will discuss shortly. In this sense, social change is unplanned even though it happens anyway. Conflict theorists, however, recognize that social change often stems from efforts by social movements to bring about fundamental changes in the social, economic, and political systems. In his sense social change is more “planned,” or at least intended, than functional theory acknowledges.

Critics of conflict theory say that it exaggerates the extent of social inequality and that it sometimes overemphasizes economic conflict while neglecting conflict rooted in race/ethnicity, gender, religion, and other sources. Its Marxian version also erred in predicting that capitalist societies would inevitably undergo a socialist-communist revolution.

KEY TAKEAWAYS

- As societies become more modern, they become larger and more heterogeneous. Traditional ways of thinking decline, and individual freedom and autonomy increase.
- Functionalist theory favors slow, incremental social change, while conflict theory favors fast, far-reaching social change to correct what it views as social inequalities and other problems in the status quo.

FOR YOUR REVIEW

1. If you had to do it over again, would you go to a large university, a small college, or something in between? Why? How does your response relate to some of the differences between smaller, traditional societies and larger, modern societies?
2. When you think about today's society and social change, do you favor the functionalist or conflict view on the kind of social change that is needed? Explain your answer.

20.2 Sources of Social Change

LEARNING OBJECTIVES

1. Describe the major sources of social change.
2. Explain cultural lag and provide an example.

We have seen that social change stems from natural forces and also from the intentional acts of groups of people. This section further examines these sources of social change.

Population Growth and Composition

Much of the discussion so far has talked about population growth as a major source of social change as societies evolved from older to modern times. Yet even in modern societies, changes in the size and composition of the population can have important effects for other aspects of a society, as [Chapter 19 "Population and Urbanization"](#) emphasized. As just one example, the number of school-aged children reached a high point in the late 1990s as the children of the post-World War II baby boom entered their school years. This swelling of the school-aged population had at least three important consequences. First, new schools had to be built, modular classrooms and other structures had to be added to existing schools, and more teachers and other school personnel had to be hired (Leonard, 1998). Leonard, J. (1998, September 25). Crowding puts crunch on classrooms. *The Los Angeles Times*, p. B1. Second, school boards and municipalities had to borrow dollars and/or raise taxes to pay for all of these expenses. Third, the construction industry, building supply centers, and other businesses profited from the building of new schools and related activities. The growth of this segment of our population thus had profound implications for many aspects of U.S. society even though it was unplanned and “natural.”

Culture and Technology

Culture and technology are other sources of social change. Changes in culture can change technology; changes in technology can transform culture; and changes in both can alter other aspects of society (Crowley & Heyer, 2011). Crowley, D., & Heyer, P. (2011). *Communication in history: Technology, culture, society* (6th ed.). Boston, MA: Allyn & Bacon.

Two examples from either end of the 20th century illustrate the complex relationship among culture, technology, and society. At the beginning of the century, the car was still a new invention, and automobiles slowly but surely grew in number, diversity, speed, and power. The car altered the social and physical landscape of the United States and other industrial nations as few other inventions have. Roads and highways were built; pollution increased; families began living farther from each other and from their workplaces; tens of thousands of people started dying annually in car accidents. These are just a few of the effects the invention of the car had, but they illustrate how changes in technology can affect so many other aspects of society.

At the end of the 20th century came the personal computer, whose development has also had an enormous impact that will not be fully understood for some years to come. Anyone old enough, such as many of your oldest professors, to remember having to type long manuscripts on a manual typewriter will easily attest to the difference computers have made for many aspects of our work lives. E-mail, the Internet, and smartphones have enabled instant communication and make the world a very small place, and tens of millions of people now use Facebook and other social media. A generation ago, students studying abroad or people working in the Peace Corps overseas would send a letter back home, and it would take up to 2 weeks or more to arrive. It would take another week or 2 for them to hear back from their parents. Now even in poor parts of the world, access to computers and smartphones lets us communicate instantly with people across the planet.

As the world becomes a smaller place, it becomes possible for different cultures to have more contact with each other. This contact, too, leads to social change to the extent that one culture adopts some of the norms, values, and other aspects of another culture. Anyone visiting a poor nation and seeing Coke, Pepsi, and other popular U.S. products in vending machines and stores in various cities will have a *culture shock* that reminds us instantly of the influence of one culture on another. For better or worse, this impact means that the world's diverse cultures are increasingly giving way to a more uniform *global culture*.

This process has been happening for more than a century. The rise of newspapers, the development of trains and railroads, and the invention of the telegraph, telephone, and, later, radio and television allowed cultures in different parts of the world to communicate with each other in ways not previously possible. Affordable jet transportation, cell phones, the Internet, and other modern technology have taken such communication a gigantic step further.

As mentioned earlier, many observers fear that the world is becoming Westernized as Coke, Pepsi, McDonald's, and other products and companies invade other

cultures. Others say that Westernization is a good thing, because these products, but especially more important ones like refrigerators and computers, do make people's lives easier and therefore better. Still other observers say the impact of Westernization has been exaggerated. Both within the United States and across the world, these observers say, many cultures continue to thrive, and people continue to hold on to their ethnic identities.

Cultural Lag

An important aspect of social change is cultural lag, a term popularized by sociologist William F. Ogburn (1922/1966). Ogburn, W. F. (1966). *Social change with respect to cultural and original nature*. New York, NY: Dell. (Original work published 1922) When there is a change in one aspect of society or culture, this change often leads to and even forces a change in another aspect of society or culture. However, often some time lapses before the latter change occurs. **Cultural lag**⁶ refers to this delay between the initial social change and the resulting social change.

Discussions of examples of cultural lag often feature a technological change as the initial change. Ogburn (1922/1966) Ogburn, W. F. (1966). *Social change with respect to cultural and original nature*. New York, NY: Dell. (Original work published 1922) cited one such example from the decades after the American Civil War: the rise of the machine age. The development of factories during the Industrial Revolution meant that work became much more dangerous than before. More industrial accidents occurred, but injured workers were unable to receive adequate financial compensation because the existing law of negligence allowed them to sue only the person—a fellow worker—whose negligence caused the injury. However, negligent workers were typically very poor themselves and thus unable to provide meaningful compensation if they were sued. This meant that injured workers in effect could receive no money for their injuries.

Over time, the sheer number of industrial accidents and rising labor protest movement pressured lawmakers to help injured workers receive financial assistance. Some states began to allow workers to sue the companies whose dangerous workplaces were responsible for their injuries, and juries awarded these workers huge sums of money. Fearing these jury awards, in the early 1900s the manufacturing industry finally developed the process now called *workers' compensation*, which involves fairly automatic payments for workplace injuries without the necessity of lawsuits (Barkan, 2009). Barkan, S. E. (2009). *Law and society: An introduction*. Upper Saddle River, NJ: Prentice Hall. The delay of several decades between the rise of factories and industrial accidents and the eventual establishment of workers' compensation is a fine example of cultural lag.

6. The delay between an initial social change and a resulting social change.

A more recent example of cultural lag involves changes in child custody law brought about by changes in reproductive technology. Developments in reproductive technology have allowed same-sex couples to have children conceived from a donated egg and/or donated sperm. If a same-sex couple later breaks up, it is not yet clear who should win custody of the couple's child or children because traditional custody law is based on the premise of a divorce of a married heterosexual couple who are both the biological parents of their children. Yet custody law is slowly evolving to recognize the parental rights of same-sex couples. Some cases from California are illustrative.

In 2005, the California Supreme Court issued rulings in several cases involving lesbian parents who ended their relationship. In determining custody and visitation rights and child support obligations, the court decided that the couples should be treated under the law as if they had been heterosexual parents, and it decided on behalf of the partners who were seeking custody/visitation rights and child support. More generally, the court granted same-sex parents all the legal rights and responsibilities of heterosexual parents. The change in marital law that is slowly occurring because of changes in reproductive technology is another example of cultural lag. As the legal director of the National Center for Lesbian Rights said of the California cases, "Same-sex couples are now able to procreate and have children, and the law has to catch up with that reality" (Paulson & Wood, 2005, p. 1). Paulson, A., & Wood, D. B. (2005, August 25). California court affirms gay parenting. *The Christian Science Monitor*, p. 1.

The Natural Environment

Changes in the natural environment can also lead to changes in a society itself. We see the clearest evidence of this when a major hurricane, an earthquake, or another natural disaster strikes. Three recent disasters illustrate this phenomenon. In April 2010, an oil rig operated by BP, an international oil and energy company, exploded in the Gulf of Mexico, creating what many observers called the worst environmental disaster in U.S. history; its effects on the ocean, marine animals, and the economies of states and cities affected by the oil spill will be felt for decades to come. In January 2010, a devastating earthquake struck Haiti and killed more than 250,000 people, or about 2.5% of that nation's population. A month later, an even stronger earthquake hit Chile. Although this earthquake killed only hundreds (it was relatively far from Chile's large cities and the Chilean buildings were sturdily built), it still caused massive damage to the nation's infrastructure. The effects of these natural disasters on the economy and society of each of these two countries will certainly also be felt for many years to come.

Slower changes in the environment can also have a large social impact. As noted earlier, one of the negative effects of industrialization has been the increase in pollution of our air, water, and ground. With estimates of the number of U.S. deaths from air pollution ranging from a low of 10,000 to a high of 60,000 (Reiman & Leighton, 2010), Reiman, J., & Leighton, P. (2010). *The rich get richer and the poor get prison: Ideology, class, and criminal justice* (9th ed.). Upper Saddle River, NJ: Prentice Hall. pollution certainly has an important impact on our society. Climate change, a larger environmental problem, has also been relatively slow in arriving but threatens the whole planet in ways that climate change researchers have already documented and will no doubt be examining for the rest of our lifetimes and beyond (Schneider, Rosencranz, Mastrandrea, & Kuntz-Duriseti, 2010). Schneider, S. H., Rosencranz, A., Mastrandrea, M. D., & Kuntz-Duriseti, K. (Eds.). (2010). *Climate change science and policy*. Washington, DC: Island Press. **Chapter 20 "Social Change and the Environment", Section 20.3 "Society and the Environment" and Section 20.4 "Understanding the Environment"** examine the environment at greater length.



As is evident in this photo taken in the aftermath of the 2010 earthquake that devastated Haiti, changes in the natural environment can lead to profound changes in a society. Environmental changes are one of the many sources of social change.

Source: Photo courtesy of United Nations, <http://www.flickr.com/photos/37913760@N03/4274632760>.

Social Conflict: War and Protest

Change also results from social conflict, including wars, ethnic conflict, efforts by social movements to change society, and efforts by their opponents to maintain the status quo. The immediate impact that wars have on societies is obvious, as the deaths of countless numbers of soldiers and civilians over the ages have affected not only the lives of their loved ones but also the course of whole nations. To take just one of many examples, the defeat of Germany in World War I led to a worsening economy during the next decade that in turn helped fuel the rise of Hitler.

One of the many sad truisms of war is that its impact on a society is greatest when the war takes place within the society's boundaries. For example, the Iraq war that began in 2003 involved two countries more than any others, the United States and Iraq. Because it took place in Iraq, many more Iraqis than Americans died or were wounded, and the war certainly affected Iraqi society—its infrastructure, economy, natural resources, and so forth—far more than it affected American society. Most Americans continued to live their normal lives, whereas most Iraqis had to struggle to survive the many ravages of war.

Historians and political scientists have studied the effect of war on politics and the economy. War can change a nation's political and economic structures in obvious ways, as when the winning nation forces a new political system and leadership on the losing nation. Other political and economic changes brought by war are subtler. World War I provides an interesting example of such changes. Before the war, violent labor strikes were common in Britain and other European nations. When the war began, a sort of truce developed between management and labor, as workers wanted to appear patriotic by supporting the war effort and hoped that they would win important labor rights for doing so. However, the truce soon dissolved after prices began to rise and wages did not. Labor-management conflict resumed and became very intense by the end of the war.

This conflict in turn forced European political and business leaders to grant several concessions to labor, which thus achieved gains, however limited, in political and economic power. Labor's participation in the war effort helped it win these concessions. As a historian summarized this connection,

By the end of the war, labor's wartime mobilization and participation had increased its relative power within European societies. As a result, and despite the fact that endeavors to reward labor for its wartime cooperation were, in general, provisional, partial, and half-hearted, it was nonetheless the case that labor achieved some real gains. (Halperin, 2004, p. 155) Halperin, S. (2004). *War and social change in modern Europe: The great transformation revisited*. Cambridge, England: Cambridge University Press.

Other types of nonobvious social changes have resulted from various wars. For example, the deaths of so many soldiers during the American Civil War left many wives and mothers without their family's major breadwinner. Their poverty forced many of these women to turn to prostitution to earn an income, resulting in a rise in prostitution after the war (Marks, 1990). Marks, P. (1990). *Bicycles, bangs, and bloomers: The new woman in the popular press*. Lexington: University Press of Kentucky. Some 80 years later, the involvement of many African Americans in the U.S. armed forces during World War II helped begin the racial desegregation of the military. This change is widely credited with helping spur the hopes of African Americans in the South that racial desegregation would someday occur in their hometowns (McKeeby, 2008). McKeeby, D. (2008, February 25). End of U.S. military segregation set stage for rights movement. Retrieved from <http://www.america.gov/st/peopleplace-english/2008/February/20080225120859liameruoy0.9820215.html>

Social movements have also been major forces for social change. Despite African American involvement in World War II, racial segregation in the South ended only

after thousands of African Americans, often putting their lives on the line for their cause, engaged in sit-ins, marches, and massive demonstrations during the 1950s and 1960s. The Southern civil rights movement is just one of the many social movements that have changed American history, and we return to these movements in [Chapter 21 "Collective Behavior and Social Movements"](#).

KEY TAKEAWAYS

- Major sources of social change include population growth and composition, culture and technology, the natural environment, and social conflict.
- Cultural lag refers to a delayed change in one sector of society in response to a change in another sector of society.

FOR YOUR REVIEW

1. Write a brief essay in which you comment on the advantages and disadvantages of cell phones for social relationships.
2. The text states that courts are beginning to grant same-sex couples the same parental rights and responsibilities that heterosexual couples have. Do you believe that this is a positive development or a negative development? Explain your answer.

20.3 Society and the Environment

LEARNING OBJECTIVES

1. List two reasons that make the environment an appropriate topic for sociologists to study.
2. Describe two of the environmental problems facing the world today.

At first glance, the environment does not seem to be a sociological topic. The natural and physical environment is something that geologists, meteorologists, oceanographers, and other scientists should be studying, not sociologists. Yet the environment is very much a sociological topic for at least five reasons. First, our worst environmental problems are the result of human activity, and this activity, like many human behaviors, is a proper topic for sociological study. Second, environmental problems have a significant impact on people, as do the many other social problems that sociologists study. Third, solutions to our environmental problems require changes in economic and environmental policies, and the potential impact of these changes depends heavily on social and political factors. Fourth, many environmental problems reflect and illustrate social inequality based on social class and on race and ethnicity: as with many issues in our society, the poor and people of color often fare worse when it comes to the environment. Fifth, efforts to improve the environment, often called the *environmental movement*, constitute a social movement and, as such, are again worthy of sociological study.

All these considerations suggest that the environment is quite fittingly a sociological topic, and one on which sociologists should have important insights. In fact, so many sociologists study the environment that their collective study makes up a subfield in sociology called **environmental sociology**⁷, which refers simply to the sociological study of the environment. More specifically, environmental sociology is the study of the interaction between human behavior and the natural and physical environment.

Environmental sociology assumes “that humans are part of the environment and that the environment and society can only be fully understood in relation to each other” (McCarthy & King, 2009, p. 1). McCarthy, D., & King, L. (2009). Introduction: Environmental problems require social solutions. In L. King & D. McCarthy (Eds.), *Environmental sociology: From analysis to action* (2nd ed., pp. 1–22). Lanham, MD: Rowman & Littlefield. According to a report by the American Sociological Association, environmental sociology “has provided important insights” (Nagel,

7. The study of the interaction between human behavior and the natural and physical environment.

Dietz, & Broadbent, 2010, p. 13)Nagel, J., Dietz, T., & Broadbent, J. (Eds.). (2010). *Workshop on sociological perspectives on global climate change*. Washington, DC: National Science Foundation and American Sociological Association. into such areas as public opinion about the environment, the influence of values on people's environmental behavior, and inequality in the impact of environmental problems on communities and individuals. We will examine some of these insights after first reviewing the serious state of the environment.

To say that the world is in peril environmentally might sound extreme, but the world is in fact in peril. People are responsible for the world's environmental problems, and we have both the ability and the responsibility to address these problems. As sociologists Leslie King and Deborah McCarthy (2009, p. ix)King, L., & McCarthy, D. (Eds.). (2009). *Environmental sociology: From analysis to action* (2nd ed.). Lanham, MD: Rowman & Littlefield. assert,

We both strongly believe that humans have come to a turning point in terms of our destruction of ecological resources and endangerment of human health. A daily look at the major newspapers points, without fail, to worsening environmental problems....Humans created these problems and we have the power to resolve them. Naturally, the longer we wait, the more devastating the problems will become; and the more we ignore the sociological dimensions of environmental decline the more our proposed solutions will fail.

A few facts and figures on selected issues will indicate the extent and seriousness of the environmental problem.

Air Pollution

We have already mentioned that air pollution is estimated to kill at least 10,000 Americans, and possibly as many as 60,000, every year. The worldwide toll is much greater, and the World Health Organization (2008)World Health Organization. (2008). Air quality and health. Retrieved from <http://www.who.int/mediacentre/factsheets/fs313/en/index.html> estimates that 2 million people across the globe die every year from air pollution. These deaths typically result from the health conditions that air pollution causes, including heart disease, lung cancer, and respiratory disease such as asthma. Most air pollution stems from the burning of fossil fuels such as oil, gas, and coal. This problem occurs not only in the wealthy industrial



Air pollution probably kills thousands of Americans every year and 2 million people across the planet.

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nations but also in the nations of the developing world; countries such as China and India have some of the worst air pollution. In developing nations, mortality rates of people in cities with high levels of particulate matter (carbon, nitrates, sulfates, and other particles) are 15%–50% higher than the mortality rates of those in cleaner cities. In European countries, air pollution is estimated to reduce average life expectancy by 8.6 months. The World Health Organization (2008) World Health Organization. (2008). Air quality and health. Retrieved from <http://www.who.int/mediacentre/factsheets/fs313/en/index.html> does not exaggerate when it declares that air pollution “is a major environmental health problem affecting everyone in developed and developing countries alike.”

Global Climate Change

The burning of fossil fuels also contributes to *global climate change*, often called *global warming*, thanks to the oft-discussed *greenhouse effect* caused by the trapping of gases in the atmosphere that is turning the earth warmer, with a rise of almost 1°C during the past century. In addition to affecting the ecology of the earth’s polar regions and ocean levels throughout the planet, climate change threatens to produce a host of other problems, including increased disease transmitted via food and water, malnutrition resulting from decreased agricultural production and drought, and a higher incidence of hurricanes and other weather disasters. All these problems have been producing, and will continue to produce, higher mortality rates across the planet. The World Health Organization (2010) World Health Organization. (2010). Climate change and health. Retrieved from <http://www.who.int/mediacentre/factsheets/fs266/en/index.html> estimates that climate change annually causes more than 140,000 excess deaths worldwide.

Water Pollution and Inadequate Sanitation

Water quality in wealthy and developing nations is also a serious problem. Drinking water is often unsafe because of poor sanitation procedures for human waste and because of industrial discharge into lakes, rivers, and streams. Inadequate sanitation and unsafe drinking water cause parasitic infections and diseases such as diarrhea, malaria, cholera, intestinal worms, typhoid, and hepatitis A. The World Health Organization estimates that unsafe drinking water and inadequate sanitation annually cause the following number of deaths worldwide: (a) 1.4 million child deaths from diarrhea; (b) 500,000 deaths from malaria; and (c) 860,000 child deaths from malnutrition. At least 200 million more people annually suffer at least one of these serious diseases resulting from inadequate sanitation and unsafe drinking water (Prüss-Üstün, Bos, Gore, & Bartram, 2008). Prüss-Üstün, A., Bos, R., Gore, F., & Bartram, J. (2008). *Safer water, better health: Costs, benefits and sustainability of interventions to protect and promote health*. Geneva, Switzerland: World Health Organization.

Hazardous Waste Sites

Hazardous waste sites are parcels of land and water that have been contaminated by the dumping of dangerous chemicals into the ground by factories and other industrial buildings. The most famous (or rather, infamous) hazardous waste site in the United States is undoubtedly Love Canal, an area in a corner of Niagara Falls, New York. During the 1940s and 1950s, a chemical company dumped 20,000 tons of toxic chemicals into the canal and then filled it in with dirt and sold it for development to the local school board. A school and more than 800 homes, many of them low-income, were later built just near the site. The chemicals eventually leached into the groundwater, yards, and basements of the homes, reportedly causing birth defects and other health problems.

The Superfund program of the U.S. Environmental Protection Agency (EPA), begun about 30 years ago, monitors and cleans up hazardous waste sites throughout the country. Since its inception, the Superfund program has identified and taken steps to address more than 1,300 hazardous waste sites. About 11 million people live within one mile of one of these sites.



Love Canal, an area in Niagara Falls, New York, was the site of chemical dumping that led to many birth defects and other health problems.

Source: Photo courtesy of U.S. Environmental Protection Agency, http://commons.wikimedia.org/wiki/File:Love_Canal_protest.jpg.

KEY TAKEAWAYS

- The environment is a proper topic for sociological study. Environmental problems have a significant impact on people, and solutions to these problems require changes in economic and environmental policies.
- Air pollution, global climate change, water pollution and inadequate sanitation, and hazardous waste are major environmental problems that threaten the planet.

FOR YOUR REVIEW

1. Of the several reasons that the environment is a proper topic for sociological study, which reason do you think is the most compelling? Explain your answer.
2. List one thing you did yesterday that was good for the environment and one thing that was bad for the environment.

20.4 Understanding the Environment

LEARNING OBJECTIVES

1. Describe what is meant by the assertion that environmental problems are human problems.
2. Explain the concepts of environmental inequality and environmental racism.

Sociologists emphasize two important dimensions of the relationship between society and the environment: (a) the impact of human activity and decision making and (b) the existence and consequences of environmental inequality and environmental racism.

Human Activity and Decision Making

Perhaps more than anything else, environmental sociologists emphasize that *environmental problems are the result of human decisions and activities that harm the environment*. Masses of individuals acting independently of each other make decisions and engage in activities that harm the environment, as when we leave lights on, keep our homes too warm in the winter or too cool in the summer, and drive SUVs and other motor vehicles that get low gas mileage. Corporations, government agencies, and other organizations also make decisions and engage in activities that greatly harm the environment. Sometimes individuals and organizations know full well that their activities are harming the environment, and sometimes they just act carelessly without much thought about the possible environmental harm of their actions. Still, the environment is harmed whether or not they intend to harm it.

In the examples of environmental problems we reviewed in [Chapter 20 "Social Change and the Environment"](#), [Section 20.3 "Society and the Environment"](#)—air pollution, climate change, water pollution, and hazardous waste sites—the human factor is obvious: our personal behavior, the actions of corporations, and the weakness of government environmental regulation are all to blame for the serious environmental problems that threaten the planet. Yet we even see the heavy hand of human involvement in certain accidents and “acts of nature” that harm the environment.

A recent example of this “heavy hand” is the BP oil spill that began in April 2010 when an oil rig leased by BP exploded in the Gulf of Mexico and eventually released almost 5 million barrels of oil (about 200 million gallons) into the ocean. Congressional investigators later concluded that BP had made a series of decisions that “increased the danger of a catastrophic well,” including a decision to save money by using an inferior casing for the well that made an explosion more likely. A news report paraphrased the investigators as concluding that “some of the decisions appeared to violate industry guidelines and were made despite warnings from BP’s own employees and outside contractors” (Fountain, 2010, p. A1). Fountain, H. (2010, June 15). Documents show risky decisions before BP blowout. *The New York Times*, p. A1.

Sociologists McCarthy and King (2009) McCarthy, D., & King, L. (2009). Introduction: Environmental problems require social solutions. In L. King & D. McCarthy (Eds.), *Environmental sociology: From analysis to action* (2nd ed., pp. 1–22). Lanham, MD: Rowman & Littlefield. cite several other environmental accidents that stemmed from reckless decision making and natural disasters in which human decisions accelerated the harm that occurred. One accident occurred in Bhopal, India, in 1984, when a Union Carbide pesticide plant leaked 40 tons of deadly gas. Between 3,000 and 16,000 people died immediately and another half million suffered permanent illnesses or injuries. A contributing factor for the leak was Union Carbide’s decision to save money by violating safety standards in the construction and management of the plant.



The April 2010 BP oil spill occurred after BP made several decisions that may have increased the possibility of a catastrophic explosion of the well.

Source: Photo courtesy of International Bird Rescue Research Center, <http://www.flickr.com/photos/ibrrc/4670207222>.

A second preventable accident was the 1989 *Exxon Valdez* oil tanker disaster, in which the tanker hit ground off the coast of Alaska and released 11 million gallons of oil into Prince William Sound. Among other consequences, the spill killed hundreds of thousands of birds and marine animals and almost destroyed the local fishing and seafood industries. The immediate cause of the accident was that the ship’s captain was an alcoholic and left the bridge in the hands of an unlicensed third mate after drinking five double vodkas in the hours before the crash occurred. Exxon officials knew of his alcoholism but let him command the ship anyway. Also, if the ship had had a double hull (one hull inside the other), it might not have cracked on impact or at least would have released less oil, but Exxon and the rest of the oil industry had successfully lobbied Congress not to require stronger hulls.

Hurricane Katrina was a more recent environmental disaster in which human decision making resulted in a great deal of preventable damage. After Katrina hit the Gulf Coast and especially New Orleans in August 2005, the resulting wind and flooding killed more than 1,800 people and left more than 700,000 homeless. McCarthy and King (2009, p. 4) McCarthy, D., & King, L. (2009). Introduction: Environmental problems require social solutions. In L. King & D. McCarthy (Eds.), *Environmental sociology: From analysis to action* (2nd ed., pp. 1–22). Lanham, MD: Rowman & Littlefield. again attribute much of this damage to human decision making: “While hurricanes are typically considered ‘natural disasters,’ Katrina’s extreme consequences must be considered the result of social and political failures.” Long before Katrina hit, it was well known that a major flood could easily breach New Orleans levees and have a devastating impact. Despite this knowledge, U.S., state, and local officials did nothing over the years to strengthen or rebuild the levees. In addition, coastal land that would have protected New Orleans had been lost over time to commercial and residential development.

According to sociologist Nicole Youngman (2009, p. 176), Youngman, N. (2009). Understanding disaster vulnerability: Floods and hurricanes. In K. A. Gould & T. L. Lewis (Eds.), *Twenty lessons in environmental sociology* (pp. 176–190). New York, NY: Oxford University Press. this development also “placed many more people and structures in harm’s way than had existed there during previous hurricanes.” All these factors led Youngman (2009, p. 176) Youngman, N. (2009). Understanding disaster vulnerability: Floods and hurricanes. In K. A. Gould & T. L. Lewis (Eds.), *Twenty lessons in environmental sociology* (pp. 176–190). New York, NY: Oxford University Press. to conclude that Katrina’s impact “demonstrated how a myriad of human and nonhuman factors can come together to produce a profoundly traumatic event.” In short, the flooding after Katrina was a human disaster, not a natural disaster.

Environmental Inequality and Environmental Racism

A second emphasis of environmental sociology is *environmental inequality* and the related concept of *environmental racism*. **Environmental inequality**⁸ (also called *environmental injustice*) refers to the fact that low-income people and people of color are disproportionately likely to experience various environmental problems, while **environmental racism**⁹ refers just to the greater likelihood of people of color to experience these problems (Bullard & Johnson, 2009; Mascarenhas, 2009). Bullard, R. D., & Johnson, G. S. (2009). Environmental justice: Grassroots activism and its impact on public policy decision making. In L. King & D. McCarthy (Eds.), *Environmental sociology: From analysis to action* (2nd ed., pp. 63–79). Lanham, MD: Rowman and Littlefield; Mascarenhas, M. (2009). Environmental inequality and environmental justice. In K. A. Gould & T. L. Lewis (Eds.), *Twenty lessons in environmental sociology* (pp. 127–141). New York, NY: Oxford University Press. The term **environmental**

8. The disproportionate exposure of low-income people and people of color to various environmental problems.

9. The disproportionate exposure of people of color to various environmental problems.

justice¹⁰ refers to scholarship on environmental inequality and racism and public policy efforts and activism aimed at reducing these forms of inequality and racism. The “Sociology Making a Difference” box discusses scholarship on environmental racism that contributed to interest in, and concern about, this topic and to public policy aimed at addressing it.

10. Scholarship on environmental inequality and racism, and public policy efforts and activism aimed at reducing these forms of inequality and racism.

Sociology Making a Difference

Environmental Racism in the Land of Cotton

During the 1970s, people began to voice concern about the environment in the United States and across the planet. As research on the environment grew by leaps and bounds, some scholars and activists began to focus on environmental inequality in general and on environmental racism in particular. During the 1980s and 1990s, their research and activism spawned the environmental justice movement that has since shed important light on environmental inequality and racism and helped reduce these problems.

Research by sociologists played a key role in the beginning of the environmental justice movement and continues to play a key role today. Robert D. Bullard of Clark Atlanta University stands out among these sociologists for the impact of his early work in the 1980s on environmental racism in the South and for his continuing scholarship since then. He has been called “the father of environmental justice” and was named by *Newsweek* as one of the 13 most influential environmental leaders of the 20th century, along with environmental writer Rachel Carson, former vice president Al Gore, and 10 others.

Bullard’s first research project on environmental racism began in the late 1970s after his wife, an attorney, filed a lawsuit on behalf of black residents in Atlanta who were fighting the placement of a landfill in their neighborhood. To collect data for the lawsuit, Bullard studied the placement of landfills in other areas. He found that every city-owned landfill in Houston was in a black neighborhood, even though African Americans amounted to only one-fourth of Houston residents at the time. He also found that three out of four privately owned landfills were in black neighborhoods, as were six of the eight city-owned incinerators. He extended his research to other locations and later recalled what he discovered: “Without a doubt, it was a form of apartheid where whites were making decisions and black people and brown people and people of color, including Native Americans on reservations, had no seat at the table” (Dicum, 2006). Dicum, G. (2006, March 14). Meet Robert Bullard, the father of environmental justice. *Grist Magazine*. Retrieved from <http://www.grist.org/article/dicum>

In 1990, Bullard published his findings in his book *Dumping in Dixie: Race, Class, and Environmental Quality* (Bullard, 1990). Bullard, R. D. (1990). *Dumping in Dixie: Race, class, and environmental quality*. Boulder, CO: Westview Press. This book described the systematic placement in several Southern states of toxic waste sites, landfills, and chemical plants in communities largely populated by low-income residents and/or African Americans. *Dumping in Dixie* was the first book to examine environmental racism and is widely credited with helping advance the environmental justice movement. It received some notable awards, including the Conservation Achievement Award from the National Wildlife Federation.

More recently, Bullard, along with other sociologists and scholars from other disciplines, has documented the impact of race and poverty on the experience of New Orleans residents affected by the flooding after Hurricane Katrina. As in many other cities, African Americans and other low-income people largely resided in the lower elevations in New Orleans, and whites and higher-income people largely resided in the higher elevations. The flooding naturally had a much greater impact on the lower elevations and thus on African Americans and the poor. After the flood, African Americans seeking new housing in various real estate markets were more likely than whites to be told that no housing was available (Bullard & Wright, 2009). Bullard, R. D., & Wright, B. (2009). Race, place, and the environment in post-Katrina New Orleans. In R. D. Bullard & B. Wright (Eds.), *Race, place, and environmental justice after Hurricane Katrina: Struggles to reclaim, rebuild, and revitalize New Orleans and the Gulf Coast* (pp. 19–48). Boulder, CO: Westview Press.

For more than three decades, Robert D. Bullard has documented environmental racism in the South and elsewhere in the United States. His work alerted the nation to this issue and helped motivate the Environmental Protection Agency in the 1990s to begin paying attention to it. Once again, sociology has made a difference.

For example, almost all of the hazardous waste sites already mentioned are located in or near neighborhoods and communities that are largely populated by low-income people and people of color. When factories dump dangerous chemicals into rivers and lakes, the people living nearby are very likely to be low-income and of color. Around the world, the people most affected by climate change and other environmental problems are those in poor nations and, even within those nations, those who are poorer rather than those who are wealthier.

According to the American Sociological Association report mentioned earlier, the emphasis of environmental sociology on environmental inequality reflects the emphasis that the larger discipline of sociology places on social inequality: “A central finding of sociology is that unequal power dynamics shape patterns of social mobility and access to social, political, and economic resources” (Nagel, Dietz, & Broadbent, 2010, p. 17). Nagel, J., Dietz, T., & Broadbent, J. (Eds.). (2010). *Workshop on sociological perspectives on global climate change*. Washington, DC: National Science Foundation and American Sociological Association. The report adds that global climate change will have its greatest effects on the poorest nations: “Many of the countries least responsible for the rise in greenhouse gases will be most likely to feel its impacts in changes in weather, sea levels, health care costs, and economic hardships” (Nagel, Dietz, & Broadbent, 2010, p. 17). Nagel, J., Dietz, T., & Broadbent, J. (Eds.). (2010). *Workshop on sociological perspectives on global climate change*. Washington, DC: National Science Foundation and American Sociological Association.



Global climate change is very likely to have its greatest impact on people in the poorest nations, even though these nations are the least responsible for greenhouse gases.

Source: Photo courtesy of Hamed Saber, <http://www.flickr.com/photos/hamed/266139764>.

An interesting controversy among environmental sociologists is whether social class or race plays a bigger role in environmental inequality. This controversy is called the “race-versus-class debate” (Mascarenhas, 2009). Mascarenhas, M. (2009). Environmental inequality and environmental justice. In K. A. Gould & T. L. Lewis (Eds.), *Twenty lessons in environmental sociology* (pp. 127–141). New York, NY: Oxford University Press. Some sociologists feel that environmental inequality is mostly a matter of social class and economic inequality, and some say that environmental inequality is mostly a matter of race and racial inequality. Taking a middle ground, other sociologists believe that environmental inequality reflects both racial and social class inequality.

Some evidence shows that while low-income people are the most likely to be exposed to environmental problems, this exposure is even more likely if they are people of color than if they are white. As a review of this evidence concluded,

It would be fair to summarize this body of work as showing that the poor and especially the non-white poor bear a disproportionate burden of exposure to suboptimal, unhealthy environmental conditions in the United States. Moreover, the more researchers scrutinize environmental exposure and health data for racial and income inequalities, the stronger the evidence becomes that grave and

widespread environmental injustices have occurred throughout the United States. (Evans & Kantrowitz, 2002, p. 323) Evans, G. W., & Kantrowitz, E. (2002). Socioeconomic status and health: The potential role of environmental risk exposure. *Annual Review of Public Health*, 23(1), 303.

Regardless of the correct answer to the race-versus-class debate, the very existence of environmental inequality shows that social inequality in the larger society exposes some people much more than others to environmental dangers.

Improving the Environment: What Sociology Suggests

We have discussed two major emphases of environmental sociology. First, environmental problems are largely the result of human decision making and activity and thus preventable. Second, environmental problems disproportionately affect the poor and people of color.

These two insights have important implications for how to improve our environment. Simply put, we must change the behaviors and decisions of individuals, businesses, and other organizations that harm the environment, and we must do everything possible to lessen the extra environmental harm that the poor and people of color experience. Many environmental scholars and activists believe that these efforts need to focus on the corporations whose industrial activities are often so damaging to the air, water, and land. The “Learning From Other Societies” box discusses a lesson from Australia about the need for this sort of focus.

Learning From Other Societies

Lead Contamination Down Under

Lead is a toxic chemical that causes much damage, especially in children. Among the problems that lead poisoning causes are brain damage, kidney damage, and developmental disability.

During the 1980s, Australian officials responded to research linking lead to these problems by determining that several behaviors of children contributed to high lead levels. These behaviors included placing objects in one's mouth, nail biting, and not washing one's hands. But for children living in several smelter towns, the most important factor for their lead levels was whether they lived near a smelter.

Rather than focusing on the emissions from the smelter and on addressing the amount of lead that its activities had added to the surrounding land over the years, the Australian government instead advised parents to do a better job of household cleaning and of making sure that their children did not engage in the behaviors just listed, which contributed to their lead levels. A smelter official in the town of Port Pirie in South Australia said that “given reasonable care and hygiene, then you can live with the levels of contamination from past emissions.”

Despite this official's assurance, lead blood levels continued to be too high. In 1993, a report by the South Australian Health Commission admitted that the focus on children's hygiene had not worked. Despite this conclusion, government efforts to address lead poisoning in other smelter towns during the 1990s continued to focus on household cleaning and children's personal hygiene. A study of this history of these Australian efforts concluded that the government there did not want to offend the lead companies and that the companies were more concerned with losing profits than with reducing lead pollution.

Because the government was reluctant to antagonize business, its efforts focused on the home and placed the responsibility for protecting children on their parents, especially mothers given their more central role in household work and child care. The Australian experience with lead suggests that efforts

to improve the environment need to focus more on the corporations that damage the environment than on the behavior of private citizens. The behavior of private citizens is certainly important, but efforts that do not focus sufficiently on the source of environmental hazards will ultimately fail to improve our environment. From the Australian experience, the United States has much to learn. (Bryson, McPhillips, & Robinson, 2009)Bryson, L., McPhillips, K., & Robinson, K. (2009). Turning public issues into private troubles: Lead contamination, domestic labor, and the exploitation of women's unpaid labor in Australia. In L. King & D. McCarthy (Eds.), *Environmental sociology: From analysis to action* (2nd ed., pp. 80–92). Lanham, MD: Rowman & Littlefield.

Beyond these general approaches to improving the environment that sociological insights suggest, there are a number of strategies and policies that the United States and other nations could and should undertake to help the environment. Although a full discussion of these is beyond the scope of this chapter, a recent report by the Center for American Progress (Madrid, 2010)Madrid, J. (2010). *From a "green farce" to a green future: Refuting false claims about immigrants and the environment*. Washington, DC: Center for American Progress. recommended a number of actions for the United States to undertake, including the following:

1. Establish mandatory electricity and natural gas reduction targets for utilities.
2. Expand renewable energy (wind and sun) by setting a national standard of 25% of energy to come from renewable sources by 2025.
3. Reduce deforestation by increasing the use of sustainable building materials and passing legislation to protect forests.
4. Reduce the use of fossil fuels by several measures, including higher fuel economy standards for motor vehicles and closing down older coal-fired power plants.
5. In cities, increase mass transit, develop more bicycle lanes, and develop more efficient ways of using electricity and water.

It is not an exaggeration to say that the fate of our planet depends on the successful implementation of these and other policies. Because, as sociology emphasizes, the environmental problems that confront the world are the result of human activity, changes in human activity are necessary to save the environment.

KEY TAKEAWAYS

- Environmental problems are largely the result of human behavior and human decision making. Changes in human activity and decision making are thus necessary to improve the environment.
- Environmental inequality and environmental racism are significant issues. Within the United States and around the world, environmental problems are more often found where poor people and people of color reside.

FOR YOUR REVIEW

1. Pretend you are on a debate team and that your team is asked to argue in favor of the following resolution: *Be it resolved, that air and water pollution is primarily the result of reckless human behavior rather than natural environmental changes.* Using evidence from the text, write a two-minute speech (about 300 words) in favor of the resolution.
2. How much of the environmental racism that exists do you think is intentional? Explain your answer.

20.5 End-of-Chapter Material

Summary

1. Social change involves the transformation of cultural norms and values, behavior, social institutions, and social structure. As societies become more modern, they become larger, more heterogeneous, and more impersonal, and their sense of community declines. Traditions decline as well, while individual freedom of thought and behavior increases. Some sociologists view modernization positively, while others view it negatively. Tönnies in particular lamented the shift from the *Gemeinschaft* of premodern societies to the *Gesellschaft* of modern societies. Durkheim also recognized the negative aspects of modernization but at the same time valued the freedom of modern societies and thought they retain a good amount of social solidarity from their division of labor.
2. A functionalist understanding of social change emphasizes that it is both natural and inevitable. Talcott Parsons's equilibrium model recognized that gradual change is desirable and ordinarily stems from such things as population growth and technological advances, but that any sudden social change disrupts society's equilibrium. Taking a very different view, conflict theory stresses that sudden social change is often both necessary and desirable to reduce inequality and to address other problems in society. Such social change often stems from intentional efforts by social movements to correct perceived deficiencies in the social, economic, and political systems.
3. Several sources of social change exist. These include population growth and changes in population composition, changes in culture and technology, changes in the natural environment, and social and ethnic conflict.
4. Environmental sociology is the sociological study of the environment. One major emphasis of environmental sociology is that environmental problems are largely the result of human activity and human decision making.
5. A second major emphasis of environmental sociology is that environmental problems disproportionately affect low-income people and people of color. These effects are called environmental inequality and environmental racism, respectively.

USING SOCIOLOGY

You are in your second year in the public relations department of a medium-sized company that owns and operates three factories along the Mississippi River. Each of the factories is discharging toxic chemicals into the river in violation of federal safety standards, and each of the factories is located near a small town populated mostly by low-income residents. The percentage of African Americans in the three towns ranges from 33% to 55%. Having had an environmental sociology course in college, you are very concerned about the factories' pollution, but you also do not want to lose your job. Do you take any action to try to address this form of pollution, or do you remain silent? Explain your answer.