2

EXAMINING THE SOCIAL WORLD

How Do We Know What We Know?

MICRO

- **ME (MY FAMILY AND CLOSEST FRIENDS)**

- **LOCAL ORGANIZATIONS AND COMMUNITY**
  I am active in a local church, school, clubs, and sports teams.

MESO

- **NATIONAL ORGANIZATIONS, INSTITUTIONS, AND ETHNIC SUBCULTURES**
  I am active in a religious denomination, part of an educational system, and a member of an ethnic group.

MACRO

- **SOCIETY**
  I am a citizen of the United States, Canada, or another country.

- **GLOBAL COMMUNITY**
  I am influenced by actions of the United Nations, the World Health Organization, or Doctors Without Borders.

WHAT WILL YOU LEARN IN THIS CHAPTER?

This chapter will help you to do the following:

2.1 Outline the development of sociology

2.2 Describe key theoretical perspectives

2.3 Explain the scientific approach

2.4 Outline the basic steps of the scientific research process

Think About It

Micro: Small groups and local communities	When you are trying to convince neighbors or people in your community to accept your opinion, why are facts and evidence important?
Meso: National institutions, complex organizations, and ethnic groups	How do sociologists gather accurate data about families, educational institutions, or ethnic groups?
Macro: National and global systems	How can theories about national and global processes and interactions help us understand our own lives at the micro level?

Let us travel to the Southern Hemisphere to meet a teenage boy, Hector. He is a 16-year-old, living in a *favela* (slum) on the outskirts of São Paulo, Brazil. He is a polite, bright boy, but his chances of getting an education and a steady job in his world are limited. Like millions of other children around the world, he comes from a poor, rural family that migrated to an urban area in search of a better life. However, his family ended up in a crowded slum with only a shared spigot for water and one string of electric lights along the dirt road going up the hill on which they live. The sanitary conditions in his community are appalling—open sewers and no garbage collection—and make the people susceptible to various diseases. His family is relatively fortunate, for they have cement walls and wood flooring but no bath-room, running water, or electricity. Many adjacent dwellings are little more than cardboard walls with corrugated metal roofs and dirt floors.

The slums of São Paulo, Brazil. Hector lives in a neighborhood with shelters made of available materials, such as boxes, with no electricity or running water and poor sanitation.

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Hector wanted to stay in school but was forced to drop out to help support his family. Since leaving school, he has picked up odd jobs: deliveries, trash pickup, janitorial work, and gardening—to help pay for the family's dwelling and to buy food to support his parents and six siblings. Even when he was in school, Hector's experience was discouraging. He was not a bad student, and some teachers encouraged him to continue, but other students from the city teased the *favela* kids and made them feel unwelcome. Most of his friends dropped out before he did. Hector often missed school because of other obligations: looking for part-time work, helping a sick relative, or taking care of a younger sibling. The immediate need to put food on the table outweighed the long-term value of staying in school. What is the bottom line for Hector and millions like him? Because of his limited education and work skills, obligations to his family, and limited opportunities, he most likely will continue to live in poverty along with millions of others in this situation.

Sociologists are interested in factors that influence the social world of children like Hector: family, friends, school, community, and the place of one's nation in the global political and economic structural systems. Sociologists use social theories and scientific methods to examine and understand poverty and many other social issues. In this chapter, you will learn about some of the different data collection methods sociologists use to collect information and the theories they use to make sense of their data.

Sociological research helps you understand how and why society operates and how you might change it. It can also help you make sense of why people in your family, neighborhood, college campus, and workplace act the way they do. You will, no doubt, find yourself in a situation where conducting a research study will help your organization or community.

This chapter introduces you to the basic tools used to plan studies and gather dependable information on topics of interest. It will also help you understand how sociology approaches research questions. To this end, we begin this chapter by discussing the development of sociology as a discipline and the core principles of sociology's major theoretical perspectives. We then explore sociology as a science through core ideas that underlie any science: how to collect data, ethical issues involving research, and practical applications and uses of sociological knowledge. We start with the beginnings and emergence of sociology as a field of study.

DEVELOPMENT OF SOCIOLOGY

> **2.1** Outline the development of sociology.

Throughout recorded history, humans have been curious about how and why society operates as it does. Long before the development of science, religion and philosophy influenced the way individuals thought about the world. Both approaches to understanding society had a strong moral tone. For example, Plato's *Republic*, written around 400 BCE, outlines plans for an ideal state—complete with government, family, economic systems, class structure, and education—designed to achieve social justice. Plato's opinions were derived from abstract reflection about how the social world should work, but they were not tested scientifically.

The first person on record to suggest a systematic approach to explain the social world was North African Islamic scholar Ibn Khaldun (1332–1406). Khaldun was particularly interested in understanding the feelings of solidarity that held tribal groups together during his day, a time of great conflict and wars (Alagha, 2017; Alatas, 2006).

Rise of Modern Sociology

Sociology, as a discipline, developed out of several conditions that arose during the period from the 1600s to the 1800s. First, European nations were imperial powers extending their influence and control by establishing colonies in other cultures. This exposure to other cultures encouraged at least some Europeans to learn more about the people in and around their new colonies. Second, they sought to understand the rapid changes in their own societies brought about by the Industrial Revolution (which began around the middle of the 1700s) and the French Revolution (1789–1799). Finally, advances in the natural sciences demonstrated the value of the scientific method, and some wished to apply this method to the social sciences and to understanding the social world.

In the early and mid-1800s, no one had clear, systematic explanations for why the old social structure, which had lasted since the early Middle Ages, was collapsing or why cities were exploding with migrants from rural areas. French society was in turmoil, members of the nobility were being executed, and new rules of justice were taking hold. The state became more powerful than churches and ideas of democracy and equality among citizens were developed and even instituted in some nations. These dramatic changes marked the end of the traditional monarchy and the beginning of a new social order.

It was in this setting that the scientific study of society emerged. Two social thinkers, Henri Saint-Simon (1760–1825) and Auguste Comte (1798–1857), decried the lack of systematic data collection or objective analysis in social thought. These Frenchmen argued that a science of society could help people understand and perhaps control the rapid changes and unsettling revolutions taking place.

Comte officially coined the term *sociology* in 1838. His basic premise was that common ways of understanding the world at that time, through religious or philosophical speculation about society, did not provide an adequate understanding of how to solve society's problems. Just as scientists compiled basic facts about the *physical* world, so too was there a need to gather scientific knowledge about the *social* world. Only then could leaders systematically apply this scientific knowledge to improve social conditions.

Comte asked two basic questions: First, what holds society together and gives rise to a stable order rather than anarchy? Second, why and how do societies change? Comte conceptualized society as divided into two parts: (1) *social statics*, aspects of society that give rise to order, stability, and harmony—what we refer to as *structure* and (2) *social dynamics*, forces that promote change and evolution (even revolution) in society—what we call *process*. By understanding these aspects of the social world, Comte felt that leaders could strengthen society and respond appropriately to change. His optimistic belief was that sociology would be the "queen of sciences," guiding leaders to construct a better social order (Comte, [1855] 2003).

The Bastille, a state prison in Paris, France, and a symbol of oppression, was seized by the common people during the French Revolution, a social upheaval that forced social analysts to think differently about society and social stability.

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Sociology continued developing as scholars tried to understand further changes brought about by the Industrial Revolution. Massive social and economic transformations in the 18th and 19th centuries brought about restructuring and sometimes the demise of political monarchies, aristocracies, and feudal lords. Scenes of urban squalor were common in Great Britain and other industrializing European nations. Machines replaced both agricultural workers and cottage (home) industries because they produced an abundance of goods faster, better, and cheaper. Peasants were pushed off the land by new technologies and migrated to urban areas to find work; at the same time, a powerful new social class of capitalists emerged. Industrialization brought the need for a new skilled class of laborers, putting new demands on an education system that had served only the elite. More and more families now depended on work and wages in the industrial sector to stay alive.

These changes stimulated other social scientists to study society and its problems. The writings of Émile Durkheim, Karl Marx, Harriet Martineau, Max Weber, W. E. B. Du Bois, and many other early sociologists set the stage for the development of sociological theories. Du Bois, an African American who had to deal with racism in and out of academia, was the first scholar in North America to create a truly scientific program for the study of society, beginning prior to 1900 (A. Morris, 2015). Accompanying the development of sociological theory was the use of the scientific method—the systematic gathering and recording of reliable and accurate data to test ideas.

SOCIOLOGY'S MAJOR THEORETICAL PERSPECTIVES

2.2 Describe key theoretical perspectives.

A **theoretical perspective** is *a basic view of society that guides sociologists' research questions, methods, and analysis. Theoretical perspectives are the broadest theories in sociology, providing overall approaches to understanding the social world and social problems.* Sociologists draw on major theoretical perspectives at each level of analysis to guide their research and to help them understand social interactions and social organizations. **Theories** *are statements or explanations regarding how and why two or more facts are related to each other.* A good theory also allows social scientists to make *predictions* about the social world.

Recall the description of the social world model presented in Chapter 1. It stresses the levels of analysis—smaller units existing within larger social systems. Some theories are especially useful when trying to understand small, micro-level interactions, whereas others help us make sense of large, macro-level structures. Either type of theory—those most useful at the micro or macro levels—can be used at the meso level, depending on the research question. To illustrate four of the major theoretical perspectives on the social world, we delve into our examination of Hector's circumstances, introduced at the beginning of this chapter.

Micro- to Meso-Level Theories

If we wanted to study Hector's interactions with his friends and their influence on him or his school performance, we would turn to micro- and meso-level theories to guide our research. Two theories often used at the micro and meso levels of analysis are symbolic interaction theory and rational choice theory.

Symbolic Interaction Theory

Symbolic interaction theory (also called *social constructionism* or *interpretative theory*) sees humans as active agents who create shared meanings of symbols and events and then interact on the basis of those meanings.

Let's break that down: Through our interactions, we learn to share common ideas, understand what to expect from others, and gain the capability to influence our social world. As we interact, we make use of **symbols**, *actions or objects that represent something else and therefore have meaning beyond their own existence*—such as flags, wedding rings, words, and nonverbal gestures. Such symbolic communication (e.g., language) helps people construct a meaningful world. Humans continually create and re-create society through their construction and interpretation of the social world. More than any other theory in the social sciences, symbolic interaction theory stresses the active role of individuals in creating their social environment, called *human agency*.

George Herbert Mead (1863–1931), one of the founders of the symbolic interaction perspective, explored how humans define or make sense of situations (G. Mead, [1934] 1962). He placed special emphasis on human interpretations of gestures and symbols (including language) and the meanings we attach to our actions. He also examined how we learn our social **roles** in society, including *expected behaviors, rights, obligations, responsibilities, and privileges assigned to a social status* (such as mother,

child, teacher, and friend) and how we learn to carry out these roles. Indeed, as we will see in Chapter 4, Mead insisted that our notion of who we are—our *self*—emerges from social experience and interaction with others. Language is critical to this process, for it allows us to step outside of our own experience and reflect on how others see us.

To summarize, modern symbolic interaction theory emphasizes the following:

- People continually create and re-create society through interacting with one another.

- People interact by communicating with one another through the use of shared symbols.

- We learn who we are (our sense of self) and our place in society through interacting with others.

Critique of Symbolic Interaction Theory. Each theory has its critics, those who disagree with some aspect of the theory. That is how scientists critique their ideas and develop new theories. Although many sociologists make good use of symbolic interaction theory, it tends to neglect the macro-level structures of society that affect human behavior. By focusing on interpersonal interactions, large-scale social forces such as an economic depression or a political revolution that shape human destinies receive less consideration. For example, if we focused only on how Hector interacts with his family and friends in trying to determine why he dropped out of school, we would overlook macro forces (e.g., how the lack of government supports for poor families affected his decision to drop out of school).

Despite these limitations, theorists from the symbolic interaction perspective have made significant contributions to understanding the development of social identities and interactions that underlie groups, organizations, and societies. Many of these studies will be discussed throughout the book.

Rational Choice (Exchange) Theory

According to **rational choice (exchange) theory**, *humans are fundamentally concerned with self-interests, making rational decisions based on weighing costs and rewards of the projected outcome of an action.* Someone from this perspective would say Hector would picture the situation as if it were a mental balance sheet: For example, on the plus side, staying in school may lead to opportunities not available to uneducated people. On the minus side, school is a negative experience, and Hector's family needs help to feed its members now, so going to school is a "waste of time." Which side will win depends on Hector's balance sheet and on family and friends' influence over the rewards versus the costs.

Rational choice theory, also called *exchange theory*, has its roots in several disciplines—economics, behavioral psychology, anthropology, and philosophy. Researchers who use this theory see social behavior as an exchange activity—a transaction in which resources are given and received (Blau, 1964; Homans, 1974). Every interaction involves an exchange of something valued: money, time, material goods, attention, sex, allegiance, and so on. People stay in relationships because they get something from the exchange, and they leave relationships that have more costs than benefits for them. They constantly evaluate whether there is reciprocity or balance in a relationship so that they are receiving as much as they give. For rational choice theorists, self-interest for the individual is the guiding element in human interaction.

In summary, rational choice theory involves the following key ideas:

- Human beings are mostly self-centered, and self-interest drives their behavior.

- Humans calculate costs and benefits (rewards) in making decisions.

- Humans are rational in that they weigh choices to maximize their own benefits and minimize costs.

- Every interaction involves exchanges entailing rewards and penalties or expenditures.

- People keep a mental ledger in their heads about whether they owe someone else or that person owes them.

Critique of Rational Choice Theory. Rational choice theorists give little attention to micro-level internal mental processes, such as self-reflection. Charitable, unselfish, or altruistic behavior is not easily explained by this view. For example, why would a soldier sacrifice their life to save a comrade? Why would a starving person in a Nazi concentration camp share a crust of bread with another? Proponents of rational choice counter the criticism by arguing that if a person feels good about helping another, that in itself is a reward that compensates for the cost.

According to rational choice theory, people avoid cost or pain and seek benefits. Thus, people in authority try to control others by imposing costs for behaviors that are unwanted. The cost for this woman for speeding is an expensive ticket, and the city council and police hope it will lead to more desired behavior in her future.

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THINKING SOCIOLOGICALLY

How can the symbolic interaction and rational choice perspectives help explain behavior? For example, how might a theorist from each perspective explain why some students study hard on a Friday night and others party? How would each of the previous micro theories answer this question a bit differently?

Meso- and Macro-Level Theories

Meso- and macro-level theories consider large units in the social world: organizations (e.g., General Motors or the Episcopal Church), institutions (e.g., family, education, religion, health care, politics, or economies), societies (e.g., Canada or Mexico), or global systems (e.g., the World Trade Organization or the World Bank). For example, Hector's government at the national and international levels affects his life in a variety of ways. As Brazil industrializes, the nature of jobs and the modes of communication change. Local village cultures adjust as the entire nation gains more uniformity of values, beliefs, and norms. Similarly, resources such as vaccines may be allotted at the local level, but local communities need national and sometimes international support to access resources, as illustrated by the need to create and distribute a vaccine for Covid-19 to billions of people across the world. We can begin to understand how macro factors influence Hector, and all of us, by looking at two major macro-level perspectives: structural-functional and conflict theories.

Structural-Functional Theory

Structural-functional theory, also called *functional theory,* assumes that all parts of the social structure (groups, organizations, and institutions), the culture (values and beliefs), and social processes

(legislators working to create a law, an instructor teaching a child, or laws passed to bring about positive social change) work together to make the whole society run smoothly and harmoniously. To understand the social world from this perspective, we must look at how the parts of society (structure) fit together and how each part contributes to the maintenance of society. For instance, two functions (purposes) of the family include having children and teaching them to be members of society. These and other functions help perpetuate society, for without reproducing and teaching new members to fit in, societies would collapse.

Émile Durkheim (1858–1917), the founder of the functionalist perspective, theorized that society is made up of necessary parts that fit together into a working whole. Durkheim believed that individuals conform to the rules of societies because of a *collective conscience*—the shared beliefs in the values of a group (Durkheim, [1895] 1982). People grow up sharing the same values, beliefs, and rules of behavior as those around them. Gradually, individuals internalize these shared beliefs and rules. A person's behavior is, in a sense, governed from within because it feels right and proper to behave in accordance with what is expected. So, researchers who use the functionalist perspective emphasize social consensus, which gives rise to stable and predictable patterns of order in society. Because people need groups for survival, they adhere to the group's rules so that they do not stand apart from it. This means that most societies run in an orderly manner, with most individuals acting for the benefit of society.

Functions (*consequences of an action or behavior*) can be manifest or latent. **Manifest functions** are *the planned outcomes of interactions, social organizations, or institutions*. Some of the planned consequences of the microwave oven, for instance, have been to allow people to prepare meals quickly and easily, facilitating life in overworked and stressed modern families. **Latent functions** are *unplanned or unintended consequences of actions or social structures* (Merton, 1938, [1942] 1973). Some of the unplanned consequences of microwave ovens were the creation of a host of new jobs and stimulation of the economy, as people wrote new cookbooks and as businesses were formed to produce microwavable cookware and prepared foods ready for the microwave.

Latent functions can be functional (helpful for the organization or society) or dysfunctional (bad for the organization or society). Functional actions contribute to the stability or equilibrium of society, whereas **dysfunctions** are *those actions that undermine the stability or equilibrium of society* (Merton, 1938). For example, by allowing people to prepare meals without using a stove or conventional oven, the microwave oven has contributed to some people having no idea how to cook, thus making them highly dependent on processed foods and, in some cases, adding to problems of obesity.

Although the microwave oven and fast-food restaurants have had many benefits for a society in a hurry, one dysfunction is the deterioration of health, especially due to obesity.

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Sociologists who use a functionalist perspective believe that, to ensure harmony and stability in society, we must ensure that its parts work in functional, rather than dysfunctional, ways.

In summary, the structural-functional perspective

- examines the macro-level organizations and patterns in society;

- looks at what holds societies together and enhances social continuity;

- considers the consequences or *functions* of each major part of society;

- focuses on the way the structure, culture, and social processes work together to make society function smoothly; and

- notes manifest functions (which are planned), latent functions (which are unplanned or secondary), and dysfunctions (which undermine stability).

Critique of the Structural-Functional Perspective. Functionalism does not explain social changes in society, such as conflict and revolution. The functionalist assumption that if a system is stable it must be working well assumes that conflict and change are harmful. However, we know that stability may exist because of ruthless dictators suppressing people and government support for systems set up to benefit some at the cost of many (e.g., sexism, racism, heterosexism, ableism). In short, stability is not always good, and conflict signifies tensions—and sometimes injustices—in societies.

THINKING SOCIOLOGICALLY

Describe a manifest and a latent function of the system of higher education in the United States today. Is the latent function dysfunctional? Why, or why not?

Conflict Theory

In many ways, conflict theory turns the structural-functional theory on its head. **Conflict theory** contends that *conflict is inevitable in any group or society* and that *inequality and injustice are the source of the conflicts that permeate society*. Resources and power are distributed unequally in society, so some members have more money, goods, and prestige than others. The rich protect their positions by using the power they have accumulated to keep others in their places. From the perspective of poor people such as Hector, it seems the rich get all the breaks. Most of us want more of the resources in society (e.g., money, good jobs, education, nice homes, and cars), causing the possibility of conflict between the *haves* (those who control resources) and the *have-nots* (those who lack resources). These conflicts sometimes bring about changes in society.

Modern conflict theory has its origins in the works of Karl Marx (1818–1883), a German social philosopher who lived in England during the height of 19th-century industrial expansion. Capitalism had emerged as the dominant economic system in Europe. *Capitalism* is an economic system in which individuals and corporations, rather than the state, own and control the means of production (e.g., factories). As they compete for profits, some win while others lose.

Marx recognized the plight of workers toiling in factories in the new industrial states of Europe and viewed the ruling elites and the wealthy industrial owners as exploiters of the working class. Marx wrote about the new working class crowded in urban slums, working long hours under appalling conditions, without earning enough money for decent housing and food. Few of the protections enjoyed by many (but not all) workers today—such as retirement benefits, health coverage, sick leave, the 40-hour workweek, and restrictions against child labor—existed in Marx's time.

Marx believed that two classes, the capitalists (also referred to as the *bourgeoisie* or "haves"), who owned the **means of production** (*property, machinery, and other means of creating saleable goods or services*), and the laborers working for the "haves" (also referred to as the *proletariat* or "have-nots") would continue to live in conflict until the workers shared more equally in the profits of their labor. The more workers came to understand their plight, the more aware they would become of the injustice of their

situation. Eventually, Marx believed, workers would rise up and overthrow capitalism, forming a new, classless society. Collective ownership—shared ownership of the means of production—would be the new economic order (Marx & Engels, [1848] 1969).

The idea of the bourgeoisie (the capitalist exploiters who own the factories) and the proletariat (the exploited workers who sell their labor) has carried over to analysis of modern-day conflicts among groups in society. For example, from a conflict perspective, Hector in Brazil and millions like him in other countries are part of the reserve labor force—a cheap labor pool that can be called on when labor is needed and disregarded when demand is low, thus meeting the changing labor needs of industry and capitalism. This pattern results in permanent economic insecurity and poverty for Hector and those like him.

Many branches of the conflict perspective have grown from the original ideas of Marx. Here, we mention four contributions to conflict theory: those of American sociologists Harriet Martineau ([1837] 1962), W. E. B. Du Bois ([1899] 1967), Ralf Dahrendorf (1959), and Lewis Coser (1956). They focused on social conflict in their sociological investigations.

Harriet Martineau (1802–1876), generally considered the first female sociologist, wrote several books that contribute to our understanding of modern sociological research methods and provided a critique of the failure of the United States to live up to its democratic principles, especially as they related to women. She argued that social laws influence social behavior and that societies can be measured on their social progress (including how much freedom they give to individuals and how well they treat the most oppressed members of society). Her work represents the foundation of current feminist and conflict theories (Martineau, 1838).

Another early American conflict theorist, W. E. B. Du Bois (1868–1963), was the first African American to receive a doctorate from Harvard University. After being denied full-time positions at White universities, Du Bois founded a sociology program in 1898 at Atlanta University, a Black college. There, he established a significant research center and trained a generation of Black social scientists. In 1899, he published *The Philadelphia Negro* (one of the first truly scientific studies in North America), and in 1903, he completed a classic sociological work, *The Souls of Black Folk*. His work was truly groundbreaking (A. Morris, 2015).

Du Bois, like other early sociological theorists, believed that, while research should be scientifically rigorous and fair-minded, the ultimate goal of sociological work is social improvement—not just human insight. Throughout his life, Du Bois documented and lambasted the status of Black Americans, noting that African Americans were an integral part of U.S. society but not fully accepted into it.

Du Bois helped establish the National Association for the Advancement of Colored People (NAACP). He stressed the need for minority groups to become advocates for their rights—to object loudly when those in power act to disadvantage minorities—and to make society more just (Du Bois, [1899] 1967). He was—and continues to be—an inspiration for many sociologists who believe that their findings should be used to create a more humane social world.
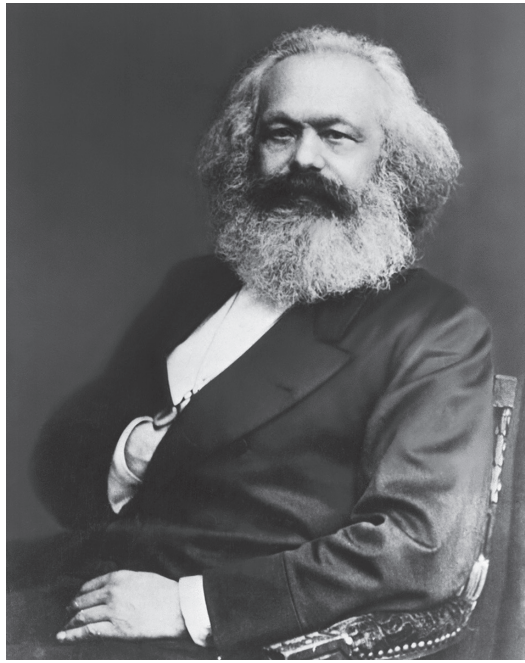
A half-century later, in 1959, Ralf Dahrendorf (1929–2009) argued that society is always in the process of change and affected by forces that bring about change. Dahrendorf refined Marx's ideas in several ways. He pointed out that capitalism had survived, despite Marx's prediction of a labor revolt, because of improved conditions for workers (e.g., unions, the establishment of labor laws, and workplace regulations). Dahrendorf also maintained that instead of divisions being based on ownership, conflict had become based on authority.

Dahrendorf noted that those with lower-status positions (such as Hector) could form interest groups and engage in conflict with those in higher positions of authority. *Interest groups*, such as the members of Hector's *favela*, share a common situation or common interests. In Hector and his neighbors' case, these interests include a desire for sanitation, running water, electricity, jobs, and a higher standard of living. From within such interest groups, *conflict groups* arise to fight for changes. There is always potential for conflict when those without power realize their common position and form interest groups. How much change or violence is brought about depends on how organized those groups become.

Harriet Martineau published a critique of the United States' failure to live up to its democratic principles 11 years before Karl Marx's most famous work, but she was not taken seriously as a scholar for more than a century because she was female—the first feminist theorist.

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Karl Marx is known as the founder of conflict theory.

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W. E. B. Du Bois continued the development of conflict theory and was among the first to apply that theory to U.S. society, especially to issues of race.

Photo by Cornelius M. Battey, 1918. Library of Congress Prints and Photographs Division Washington, DC 20540 USA http://hdl.loc.gov/loc.pnp/pp.print

Dahrendorf's major contribution is the recognition that conflict over resources results in a conflict not just between the proletariat and the bourgeoisie but among a multitude of interest groups, including old people versus young people, rich versus poor, one region of the country versus another, Christians versus non-Christians, and so forth. This acknowledges multiple rifts in society based on interest groups.

Whereas Marx emphasized the divisive nature of conflict, other theorists have offered a modified theory of conflict in society. For example, American theorist Lewis Coser argued that conflict can strengthen societies and the organizations within them. According to Coser, problems in a society or group lead to complaints or conflicts—a warning message to the group that all is not well. Resolution of the conflicts shows that the group is adaptable in meeting the needs of its members, thereby creating greater loyalty to the group. Thus, conflict provides the message of what is not working to meet people's needs, and the system may adapt to the needs for change because of the conflict (Coser, 1956; Simmel, [1922] 1955]).

In summary, conflict theorists advance the following key ideas:

- Conflict and the potential for conflict underlie all social relations.

- Groups of people look out for their self-interest; they will try to obtain resources and make sure they are distributed primarily to members of their own group.

- Social change is desirable, particularly change that brings about a greater degree of social equality.

- The existing social order reflects powerful people imposing their values and beliefs upon those with less power.

Critique of Conflict Theory. Those who use the conflict perspective generally focus on macro-level analysis and tend to lose sight of the individuals involved in conflict situations, such as Hector and his family. Also, they tend to focus on social stress, power dynamics, and disharmony while ignoring social cohesion and cooperation. Many critics of conflict theory argue that altruism and cooperation are common motivations in human behaviors but not recognized by conflict theory.

> ### THINKING SOCIOLOGICALLY
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> Imagine you are a legislator. You must decide whether to cut funding for a senior citizens' program or slash a scholarship program for college students. You want to be reelected, and you know that approximately 90% of senior citizens are registered to vote, and most actually do vote. You also know that less than half of college-age people vote in most elections. These constituencies are about the same size. What would you do, and how would you justify your decision? How does this example illustrate conflict theory?

Multilevel Analysis

Many of the more contemporary theorists try to bridge the gap between micro and macro levels of analysis, offering insights relevant at each level. We examine two of these next.

Max Weber's Contributions. Max Weber (1864–1920), a German-born social scientist, has had a lasting effect on sociology and other social sciences. Weber (pronounced *VAY-ber*) cannot be pigeon-holed easily into one of the theoretical categories or one level of analysis, for his contributions include both micro- and macro-level analyses. His emphasis on *Verstehen* (meaning deep, empathetic understanding in humans) gives him a place in micro-level theory, and his discussions of power and bureaucracies give him a place in meso- and macro-level theory (Weber, 1946).

Verstehen stems from the interpretations or meanings individuals at the micro level give to their social experiences. Weber argued that to understand people's behaviors, you must step into their shoes and see the world as they do. Following in Weber's footsteps, sociologists try to understand both human behavior and the meanings people attach to their experiences. In this work, Weber is a micro theorist who set the stage for symbolic interaction theorists.

However, the goal-oriented, efficient new organizational form called "bureaucracy" was the focus of much of Weber's writing at the meso level. This organizational form is based on **rationality** (*the attempt to reach maximum efficiency with rules designed to accomplish goals*) rather than relying on long-standing tradition for how things should be done. As we describe in Chapter 5, Weber's ideas about society at the meso level have laid the groundwork for a theoretical understanding of modern organizations.

Weber also attempted to understand macro-level processes. For instance, in his famous book *The Protestant Ethic and the Spirit of Capitalism* (Weber, [1904–1905] 1958), he asked how capitalists (those who have money and control production) understood the world around them. His work was influenced by Marx's writings, but whereas Marx focused on economic conditions as the key factor shaping history and power relations, Weber argued that Marx's focus was too narrow. Weber felt that politics, economics, religion, psychology, and people's ideas are interdependent—affecting each other. In short, Weber's understanding of society was more complex than Marx's vision of two economic groups competing for power.

Feminist Theory. Feminist theory also uses multilevel analysis and has foundations in the conflict perspective. **Feminist theory** *critiques the hierarchical power structures that disadvantage women and other minorities* (Cancian, 1992; Collins, 2008). Proponents note that men form an interest group intent on preserving their privileges. Feminists also argue that, historically, men have dominated sociology—like other sciences—providing a perspective that does not give a complete view of the social world.

Some branches of feminist theory come from interaction perspectives, emphasizing the way gender socialization, cues, and symbols shape the nature of many human interactions. Thus, feminist theory moves from macro-level analysis (e.g., looking at national and global situations that give privileges to men) to micro-level analysis (e.g., looking at inequality between husbands and wives in marriage). At every level, feminist theory points out how societies create gender roles and how these roles affect social patterns (Burn, 2011; Lorber, 2009; Messerschmidt et al., 2018).

Realizing that gender influences people differently, based on their other roles in society (class position, race, sexual orientation, age, etc.), feminists use an intersectional approach

Patricia Hill Collins, an innovative feminist scholar, has challenged sociologists to look at the ways experiences of race, social class, gender, and sexuality intersect and reinforce one another.

Photo courtesy of Patricia Hill Collins

to their research. Acknowledging intersectionality allows sociologists to study how individuals' multiple identities intersect and impact their lives and opportunities. For example, the experiences of White and Native American women, while they share the same gender, are very different and will influence how they each experience gender discrimination. Patricia Hill Collins, an important contemporary feminist scholar, examines the discrimination and oppression people face because of their race, class, gender, sexuality, or nationality, all of which are interconnected (Collins, 2008; Collins & Bilge, 2016).

THINKING SOCIOLOGICALLY

To what extent are human beings free agents who can create their own social world and come up with their own ideas about how to live their lives? To what extent are our lives determined or influenced by the social systems around us and by our positions in the economic and political system? Is this different for different people? Why?

Using Different Theoretical Perspectives

Each of the theoretical perspectives described in this chapter begins from a set of assumptions about humans. Each makes a contribution to our understanding, but each has limitations or blind spots, such as not taking into account other levels of analysis. Figure 2.1 gives a summary of cooperative versus competitive perspectives to provide another illustration of how the theories differ.

FIGURE 2.1 ■ Cooperative Versus Competitive Perspectives		
	Macro analysis	**Micro analysis**
Humans viewed as cooperative (people interact with others on the basis of shared meanings and common symbols)	*Structural-Functional Theory*	*Symbolic Interactionism Theory*
Humans viewed as competitive (behavior governed by self-interest)	*Conflict Theory* (group interests)	*Rational Choice Theory* (individual interests)

The strength of a theory depends on its ability to explain and predict behavior accurately. Each theoretical perspective focuses on a different aspect of society and level of analysis and gives us a different lens through which to view our social world. Depending on the questions we ask, different theories will be appropriate; the social world model helps us picture the whole system and determine which theory or theories best suit our needs in analyzing a specific social process or structure.

THINKING SOCIOLOGICALLY

Consider the issue of homelessness in cities around the world. How could each of the theories discussed in this chapter be used to help us understand the problem of homelessness?

Middle-Range Theories

Sociologists use *middle-range theories*—theories that explain specific aspects of social life such as deviant behavior, racial prejudice, and civic engagement—to make sense of the data they gather (Merton, 1968). These theories tend to fall under the umbrella of one of the four major theoretical perspectives described

earlier. For example, Erving Goffman, coming from a symbolic interactionist perspective, focused on the impact of **stigma**(*social disapproval that discredits a person's or group's claim to a "normal" identity*) in social interactions. His analysis of the impact of stigmas and the mid-range theory of social stigma he developed out of it provide one piece of the overall puzzle of explaining social interaction in society.

Theory and Research Methods

Scientists, including sociologists, often use theories to predict changes in society and the conditions under which they are likely to occur. Theory tells researchers what to look for and what concepts or variables they need to measure. However, explanations about the relationships between social variables need to be tested. This is where *research methods*—the procedures one uses to gather data— come into play. Data must be carefully gathered and then used to assess the accuracy of theory. If the data we find do not support a theory, we must reformulate or discard the theory. We use theory and methods together and they are interdependent.

To study Hector's life in Brazil, researchers might focus on the micro-level interactions between Hector and his family members, peers, teachers, and employers as factors that contribute to his situation. For example, one theory could be that Hector's family has socialized him to believe that certain activities (for example, working) are more realistic or immediately rewarding than others (such as attending school). A meso-level focus might examine the influence of the organizations and institutions—such as the business world, the schools, and the religious communities in Brazil—to see how they shape the forces that affect Hector's life. Alternatively, the focus might be on macro-level analysis—the class structure (rich to poor) of the society and the global forces, such as trade relations between Brazil and other countries, that influence opportunities for Brazilians who live in poverty.

Whatever the level of analysis, as social *scientists*, sociologists use scientific methods of gathering evidence to disprove or to support theories about society.

IDEAS UNDERLYING SCIENCE

> **2.3** Explain the scientific approach.

Throughout most of human history, people came to "know" the world by the traditions passed down from one generation to the next. Things were so because authoritative people in the culture said they were so. Often, these explanations relied on magical, philosophical, or religious explanations of the forces in nature. For example, less than 300 years ago, the conventional wisdom was that lightning storms were a sign of an angry god, not electricity caused by meteorological forces. As ways of knowing about the world shifted, tradition, religion, and magic as the primary means to understand the world were challenged. With advances in the natural sciences, observations of cause-and-effect processes became more systematic and controlled.

The scientific approach is based on several core ideas: First, there are real physical and social worlds that we can use science to study and understand. Second, there is a certain order to the world, with identifiable patterns that result from a series of causes and effects. The world is not merely a collection of unrelated random events; rather, events occur in a systematic sequence and in patterns—that is, they are *causally* related. Third, the way to gain knowledge of the world is to subject it to empirical testing. **Empirical knowledge** is *founded on information gained from evidence (facts) rather than intuition*. **Evidence** refers to *facts and observations that can be objectively observed and carefully measured using the five senses (sometimes enhanced by scientific instruments).*

Consider the alternative to evidence. As early as middle school, teachers in some schools ask children to distinguish factual news stories from "fake news" stories, news that has little to no basis in facts that can be verified. Students are asked to look for half-truths, misinformation, and unsubstantiated claims by looking for the validity, accuracy, and reliability of information and sources. These are not always present in stories from Facebook, Twitter, and other social and news media sites. For knowledge to be scientific, it must come from phenomena that can be observed and measured. Phenomena that

cannot be subject to measurement are not within the realm of scientific inquiry. For example, what religion is "best" or the existence of God, the devil, heaven, hell, and the soul cannot be observed and measured and therefore cannot be examined scientifically. Religion, however, can be studied scientifically by looking at the role it plays in society and our lives, its impact on our values and behavior (the sociology of religion), the historical development of specific religious traditions (the history of religion), or the emotional comfort and stability it brings to people (the psychology of religion). Social scientists do not make judgments about what religion is right or best. Finally, science is rooted in **objectivity**; that is, *one must take steps to ensure that one's personal opinions or values do not bias or contaminate data collection and analysis.* Scientists must not distort their research findings to promote a particular point of view. Social scientists, like all scientists, must explain what the data reveal, not what they wish the data would reveal. Researchers must be open to finding results that support *or* disprove their **hypothesis** (*an educated guess or prediction*) about the research being conducted.

Failure to meet these standards—empirical knowledge, objectivity, and scientific evidence—means that a study is not scientific. Even if someone's ideas seem plausible and logical they must be supported by systematically collected evidence. Sociologists deal with issues different from those pictured in detective or crime shows, but the same sort of concern for accuracy in gathering data guides their work. When sociologists establish theories as to why society works as it does, they must test those theories using scientific methods.

HOW SOCIOLOGISTS STUDY THE SOCIAL WORLD

> **2.4**   Outline the basic steps of the scientific research process.

Suppose you have a research question you want to answer such as, "Why do boys like Hector drop out of school?" For your research to be scientific, you must follow the basic steps of the scientific research process.

    A. PLANNING A RESEARCH STUDY

- *Step 1:* Define a topic or problem that can be studied scientifically.

- *Step 2:* Review existing relevant research studies and theory to refine the topic and define **variables**, *concepts (ideas) that can vary in frequency of occurrence from one time, place, or person to another* (such as age, ethnicity, religion, and level of education).

- *Step 3:* Formulate hypotheses or research questions and determine how to define and measure the variables.

    B. DESIGNING THE RESEARCH PLAN AND METHOD FOR COLLECTING THE DATA

- *Step 4:* Design the research plan that specifies how you will gather the data.

- *Step 5:* Select a **sample**, *a group of systematically chosen people who represent a much larger group to study*.

- *Step 6:* Collect the data using appropriate research methods.

    C. MAKING SENSE OF THE DATA

- *Step 7:* Analyze the data and relate them to previous findings on the topic, revealing exactly what the study says about the research question(s) from Step 3.

- *Step 8:* Draw conclusions and present the report, including suggestions for future research and policy recommendations (if appropriate). The study is then ready for peer review—critique by other social scientists. Publicize findings and recommendations supported by the peer review.

Planning a Research Study

If you were to study Hector's situation, you would use Step 1 to define the topic or problem related to Hector that you will study, including the variables you will examine. Step 2 requires you to review past studies on related topics to see what has been done and how other researchers defined their variables. This review provides the basis for Step 3.

In Step 3, to formulate hypotheses, you must link concepts, such as poverty or dropping out of school, to specific measurements. For example, you could hypothesize that poverty is a major cause of *favela* teenagers dropping out of school because they need to earn money for their families. You might determine who is a dropout by using school records indicating whether that child has attended school during the past 6 months. You could define poverty as having a low annual income—say, less than half of the average income for that size of family in the country—or by assessing ownership of property such as cattle, automobiles, and indoor plumbing. It is important to be clear, precise, and consistent in how you define and measure your variables.

In order to conduct research to test a theory, you must formulate a hypothesis, a statement that can be tested to determine if it is true. This is called *deductive research*. It starts with a theory that you then test. For example, you might examine whether poverty causes poor boys like Hector to drop out of school. *Inductive research*, on the other hand, starts with observations that then lead to hypothesis development and, potentially, theory formation. If you use inductive research, you make an observation and then begin to collect more data to determine if what you witnessed initially was a social pattern. For example, if you noticed Hector's friends pressure him to drop out of school, you may want to interview other dropouts to see if their friends influenced their decisions to leave school. Once you start to notice social patterns, you can begin to analyze those patterns using appropriate existing theories, or create a new theory if existing ones do not provide explanations.
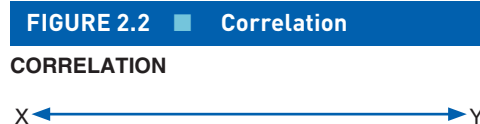
THINKING SOCIOLOGICALLY

Think of a research question based on a theoretical perspective. For example, you might use a micro-level theory to ask how Hector's peers affect his decisions. Then write a hypothesis, and identify your variables in the hypothesis.

Whether you use inductive or deductive research, you must always carefully define your variables and determine how they interact with and relate to one another. The relationship between variables (such as dropping out of school and poverty) is central to understanding *causality*. We discuss causal reasoning in the next section.

Being Clear About Causality

Sociology as a science tries to be very careful about language—more precise than we usually are in our everyday conversations. What do we really mean when we say that something *causes* something else? At the heart of the research process is the effort to find causal relationships (i.e., one variable causes another one to change). The following key terms are important in understanding how two variables (concepts that vary in frequency and can be measured) are related.

Correlation

FIGURE 2.2 ■ Correlation

CORRELATION

X ←————————————→ Y

● **Correlation** refers to *a relationship between variables (such as poverty and low levels of education) with change in one variable associated with change in another*. The hypothesis earlier predicts that poverty and teenagers dropping out of school are related and vary together. That is,

when the poverty level is high, dropping out of school is also high. If we claim a correlation, however, that is only the first step. We have not yet established that change in one variable *causes* a change in the other.

Cause-and-Effect Variables

FIGURE 2.3 ■ Cause and Effect

CAUSE AND EFFECT VARIABLES
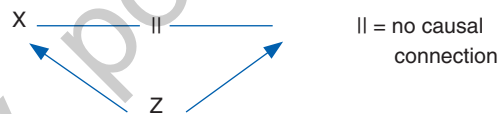
X ─────────────────────➤ Y

- **Cause-and-effect relationships** occur when there is *a relationship between variables so that one variable stimulates a change in another*. Once we have determined that there is probably a relationship, or correlation (the fact that the two variables, such as poverty and dropping out of school, both occur in the same situation), we need to take the next step: analyzing which comes first and seeing if one variable causes change in another. The **independent variable** is *the variable in a cause-and-effect relationship that comes first in a time sequence and causes a change in another variable*—the **dependent variable**. If we hypothesize that poverty causes Hector and others to drop out of school, *poverty* is the independent variable in this hypothesis and *dropping out of school* is the dependent variable, dependent on the level of poverty. In determining cause and effect, the independent variable must always precede the dependent variable in the time sequence if we want to try to determine whether the independent variable causes a change in the dependent variable.

Spurious Relationships

FIGURE 2.4 ■ Spurious Relationship

SPURIOUS RELATIONSHIPS

X ──── ‖ ──── ‖ = no causal
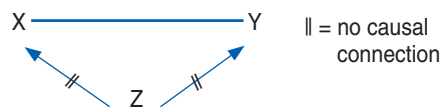   ⤪   ⤩   connection
          Z

- **Spurious relationships** occur when there is *no causal relationship between the independent and dependent variables, but they vary together, often due to a third variable affecting them both*. For example, if the quantity of ice cream consumed is highest during those weeks of the year when most drownings occurred, these two events are correlated. However, eating ice cream did not *cause* the increase in deaths. Indeed, hot weather may have caused more people both to purchase ice cream and to go swimming, with the higher number of swimmers resulting in more drowning incidents. The connection between ice cream and drownings is a *spurious relationship*.

Controls

FIGURE 2.5 ■ Controls

CONTROLS

X ─────────── Y   ‖ = no causal
   ⤦ ‖   ‖ ⤧   connection
         Z

- **Controls** are *steps used by researchers to eliminate all variables except those related to the hypothesis—especially those variables that might be spurious*. Using controls helps ensure that the relationship is not spurious. Using the ice cream example, we might have studied beaches where lots of ice cream was sold and beaches where none was available to compare water death incidents. If there was no difference in death rates, the ice cream could not have caused the drownings.

- Correlation alone can never prove causality. We need studies conducted over time, with control groups, to establish causal relationships. For example, cigarette use correlates with lung cancer. The causal relationship was only proved, however, by comparing lung cancer rates among similar groups of people whose only difference was whether they smoked.

Designing the Research Plan and Method for Collecting the Data

Researchers must always make clear how they collect their data. Every research study should be replicable—capable of being repeated—by other researchers, so social scientists must give enough information to ensure that another researcher could repeat the study and compare results.

The appropriate data collection method depends on the level(s) of analysis of the research question (micro, meso, or macro) the researcher asks. For example, if you want to answer a macro-level research question, such as the effect of poverty on students dropping out of school in Brazil, you should focus on large-scale social and economic data sources, such as the Brazilian census. To learn about micro-level issues, such as the influence of peers on an individual's decision to drop out of school, you will need to examine small-group interactions at the micro level. Table 2.1 illustrates the different levels of analysis.

TABLE 2.1 ■ The Social World Model and *Levels of Analysis*	
Micro Level	
Individual	Hector
Small group	Hector's family and close friends
Local community	The *favela*; Hector's local school, church, and neighborhood organizations
Meso Level	
Organizations	Brazilian corporations, the Catholic Church, and the local school system in Brazil
Institutions	Family; education; political, economic, and health systems in the region or the nation of Brazil
Ethnic subcultures	Native peoples, African Brazilians
Macro Level	
National society	Social policies, trends, and programs in Brazil
Global community of nations	The status of Brazil in the global economy; trade relations with other countries; programs of international organizations or corporations

Designing the Research Plan

Step 4 is vitally important because the researcher evaluates the various methods used to collect data for research studies and selects one or more that are appropriate for the research question. These include questionnaires, interviews, observational studies, secondary data analysis, content analysis, and experiments. Some methods produce *quantitative* (numerical) data, whereas others supply *qualitative* (non-numerical) data, such as individuals' responses to interviews. Questionnaires and secondary data analysis tend to be quantitative and used when conducting macro- and meso-level studies. Interviews, observational studies, and content analysis usually produce qualitative data or a blend of quantitative and qualitative data and are primarily used for micro-level research. Some studies include both quantitative and qualitative data.

Interviews are *research conducted by talking directly with people and asking questions in person or by telephone.* Structured interviews consist of an interviewee asking respondents a set list of questions with a choice of set answers. Unstructured and semi-structured interviews, which allow respondents to answer questions in a more open-ended manner, allow for follow-up and additional questions as they evolve in response to what the researcher learns as the research progresses.

Questionnaires contain *questions and other types of items designed to solicit information appropriate to analysis of research questions.* They are convenient for collecting large amounts of data because they can be distributed to many respondents at once (in person or via phone, mail, or online).

Observational studies (also called *field research*) involve *systematic, planned observation and recording of interactions and other human behavior in their natural settings (where the activity normally takes place, rather than in a laboratory).*

They can take different forms: (1) observations in which the researcher participates in the activities of the group being studied or (2) observations in which the researcher observes or records the group's activity without participating in it. It is important for observers to avoid influencing or altering group functioning and interaction by their presence.

THINKING SOCIOLOGICALLY

If you were trying to compare how effectively two professors teach a research methods course offered in your department, what variables might you use, and what variables might you need to control? How would you set up your study? What methods would you use?

Secondary analysis uses *existing data, information already collected in other studies—including data banks, such as the national census.* Often, large data-collecting organizations, such as the United Nations or a country's census bureau, the national education department, or a private research organization, will make data available for researchers to use. Consider the question of the dropout rate in Brazil. Researchers can learn a great deal about the behavior of school dropouts, as a group, from analysis of information gathered by ministries or departments of education. Likewise, if we want to compare modern dropout rates with those of an earlier time, we may find data from previous decades to be invaluable. Secondary analysis can be an excellent way to do meso- or macro-level studies that reveal large-scale patterns in the social world.

Census questionnaires are taken in the United States and many other countries every 10 years. Sometimes, it is difficult to gather accurate data on the entire population, as in the case of homeless people or those in remote areas. Census worker Danielle Forino gathered data in Maine, where she had to use an all-terrain vehicle and sometimes snowshoes in remote sections of the North Maine Woods.

©AP Photo/Robert F. Bukaty

Content analysis entails *the systematic categorizing and recording of information from written or recorded sources—printed materials, videos, radio broadcasts, or artwork.* With content analysis (a common method in historical research and the study of organizations), sociologists can gather the data they need from various materials—books, magazines, newspapers, laws, letters, comments on websites, e-mails, videos, archived radio broadcasts, or even artwork. They develop a coding system to classify the source content. A researcher trying to understand shifts in Brazilian attitudes toward youth poverty in *favelas* could do a content analysis of popular magazines to see how many pages or stories they devoted to child poverty in the Brazilian media in each decade from the 1960s to the present. Content analysis has the advantage of being relatively inexpensive and easy to do. It is also *unobtrusive*, meaning that the researcher does not influence the participants being investigated by having direct contact with them. Furthermore, examining materials in historical sequence can be effective in recognizing patterns over time.

In **experiments**, *researchers control all variables except one so that they can study the effects of that variable*. An experiment usually requires an **experimental group**, in which the researcher *exposes subjects in the group to one variable; this process is to test the effects of that variable on human behavior*, and a **control group**, in which *the subjects are not exposed to the variable the researcher wants to test*. The control group provides a baseline to which the researcher can compare the experimental group. Psychologists use lab experiments, but few sociologists use this method because many sociological questions cannot be studied in controlled settings. For example, Hector's environment in the *favela* cannot be studied in a laboratory setting.

Control and experimental research projects outside of a lab setting are more common among sociologists. For example, researchers may want to determine whether a new teaching method using technology might help children from Hector's *favela*. Researchers can do so by comparing a control group, exposed to the usual teaching method, and an experimental group provided with the new method or experimental technology. We must ensure that the control and experimental groups of children are at the same academic level and that the teachers are equally motivated and prepared when teaching both classes. With this carefully designed research project, we can conclude that the new approach increases learning if the children in the experimental group score significantly higher on the final exam than those in the control group.

Triangulation refers to *the use of two or more methods of data collection to enhance the amount and type of data for analysis and the accuracy of the findings*. To study Hector's situation, a research study could use macro-level quantitative data on poverty and on educational statistics in Brazil and micro-level interviews with Hector and his peers to determine their goals and their attitudes toward education. If all findings point to the same conclusion, the researcher can feel much more confident about the study results.

Selecting a Sample

It would be impossible to interview or send a questionnaire to every school dropout in Brazil to determine why the teenage dropout rate is so high. It is possible to study a portion of that population, however. In Step 5, the research design process includes determining how to make sure the study includes people who are typical—that is, representative—of the total group (or population) about which you want to learn. This involves careful selection of a *sample*, a group systematically chosen to represent a much larger group.

Researchers use many types of samples. A common one, the representative sample, attempts to accurately reflect the group being studied so that the sample results can be generalized, or applied to the larger group or population. In the case of studying why so many boys from Hector's *favela* drop out of school, a representative sample for a study could be drawn from all 13- to 16-year-olds in his region or city in Brazil.

The most common form of representative sample is the *random sample*. All people in the population being studied have an equal *chance* of being selected for the study. By observing or talking with this smaller group selected from the total population under study, the researcher can get an accurate picture of the total population and have confidence that the findings apply to the larger group. Developing an effective sampling technique is often a complex process. In the case of Brazil, people constantly move

in and out of the *favela*. Those who have just arrived may not have the same characteristics as those who have been living there a long time, but it is important to have a sample that represents the whole group being studied. Samples also must be large enough to accurately represent a population and to use statistical programs to analyze the data. If you take a methods course, you will delve further into these details of sampling and data analysis discussed next.

Collecting the Data

You now know how to make a research plan, select your method of collecting data, and select a sample representative of the population you want to study. In Step 6 you enact your research plan and collect data.

THINKING SOCIOLOGICALLY

Define and provide an example of each of the following important research concepts:

cause-and-effect relationships

spurious relationships

evidence

correlation

dependent variable

independent variable

hypothesis

sample

triangulation

Now think of a question you would like to research. How would each research concept relate to your research question—or not?

Making Sense of the Data

Once you collect your data from your sample, you must analyze them.

Analyzing the Data

In Step 7, the researchers use statistical and other techniques to analyze what the data say in answering the research question. Imagine that you have 100 interviews from residents of Hector's *favela*, plus a notebook full of field observation notes from "hanging out" with the youth there. What do you do with the data? Social researchers use multiple techniques to analyze data, but whatever techniques they use, they look for patterns in the data and then use theories and findings from past research on the topic to make sense of those patterns.

Presenting the Findings

During Step 8, you draw conclusions and present the final report. The report includes a discussion of the results indicating whether the data supports the hypothesis or answers the research question, relates them to previous research, and (if appropriate) makes recommendations on how to use the findings. This report is usually reviewed by other social scientists who provide feedback. After this step (if it holds up to peer review) you should make your findings public.

Ethical Issues in Social Research

What happens if a scientist conducts research that has negative impacts on the participants? This concern has prompted most universities and other research organizations to have *human subjects review boards*. The boards review research plans and methods to be sure they will *not* hurt the subjects. Of

special concern are research projects in medical sciences that could possibly have negative physical affects, but social scientists must also have their research reviewed.

Sociologists and other scientists are bound by the ethical codes of conduct governing research. The American Sociological Association (ASA) code of ethics outlines standards that researchers are expected to observe when doing research, teaching, and publishing. They include

- explaining the uses and consequences of the research and gaining informed consent from respondents;

- taking steps to ensure the privacy of respondents;

- being objective, reporting findings and sources fully;

- making no promises to respondents that cannot be honored;

- accepting no support that requires violation of these principles;

- completing contracted work; and

- delineating responsibilities in works with multiple authors.

Examples of unethical research include studying people without their knowledge or consent, including only data that support the results you would like to see, and violating the confidentiality of your subjects by revealing their identities. The bottom line is that researchers must do everything they can to protect their subjects from harm.

THINKING SOCIOLOGICALLY

Describe the pros and cons of each of these approaches to gathering data in sociology, and identify a potential ethical problem in each approach:

experiments

observational studies

interviews

questionnaires

content analysis

secondary analysis

Putting Sociology to Work: Public Sociology

Most early sociologists—including Lester Ward, the first president of the ASA—promoted sociology as a means for improving society (Calhoun, 2007). As the discipline of sociology grew from its early days and became an acknowledged social science, some sociologists advocated for "pure" research disconnected from social policy issues and the public sphere. Throughout the history of the discipline, sociologists have debated their proper role in society.

Today many sociologists believe that, in addition to pure research, good social science has practical implications, including evaluating and formulating program and policies. There is a movement to recall the roots of sociology and make sociology more *public*—that is, of use to society. **Public sociologists** *use sociological tools to understand and inform citizens about how society works and to improve society.* Some help create and advocate for social policies that their research indicates will have a positive impact on society. Public sociologists—whether professors or those in a variety of professions outside academia—share a common goal: to better understand how society operates and to make practical use of their sociological findings to better society.

Some public sociologists work outside of academia and use sociological knowledge and research skills to address organizational needs or problems in government, education, health care settings,

social service agencies, and businesses. They work for clients or organizations that often determine the research questions they will address. Depending on their positions, they may be known as sociological practitioners, applied sociologists, clinical sociologists, policy analysts, program planners, or evaluation researchers, among other titles. They focus on pragmatic ways to improve organizations or society, sometimes recommending major changes and sometimes suggesting modest policy proposals.

ENGAGING SOCIOLOGY
HOW TO READ A RESEARCH TABLE

A statistical table is a researcher's labor-saving device. Quantitative data presented in tabular form are clearer and more concise than the same information presented in several written paragraphs. A good table has clear signposts to help the reader avoid confusion. For instance, Figure 2.6 includes a table that shows many of the main features of a table, and the boxes in the margins explain how to read each feature.

FIGURE 2.6 ■ Educational Attainment by Selected Characteristics: 2017, for Persons 25 Years Old and Over, Reported in Thousands

HEADNOTE (or subtitle): Many tables will have a headnote or subtitle under the title, giving information relevant to understanding the table or units in the table.

For this table, the reader is informed that it includes all persons over the age of 25 and the units are reported in thousands.

HEADINGS AND STUBS: Tables generally have one or two levels of headings under the title and headnotes. These instruct the reader about what is in the columns below.

In this table, the headings indicate the level of education achieved so that the reader can identify the percentage with a specified level of education.

The table also has a stub: the far-left column under "Characteristic." This lists the items that are being compared according to the categories found in the headings. In this case, the stub indicates age, sex, and race/ethnicity.

TITLE: The title provides information on the major topic and variables in the table.

"Educational Attainment by Selected Characteristics: 2017"

▼TABLE 2.1

Educational Attainment by Selected Characteristics: 2017, for Persons 25 Years Old and Over, Reported in Thousands

MARGINAL TABS: In examining the numbers in the table, try working from the outside in. The marginals, the figures at the margins of the table, often provide summary information.

In this table, the first column of numbers is headed "Population (1,000)," indicating (by thousands) the total number of people in each category who were part of the database. The columns to the right indicate—by percentages—the level of educational attainment for each category.

| Characteristic | Percentage of Population—Highest Level | | | | | | |
	Population (1,000)	Not a High School Graduate	High School Graduate	Some College but No Degree	Associate's Degree[1]	Bachelor's Degree	Advanced Degree
Total persons	216,921	10.4	29	16.3	10.4	21.3	12.9
Age							
25–34 yrs old	44,250	7.8	26.1	18.4	10.4	25.7	11.6
35–54 yrs old	82,072	10.1	27	15.3	11.2	22.5	14.3
55 yrs and older	90,599	12.2	32	16.3	9.6	18.1	12.2

CELLS: To make more detailed comparisons, examine specific cells in the body of the table. These are the boxes that hold the numbers or percentages.

In this table, the cells contain data on educational achievement by age, sex, and race/ethnicity (for Asians, Whites, Blacks, and Hispanics).

Educational Attainment by Selected Characteristics: 2017, for Persons 25 Years Old and Over, Reported in Thousands (Continued)

UNITS: Units refer to how the data are reported. They could be in percentages, in number per 100 or 1,000, or in other units.

In this table, the data are reported first in raw number in thousands and then in percentages.

Characteristic	Percentage of Population—Highest Level						
	Population (1,000)	Not a High School Graduate	High School Graduate	Some College but No Degree	Associate's Degree[1]	Bachelor's Degree	Advanced Degree
Sex							
Male	104,325	10.9	30	16.2	9.3	21	12.7
Female	112,597	10	28	16.6	11.4	21.6	13.1
Race/Ethnicity							
Asian	13,183	9	20	9.4	6.3	30.5	24.3
White[2]	171,046	10	30	16.1	10.5	21.8	12.7
Black[2]	26,455	12.6	33	20.1	10.3	15.1	8.8
Hispanic	32,660	29.5	31	14.5	8.1	12.2	5.1

FACTS FROM THE TABLE: After reviewing all this information, the reader is ready to make some interpretations about what the data mean.

In this table, the reader might note that young adults are more likely to have a college education than older citizens, though those in the middle age bracket are more likely to have graduate degrees. In addition, people with Asian backgrounds have the highest levels of education. What other interestin patterns do you see?

Source: U.S. Census Bureau (2017).

[1]Includes vocational degrees.

[2]For persons who selected this race group only.

Features of the table adapted from Broom and Selznick (1963).

SOURCE: The source note, found under the table, points out the origin of the data. It is usually identified by the label "Source."

Under this table, the source note says "U.S. Census Bureau 2017)."

FOOTNOTES: Some tables have footnotes, usually indicating something unusual about the data or where to find more complete data.

In this table, two footnotes are provided so that the reader does not make mistakes in interpretation.

[1] Includes vocational degrees.
[2] For persons who selected this race group only.
Features of the table adapted from Broom and Selznick (1963).

Source: U.S. Census Bureau, (2017).

So far, we have focused on what sociology is and how sociologists know what they know and do the research they do. The rest of the book examines our social world as informed by methods and theory discussed in this chapter. The next chapter explores how you can understand your culture and society at various levels of analysis in our social world.

<div style="background-color:green;color:white;text-align:center">**WHAT HAVE WE LEARNED?**</div>

Theories serve as lenses to help us create research questions and to make sense of the data we gather using various research strategies. Sociologists also use data to test the theories, so there is an ongoing reciprocal relationship between theory (the lens for making sense of the data) and research (the evidence used to test the theories). The most important ideas in this chapter concern what sociology considers data or evidence and how sociology is a science. These ideas form the framework for the content of sociology.

The core features of scientific research are a commitment to: (a) using the scientific method to collect, analyze, and understand data; (b) following the data rather than our preconceived ideas; and (c) continual openness to others reexamining our work and offering new interpretations. We must always consider the possibility that our own social situations and experiences have led us to overlook other areas of research and explanations for the data we study.

Science—including social science—does not consist of just facts to be memorized. Science is a process made possible by a social exchange of ideas, a clash of opinions, and a continual search for truth. Knowledge in the sciences is created by vigorous debate. We hope you will engage in the creation of knowledge by entering into these debates.

- Attempts to understand society have existed for at least two-and-a-half millennia, but gathering scientific evidence to test hypotheses and validate claims is a modern idea.

- Theories are especially important to science because they raise questions for research, and they explain the relationships among facts. Sociology has four primary, overriding theoretical perspectives or paradigms: symbolic interaction theory, rational choice theory, structural-functional theory, and conflict theory. Other perspectives, such as feminist theory, serve as correctives to the main paradigms. Most of these theories are more applicable either at the micro to meso level or at the meso to macro level.

- Sociology is a science used to study society, and therefore it is essential to understand what are—and what are not—considered data or evidence. Ideas must be tested empirically—that is, scientifically.

- As social scientists, sociologists use eight systematic steps to gather data and test theories about the social world.

- The independent variable is the variable in a cause-and-effect relationship that comes first in a time sequence and causes a change in another variable—the dependent variable.

- Major methods for gathering data in sociology include questionnaires, interviews, observational studies, secondary data analysis, content analysis, and experiments.

- Quantitative data come in the form of numbers (e.g., derived from questionnaires or some secondary sources such as the census), and qualitative data come in non-numerical forms (e.g., derived from semi-structured and unstructured interviews or observational studies).

- The use of multiple methods—triangulation—increases confidence in the findings.

- Scientific confidence in results requires representative samples of the population studied.

- Responsible research requires sensitivity to the ethics of research—ensuring that gathering scientific data does no one harm.

- Public sociologists use sociological tools to understand and inform citizens about how society operates and to improve society.

<div style="background-color:green;color:white;text-align:center">**DISCUSSION QUESTIONS**</div>

1. If you were to examine the relationship between the government and the economy in the United States today, which of the four major theoretical perspectives outlined in the chapter would be most helpful? Why?

2. Imagine you would like to conduct a sociological study of the students with whom you attended the fourth grade to determine what key factors influenced their academic achievements. Which of the four major theoretical perspectives would you employ in your study? Why?

3. Why do research questions have to be asked in a precise way? Give an example of a precise research question. How do precise questions make it possible for you to test and measure your topic?

4. Sociologists must be continually open to having their findings reexamined and new interpretations proposed. Describe a time when you changed your mind due to new information. Was it difficult for you to change your mind? Why, or why not?

5. Why is the ability to be open to new ideas and interpretations so vital to the scientific perspective? Do you think you could carry out this aspect of the scientific process successfully—no matter how you feel about a topic? Why, or why not?

6. If you were to conduct a study to measure student satisfaction with a particular academic department on campus, what research method(s) would you use? Why? How would the method(s) you select vary according to (a) the size of the department and (b) the type of information you sought?

KEY TERMS

cause-and-effect relationships (p. 42)

conflict theory (p. 34)

content analysis (p. 45)

control group (p. 45)

controls (p. 42)

correlation (p. 41)

dependent variable (p. 42)

dysfunctions (p. 33)

empirical knowledge (p. 39)

evidence (p. 39)

experimental group (p. 45)

experiments (p. 45)

feminist theory (p. 37)

functions (p. 33)

hypothesis (p. 40)

independent variable (p. 42)

interviews (p. 43)

latent functions (p. 33)

manifest functions (p. 33)

means of production (p. 34)

objectivity (p. 40)

observational studies (p. 44)

public sociologists (p. 47)

questionnaires (p. 43)

rational choice (exchange) theory (p. 31)

rationality (p. 37)

roles (p. 30)

sample (p. 40)

secondary analysis (p. 44)

spurious relationships (p. 42)

stigma (p. 39)

structural-functional theory (p. 32)

symbolic interaction theory (p. 30)

symbols (p. 30)

theoretical perspective (p. 30)

theories (p. 30)

triangulation (p. 45)

variables (p. 40)

CONTRIBUTING TO OUR SOCIAL WORLD: WHAT CAN WE DO?

At the Local (Micro) Level

● *Local service organizations* are found in every community and work to provide for the unmet needs of community members: housing, legal aid, medical care, elder care, and so on. United Way works with most local service organizations and may be able to let you know which ones need help in your area. Volunteer to work with an organization in its applied needs assessment research, and practice the sociological principles and research methods described in this chapter. If your college or university has a service learning office, it will offer connections to many service opportunities, sometimes linked to specific fields of study. Many colleges and universities also offer academic service learning (ASL) credit in which course assignments include such community work under the supervision of the instructor.

At the Organizational or Institutional (Meso) Level

- *State agencies* often have ongoing projects to gather data for more accurate information about the state and the needs of its citizens. Go to your state government's website to find volunteer opportunities through your state government.

At the National or Global (Macro) Level

- *The U.S. Census Bureau* is best known for its decennial (every 10 years) enumeration of the population, but its work continues each year as it prepares special reports, population estimates, and regular publications (including *Current Population Reports*). Visit the bureau's website and explore the valuable and extensive quantitative data and other information available. Visit your local Census Bureau office, or go to their website, to see how the Census helps communities and how you can engage with the Census Bureau.