How Do We Know What We Know?

Science is about knowing—through careful systematic investigation. Of course there are other ways of seeking knowledge, such as finding a good library on a beach!
ME (MY FAMILY AND CLOSEST FRIENDS)

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

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.

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
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 bathroom, running water, or electricity. Many adjacent dwellings are little more than cardboard walls with corrugated metal roofs and dirt floors.

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 us to understand how and why society operates and how we 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—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

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. These philosophers’ 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). With this beginning came the rise of modern sociology.

Rise of Modern Sociology

Several conditions from the 1600s to the 1800s gave rise to sociology. 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 scientific method to 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. Churches were made subordinate to the state, equal rights under the law were established for citizens, and democratic rule emerged. These dramatic changes marked the end of the traditional monarchy and the beginning of a new social order.

In this setting 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 the 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: What holds society together and gives rise to a stable order rather than anarchy? Further, 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, and (2) social dynamics, forces that promote change and evolution (even revolution) in society. Comte was concerned with what contemporary sociologists and the social world model in this book refer to as structure (social statics) and process (social dynamics). 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).

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 was emerging. Industrialization brought the need for a new skilled class of laborers, putting new demands on an education system that had served only the elite. 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 within and without academia, was the first scholar in North America to have 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. In the next section, we turn to sociology’s major theoretical perspectives.

Sociology’s Major Theoretical Perspectives

A theoretical perspective is a basic view of society that guides sociologists’ research 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 and the connections between these facts. 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 tend to be used to make sense of large macro-level structures. Either type of theory—those most useful at the micro or macro level—can be used at the meso level, depending on the research question being asked.
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 most 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 society. 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. H. 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. Indeed, human language is a unique and powerful human trait, as is illustrated in the next Sociology in Our Social World.

These ideas of how we construct our individual social worlds and have some control over them represent one approach of symbolic interactionism (known as the Chicago School). Another symbolic interaction approach (the Iowa School) makes a clear link between a person’s individual identity and her or his position within organizations. This connects the micro and the meso level of the social system (Kuhn 1964). If we hold several positions—honors student, club president, daughter, sister, student, athlete, thespian, middle-class person—those positions form our self. We will interpret new situations in light of our social positions, some of which are important and anchor how we see the social world. Once a core self is established, it guides and shapes the way we interact with people in many situations—even in new social settings (Kuhn 1964). Thus, if you are president of an organization and have the responsibility for overseeing the organization, part of your self-esteem, your view of responsible citizenship, and your attitude toward life will be shaped by that position. Thus, the Iowa School of symbolic interaction places less emphasis on individual choice but more on recognizing the link among the micro, meso, and macro levels of society (Carrothers and Benson 2003; Stryker 1980).

To summarize, the 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 symbolic interaction theory is widely used by sociologists today, it is often criticized for neglecting 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 are given less consideration. With the focus on the ability of each individual to create his or her meaning in social situations (called agency), symbolic interaction has often been less attuned to important macro-level issues of social class position, social power, historical circumstances, or international conflict between societies (Carter and Fuller 2015; Meltzer, Petras, and
A college classroom is a magical place, and this is true mostly because of human language. Human language is distinctive. All other species communicate with a fairly limited number of sounds they can make. Other animals, except perhaps for dolphins, whales, and chimpanzees, communicate only about something that is happening in the present time and location like a threat (Phillips 2013).

Each human language identifies about 50 sounds that come to be designated as meaningful language. In English, this includes such sounds as sss, mmm, nnn, ttt, kkk, bbb, and ooo. We take this designated collection of sounds and combine them in various ways to make words: cat, dog, college, student. This ability to combine sounds into words and words into sentences allows you to say something to your instructor that she or he has never heard any other human say before. The sounds are familiar, as are the words themselves, but you may combine them in a novel way that causes a new idea to occur to your listener. This is actually the root of much humor. For example, you can say a sentence or tell a story that has such a surprising ending that it causes the listener to laugh.

Your animal companions at home clearly have memory. They can recognize you when you get home. Your dog may well remember the other pups in his litter. However, they cannot remember together. They cannot gather to recall and share stories about good-old dad the way you can recall the quirky traits of your professors with friends. Your dogs and cats cannot plan for the future—planning a litter reunion for next summer, for example.

The fact that our communication is a distinctive feature system allows something unique: temporal and spatial sharing. We can remember together our experiences of the past, and we can pass ideas from one person to another. We can discuss the ideas of people who have died and have perhaps been gone for more than a century. A mare cannot transmit to her colt the racing ideas of Man o’ War, the great racehorse of the 1920s, let alone the experiences of horses involved in the Trojan War, or even the triple-crown 1970s derby winner, Secretariat. However, whether in a classroom or a pub, humans can discuss the ideas of Plato, or Muhammad, or Karl Marx. Further, because of words humans can take other perspectives—to vicariously visit the other side of the planet or to go back in history to experience a time when an entirely different set of ideas about life was common.

When we come into a classroom, something mysterious, something amazing, happens. Language allows us to see things from a new point of view. What a remarkable gift that we can share ideas and see things through the eyes of someone different from ourselves, and it is largely because of the human distinctive feature system of communication. What an interesting species to study! What a marvel that we can do so in a classroom.

Rational Choice (Exchange) Theory. According to rational choice 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 the uneducated. On the minus side, school is a negative experience, and the 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 costs.

Rational choice theory, also called exchange theory, has its roots in several disciplines—economics, behavioral psychology, anthropology, and philosophy (Cook, O’Brien, and Kollock 1990). Social behavior is seen 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. Simply stated, people are more likely to act if they see some reward or success coming from their behavior. The implication is that 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.
- A key element in exchanges is reciprocity—a balance in the exchange of benefits.
- 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 see human conduct as self-centered, with rational behavior implying that people seek to maximize rewards and minimize costs. They 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. Why would a soldier sacrifice his or her 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.

**THINKING SOCIOLOGICALLY**

How can symbolic interaction and rational choice perspectives help explain everyday behavior? For example, how might a theorist from each perspective explain why people tend to hold the door for a person walking behind them? 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 (such as family, education, religion, health care, politics, or economies), societies (e.g., Canada or Mexico), or global systems (e.g., the World Trade Organization or 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 access to clean water may be allotted at the local level, but local communities need national and sometimes international support to access resources, as illustrated by tribal elders from Tanzania in the photo on the next page. We can begin to understand how the process of modernization influences Hector, this village in Tanzania, and other people around
the globe by looking at two major macro-level perspectives: the 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 (e.g., 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) is considered the founder of the functionalist perspective. He 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 1947). 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. As such, the functionalist perspective of Durkheim and subsequent theorists places emphasis on 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 fitting into their positions in 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 of 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) 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 young people having no idea how to cook, thus making them highly dependent on expensive technology and processed foods, and in some cases adding to problems of obesity.

From a functionalist theory perspective, it is important to examine the possible functional and dysfunctional aspects of life in society in order to maintain harmony and balance.

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 in society;
• focuses on the way the structure (groups, organizations, and institutions), the 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. Some ideas put forth by functional theorists are so abstract that they are difficult to test with data. Moreover, functionalism does not explain social changes in society, such as conflict and revolution. It assumes a stable world. As we try to understand the many societal upheavals in the world, from suicide bombings in major cities to economic ups and downs in stock markets and trade relations, it is clear that dramatic social change is possible. The functionalist assumption is that if a system is running smoothly, it must be working well because it is free from conflict. It assumes that conflict is harmful, even though we know that stability may come about because of ruthless dictators suppressing the population. In short, stability is not always good, and conflict signifies tensions 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. It claims 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 a change 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 maintained 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 and 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). As you can see, social conflict has been a major focus of 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 was W. E. B. Du Bois (1868–1963), 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 (Morris 2015).

Du Bois, like other early sociological theorists, believed that although research should be scientifically rigorous and fair-minded, the ultimate goal of sociological work was 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.

▲ Harriet Martineau (left) 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. Karl Marx (center) is known as the founder of conflict theory. W. E. B. Du Bois (right) continued the development of conflict theory and was among the first to apply that theory to U.S. society, especially to issues of race.
(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 (Mills 1956).

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 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.

Dahrendorf’s major contribution is the recognition that conflict over resources results in 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 the society based on interest groups.

Whereas Marx emphasized the divisive nature of conflict, other theorists have offered a modified theory of conflict in society. American theorist Lewis Coser took a different approach to conflict from that of Marx, arguing that it 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 adapts to the needs for change because of the conflict (Coser 1956; Simmel 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 and try to obtain resources and make sure they are distributed primarily to members of their own group.
- Social change is desirable, particularly changes that bring about a greater degree of social equality.
- The existing social order reflects powerful people imposing their values and beliefs on the weak.

Critique of Conflict Theory. First, many conflict theorists focus on macro-level analysis and lose sight of the individuals involved in conflict situations, such as Hector and his family. Second, empirical research to test conflict theory is limited. The conflict perspective often paints a picture with rather broad brushstrokes. Research to test the picture involves interpretations of broad spans of history and is more difficult to claim as scientific. Third, conflict theorists tend to focus on social stress, power dynamics, and disharmony. Conflict theory is not very effective in explaining social cohesion and cooperation. Fourth, many critics of conflict theory argue that altruism and cooperation are common motivations in human behaviors but not recognized by conflict theory.

**THINKING SOCIOLOGICALLY**

Imagine you are a legislator. You have to 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 are likely to vote. 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 pigeonholed 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 that 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 was based on rationality (the attempt to reach maximum efficiency with rules that are rationally 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 thought that society was more complex than Karl Marx’s theory, which focused only on two groups—the have and the have-nots—in conflict over economic resources.

Feminist Theory. Feminist theory also uses multi-level analysis and has foundations in the conflict perspective. Feminist theory critiques the hierarchical power structures that disadvantage women and other minorities (Cancian 1992; P. Collins 2008). Proponents note that men form an interest group intent on preserving their privileges. Feminists also argue that sociology has been dominated by a male 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 analyses (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). In particular, feminist theory points to the importance of gender as a variable influencing social patterns (Burn 2011; Kramer and Beutel 2014; Lorber 2009; Messerschmidt et al. 2018).

People face inequality due to multiple factors, and it is the interplay of these factors that interests Patricia Hill Collins. An important contemporary scholar, Collins examines the discrimination and oppression people face because of their race, class, gender, sexuality, or nationality, all of which are interconnected. Collins (2008; Collins and Bilge 2016) uses the term intersectionality, meaning individuals have multiple identities (e.g., race, class, and gender) that intersect and impact their lives and opportunities.
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 (Ritzer 2011). Figure 2.1 provides a summary of cooperative versus competitive perspectives to illustrate how the theories differ.

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 suits our needs in analyzing a specific social process or structure.

Middle-Range Theories. Often, sociologists use middle-range theories, those 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 stigmas (social characteristics that distinguish a person or group of people from other members of society) in social interactions. His analysis of the impact of stigmas and the midrange theory of social stigma he developed out of it provides one piece of the overall puzzle of explaining social interaction in society.

**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?

Theory and Research Methods. Scientists, including sociologists, often use theories to predict changes in society and under what conditions they are likely to occur. Theory tells the researcher what to look for and what concepts or variables need to be measured. However, explanations about the relationships between social variables need to be tested. This is where research methods—the procedures one uses to gather data—are relevant. Data must be carefully gathered and then used to assess the accuracy of theory. If a theory is not supported by the data, it must be reformulated or discarded. Theory and research are used together and are mutually dependent.

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

**FIGURE 2.1**

Cooperative Versus Competitive Perspectives

<table>
<thead>
<tr>
<th>Macro analysis</th>
<th>Micro analysis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Humans viewed as cooperative</strong> (people interact with others on the basis of shared meanings and common symbols)</td>
<td><strong>Structural-Functional Theory</strong></td>
</tr>
<tr>
<td><strong>Humans viewed as competitive</strong> (behavior governed by self-interest)</td>
<td><strong>Symbolic Interactionism Theory</strong></td>
</tr>
<tr>
<td><strong>Conflict Theory</strong> (group interests)</td>
<td><strong>Rational Choice Theory</strong> (individual interests)</td>
</tr>
</tbody>
</table>
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

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, there was reliance on magical, philosophical, or religious explanations of the forces in nature, and these explanations became part of tradition. For example, just 260 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 can be studied scientifically. 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 grades, children in some schools are asked 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 (Barron 2017). 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). 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 are obliged not to distort their research findings so as to promote a particular point of view. Scientific research is judged first on whether it relies on careful efforts to be objective. Social scientists, like all scientists, must explain what the data reveal, not what they wish it 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. Someone’s ideas can seem plausible and logical but may still not be supported by the facts. This is why evidence is so important. Sociology is concerned with using accurate evidence, and it is important to know what is or is not considered accurate. Perhaps you have seen an episode of *Law and Order*, *Criminal Minds*, *NCIS*, or *Elementary* on television. These series depict the importance of careful collection of data and commitment to objective analysis. Sociologists deal with different issues, 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

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 the data will be gathered.
- 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 it to previous findings on the topic, concluding 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

To study Hector’s situation, the researcher uses Step 1 to define a topic or problem, including the variables to be studied. Step 2 requires the researcher to review past studies on related topics to see what has been done and how variables were defined in other studies. This review provides the basis for Step 3.

In Step 3, to formulate hypotheses, the researcher must link concepts, such as poverty or dropping out of school, to specific measurements. For example, the researcher could hypothesize that poverty is a major cause of favela teenagers dropping out of school because they need to earn money for their families. Who is a dropout might be determined by school records indicating whether that child has attended school during the past 6 months. Poverty could be defined 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 for researchers to be clear, precise, and consistent in how they define and measure their variables.

In order to conduct research to test a theory, researchers formulate a hypothesis, a statement they can test to determine if it is true. This is called deductive research. It starts with a theory that you then test. Inductive research, on the other hand, starts with observations that then lead to hypothesis development and, potentially, theory formation. Researchers make an observation and then begin to collect more data to determine if what they witnessed initially was a social pattern. Once they start to notice social patterns, they can begin to analyze those patterns using appropriate existing theories, or they can create a new theory if existing ones do not provide needed explanations.

Thinking Sociologically

Think of a research question based on a theoretical perspective. For example, you might ask how Hector’s peers affect his decisions, using a micro-level theory. 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 is central to understanding causality. Causal reasoning and other statistical terms are discussed in the next Sociology in Our Social World.

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, enough information must be given 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 is asking. 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. Figure 2.2 illustrates the different levels of analysis.
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**

- 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**

- 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**

- 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 both of them. For example, if the quantity of ice cream consumed is highest during those weeks of the year when most drownings occur, 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 larger number of swimmers resulting in more drowning incidents. The connection between ice cream and drownings is a spurious relationship.

**CONTROLS**

- 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 in order to compare water death incidents. If there was no difference in death rates, the drownings could not have been caused by the ice cream.

- 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.
**FIGURE 2.2**
The Social World Model and Levels of Analysis

<table>
<thead>
<tr>
<th>Micro Level</th>
<th>Hector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Individual</td>
<td>Hector’s family and close friends</td>
</tr>
<tr>
<td>Small group</td>
<td>The favela; Hector’s local school, church, neighborhood organizations</td>
</tr>
<tr>
<td>Local community</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Meso Level</th>
<th>Brazilian corporations, Catholic Church, and local school system in Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organizations</td>
<td>Family; education; political, economic, and health systems in the region or nation of Brazil</td>
</tr>
<tr>
<td>Institutions</td>
<td>Native peoples, African-Brazilians</td>
</tr>
<tr>
<td>Ethnic subcultures</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Macro Level</th>
<th>Social policies, trends, and programs in Brazil</th>
</tr>
</thead>
<tbody>
<tr>
<td>National society</td>
<td>Status of Brazil in global economy; trade relations with other countries; programs of international organizations or corporations</td>
</tr>
<tr>
<td>Global community of nations</td>
<td></td>
</tr>
</tbody>
</table>

**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* (nonnumerical) 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 semistructured 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 (Babbie 2014). They are convenient for collecting large amounts of data because they can be distributed by mail or sent by e-mail to many respondents at once.

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

They can take different forms: (1) observations in which the researcher actually participates in the activities of the group being studied or (2) observations in which the researcher is not involved in group activities but observes or records the activity. It is important for observers to avoid influencing or altering group functioning and interaction by their presence.

**Secondary analysis** uses existing data, information that has already been 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 use by researchers. 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.

**Content analysis** entails the systematic categorizing and recording of information from written or recorded sources—printed materials, videos, radio broadcasts, or artworks. With content analysis (a common method in historical research and the study of organizations), sociologists can gather the data they need from printed 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 were 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.

An example of historical research using existing materials to examine social patterns is illustrated in the next Sociology in Our Social World. In this case the researcher, Virginia Kemp Fish, studied records and writings of early women sociologists in Chicago to discover their contributions to sociology and to the betterment of society.

In **experiments**, all variables except the one being studied are controlled so researchers can study the effects on the variable under study. An experiment usually requires an **experimental group**, in which subjects in the group are exposed to the variable being studied; 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 with which the experimental group can be compared, as shown in the example of Hector.

Experiments conducted in a lab can often provide the most accurate test of cause and effect. They make it possible to control most variables (eliminating irrelevant spurious variables) and determine the sequence in which variables affect each other. By separating the sample into experimental and control groups, the researcher can see if the study’s independent variable makes a difference in the behavior of people who are exposed to that variable compared with those who are not. 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
THE HULL HOUSE CIRCLE: HISTORICAL CONTENT ANALYSIS IN SOCIOLOGY

Hull House was a settlement house in Chicago, one of several such residences established in urban immigrant neighborhoods. Settlement houses created a sense of community for residents and offered a multitude of services to help residents and neighbors negotiate poverty. In addition to offering services, Hull House was the location for a group of women social researchers, reformers, and activists. Well-known social activist Jane Addams (1860–1935), who received a Nobel Peace Prize, was one of them. These women had obtained college degrees in some of the few fields then open to women (political science, law, economics), and they used their education and skills to help others and to do research on social conditions, contributing to the development of the science of sociology. Until recently, women sociologists, such as the members of the Hull House Circle, have not received much attention for their contributions to the science of sociology. Yet some of the earliest social survey research was conducted by the women connected with Hull House, sometimes employing the Hull House residents to collect data. For example, these women led the first systematic attempt to describe an immigrant community in an American city, a study found in Hull House Maps and Papers (Residents of Hull House [ca.1895] 1970).

Historical research can be an important source of data for sociological analysis, as historical circumstances help us understand why things evolved to the present state of affairs. Virginia Kemp Fish, who originated the designation Hull House Circle, researched historical literature to learn more about the lives and contributions of these women and their place in the sociological literature. She examined records, letters, biographies, and other historical sources to piece together their stories (Fish 1986). By studying their writings and activist work, Fish showed how they supported each other’s work and scholarship and provided emotional encouragement and intellectual stimulation. Fish also considered women’s professional styles as compared with the styles of men. Whereas men often received their training and support from a mentor (an older, established, and respected man in the field), the women of Hull House operated within a network of egalitarian relationships and interactions.

According to Fish’s research, the data and documents collected by their leader, Jane Addams, and other Hull House women provide baseline information that has been used as a starting point or comparison for later studies—for social researchers in the fields of immigration, ethnic relations, poverty, health care, housing, unemployment, work and occupations, delinquency and crime, war, and social movements.

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 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) you want to learn about. 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.** We have now made a research plan and selected our methods to use and our sample. In Step 6 we actually collect the data following our research plan. Once we have data, we have to determine what to do with the data to answer our research question.

**Making Sense of the Data**
Once you have collected your data from your sample, you have to analyze it.

**Analyzing the Data.** In Step 7, the researcher uses statistical and other techniques to analyze what the data say in order to answer 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.** One of the last steps in the research process, Step 8, is to draw conclusions and present the final report. The report includes a discussion of the results, draws conclusions as to whether the hypotheses were supported or answers were found for the research question, interprets the results, and (if appropriate) makes recommendations on how to use the findings. This report is usually reviewed by other social scientists, and feedback on the study is provided to the researcher. After this step, the report (if it holds up to peer review) may be publicly disseminated. As part of the presentation and discussion of results, reports often contain tables or figures presenting summaries of data to help the reader easily understand the patterns found in the data. The next Engaging Sociology (pages 48–49) provides useful tips on reading research tables found in journal articles, newspapers, and magazines.
Ethical Issues in Social Research

What happens if a scientist conducts research that has negative impacts on the participants? It is due to this concern that most universities and other research organizations, especially those receiving public money, have human subjects review boards. The boards review the proposed research plans and methods to be sure they will not hurt the subjects. Of special concern are research projects in medical sciences, 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.

Putting Sociology to Work: Public Sociology

Most early sociologists—including Lester Ward, the first president of the American Sociological Association—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.

However, like physicists, chemists, and geologists, many sociologists believe that, in addition to pure research, there are both important practical applications of the discipline and many policy issues that need to be informed by good social science. Today, 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 (Pickard and Poole 2007).

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 proposing modest policy proposals.

Some sociology professors build a public sociology emphasis into their courses, hoping not only to work with students to improve the social environment in which they live but also to foster important skills for students entering the job market. The next Sociologists in Action feature (page 50) describes one such effort.

**THINKING SOCIOLOGICALLY**

Distinguish the differences in 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
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, Table 2.1 shows many of the main features of a table, and the list that follows explains how to read each feature.

### TABLE 2.1

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

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Population (1,000)</th>
<th>Not a High School Graduate</th>
<th>High School Graduate</th>
<th>Some College but No Degree</th>
<th>Associate’s Degree</th>
<th>Bachelor’s Degree</th>
<th>Advanced Degree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total persons</td>
<td>216,921</td>
<td>10.4</td>
<td>29</td>
<td>16.3</td>
<td>10.4</td>
<td>21.3</td>
<td>12.9</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25–34 yrs old</td>
<td>44,250</td>
<td>7.8</td>
<td>26.1</td>
<td>18.4</td>
<td>10.4</td>
<td>25.7</td>
<td>11.6</td>
</tr>
<tr>
<td>35–54 yrs old</td>
<td>82,072</td>
<td>10.1</td>
<td>27</td>
<td>15.3</td>
<td>11.2</td>
<td>22.5</td>
<td>14.3</td>
</tr>
<tr>
<td>55 yrs and older</td>
<td>90,599</td>
<td>12.2</td>
<td>32</td>
<td>16.3</td>
<td>9.6</td>
<td>18.1</td>
<td>12.2</td>
</tr>
</tbody>
</table>

**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.

**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.

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

“Educational Attainment by Selected Characteristics: 2017”

**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).
### TABLE 2.1
Educational Attainment by Selected Characteristics: 2017, for Persons 25 Years Old and Over, Reported in Thousands (Continued)

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

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).
SOCIOLISTS IN ACTION
Kristin Kenneavy

USING SOCIOLOGY TO IMPROVE CAMPUS LIFE AND Gain MARKETABLE SKILLS

I did not become a sociologist to live in an ivory tower. Rather, I envisioned busting down the castle gate and doing work that would have a positive impact. As a result of my orientation to sociology, I created a Public Sociologies course in which students learn skills relevant to their careers and lives—gathering and analyzing data to understand and address social issues on our campus and in the wider community. One issue my students have worked on is interpersonal violence on campus. Students can play an important role in preventing such violence through a variety of strategies. For example, they might personally intervene if they see a couple arguing, call a resource who can diffuse the situation (such as a resident assistant or campus safety officer), or simply state their discomfort when a friend talks about women in a sexist way.

A number of bystander intervention training programs now attempt to teach these skills. Our campus chose to use the Green Dot program, a violence prevention program that focuses on peers and culture. My students and I agreed that we would help our Women’s Center to evaluate the effectiveness of the Green Dot program. To do this, my students had to learn and then use research and evaluation skills.

My students designed the initial survey instrument and tested the survey with a diverse sample of their fellow students so that they could refine the measures. The following spring, my class fielded the baseline wave of the survey. They came up with a sampling strategy (using randomly selected course sections) and went through the approval process with our Institutional Review Board (IRB) to make sure that we protected our human subjects. The students distributed the surveys and entered all of the data into a computer program. Finally, we did statistical analysis of the data and prepared a report for our Women’s Center and the Public Prevention and Education Committee of the New Jersey Governor’s Advisory Council Against Sexual Assault.

Students in the sociology major worked on this project for over 3 years, eventually gathering three waves of data from over 1,000 students about their experiences with interpersonal violence, as well as their intentions to intervene to prevent violence. An important finding was that 1 in 5 of our female students and 1 in 10 of our male students had experienced interpersonal violence. Even more striking, two thirds of our students knew someone who had experienced interpersonal violence. We were also able to provide evidence that students who had received Green Dot training were more likely to intervene as active bystanders than students who had not. Being able to show the prevalence of the issue and the effectiveness of our prevention strategy were important for securing institutional resources to expand the program.

Through this experience, Public Sociologies students were able to engage in an important evaluation project that helped them develop real-world research skills. A number of my students have gone on to work in jobs that require them to consume and produce research, and to bridge theory and practice (e.g., social workers, police officers, and market researchers, to name a few). You can too!

Kristin Kenneavy is an associate professor of sociology at Ramapo College of New Jersey where she works closely with the Center for Student Involvement to promote community-based learning and scholarship, and continues to research interpersonal violence prevention.

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 the various levels of analysis in our social world.
WHAT HAVE WE LEARNED?

Theories serve as lenses to help us create research questions and to make sense of the data we gather using various research strategies. The data themselves can be used 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) a commitment to using the scientific method to collect, analyze, and understand data through systematic processes of testing using the five senses (sometimes enhanced by scientific instruments); (b) allowing ourselves to be convinced by the evidence rather than by our preconceived ideas; (c) absolute integrity and objectivity in how we conduct and report on our research; and (d) continual openness to having our findings reexamined and new interpretations proposed. We must always consider the possibility that we have overlooked alternative explanations of the data and alternative ways to view the problem.

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.

KEY POINTS

- Attempts to understand society have existed for at least two and a half millennia, but gathering of 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 at either 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 is—and what is not—considered data or evidence. For a scientist, this means that 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 nonnumerical forms (e.g., derived from semistructured and unstructured interviews or observational studies).
- Use of multiple methods—triangulation—increases confidence in the findings.
- Scientific confidence in results requires representative samples, usually drawn randomly.
- 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.

DISCUSSION QUESTIONS

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 and to be objective 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 42
- conflict theory 35
- content analysis 44
- control group 44
- controls 42
- correlation 42
- dependent variable 42
- dysfunctions 34
- empirical knowledge 40
- evidence 40
- experimental group 44
- experiments 44
- feminist theory 38
- functions 34
- hypothesis 40
- independent variable 42
- interviews 43
- latent functions 34
- manifest functions 34
- means of production 34
- objectivity 40
- observational studies 44
- public sociologists 47
- questionnaires 43
- rational choice theory 32
- rationality 38
- sample 41
- secondary analysis 44
- spurious relationships 42
- structural-functional theory 34
- symbolic interaction theory 31
- symbols 31
- theoretical perspective 30
- theories 30
- triangulation 45
- variables 40

CONTRIBUTING TO OUR SOCIAL WORLD: WHAT CAN WE DO?

At the Local (Micro) Level
- Local volunteer coordinating organizations give creative outlets to students allowing them to demonstrate their awareness and learning of the world around them through different tasks, volunteering, civil engagement, and literary skills. Volunteer Match (www.volunteermatch.org) links volunteers to virtual opportunities both in nearby communities and across the globe. Virtual volunteering is an excellent way to extend humanitarian reach across the globe as well as locally. 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 www.nationalservice.gov/about/contact-us/state-service-commissions to find volunteer opportunities through your state government.

At the National or Global (Macro) Level
- The U.S. Bureau of the Census 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 at www.census.gov and explore the valuable and extensive quantitative data and other information available. Visit your local Census Bureau office or go to www.census.gov/about/census-careers/opportunities/programs/student.html to find volunteer and other opportunities for students at the Census Bureau.

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