Introduction to Social Psychology

CHAPTER 1

The Mysteries of Social Life

FOR MORE THAN A DECADE AFTER HIGH SCHOOL, Greg Mortenson was a regular guy stumbling around looking for a career. He did not seem like someone bound for any particular glory. Unable to afford a university education, he spent two years in the army, then worked washing dishes to pay for his college education. After graduating from college, he'd gotten accepted into medical school, but decided not to go. After that, he entered a graduate program in neurophysiology at Indiana University, but dropped out to move to California, where he was hanging out in a rock gym and working enough to fund his hobby as a rock-climber. At age 35, he was not yet in a stable relationship.

Without a clear goal for his professional life, he headed for the Himalayas to try to scale K2, the world's second highest peak, where he hoped to leave a cherished memento from his sister, who had died at age 23. Mortenson got close to the summit, but failed to reach the peak. Still suffering from altitude-induced oxygen-deprivation and in danger of freezing to death during his week-long descent, Mortenson got separated from his guide. He lost his trail and stumbled into a small unmapped village called Korphe. There he was greeted by a man named Haji Ali, the *nurmadhar* (or chief) of the village, who offered him warm tea and a place to sleep. During his stay in Korphe, Mortenson was surprised to learn that the children had neither a school nor a teacher. Instead, local kids voluntarily assembled on a nearby cliff every day to recite lessons to one another. Although he was nearly destitute, Mortenson made a promise to Haji Ali: He would return and build them a proper school.

Mortenson took a flight back to Berkeley, California, and began living out of his car and a storage unit, saving for the return flight to Pakistan. But besides return airfare, he would need to purchase materials and pay laborers to build a school. He started writing letters to hundreds of people he did not know, pleading on behalf of the education-hungry children in this remote Pakistani village. After typing 350 letters one-by-one on an old electric typewriter, though, he had failed to raise a penny. About ready to give up, Mortenson wrote to Jan Hoerni, a man who had himself successfully climbed K2 before going on to make millions in Silicon Valley. Hoerni asked how much it would cost to build the school, and then wrote Mortenson a check to cover the exact amount. But Mortenson discovered a big hitch after he purchased the materials. The village of Korphe was perched on the far side of an impassible chasm, and

there was no way to carry the heavy building materials over it. Undeterred, Mortenson flew back to the United States and raised more money to build a bridge.

Since 1993, Mortenson, with the help of Hoerni and many other contributors, has built 55 schools and has founded an institute to raise funds to pay the teachers and keep the schools running. He has also helped set up clean water delivery systems to reduce infant mortality, build libraries, and establish vocational centers for the women in villages like Korphe and in refugee camps in Pakistan's larger cities. His efforts have not been universally acclaimed, however. He has had his life threatened by local religious leaders, who object to the fact that his schools educate young girls; he has been kidnapped by the Taliban; and back in the United States he has received hate letters from fellow Americans who regard his efforts to help Muslim children as immoral and unpatriotic. "Our Lord will see that you pay dearly for being a traitor," said one, and "I wish some of our bombs had hit you because you're counterproductive to our military efforts," said another. But Mortenson persists, sleeping only a few hours each night, going back and forth between fund-raising excursions around the United States and trips to areas of Pakistan ravaged on the one side by recurrent warfare with India and on the other side by hordes of refugees escaping from Afghanistan. Over the years, he has succeeded in educating thousands of children, many orphaned or separated from their parents in refugee camps (Mortenson & Relin, 2006).

Mortenson's story raises several mysteries. Why would an American of limited means, who at age 35 had been working part-time and earning only enough to fund his recreational pursuits, go to such great lengths to help people halfway around the globe—people many of his fellow Americans regard as enemies? Indeed, Mortenson has ignored the

Greg Mortenson and students at the school he helped build in Jafarabad, Pakistan.

extremist threats and has appeared before conservative congressional representatives and Pentagon officials to plead with them to transform the war on terrorism into one waged with books instead of bombs. And he has deprived himself of many of the normal comforts of life, spending months away from his own children and paying himself a near-poverty salary out of the funds from his nonprofit institute. A whole chapter of this textbook will be devoted to solving the mysteries of prosocial behavior, asking whether charitable behavior is the product of genetic proclivities, family upbringing, or cultural and religious influences. In other chapters, we shall explore the personal motives and situational pressures contributing to aggression, prejudice, conformity, leadership, friendship, and love.

If you were travel to the areas of Pakistan and Afghanistan where Mortenson works, you would likely be impressed by more than just the breathtaking scenery. You might also be a bit awed by some of the cultural practices of the people living there. Several times every day, you would hear a bell toll from the local mosque, and everyone in sight would prostrate themselves on the ground and call out in prayer toward Mecca. In some villages, you would see no women at all, because they follow the custom of *purdah*, believing that women should be completely segregated from men. In others, you would see a few women, but they would be hidden almost totally under *burqas*, robes covering their entire bodies and heads—even their eyes hidden behind a veil.

Why are there such vast differences in what constitutes "proper" social behavior around the world? In Tibet, one woman may marry multiple men, in Saudi Arabia a man may marry several women. In Afghanistan, premarital sex is punishable by death, in Australia premarital virginity is considered a bit unusual. Amongst the Yanomamö of Brazil, it is con-

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sidered normal for men to beat their wives and chil-
dren, in Palo Alto, California, it is considered shock-
ing, vulgar, and criminal. Solving the mysteries of
cultural diversity may be key to solving the most
important problems in the world today. Economic
globalization and overpopulation now force people to
come face-to-face with members of other tribes,
other races, and other nations—people they might
have safely ignored or despised from a distance in the
past. As we mentioned, Greg Mortenson has elicited
powerful prejudices in both Pakistani Muslims and
American Christians, some of whom regard any con-
tact between their cultures as offensive, even when it
involves something so seemingly uncontroversial as
helping impoverished rural children learn to read.

Stories like Greg Mortenson's raise broader
questions we will address throughout this book: how
do events inside one individual's head (your neigh-
bor's beliefs and prejudices) influence simple inter-
personal interactions (such as friendships and love

affairs) and how do social events at the national and
international level emerge out of hundreds, thou-
sands, and millions, of these individual interactions?
Some believe that if we are to solve the world's most
pressing problems, we will do so only by solving the
mysteries of social psychology. Although most of us
might never work with mountain villagers in Pak-
istan, all of us struggle with the same questions that
Mortenson confronted: how can we get others to
cooperate with us? How can we avoid conflicts with
strangers as well as friends and coworkers? Why is it
that people from different religious, political, or eth-
nic backgrounds have beliefs and opinions so differ-
ent from our own? Most of us try to solve mysteries
like these in our minds, by devouring news stories
and books and chatting with friends about their feel-
ings and opinions. Social psychologists go a step
further in their detective work; they apply the sys-
tematic methods of scientific inquiry.

What Is Social Psychology?

Social psychology is the scientific study of how people's thoughts, feelings, and behav-
iors are influenced by other people. What does it mean, though, to say that social psy-
chology is "scientific"?

Describing and Explaining Social Behavior

We can divide the tasks of a scientific social psychology into two general categories:
description and *explanation*. As a first step toward a scientific account of any phenome-
non—bird migrations, earthquakes, or intertribal warfare—we need an objective and
reliable description. Part of what scientists do is to develop reliable and valid methods
to help them avoid careless or biased descriptions.

Careful description is a first step, but it is not, in itself, enough to satisfy scientific
curiosity. Social psychologists also seek to explain *why* people influence one another in
the ways they do. A good scientific explanation can connect many thousands of uncon-
nected observations into an interconnected, coherent, and meaningful pattern. As the
philosopher Jules Henri Poincaré observed, "Science is built up with facts, as a house is
with stones, but a collection of facts is no more a science than a heap of stones is a
house." Scientific explanations that connect and organize existing observations are
called **theories**.

In addition to organizing what we already know, scientific theories give us hints
about where to look next. What causes some people, like Greg Mortenson, to act char-
itably toward others? Without a good theory, we would not know where to start search-
ing for an answer. Maybe an inclination to help others is caused by the arrangement of
the planets under which altruists are born or by something in the water they drank as

Social psychology The scientific study
of how people's thoughts, feelings,
and behaviors are influenced by other
people.

Theory Scientific explanation that con-
nects and organizes existing observa-
tions and suggests fruitful paths for
future research.

children. Social psychological theories are more likely to suggest searching elsewhere for the causes of social behavior—in a person's interpretation of his or her immediate social environment, in his or her family background, in the broader culture, or in general predispositions humans share with baboons and other social animals. And, as we'll see, social psychologists have developed some intriguing research methods designed to sort out those different sources of influence.

Finally, scientific theories can help us make predictions about future events and control previously unmanageable phenomena. Scientific theories have led to the electric lightbulb, the personal computer, the space shuttle, and the control of diseases such as smallpox. As we will see, social psychological theories have provided useful information about the roots of prejudice, kindness, and love; about why people join rioting mobs or religious cults; and about a host of other puzzling phenomena.

Social Psychology Is an Interdisciplinary Bridge

The story of Greg Mortenson's mission to build schools in the remote mountains of Pakistan can be viewed from several different perspectives. Anthropologists would be interested in the cultural differences and similarities between the different groups in the mountains of Pakistan and Afghanistan, noting that the Washiri Pashtun and the Hazara Shia have different rules for how women should dress and behave in public, for how men should interact with outsiders, and even for how and when people should eat and pray. Evolutionary biologists would be interested in how the attitudes about gender and marriage in these different groups reflect aspects of human nature interacting with general ecological factors (such as the lack of abundant resources and the extremely hierarchical social structure). Political scientists and historians would be interested in how Mortenson's experiences were influenced by the background of long-term intergroup conflicts in the region, including 50 years of war with India over Kashmir to the East and a decades-long stream of Afghan war refugees fleeing into Pakistan through the Khyber Pass to the West. Philosophers of religion would be interested in the differences between the various Muslim groups in the area, where Shia and Sunni regard each other as infidels.

How might all these perspectives fit together into a bigger picture? Stated more broadly: How does what you are learning in your biology class link up with what you're learning in your anthropology class? How do the factoids of history connect with neuroscience? What are the links between philosophy of religion and geography? It turns out all these things are profoundly connected, and in ways that affect not only the course of your personal life, but also the course of history. Evolutionary biology, neurochemistry, history, culture, and geography all have important implications for how people socially interact with one another, and those social interactions, in turn, affect which moral and religious sentiments are enforced as laws, how children are educated, and even how medical doctors treat their patients. Because all of these influences converge to influence social behavior, social psychologists consider social behavior at many different levels of analysis. For example, a recent series of studies of societies around the world has found that cultural differences in friendliness and sociability are linked to geographic variations in disease prevalence—where there is more disease, people have traits that lead them to avoid contact with others (Fincher, Thornhill, Murray, & Schaller, 2008; Schaller & Murray, 2008). Other studies we'll discuss have examined how our relationships with other people can be affected by historical factors, hormone levels, phase of the menstrual cycle, and brain activity, and how all these influences can, in turn, affect our physical and mental health, as well as our economic behavior and political beliefs (e.g., Apicella et al., 2008; Little, Jones, & DeBruine, 2008; Miller, Tybur, & Jordan, 2007; Stinson et al., 2008; Uskul, Kitayama, & Nisbett, 2008). Thus, social psychology is in many ways the ultimate bridge discipline. Throughout this text, we will encounter many such interdisciplinary bridges, often considering findings that reflect culture, evolutionary biology, neuroscience, and that connect with applied disciplines from business to law to medicine.

QUIZ

1. What is social psychology?
2. What is the difference between scientific description and explanation?
3. Why is social psychology a bridge discipline?

Major Theoretical Perspectives of Social Psychology

Social psychological theories have been influenced by intellectual developments ranging from the discovery of DNA to the emergence of artificial intelligence. Four major perspectives (or families of theories) have dominated the field: sociocultural, evolutionary, social learning, and social cognitive.

The Sociocultural Perspective

The year 1908 saw the publication of the first two major textbooks titled *Social Psychology*. One of these was written by sociologist Edward Alsworth Ross. Ross saw the wellsprings of social behavior as residing not in the individual but in the social group. He argued that people were carried along on "social currents," such as "the spread of a lynching spirit through a crowd . . . [or] an epidemic of religious emotion" (Ross, 1908, 1–2). Ross analyzed incidents such as the Dutch tulip bulb craze of 1634, in which people sold their houses and lands to buy flower roots that cost more than their weight in gold, but that instantly became worthless when the craze stopped. To explain these crazes, Ross looked at the group as a whole rather than at the psyche of the individual group member. He viewed crazes and fads as products of "mob mind . . . that irrational unanimity of interest, feeling, opinion, or deed in a body of communicating individuals, which results from suggestion and imitation" (Ross, 1908, 65).

Like Ross, other sociologically based theorists emphasized larger social groupings, from neighborhood gangs to ethnic groups and political parties (e.g., Sumner, 1906). That emphasis continues in the modern **sociocultural perspective**—the view that a person's prejudices, preferences, and political persuasions are affected by factors that work at the level of the group—such as nationality, social class, and current historical trends. For example, compared to her working-class Irish grandmother, a modern-day Manhattan executive probably has different attitudes about premarital sex and women's roles in business (Roberts & Helson, 1997). Sociocultural theorists focus on the central importance of **social norms**, or rules about appropriate behavior, such as *Don't eat with your hands, Don't wear shorts to a wedding*, and so on. At the center of this perspective is the concept of **culture**, which we can broadly define as a set of beliefs, customs, habits, and language shared by the people living in a particular time and place. As an American, Greg Mortenson viewed it as normal and customary that girls should be entitled to the same education as boys, but to many of the people he met in the remote regions of Pakistan, the idea was surprising, and even offensive.
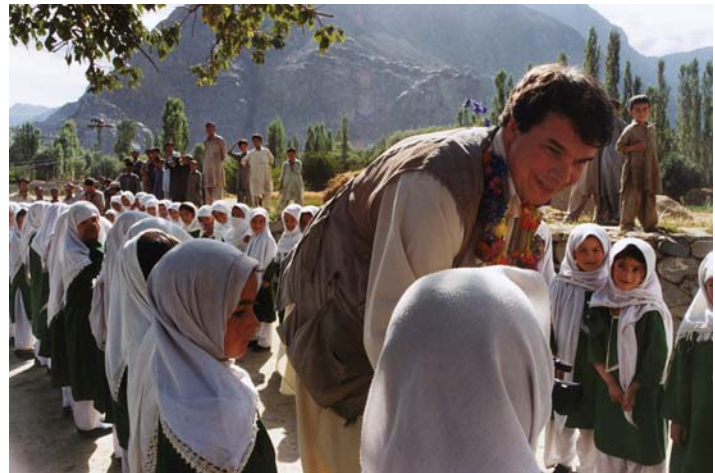
Different cultural norms. These young girls from Jafarabad (a region on the border of Pakistan and India) not only dress differently from their counterparts raised in Kansas, they are exposed to vastly different rules for appropriate social behavior. For them, getting an education is considered somewhat inappropriate, but becoming a man's second wife is not.

Sociocultural perspective The theoretical viewpoint that searches for the causes of social behavior in influences from larger social groups.

Social norm A rule or expectation for appropriate social behavior.

Culture The beliefs, customs, habits, and language shared by the people living in a particular time and place.

Culture includes all the human-engineered features of the environment, from subjective features, such as rules of etiquette, to objective features, such as houses and clothing (Fiske, 2002; Triandis, 1994). The technological features of our culture can have powerful effects on our social behaviors, as evidenced in recent years by cell phones, iPhones, Blackberries, and social networking Internet sites, all of which profoundly influence how and when people can communicate with one another (Crabb, 1996a, 1996b, 1999; Guodagno, Okdie, & Eno, 2008; McKenna & Bargh, 2000).

Each of us has been exposed to different cultural norms depending on our ethnicity, our socioeconomic status, the geographical region in which we were raised, and our religion (Cohen, 2009; Iyengar & Lepper, 1999; Maass et al., 2006; Sanchez-Burks, 2002). If you grew up poor in the Southern United States, for example, you are more likely to listen to country and western music, whereas if you grew up in an upper-middle-class city on the West coast, you are likely to listen to rock. The lyrics you hear in these two types of music emphasize very different cultural values: Rock lyrics stress doing your own thing, going against the grain, and changing the world. Country lyrics emphasize adapting yourself to the world's challenges, being resilient, and maintaining your integrity (Snibbe & Markus, 2005). As another example, Asian Americans differ in some ways from European Americans, placing a relatively low value on self-expression, personal choice, and the inclination to "think out loud" (Kim, 2002; Kim & Sherman, 2007). As you will see, the study of groups, culture, and social norms continues as a major thrust in social psychology (e.g., Adams, 2005; Chen, 2008; Matsumato, Yoo, & Nakagawa, 2008; Ross, Heine, Wilson, & Sugimori, 2005). We will consider these sociocultural influences in every chapter of this text.

Sociocultural theorists have been intrigued by differences in behavior from one culture to the next. But other researchers, working from an evolutionary perspective, have been more interested in similarities across different human cultures as well as across different animal species.

INVESTIGATION

Consider two people you know whose cultural backgrounds differ from yours (another country, a different social class, ethnicity, or religion). In what ways do the norms of your different cultures lead you to behave differently in your interactions with each other?

The Evolutionary Perspective

The other 1908 *Social Psychology* text was written by a British psychologist originally trained in biology. William McDougall took an **evolutionary perspective**, adopting the view that human social behaviors are rooted in physical and psychological predispositions that helped our ancestors survive and reproduce. McDougall followed Charles Darwin's (1873) suggestion that human social behaviors (such as smiling, sneering, and other emotional expressions) had evolved along with physical features such as upright posture and grasping thumbs.

The central driving force of evolution is **natural selection**, the process whereby animals pass to their offspring those characteristics that help them survive and reproduce. New characteristics that are well suited to particular environments—called **adaptations**—will come to replace characteristics that are less well suited to the demands and opportunities those environments present. Dolphins are mammals, closely related to cows, but their legs evolved into fins because that shape is better suited to life under water. Darwin assumed that just as an animal's body is shaped by natural selection, so is an animal's brain.

Psychologists once assumed that evolution could only produce inflexible "instincts" that were "wired in" at birth and not much influenced by the environment. Most experts on evolution and behavior now understand that biological influences on humans and other animals are usually flexible and responsive to the environment (e.g., Gangestad, Haselton, & Buss, 2006; O'Gorman, Wilson, & Miller, 2008). Consider fear, for example. There is good evidence that fear is an evolved psychological reaction that helped our ancestors respond rapidly to threats such as poisonous insects, snakes, and other people who might pose a danger to them (Ohman, Lundqvist, & Esteves, 2001). Because it would exhaust our bodies to be on continuous high alert, the so-called fight-or-flight response (which makes us want to run or defend ourselves in frightening situations) is

Evolutionary perspective A theoretical viewpoint that searches for the causes of social behavior in the physical and psychological predispositions that helped our ancestors survive and reproduce.

Natural selection The process by which characteristics that help animals survive and reproduce are passed on to their offspring.

Adaptation A characteristic that is well designed for survival and reproduction in a particular environment.

Expressions of happiness across human cultures. In the first book on evolutionary psychology, Charles Darwin argued that some emotional expressions might be universal patterns of communication inherited from our ancestors.

exquisitely sensitive to cues in a situation that suggest when we are and are not likely to be in danger (Cannon, 1929).

One team of researchers examined how this evolutionary perspective on fear might help us understand potentially volatile prejudices between different groups of people (Schaller, Park, & Mueller, 2003). The researchers asked white and Asian Canadian college students to rate their reactions to photographs of black men. Some of the students did the ratings in a brightly lit room; others were in a completely dark room. Students who viewed the world as a dangerous place were particularly prone to see the black men as threatening if they rated the photos in a dark room. Furthermore, these effects were stronger when the raters were men than when they were women. The researchers interpreted these data in terms of an evolutionary perspective on intergroup relationships (Kurzban & Leary, 2001; Sidanius & Pratto, 1998). From this viewpoint, it might have been useful to our ancestors to be especially fearful of strangers under certain circumstances. The possibility of dangerous conflict between two different groups of men who encountered one another after dark would have led to wariness on the part of men who found themselves in this type of situation. The researchers note that in modern multicultural societies the tendency to respond with these primitive self-protective reactions can lead to adverse consequences, including bullying, gang warfare, and intergroup conflict.

Because evolutionary theorists are interested in general characteristics of our species, they have searched for common patterns in human social behaviors around the world (e.g., Kenrick & Keefe, 1992; Matsumoto & Willingham, 2006; Schmitt, 2006). Men and women in every human society, for example, establish long-term marriage bonds in which the man helps the woman raise a family (Geary, 2000; Hrdy, 1999). This might seem unsurprising until one looks at most of our furry relatives. Mothers in 95 to 97% of other mammalian species go it alone without any help from the male. Why are family values so rare among mammalian males? Probably because, after fertilization, fathers just aren't all that necessary. Paternal care becomes useful, though, in species like coyotes and human beings, whose young are born helpless (Geary, 2005).

Paternal investment. Unlike males in 95 percent of other mammalian species, human fathers invest a great deal of time, energy, and resources in their offspring.

Besides the broad commonalities of human nature, evolutionary psychologists are also interested in differences between individuals (e.g., Duncan, Park, Faulkner et al., 2007; Boothroyd et al., 2008; Feinberg et al., 2008; Jackson & Kirkpatrick, 2008). Within any species, there are often multiple strategies for survival and reproduction. For example, some male sunfish grow large, defend territories, and build nests, which attract females. Other males are smaller and impersonate females, darting in to fertilize the eggs just as the female mates with a large territorial male (Gould & Gould, 1989). Although people in all societies form some type of long-term parental bond, they also vary considerably in their mating strategies: Some men and women are monogamous, whereas others join in marriages that involve more than one husband, as in Tibet, or more than one wife, as in Afghanistan (Schmitt, 2005). As we shall see in later chapters, social psychologists are just beginning to explore how biological predispositions and culture interact to shape complex social behaviors, from violence and prejudice to altruism, love, and religiosity (e.g., Cottrell & Neuberg, 2005; Elfenbein & Ambady, 2002; Weeden, Cohen, & Kenrick, 2008).

The Social Learning Perspective

During the decades following 1908, Ross's group-centered perspective and McDougall's evolutionary approach declined in popularity. Instead, many psychologists adopted a **social learning perspective**, which viewed social behavior as driven by each individual's past learning experiences with reward and punishment (e.g., Allport, 1924; Hull, 1934).

Social learning experiences no doubt played a role in Greg Mortenson's decision to devote himself to building schools in the remote mountains in Pakistan and Afghanistan. Although Mortenson, like his father, had been born in Minnesota, his parents moved to Africa when he was only a few months old and stayed there till he was 14. Greg's parents went to Africa to work as teachers and missionaries, and he watched them devote themselves to various charitable projects. His father had worked to raise money to build Tanzania's first teaching hospital, and his mother set up an international school. During his own years in his mother's school, Greg met children from many different countries, including India and Pakistan. Hence, his early experiences prepared him not only to get along with people from other societies, but also allowed him to see his parents winning affection and respect for helping others. As in Mortenson's case, the other people around us indeed have profound effects on our career paths (Simonton, 1992). Of those who have gone on to win Nobel Prizes for their scientific research, over half first studied with teachers who had themselves won Nobel Prizes (Simonton, 1994).

Not everything we learn from others is positive. In a classic series of experiments, Albert Bandura and his colleagues showed how children learn to imitate aggressive behavior after seeing another child or adult rewarded for beating an inflatable "Bobo doll" (e.g., Bandura, Ross, & Ross, 1961). Bandura expressed concern because his own research had suggested that movies and television often teach young people that violent behavior can be heroic and rewarding. These concerns have been validated by numerous examples of life imitating art. For example, on April 8, 2000, the *Arizona Republic* reported the story of a group of boys in a local high school who started a "fight club" modeled after one started by Brad Pitt's character in a 1999 movie of the same name. As modeled by the characters in the movie, the teenage boys would gather together to trade gloveless punches with one another (Davis, 2000). In a related vein, as we will discuss in Chapter 10, there is evidence that violent video games, which often give players additional points every time they kill or maim a lifelike opponent, may desensitize young boys to violence and teach them to associate hurting others with rewards (Anderson & Dill, 2000; Bartholow, Sestir, & Davis, 2006).

The social learning perspective is similar to the sociocultural perspective in that it searches for the causes of social behavior in a person's environment. The two perspec-

Social learning. Venus Williams's father began teaching her to play tennis when she was just a young child. According to social learning theory, whether a person ends up as a successful athlete, a criminal, or a doctor depends on modeling experiences and rewards from parents and others in the child's environment.

Social learning perspective A theoretical viewpoint that focuses on past learning experiences as determinants of a person's social behaviors.

tives are slightly different in their breadth of focus over time and place, however. Social learning theorists emphasize the individual's unique experiences in a particular family, school, or peer group. Sociocultural theorists are not as concerned with specific individuals or their unique experiences, but instead look at larger social aggregates, such as Asian Canadians, Hispanic Americans, college students in sororities, Protestants, or members of the upper class (e.g., Cohen, Malka, Hill et al., 2009; Hoshino-Browne et al., 2005; Vandello & Cohen, 2003). Also, sociocultural theorists lean toward the assumption that norms, like clothing styles, can change relatively quickly, whereas social learning theorists have generally assumed that habits learned early in life may be difficult to break.

The Social Cognitive Perspective

Despite their differences, the sociocultural, evolutionary, and social learning perspectives all emphasize the objective environment. Each assumes that our social behaviors are influenced by real events in the world. During the 1930s and 1940s, Kurt Lewin brought a different perspective to social psychology, arguing that social behavior is driven by each person's subjective interpretations of events in the social world. For example, whether you decide to work toward the goal of becoming class president would depend on (1) your subjective guess about your chances of winning the office and (2) your subjective evaluation of the benefits of being class president (Higgins, 1997). If you don't *think* it would be personally rewarding to be class president, or if you want to be president but don't expect to win, you won't bother to run for election—regardless of whether it would objectively be a winnable or enjoyable post for you.

By emphasizing subjective interpretations, Lewin did not mean to imply that no objective reality existed. Instead, Lewin emphasized the interaction between events in the situation and the person's interpretations. Lewin believed that a person's interpretation of a situation was also related to his or her goals at the time. If a teenage boy is itching for a fight, he might interpret an accidental bump as an aggressive shove.

The emphasis on an interaction between inner experience and the outside world led naturally to a close association between social psychology and cognitive psychology. *Cognitive psychologists* study the mental processes involved in noticing, interpreting, judging, and remembering events in the environment. During the 1950s, the advent of computers helped lead a "cognitive revolution"—a rebirth of interest in the workings of the mind. During the 1970s and 1980s, an increasing number of social psychologists adopted a **social cognitive perspective**, which focuses on the processes involved in people's choice of which social events to pay attention to, which interpretations to make of these events, and how to store these experiences in memory (e.g., Andersen & Chen, 2002; Plant, Peruche, & Butz, 2004; Roese & Summerville, 2005).

Researchers have conducted a host of fascinating experiments to explore how your reactions to any social situation can be influenced by cognitive factors such as attention and memory (e.g., Donders, Correll, & Wittenbrink, 2008; Sharif & Norenzayan, 2007; Trawalter, Todd, Baird, & Richeson, 2008). In one such experiment, the researcher asked high school students to consider how important it was to make a lot of money in their future jobs (Roney, 2003). Some of the students answered the question in a room with members of the opposite sex; some were around only members of their own sex. As you can see in Figure 1.1, the presence of boys made no difference in the way that high school girls answered the question. But being around girls led high school boys to inflate the value they placed on wealth. The researcher also found that seeing ads with young, attractive models (as opposed to ads depicting older people) stimulated college men at the University of Chicago to rate themselves as more ambitious and to place more value on being financially successful. The researcher explained the results in terms of a simple cognitive mechanism—seeing attractive young women activates thoughts about dating in young men. This, in turn, triggers associated thoughts about "what women want,"

Social cognitive perspective A theoretical viewpoint that focuses on the mental processes involved in paying attention to, interpreting, and remembering social experiences.
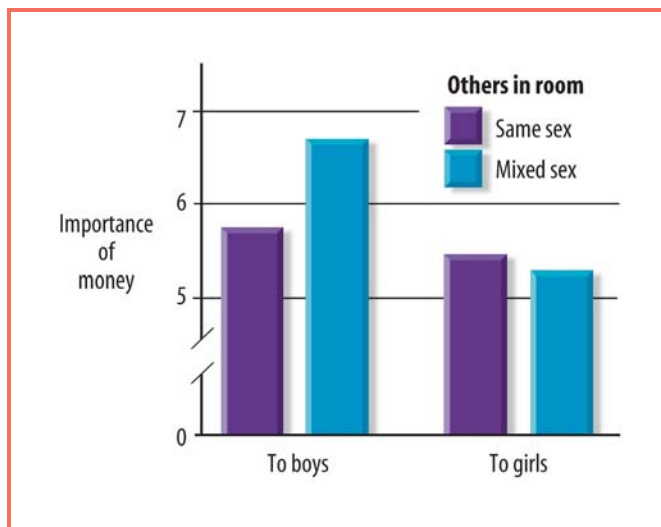
FIGURE 1.1 Social context and decision making. When high school students were asked to rate "How important is having lots of money to your life?" boys' answers were different if they answered the question around high school girls.

INVESTIGATION

Think of the different people you've passed on the street or on campus or had interactions with anywhere else today. In what ways might the cognitive processes we have discussed in this section affect which people come to mind more easily?

including the tendency for women to place more emphasis on financial success in a mate (e.g., Li et al., 2002).

One problem we face in processing social information is that there is so much of it. It's virtually impossible to remember everyone you passed as you walked across campus this morning, much less all the social interactions you had over the last week or the last year. Because we can't focus on everything we see and hear, social information processing is selective. As we'll see in later chapters, sometimes we put our minds on automatic, focusing on a superficial detail or two that will help us come to a quick decision about what to do next (such as when you're in a rush and have to decide whether to give 50 cents to a homeless woman with her hand out). At other times, we pay careful attention to particular details and search, like scientists, for particular types of social information that will allow us to make accurate decisions (when you're thinking of dating someone, for example) (Chaiken & Trope, 1999; Strack, Werth, & Deutsch, 2006).

Social psychologists have found that people have a very hard time keeping a completely fair and open mind to new social information, even when we're trying to do so (e.g., Lord, Ross, & Lepper, 1979). Rather than operating like scientists seeking the truth, we often process social information more like lawyers defending a client (Haidt, 2001). Consider this question: What are you like now, and how are you different now from what you were like when you were 16 years old? When one team of researchers asked Canadian college students this question, the students had lots of positive things to say about themselves now and more negative things to say about their former selves. Of course, it might be that people simply become better human beings as they age. However, when the researchers asked another group of students to rate acquaintances of the same age, the students did not perceive their acquaintances as growing into better and better people, only themselves (Wilson & Ross, 2001). The tendency to view ourselves (but not others) as having changed "from chumps to champs" fits with a number of other findings suggesting that people tend to process social information in a way that tends to flatter themselves (Greenwald et al., 2002; Vohs, Baumeister, & Ciarocco, 2005).

Because of the central importance of the social cognitive perspective in modern social psychology, it will provide an essential component throughout this text as we discuss the many mysteries of social behavior.

Combining Perspectives

Table 1.1 summarizes the four major theoretical perspectives in social psychology. Although these perspectives are sometimes viewed as competing, each actually focuses on different parts of the mysteries of social life.

Because a single traditional perspective focuses on only part of the picture, we need to combine and integrate the different approaches to see the full picture. The processes of attention and memory studied by cognitive researchers are shaped by people's learning histories and cultures, which are, in turn, the products of an evolutionary past in which humans have created, and have been created by, their social groups (Kenrick, Nieuweboer, & Buunk, 2010; Klein, Cosmides, Tooby, & Chance, 2002). Consider the topic of prejudice—to some extent, prejudices against members of other groups are related to evolved aversions of strangers, who were often sources of physical danger and new diseases for our ancestors (e.g., Schaller et al., 2003). However, aversions to out-

TABLE 1.1   *Major Theoretical Perspectives in Social Psychology*

PERSPECTIVE	WHAT DRIVES SOCIAL BEHAVIOR?	EXAMPLE
Sociocultural	Forces in larger social groups.	Employees working at IBM in the 1960s wore blue dress shirts (as opposed to white); employees working for Apple in 2009 are more likely to wear colorful T-shirts and shorts to work.
Evolutionary	Inherited tendencies to respond to the social environment in ways that would have helped our ancestors survive and reproduce.	Human infants the world over are born with a set of behavioral mechanisms (sucking, crying, cooing) that induce hormonal changes in their mothers, increasing the likelihood they will be nursed and cared for.
Social learning	Rewards and punishments. Observing how other people are rewarded and punished for their social behaviors.	A teenage boy decides to become a musician after watching an audience scream in admiration of the lead singer at a concert.
Social cognitive	What we pay attention to in a social situation, how we interpret it, and how we connect the current situation to related experiences in memory.	If you pass a homeless person on the street, you may be more likely to help if you interpret his plight as something beyond his control and if he reminds you of the parable of the Good Samaritan.

siders always involved trade-offs because members of different groups engaged in trade and exchanged mates with one another (Faulkner, Schaller, Park, & Duncan, 2004; Navarette, Fessler, & Eng, 2007). Hence, human beings have always had to learn who were their friends and who were their enemies, and which members of different out-groups to fear and which to trust (e.g., Phelps et al., 2000). As relationships between different groups change with historical events, the cultural norms also change accordingly. For example, in the 1950s many African Americans were still being denied the right to vote; 50 years later, things have changed so much that an African American is president of the United States. To fully understand the mysteries of social life, then, it is necessary to piece together clues from several different perspectives.

QUIZ

QUICK

1. What are the four major theoretical perspectives of social psychology?
2. In what ways are these theories similar to, and different from, one another?

Basic Principles of Social Behavior

Despite their differences, all the major perspectives in social psychology share a pair of key assumptions. First, people interact with one another to achieve some goal or satisfy some inner motivation. Cognitive psychologists emphasize conscious goals triggered by the current situation, as when an ad saying "Father's Day is just around the corner!" reminds you to rush out and buy your father another one of those Hawaiian print ties he appreciated so much last year. Learning theorists emphasize how past rewards encourage us to approach some goals and avoid others. For example, if your parents smile proudly every time you share your toys with your sister but grimace every time you talk about money, you may set the goal of joining the Peace Corps instead of a Wall Street brokerage firm. Evolutionary theorists emphasize social motivations rooted in our ancestral past: People who were motivated to get along with other members of their social groups, for instance, were more likely to survive and pass on their genes than were self-centered hermits.

A second common theoretical thread is a focus on the interaction between the person and the situation. All the major perspectives assume that motivations inside each of

us interact with events in the outside situations we encounter. For example, the evolutionary perspective emphasizes how internal reactions such as anger, fear, or sexual arousal are triggered by situations related to survival or reproduction (hungry-looking predators or flirting glances, for example). Social learning theorists study how learned responses within the individual are linked to rewards and punishments in the social setting. And cognitive theorists examine how a person's thought processes are linked with moment-to-moment changes in the social situation.

Throughout this book, then, we will emphasize two broad principles shared by the different perspectives.

1. Social behavior is *goal oriented*. People interact with one another to achieve some goal or satisfy some inner motivation.
2. Social behavior represents a continual *interaction* between the person and the situation.

In the following sections, we take a closer look at these two principles.

Social Behavior Is Goal Oriented

Goals affect our social behaviors on several levels. At the surface level, we can enumerate a long list of day-to-day goals: to find out the latest office gossip, to make a good impression on a teacher, or to get a date for next Saturday night. At a somewhat broader level, we can talk about longer-term goals: to gain a reputation as being competent, to be seen as likable, to feel good about oneself, or to develop a romantic relationship. Those broader goals often tie together several other day-to-day goals: Developing a romantic relationship incorporates shorter-term goals such as getting a date for Saturday night and being comforted by your partner after an exam.

At the broadest level, we can ask about fundamental motives—the ultimate functions of our social behavior. (Kenrick, Griskevicius, Neuberg, & Scholler, 2010). So, for example, succeeding in one's career and making connections with people in high places could both be incorporated into a fundamental motive of "gaining and maintaining status." To better understand these fundamental motives, let's consider several that have been investigated by social psychologists.

To Establish Social Ties Greg Mortenson could not have built 55 schools in Pakistan and Afghanistan without the help of many other people—benefactors who contributed the money, local business people who helped him negotiate for the raw materials, architects to design the buildings, workers to transport the materials and to do the actual construction, and local leaders to protect him from the mullahs who did not want young girls to be educated. For almost every goal any of us ever reaches, we get there more easily when there are others helping us along. For some things, like building a school, it would not happen at all if not for teamwork.

When psychologists enumerate the most basic motives underlying human behavior, the desire to establish ties with other people is usually high on the list (e.g., Bugental, 2000; McAdams, 1990). People are exquisitely sensitive to rejection and go to great lengths to reconnect with others if they feel excluded (Anthony, Holmes, & Wood, 2007; Maner, DeWall, Baumeister, & Schaller, 2007). One team of researchers observed brain-wave patterns while participants played a virtual ball-tossing game with two other players. When the two other players threw the ball to one another and excluded the participant, the person being left out showed a pattern of activity in two different areas of the cortex usually associated with physical injury (Eisenberger, Lieberman, & Williams, 2003). Other research suggests that the agony of social separation can be reduced by opiates, drugs normally used to quell the agony of a bleeding wound (Panksepp, 2005). Why does social isolation tap into the same neural mechanisms as physical pain? Perhaps because, without their friends, our ancestors would not have survived (Hill & Hurtado, 1996; MacDonald & Leary, 2005). Hence social rejection may trigger a primitive physiological emergency reaction.

To Understand Ourselves and Others   People gossip, they read profiles of criminal personalities in the newspaper, and they seek feedback from their friends about their chances of getting a date with a charming new classmate. The importance of such information is obvious—by understanding ourselves and our relationships with others we are able to manage our lives more effectively. Someone who is "out of touch" with these realities will have a harder time surviving in a social group (Leary & Baumeister, 2000; Sedikides & Skowronski, 2000). Because social knowledge is so fundamental to all human relationships, social psychologists have devoted a great deal of attention to the topic of social cognition (which, as noted earlier, refers to the mental processes involved in attending to, interpreting, and remembering other people). In Chapter 3, we explore this topic in depth, and we return to it throughout the chapters that follow.

To Gain and Maintain Status   Grade schoolers compete for places on Little League all-star teams, college students fight for grades, middle managers strive for executive positions, and senators campaign to win the presidency. And humans aren't alone in struggling for status. Baboons are social primates who, like us, pay close attention to where they stand in the social hierarchy. An intensive study of baboons' physiological responses to social events revealed that a loss of status led to a particularly disruptive set of hormonal alarm responses (Sapolsky, 2001).

The advantages of attaining status include not only immediate material payoffs such as access to food but also the less tangible social benefits that follow from other people's (or other baboons') respect and admiration (Henrich & Gil-White, 2001). So it makes sense that most of us go to great lengths not only to present ourselves in a positive light to others, but also to convince ourselves that we have reason to hold our heads up high (e.g., Sedikides, Gaertner, & Toguchi, 2003; Tesser, 2000). Throughout this book, we will see that the motivation to gain and maintain status underlies a wide range of social behaviors.

To Defend Ourselves and Those We Value   At the local level, people build fences around their houses, put up "Keep Out" signs on their streets, join gangs, and buy attack dogs to protect themselves. At the national level, countries build armies to protect themselves against the armies of other countries. People are extremely motivated to defend themselves when their reputations, their resources, or their families are threatened. People can recognize an angry expression in just a fraction of a second, and do so significantly faster if the angry expression is on a man's face (Becker, Kenrick, Neuberg, Blackwell, & Smith, 2007). Why? Men generally pose more of a physical threat than do women, particularly if those men are strangers or members of outgroups (Ackerman, Shapiro et al., 2007).

The motivation to defend ourselves can have obvious benefits, promoting our survival and that of our family members, but it can also lead to escalating violence and racism (Duntley, 2005; Schaller et al., 2003). We will discuss the sometimes frightening power of self-protective motivation in the chapters that deal with aggression, prejudice, and intergroup conflict.

To Attract and Retain Mates   Bhupinder Singh, seventh maharajah of the state of Patiala in India, took 350 spouses; most North Americans will take at least one. People often go to great lengths to find and keep these partners, writing lengthy love letters, having long phone calls at 2 A.M., or joining computer dating services. An initial flirtation with a pleasant acquaintance in your psychology class could lead to feelings of attraction, romantic love, and even a lifelong family bond. From an

The motive to gain and maintain status. Sarah Jessica Parker was one of eight siblings born to relatively poor parents in a small Ohio town. She personifies the rags-to-riches fantasy, having progressed from a struggling rural girl to an awkward adolescent to an internationally famous winner of several Golden Globes. Though not everyone has such high aspirations, most of us are motivated to gain regard in the eyes of others.

The motives to defend ourselves and those we value. This woman and her family are escaping their burning village during the Vietnamese war. Real or perceived threats from other groups motivate a number of social behaviors, including racial prejudice and aggression.

I N V E S T I G A T I O N

Recall one pleasant and one unpleasant interaction you've had with another person or group. How do those interactions link up with the different goals we just discussed?

evolutionary perspective, these are all connected (Kenrick, Maner, & Li, 2005). Indeed, evolutionary theorists believe that the goal of reproduction underlies all the other social goals. From this perspective, we affiliate, we seek social information, we strive for status, and we act in aggressive and self-protective ways all toward the ultimate end of reproducing our genes (Buss, 2004; Neuberg, Schaller, & Kenrick, 2009).

The Interaction Between the Person and the Situation

If an attractive stranger on your left begins to flirt with you, you may stop trying to impress your boss, who is standing on your right. If you later notice that a third person—a large male dressed in black leather—has started to sneer at you and to stand possessively close to the flirtatious stranger, you may shift to thoughts of self-protection. In contrast, a coworker who is a more devoted social climber may be so desperately trying to impress the boss as to be oblivious to flirtation opportunities or physical dangers.

In other words, the fundamental motives and specific goals active at any one time reflect the continual interaction of factors inside the person and factors outside in the world. Because we will examine these interactions in some detail throughout the book, let us briefly consider what we mean by "the person" and "the situation" and how the two become interwoven through "person–situation interactions."

PERSON ▶

The Person When we talk about the **person**, we will typically be referring to features or characteristics that individuals carry into social situations. If asked to describe yourself, you might mention physical characteristics (your height or your gender, for example), chronic attitudes or preferences (your tendency to vote Republican, Democrat, or Libertarian, for example), and psychological traits (whether you are extraverted or introverted, emotional or calm, and so on). These characteristics may be based on genetic or physiological factors that make you different from others, or they may be based on past learning experiences and maintained by particular ways you have of thinking about yourself or the other people you encounter on a day-to-day basis. Other aspects of the person may be more temporary, such as your current mood or sense of self-worth. Throughout the text, when we want to focus specifically on a feature of the person, we will signify this by using the Person icon shown at the left.

SITUATION ▶

The Situation When we talk about the social **situation**, we are referring to events or circumstances outside the person. These can range from fleeting events in the immediate social context (as when a stranger winks at you) to long-lasting influences, such as growing up on an isolated rural farm in Montana or a multi-ethnic neighborhood in New York City. When we want to focus specifically on a feature of the situation, we will signify this by using the Situation icon shown at the left.

Person–Situation Interactions Neither the person nor the situation is a fixed entity. As William James observed, "Many a youth who is demure enough before his parents and teachers, swears and swaggers like a pirate among his 'tough' young friends" (1890, 294). Different social situations trigger different goals—sometimes we want to be liked, sometimes we want to be feared, and so on (Griskevicius, Tybur, et al., 2009; Maner & Gerend, 2007). Because there is often quite a bit going on in a single situation, your goal at any given moment may depend on what you are paying attention to. And depending on your current goals and your lifelong traits, you may respond differently to a situation from the way others do (e.g., Graziano, Habashi, Sheese, & Tobin, 2007). Think of a party where some people are dancing, some are having a philosophical discussion, and still others are listening to a joke.

As we discuss in detail in Chapter 2, people and situations interact in several different ways. For example, we tend to interpret ambiguous situations in ways that fit with

Person Features or characteristics that individuals carry into social situations.

Situation Environmental events or circumstances outside the person.

our personal motives (Balcetis & Dunning, 2006). Whether you think someone was flirting with you or just being friendly depends on your sex and whether you are in a romantic frame of mind (Maner et al., 2003). Our personalities also affect which situations we choose to enter (Roberts, Caspi, & Moffitt, 2003; Snyder & Ickes, 1985). If you are an introvert, you might decline an invitation to a party; an extravert might crash the party, even if he wasn't invited.

Just as people choose their situations, so social situations may choose certain types of people to enter them. The high school freshman who is taller than average may be recruited for basketball training, for example, whereas a friend who is better than average at math and science may be recruited for honors classes. And small initial differences between people may get magnified by situations (such as basketball training sessions and honors classes). Thus situation and person mutually shape and choose one another in a continuing cycle.

When we want to focus specifically on a person–situation interaction, we will signify this by using the Interaction icon shown at the right.

◄ INTERACTION

QUIZ

QUICK

1. What are the five fundamental motives behind goal-oriented social behavior?

2. What is meant by: (a) the person, (b) the situation, and (c) person–situation interactions?

How Psychologists Study Social Behavior

Scientific research is a bit like detective work. A detective begins with a mystery and a set of procedures for solving that mystery: interview witnesses, look for a motive, try to rule out various suspects, examine the material evidence, and so on. There are pitfalls at every step: Witnesses may lie or base their testimony on unfounded assumptions, some motives may be hidden, and the evidence may have been tampered with. Like detectives, social psychologists begin with mysteries. We opened this chapter with several, including: What might cause an American man of limited means to devote himself to building schools for people halfway around the globe? Why is it appropriate for a woman to marry several men or a man to marry several women in some societies, whereas others tolerate only monogamous arrangements? Why is premarital sex normal in some societies but not in others? Social psychologists have a set of procedures for solving such mysteries and, like detectives, they must also be aware of potential pitfalls involved in using these procedures.

Psychologists begin their detective work with **hypotheses**—educated guesses about how the evidence is likely to turn out. If you wanted to search for evidence about some interesting social behavior, how would you come up with a viable hypothesis to lead your search? You might start with one of the theoretical perspectives we discussed earlier. For example, adopting a social learning perspective on Greg Mortenson's helpfulness toward people living in poor villages in Pakistan, you might note that he grew up watching his parents helping people in Africa. Perhaps, then, early positive experiences with members of other groups is critical to this type of charitable behavior (as suggested by evidence we'll review in Chapter 9). An alternative hypothesis (which we will also consider in Chapter 9) is that people inherit genetic tendencies toward altruism from their parents.

But not all social psychological hypotheses are logically derived from a scientific theory. You might draw an interesting hypothesis from an odd event that seems to contradict common sense, such as when a person becomes more committed to a religious

Hypothesis A researcher's prediction about what he or she will find.

cult after the leader's predictions about the end of the world do not come true (Festinger, Reicken, & Schachter, 1956). Or you might search for exceptions to some established psychological principle, such as when a reward causes a child to stop working on a task (e.g., Lepper, Green, & Nisbett, 1973). Social psychologist William McGuire (1997) enumerated 49 different ways to go about generating a research hypothesis.

Many people stop looking once they come up with a plausible-sounding explanation for why another person appeared generous, zealous, aggressive, or loving. But concocting a plausible-seeming hypothesis is only the beginning of a scientific search. As we'll see, sometimes even the most plausible hypotheses prove to be dead wrong.

B R I D G I N G
Method and Evidence

Why Good Theories Need Good Data

On May 28, 2003, we were out having coffee and came across the following headline in a discarded newspaper: "Funding cuts killing DARE in 2 Valley school districts." The article described how several local schools were dropping a program designed to teach young children to resist drug abuse (Galehouse, 2003). Many Americans are familiar with the black-and-red bumper sticker that reads "DARE to keep kids off drugs." The acronym DARE stands for "Drug Abuse Resistance Education." As part of the program, police officers visit elementary schools to teach young children about the dangers of drugs. The officers also teach the students some general techniques designed to increase the kids' self-esteem and their ability to resist peer pressure.

Why would any responsible school district want to scrap a program designed to keep young kids off drugs, raise their self-esteem, and help them resist dangerous peer pressures? The answer is that, despite the glowing affirmations of parents, students, and police officers, well-controlled research studies have been unable to find evidence that DARE works. For instance, one study funded by the National Institute of Drug Abuse surveyed 1,002 young adults, 75% of whom had been exposed to the DARE program 10 years earlier. The data revealed no difference between DARE participants and nonparticipants in the likelihood of having used alcohol, tobacco, marijuana, or any other dangerous drug (Lynam & Milich, 2002). Other researchers have found similar null effects of the program (Rosenbaum & Hansen, 1998; West & O'Neal, 2004).

Does DARE work? Does the DARE program, which costs the taxpayers hundreds of millions of dollars per year, keep kids off drugs? Theory says it should, but research evidence tells a different story.

But even if the DARE program doesn't do much to keep kids off drugs, how could anyone argue with the words of one DARE officer: "I don't see how you can go wrong teaching kids about self-esteem and thinking through their decisions"? Raising students' self-esteem sure sounds like a good thing, and it has been touted by educators and politicians as a cure for everything from premarital sex to assault, rape, and murder (see Baumeister, Smart, & Boden, 1996). On the surface, this seems like good theoretical reason to buy the hypothesis that people who feel bad about themselves might be more likely to act out in a sexual or violent way, perhaps to boost their fragile self-esteem. But again, when psychologists look at the actual research evidence, it appears that these hypotheses, however logical they sound, are wrong. After reviewing the research evidence on self-esteem, social psychologists Roy Baumeister, Brad Bushman, and Keith Campbell (2000) concluded that we have little to fear from other people with low self-esteem and more to fear from those who have an inflated view of themselves. These contrary

findings make sense if we think of low self-esteem as humility and high self-esteem as conceit and arrogance.

In response to the DARE officer who couldn't see how we could go wrong maintaining the program, the program costs the public over $700 million a year. Indeed, it has been the largest school-based prevention program in the federal budget (West & O'Neal, 2004). According to the program website (www.dare.com), more than 50,000 police officers have been involved in the program as of 2008, and the program operates in 300,000 classrooms in the United States and "also benefits millions of other children in 43 other countries." That's a lot of money and effort that could have been used for educational programs that actually *do* work. So, although theory is a good place to begin the search for hypotheses, careful research methods are needed to sort out the hunches that merely sound accurate from those that actually are.

The bottom line is this: Researchers need data to corroborate their hypotheses. Good detectives need to distinguish indisputable evidence from plausible-sounding possibilities. Because of the importance of good evidence, we will not only delve into data-sleuthing tools in this chapter, but also continue our discussion of research tools in "Bridging Method and Evidence" features in later chapters. By understanding research methods, we can hope to hone our detective skills, advancing from the level of a bumbling amateur sleuth toward that of a Sherlock Holmes.

The detective tools psychologists use to gather data about their hypotheses can be roughly divided into two categories: descriptive and experimental. **Descriptive methods** are used to measure or record behaviors, thoughts, or feelings in their natural state. When psychologists use descriptive methods, they hope to record behaviors without changing them in any way. **Experimental methods**, in contrast, are used to uncover the causes of behavior by systematically varying some aspect of the situation.

Descriptive Methods

Before we can understand the causes of any phenomenon, it helps to have a careful description of what it is we're talking about. How does one go about carefully describing social behavior? Social psychologists use five major types of descriptive methods: naturalistic observation, case studies, archives, surveys, and psychological tests.

Naturalistic Observation   Perhaps the most straightforward descriptive method is **naturalistic observation**. It involves, quite simply, observing behavior as it unfolds in its natural setting. As one example, psychologist Monica Moore (1985) went to a setting where she expected women to naturally show a lot of nonverbal flirtation behaviors—a singles bar. Sitting out of view, she counted various gestures displayed by women toward men and compared these to behaviors displayed in a library or women's center meeting. Women flirting with men in the singles bar gestured in certain ways that were very uncommon in the other settings. For instance, a woman in the bar would frequently glance at a man for a few seconds, smile, flip her hair, and tilt her head at a 45-degree angle so her neck was exposed.

Naturalistic observation has a number of advantages as a research method. For one, behavior in a natural setting is spontaneous rather than artificial and contrived. In contrast, imagine the difficulties of asking students to demonstrate flirtation gestures in a laboratory. For one thing, people might not be consciously aware of how they behave when they are actually flirting. For another, people might feel too uncomfortable to flirt when they know researchers with notepads are watching them.

Despite its strengths, naturalistic observation also has its pitfalls. Researchers need to ensure that their subjects do not know they are being observed. Otherwise, they might not act normally. As we discuss in Chapter 6, social psychologists have discovered some clever ways to observe behavior without making people self-conscious. Another

Descriptive method Procedure for measuring or recording behaviors, thoughts, and feelings in their natural state (including naturalistic observations, case studies, archival studies, surveys, and psychological tests).

Experimental method Procedure for uncovering causal processes by systematically manipulating some aspect of a situation.

Naturalistic observation Recording everyday behaviors as they unfold in their natural settings.

problem with naturalistic observation is that some behaviors researchers want to study are rare. Imagine waiting around on a street corner for a homicide to occur. Even in the worst of neighborhoods you would spend a long time waiting for your first observation.

A final problem is that, unless the observation is conducted very systematically, biased expectations may lead the observer to ignore some influences on behavior and exaggerate others. A researcher's hypothesis may lead that researcher to search for supportive information but fail to notice inconsistent evidence. This problem is called **observer bias**. For instance, if you expected to see flirtatious behaviors in a bar, you might misinterpret a woman's hair-flip as flirtation, when all she was really trying to do was keep her hair from falling into her beer mug.

Case Studies Another observational method is the **case study**, an intensive examination of one individual or group. A researcher could study a completely normal individual or group but often selects a case because it represents some unusual pattern of behavior. Imagine that you were interested in studying how people respond when they are catapulted from social obscurity into the ranks of the rich and famous. If you sampled a random group of the population at a shopping mall or in a psychology class, you might not find anyone famous. On the other hand, you could interview Greg Mortenson or Michelle Obama.

Case studies are sometimes used by psychologists when they want to better understand a rare or unusual individual or group. For example, social psychologist Mark Schaller (1997) was interested in studying what happens to people's feelings about themselves when they suddenly become famous. Schaller examined case materials from the lives and writings of several famous individuals, including rock star Kurt Cobain, who committed suicide at his peak of fame during the 1990s. As Cobain's story illustrates, the case materials suggested that fame isn't always good fortune and can actually lead some people to unpleasantly high levels of self-concern.

Case studies can be rich sources of hypotheses. For example, psychologists have proposed many hypotheses about why Vincent van Gogh cut off his ear, wrapped it, and presented it as a gift to a prostitute (Runyan, 1981). According to one hypothesis, he did it to express his anger because she had slept with his friend Paul Gauguin. According to another, he did it because he had unconscious and unacceptable homosexual feelings toward Paul Gauguin and wanted to symbolically emasculate himself. Unfortunately, psychologists who limit themselves to case study material often allow their hypotheses to bias their search through the evidence in a person's life, picking and choosing events to support their favored hunch (Runyan, 1981). On the basis of a single case study, we simply have no way of telling which events in the case have actually *caused* the event of interest and which are irrelevant. A case study can suggest any number of interesting hypotheses. It cannot, however, tell us much about why an event occurred.

Another problem of case studies has to do with **generalizability**, the extent to which a particular research finding applies to other similar circumstances. After examining only a single case, such as Vincent Van Gogh or Greg Mortenson, we simply cannot know which of the specifics generalize to other similar cases.

Archives One solution to the problem of generalizability is to examine a number of similar cases. Consider a study of police reports for 512 homicides committed in Detroit during 1972. Here is one:

> Case 185: Victim (male, age 22) and offender (male, age 41) were in a bar when a mutual acquaintance walked in. Offender bragged to victim of "this guy's" fighting ability and that they had fought together. Victim replied "you are pretty tough" and an argument ensued over whether victim or offender was the better man. Victim then told offender "I got mine" (gun) and the offender replied "I got mine too," both indicating their pockets. The victim then said "I don't want to die and I know you don't want to die. Let's forget about it." But the offender produced a small automatic, shot the victim dead, and left the bar. (Wilson & Daly, 1985, p. 64)

Observer bias Error introduced into measurement when an observer overemphasizes behaviors he or she expects to find and fails to notice behaviors he or she does not expect.

Case study An intensive examination of an individual or group.

Generalizability The extent to which the findings of a particular research study extend to other similar circumstances or cases.

Although the details of this particular case may be unique, Margo Wilson and Martin Daly found a number of similar details across the hundreds of homicide cases they examined. First, offenders and their victims tended to be males, particularly males in their early twenties. Second, the homicides were often instigated by a conflict over social dominance.

Wilson and Daly's study of homicides is an example of the **archival method**, in which researchers test hypotheses using existing data originally collected for other purposes (police reports, marriage licenses, newspaper articles, and so on). Another archival study found that during G. W. Bush's first term as U.S. President (during which he initiated wars with Afghanistan and Iraq) people become more supportive of him after government-issued terror warnings (Willer, 2004). Still other studies have looked at the relationship between daily temperatures in a given city and the number of violent crimes reported on the same day (e.g., Bell, 2005; Bushman, Wang, & Anderson, 2005; Cohn & Rotton, 2005). The advantage of archives is that they provide easy access to an abundance of real-world data. The disadvantage is that many interesting social phenomena do not get recorded. Both the beginning and end of a two-month-long marriage make the public records. However, a five-year-long live-in relationship that breaks up over an argument about whom to invite to the wedding never registers in the archives.

Surveys Some very interesting behaviors are unlikely to be recorded in public records or to be demonstrated in natural settings. For instance, back in the 1940s biologist Alfred Kinsey became curious about the prevalence of sexual behaviors such as masturbation and premarital intercourse. Because these behaviors are rarely done in public, naturalistic observation would not do. Likewise, individual case studies of convicted sex offenders or prostitutes, for example, would be uninformative about normal sexual behavior. Kinsey therefore chose the **survey method**, in which the researcher simply asks respondents a series of questions about their behaviors, beliefs, or opinions.

The survey has one very important advantage: It allows a researcher to collect a great deal of data about phenomena that may rarely be demonstrated in public. Like other methods, surveys have drawbacks. First, the respondent may not give accurate information, because of either dishonesty or memory biases. For instance, it is puzzling that men answering surveys often report more heterosexual experiences than do women. Men in Britain, France, and the United States report 10 to 12 sexual partners in their lives, whereas women in all these countries report just over 3 (Einon, 1994). The discrepancy could be due to **social desirability bias**, or the tendency for people to say what they believe is appropriate or acceptable (whether it is true or not). Sexual activity is more socially approved for men (Hyde, 1996). Because of this, men may be more inclined to talk about their sexual escapades or more likely to remember them, or women may be inclined to downplay theirs (Alexander & Fisher, 2003).

Another potential problem with the survey method is obtaining a **representative sample**. A sample is representative when the participants, as a group, have characteristics that match those of the larger population the researcher wants to describe. A representative sample of North American executives would include percentages of men, women, blacks, Hispanics, Canadians, Midwesterners, and Southerners that reflect the total population of executives on the continent. A small group of male bank executives from Toronto or of Hispanic female executives in the New York fashion industry would not represent North American executives as a whole. The sample for Kinsey's sex survey was composed largely of volunteers from community organizations, which means that many segments of U.S. society were not well represented.

The problems of the case study method. Psychologists have used details of Vincent Van Gogh's life to support dozens of different hypotheses about why he cut off his own ear. However, a single case does not allow clear cause-and-effect conclusions.

Archival method Examination of systematic data originally collected for other purposes (such as marriage licenses or arrest records).

Survey method A technique in which the researcher asks people to report on their beliefs, feelings, or behaviors.

Social desirability bias The tendency for people to say what they believe is appropriate or acceptable.

Representative sample A group of respondents having characteristics that match those of the larger population the researcher wants to describe.

Kinsey's survey may have also faced a problem in which some people selected themselves into, or out of, his sample. Many potential respondents are simply unwilling to volunteer to discuss topics such as their sex lives. Others might relish the opportunity to regale the survey researchers with their wild erotic experiences. If those who do or do not participate are different from the norm in their sexual activities, the researcher might draw erroneous conclusions about the whole population. Carefully constructed surveys can reduce some of these problems. But not all surveys are to be trusted, particularly when they allow subjects to select themselves for participation.

Psychological Tests Are some people more socially skillful than others? Are some people inclined to think critically before allowing themselves to be persuaded by an argument? **Psychological tests** are instruments for assessing differences between people in abilities, cognitions, or chronic motivations. They differ from surveys in that surveys typically aim to get at specific attitudes or behaviors, whereas tests aim to uncover broader underlying traits. Most of us have taken a variety of psychological tests. College aptitude tests (such as the SATs) are designed to distinguish people according to their ability to do well in college. Vocational interest tests (such as the Strong Vocational Interest Blank) are designed to distinguish people in terms of their likely enjoyment of various professions.

Psychological tests are not always perfect indications of the things they are designed to measure. A test of "your ability to get along with your lover" published in a popular magazine, for example, may be a poor predictor of your actual skill at relationships. There are two criteria a psychological test must meet before it is useful—reliability and validity.

Reliability is the consistency of the test's results. If a test of social skills indicates that you are highly charismatic the first time you take it but socially inept when you take it a week later, your score is unreliable. To measure anything, it is essential that the measurement instrument be consistent. Some psychological tests, such as the famous Rorschach inkblots, do not provide very reliable measurements; others, such as IQ tests, yield much more consistent scores. Even if a test is reliable, however, it may not be valid.

Validity is the extent to which the test measures what it is designed to measure. To use a rather unlikely example, we could theoretically use eye color as a measure of desirability to the opposite sex. Our test would be very reliable—trained observers would agree well about who had blue, hazel, and brown eyes; and subjects' eye color would certainly not change very much if we measured it again a month or two later. Yet eye color would probably not be a valid index of attractiveness—it would probably not relate to the number of dates a person had in the last year, for instance. However, if judges rated the attractiveness of the whole face, or a videotape of the person engaged in conversation, the scores might be a little less reliable but more valid as predictors of dating desirability.

Reliability and validity can be issues for all methods. For instance, archival records of men's and women's age differences at marriage are reasonably consistent across different cultures and time periods (Campos et al., 2002; Kenrick & Keefe, 1992). Hence they give a reliable estimate (several times as many women as men get married in their teens, for example). Yet the marriage records from one month in one small town would probably be unreliable (perhaps two teenage men and only one teenage woman got married that particular month). With regard to validity, three different environmental surveys might agree that people are doing more recycling and driving less. Yet those survey responses, though reliable, might not be valid: People might consistently misrepresent their recycling or driving habits. It is thus important to ask about any research study: Are the results reliable? That is, would we get the same results if the measurement was done in a different way or by a different observer? And are the results valid? That is, is the researcher really studying what he or she intends to study?

Psychological test Instrument for assessing a person's abilities, cognitions, or motivations.

Reliability The consistency of the score yielded by a psychological test.

Validity The extent to which a test measures what it is designed to measure.

Correlation and Causation

Data from descriptive methods can reveal **correlation**, or the extent to which two or more variables occur together (psychologists use the term "variable" to refer broadly to any factor that fluctuates, such as daily temperature, people's height, hair color, the size of a crowd, or the amount of alcohol consumed on different college campuses). Leon Mann (1981) was interested in investigating which variables might be linked to the puzzling phenomenon of suicide baiting, in which onlookers encourage a suicidal person to jump to his or her death. In one case, a nighttime crowd of 500 onlookers not only urged Gloria Polizzi to jump off a 150-foot water tower, but also screamed obscenities and threw stones at the rescue squad. Using newspaper archives to study the topic, Mann discovered that suicide baiting was correlated with the size of the crowd. As crowds got larger, they were more likely to taunt someone perched on the edge of life.

A correlation between two variables is often expressed mathematically in terms of a statistic called a **correlation coefficient**. Correlation coefficients can range from +1.0, indicating a perfect positive relationship between two variables, through 0, indicating absolutely no relationship, to -1.0, indicating a perfect negative relationship. A positive correlation means that as one variable goes up or down, the other goes up or down with it. As crowds got larger, for example, the amount of suicide baiting increased.

A negative correlation indicates a reverse relationship—as one variable goes up or down, the other goes in the opposite direction. For instance, women who are *more* committed to, and more satisfied with, their current partners generally spend *less* time paying attention to other attractive men (Maner et al., 2003; Miller, 1997).

Correlations can provide important hints, but they do not enable a researcher to draw conclusions about cause and effect. Consider the case of crowd size and suicide baiting. Large crowds are associated with many forms of otherwise inappropriate behavior, as can often be observed at a rock concert, a Halloween block party, or when fans take to the streets after a major sporting event. It seemed plausible to conclude, as Mann did in his study of suicide baiting, that large crowds led onlookers to feel anonymous. This, in turn, could reduce their concern about being identified as the perpetrators of such a cruel and nasty deed. However, it is important to keep in mind that correlation does not equal causation.

Why doesn't correlation equal causation? For one thing, it is always possible that the presumed direction of causality is reversed—that B causes A rather than A causing B (see Figure 1.2). For instance, once the suicide baiting started, it may have been reported on the radio, inspiring nearby listeners to go view the spectacle (thus suicide baiting would have caused crowds, rather than the other way around). Another problem is that correlations can be found when there is no causal relationship at all, as when a third variable C is causing both A and B. For instance, Mann also found that suicide baiting occurred more frequently at night. Perhaps people are more likely to be drinking alcohol at night, and drunks are more likely to be gregarious (hence to join crowds) and unruly (hence to taunt potential suicides). If so, neither darkness nor the size of the crowd was a direct cause of suicide baiting; each was related only incidentally.

Because of the different possible connections between correlated variables, then, it is difficult to draw clear causal conclusions from correlations. To make conclusions about cause and effect, researchers turn to the experimental method, in which variables are teased apart from the other factors that normally co-occur with them.

Experimental Methods

When using descriptive methods, researchers try to avoid interfering with the phenomenon they are studying. A researcher using naturalistic observation hopes his subjects

I N V E S T I G A T I O N

Imagine that you work for a magazine and you have been assigned to write a series of articles on how some interesting group of people (Utah polygynists, New York gang members, or Hollywood superstars, for example) differs from the prototypical American suburbanite. Which of the different descriptive methods could you use to address this question, and what problems would you run into in drawing confident conclusions?

Correlation The extent to which two or more variables are associated with one another.

Correlation coefficient A mathematical expression of the relationship between two variables.
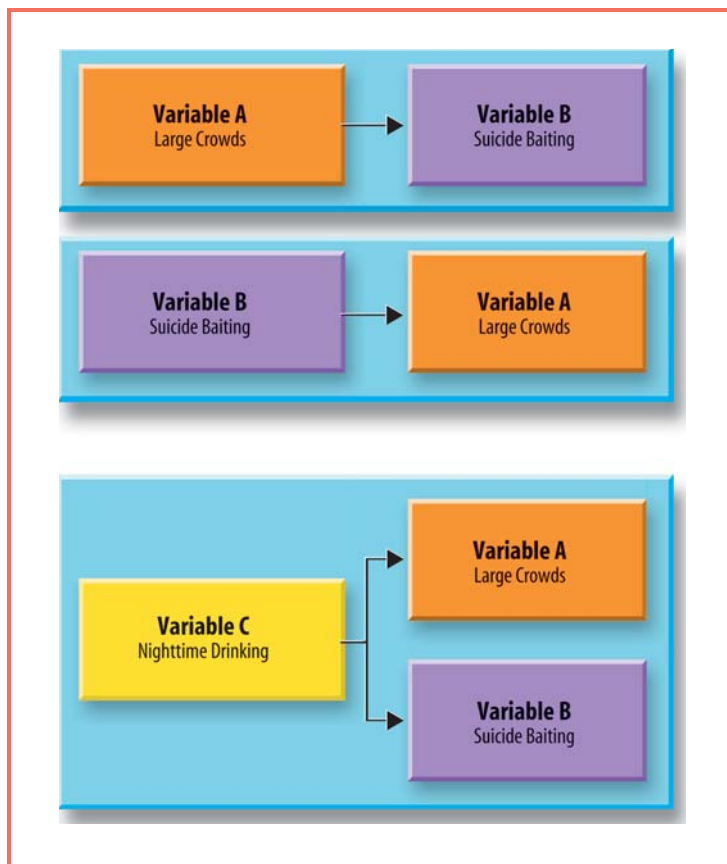
FIGURE 1.2 Explaining correlations. When two variables (such as crowd size and suicide baiting) are correlated, it is possible that variable A (crowd size, in this example) leads to changes in variable B (suicide baiting, in this case). It is also possible, however, that variable B causes variable A, or that a third variable C (such as nighttime drinking, in this example) causes both A and B independently.

Experiment A research method in which the researcher sets out to systematically manipulate one source of influence while holding others constant.

Independent variable The variable manipulated by the experimenter.

Dependent variable The variable measured by the experimenter.

Random assignment The practice of assigning participants to treatments so each person has an equal chance of being in any condition.

don't notice that they are being observed, for example, and a survey researcher tries not to word questions so as to lead people to misrepresent their true feelings or behaviors. In an **experiment**, however, the researcher actually sets out to alter people's behavior by systematically manipulating one aspect of the situation while controlling others. If a researcher wanted to know whether anonymity of the sort that occurs in large crowds actually *causes* people to act more antisocially, that researcher could vary the situation so that some people felt especially anonymous while others felt especially identifiable. In fact, Philip Zimbardo (1969) did just that, while asking students in a laboratory experiment to deliver electric shocks to a fellow student. Half the participants wore name tags and remained in their own clothes and were thus made easily identifiable. To make the other participants anonymous, they were outfitted with oversized white coats and hoods that completely covered their faces. These anonymous subjects delivered twice as much shock as did those who were left identifiable.

Manipulating Variables The variable manipulated by the experimenter is called the **independent variable**. In Zimbardo's experiment, the independent variable was the different type of clothing worn (anonymous versus identifiable). The variable that is measured is called the **dependent variable**. In this case, the experimenter measured the amount of shock delivered by the subject.

There are several things to note about experiments. A key feature of Zimbardo's experiment is that participants were randomly assigned to the anonymous and nonanonymous conditions. **Random assignment** means each participant has an equal probability of being in the different conditions. By assigning participants to the two groups on the basis of a coin flip, for instance, a researcher reduces the chances that they are different in terms of mood, personality, social class, or other factors that might affect the outcomes. In this way, the researcher minimizes any systematic differences between the groups, such as those that might have characterized suicide observers in nighttime versus daytime crowds. Although large suicide-baiting crowds could have differed from small nonbaiting crowds in other ways related to antisocial tendencies, such systematic differences are not a problem when participants are randomly assigned. In Zimbardo's study, the only differences among subjects were due to random variations in the population (which are reduced in importance as the experimenter runs large groups of subjects). It was also important that only the anonymity of clothing (the independent variable) varied from one group of subjects to another. All other aspects of the situation were the same—the experimenter, the setting, the victim, and the task. This also reduces the likelihood that these other variables might have influenced the antisocial behavior. Finally, aggressiveness was measured in an identical fashion for the high- and low-anonymity subjects, enabling the experimenter to quantify reliably the exact amount of shock subjects delivered in each condition.

By randomly assigning subjects and controlling extraneous variables, the experimenter gains an important advantage—the ability to make statements about causal relationships. Zimbardo could be fairly confident that it was something about his

manipulation of anonymity, rather than something about the different subjects in the anonymous condition, that led to the higher level of aggression.

Potential Limitations of the Experimental Method   Despite its advantage over descriptive methods in making causal statements, the experiment has its own drawbacks. For one, the laboratory settings used in most experiments are artificial. Is the anonymity created by wearing a big coat and hood really the same as that experienced in a large crowd on a dark night? Is the tendency to deliver shock really the same as the tendency to throw rocks at suicide rescue squads?

We discussed the concept of validity in psychological tests— whether a test measures what it intends to measure. The same question can be asked of experiments (Aronson, Wilson, & Brewer, 1998). **Internal validity** is the extent to which an experiment allows confident conclusions about cause and effect. Was the independent variable the sole cause of any systematic variations in the participants' behaviors? Imagine if in Zimbardo's deindividuation experiment all the subjects in the anonymous condition were met by an obnoxious male experimenter, whereas all the subjects in the nonanonymous condition were met by a pleasant female. If the subjects in the anonymous condition behaved more aggressively, we would not know whether it was because the subject was anonymous or because the experimenter was obnoxious. When another variable systematically changes along with the independent variable, it is called a **confound**. In this imaginary case, the sex and temperament of the experimenter are both confounded with anonymity. Such confounding variables are like the invisible third variables in correlations—they make it difficult to know what caused the subject's behavior.

External validity is the extent to which the results of an experiment can be generalized to other circumstances. We mentioned earlier that studying a single case raises a problem of generalizability. The same problem comes up with regard to laboratory experiments as well. Does delivering shock in an anonymous laboratory experiment tap the same processes as being in a large mob on a dark night, for instance? Perhaps not. Certainly, no two situations are identical, but experimenters try to pick variables that tap the same mental and emotional processes as those operating in the wider world outside.

One problem in generalizing from laboratory studies to natural behavior is that participants know they are being observed in the lab. As we noted with naturalistic observation, people sometimes act differently when they know they are being watched. **Demand characteristics** are cues in the experiment that make subjects aware of how the experimenter expects them to behave. Experimenters try to avoid this problem by distracting participants from an experiment's true purpose. For instance, an experimenter would not tell subjects, "We are examining how long you hold down the shock button, as an index of hostility." Instead, the experimenter would offer a plausible reason for administering shock—to study how punishment affects learning, for example. This shifts attention from the participant's use of shock to the recipient's "learning responses." As you will see, social psychologists have developed some rather skillful methods of engaging subjects' natural reactions. But it is always important to be on the lookout for these possible confounds. For example, do you think that having students in the anonymity experiment wear oversized white coats and hoods (not unlike those worn by members of the Ku Klux Klan) might have communicated an expectation to act antisocially?

Field Experiments   One way to overcome the hurdles of artificiality and demand characteristics is to bring the experiment out of the laboratory and into an everyday setting. This approach, using experimental manipulations on unknowing participants in natural settings, is called **field experimentation**.

Experimenting with deindividuation. In Zimbardo's experiment, half the subjects dressed in clothing making them anonymous and the other half stayed in their normal clothes and were visible to others. That difference constituted the independent variable. The dependent variable was the amount of shock delivered to a fellow subject.

Internal validity The extent to which an experiment allows confident statements about cause and effect.

Confound A variable that systematically changes along with the independent variable, potentially leading to a mistaken conclusion about the effect of the independent variable.

External validity The extent to which the results of an experiment can be generalized to other circumstances.

Demand characteristic Cue that makes participants aware of how the experimenter expects them to behave.

Field experimentation The manipulation of independent variables using unknowing participants in natural settings.

Consider a study in which the researchers took advantage of a naturally occurring manipulation of anonymity—the disguises worn by Halloween trick-or-treaters (Diener, Fraser, Beaman, & Kelem, 1976). Participants were children in costumes who arrived to trick-or-treat at a house in Seattle. The trick-or-treaters were greeted by a research assistant who pointed to a bowl of candy alongside a bowl of pennies. She told them to take *one* of the candies each, and then she hurried off, claiming to be busy. Unbeknownst to the children, the researchers were watching from a hidden location, recording whether the little angels and superheroes took extra candies or filched some coins from the money bowl.

What made this an experiment is that the researchers randomly assigned groups of children to different levels of anonymity. Anonymity was manipulated by the way in which the experimenter greeted the children. In half the cases, she asked each child his or her name, thus removing the identity shield of the costume. In the other half, she allowed them to remain anonymous. The results supported the correlational findings obtained by Mann and the laboratory findings obtained by Zimbardo. When left anonymous, the majority of little devils grabbed more than they had been told to take. When they had been asked to identify themselves, however, most of them acted more angelically.

Why Social Psychologists Combine Different Methods

Table 1.2 summarizes the different methods and their main strengths and limitations. If each method has weaknesses, is the pursuit of social psychological knowledge hopeless? Not at all. The weaknesses of one method are often the strengths of another. For instance, experiments allow researchers to make cause–effect conclusions but have problems of artificiality. In contrast, archival methods and naturalistic observations do not allow cause–effect conclusions (because they are correlational), but the data they provide are not at all artificial. By *combining the different methods*, social psychologists can reach more trustworthy conclusions than any single method can provide (McGrath, Martin, & Kukla, 1982).

Consider a recent program of research examining the hypothesis that giving to others makes us happier. Elizabeth Dunn and her colleagues first conducted a survey to test this hypothesis (Dunn, Aknin, & Norton, 2008). They asked a nationally representative sample of 632 Americans to rate their general happiness and to estimate what percentage of their income they spent on bills, on themselves personally, on gifts for others, and on donations to charity. Spending money on gifts for themselves was not related to respondents' happiness, but spending on other people was. Because this result is a correlation, we can't be sure whether spending on others caused people to be happier, or whether unhappy people simply tend also to be less generous (and might be made even less happy if they spent money on others). The researchers then conducted a longitudinal study of people who received an unexpected bonus at work and measured their happiness both before the bonus and six to eight weeks later. Those who had spent more of their bonus on other people experienced a significant boost in happiness, those who had spent more on themselves did not. This longitudinal study allowed the researchers to control for initial levels of happiness, but it still does not nail down a cause-and-effect relationship (besides chronic happiness levels, there might have been something else different about the people who chose to spend their money on others). So the researchers conducted an experimental study in which they asked a group of college students to rate their happiness in the morning, then gave them an envelope containing $5 or $20, and randomly assigned them to spend the money either on themselves or on others (by buying someone a gift or giving the money to charity). At the end of the day, the students again reported how happy they were. Those who had spent their money on themselves had not changed since the morning, but those who spent their money on others were happier. Interestingly, when they asked other stu-

TABLE 1.2 *Summary of Research Methods Used by Social Psychologists*

METHOD	DESCRIPTION	STRENGTHS	WEAKNESSES
Descriptive Correlational Methods			
Naturalistic observation	Inconspicuous recording of behavior as it occurs in a natural setting **Example:** Moore's study of flirtation behavior in women	■ Spontaneous behaviors ■ Doesn't rely on people's ability to report on their own experiences	■ Researcher may interfere with ongoing behavior ■ Some interesting behaviors are very rare. ■ Researcher may selectively attend to certain events and ignore others (observer bias) ■ Time consuming
Case studies	Intensive examination of a single person or group **Example:** Schaller's study of fame and self-awareness	■ Rich source of hypotheses ■ Allows study of rare behaviors	■ Observer bias ■ Difficult to generalize findings from a single case ■ Impossible to reconstruct causes from complexity of past events
Archives	Examination of public records for multiple cases **Example:** Wilson and Daly's study of police homicide reports	■ Easy access to large amounts of prerecorded data	■ Many interesting social behaviors are never recorded.
Surveys	Researcher asking people direct questions **Example:** Kinsey's study of sexual behavior	■ Allows study of difficult-to-observe behaviors, thoughts, and feelings	■ People who respond may not be representative. ■ Participants may be biased or untruthful in responses.
Psychological tests	Researcher attempting to assess an individual's abilities, cognitions, motivations, or behaviors **Example:** Strong Vocational Interest Blank; SATs	■ Allows measurement of characteristics that are not always easily observable	■ Tests may be unreliable (yielding inconsistent scores). ■ Tests may be reliable but not valid (not measuring the actual characteristic they are designed to measure).
Experimental Methods			
Laboratory experiment	Researcher directly manipulating variables and observing their effects on the behavior of laboratory participants **Example:** Zimbardo's study of aggression and anonymity	■ Allows cause–effect conclusions ■ Allows control of extraneous variables	■ Artificial manipulations may not represent relevant events as they naturally unfold. ■ Participants' responses may not be natural, because they know they are being observed.
Field experiment	Same as laboratory experiment, but subjects in natural settings **Example:** Diener et al.'s study of trick-or-treaters	■ Allows cause–effect conclusions ■ Participants give more natural responses.	■ Manipulations may not be natural. ■ Less control of extraneous factors than in a laboratory experiment

dents to predict what would make them happier, those students (incorrectly) thought that they would be happiest if they got $20 to spend on themselves. Perhaps, one could argue, the experiment was not natural, because participants might have guessed the researchers were interested in their happiness and had obviously given them money between two measurements of happiness. However, because the results converge nicely with the other two correlational studies, showing a similar relationship in natural contexts, the researchers could be much more confident than if they had used only one method.

You are a member of a research team, and you've been assigned to answer the following question: How does alcohol affect our memory for the faces of new people we meet? How would you use a correlational approach to explore this question? How would you use an experimental approach? What are the greatest strengths and weaknesses of each approach likely to be?

The psychologist's situation is analogous to that of a detective confronted with stories from several witnesses to a murder, each less than perfect. The blind woman overheard the argument but couldn't see who pulled the trigger. The deaf man saw someone enter the room just before the murder but didn't hear the shot. The child was there to see and hear but tends to mix up the details. Despite the problems presented by each witness, if they all agree that the butler did it, it would be wise to check his fingerprints against those on the gun. Like the detective, the social psychologist is always confronted with bits of evidence that are, by themselves, imperfect but that may add up to a compelling case.

Just as detectives go back and forth between evidence and hunches—using evidence to educate their hunches and hunches to lead the search for new evidence—so, too, social psychologists go full cycle between the laboratory and the natural world (Cialdini, 1995). Evidence from descriptive studies of the real world leads to theories to be tested with rigorous experiments. The results of these theory-testing experiments lead back to new hunches about natural events in the real world. By combining different kinds of evidence, then, it is possible to come to more confident conclusions.

Ethical Issues in Social Psychological Research

In reading about Zimbardo's study of aggression and anonymity, you might have wondered how the participants ended up feeling about themselves after delivering shocks to fellow students. Unlike geology or chemistry, social psychological research is conducted with living, breathing, feeling human beings (and sometimes other living creatures). This makes it important to consider another question: Is the research ethically justifiable?

Ethical Risks in Social Psychological Research   Consider some of the research that we, the authors of this text, have conducted. One of us induced students to give up some of their blood using the following deceptive technique: "Would you be willing to join our long-term blood donor program and give a pint of blood every six weeks for a minimum of three years? No? Then how about just a single pint tomorrow?" (Cialdini & Ascani, 1976). In another study, one of us asked students whether they had ever had a homicidal fantasy, and, if so, to describe it in detail (Kenrick & Sheets, 1994). Finally, we asked survey participants in their forties and fifties to tell us the age at which they thought men and women reached their peak of sexual desire, activity, and enjoyment (Barr, Bryan, & Kenrick, 2002).

These studies yielded potentially useful information about charitable contributions, violent impulses, and sexual relationships. Yet each raised the sort of ethical questions that social psychologists confront frequently. Asking people about homicidal fantasies or sexual feelings constitutes potential *invasions of privacy*. The invasion may not be egregious, because participants were volunteers who had the right to refrain from sharing any information they wished. But are researchers still violating social conventions by even asking? The problem of invasion of privacy becomes even more acute with naturalistic observations and field experiments, in which participants may not know that they are disclosing information about themselves. In one controversial study, unknowing participants were approached by a private detective who offered them an opportunity to help the government gather evidence by illegally breaking into an office (West, Gunn, & Chernicky, 1975). Is this sort of invasion of privacy justified in the interest of finding out about human behavior? The general rule of thumb psychologists follow is that using unwitting subjects is acceptable if they are left completely anonymous and if they will not be induced to perform behaviors that they would not have otherwise (no actual break-ins occurred, for example).

In experiments, people's behavior is manipulated, which raises another question: Will this research produce physical or psychological injury to the subject? Social psychological studies sometimes involve unpleasant physical manipulations, including strenuous exercise (Allen et al., 1989), injections of drugs such as adrenaline (Schachter & Singer, 1962), exposure to uncomfortable heat (Rule, Taylor, & Dobbs, 1987), or ingestion of alcohol (MacDonald, Fong, Zanna, & Martineau, 2000).

Physical dangers are generally less of a problem in social psychology than in medical research (in which the manipulations may actually lead to illness or death), but there are discomforts and slight risks nevertheless. Social psychological research is more likely to involve psychological injury, ranging from embarrassment (from being "taken in" by a deceptive cover story, for example) through guilt (for thoughts about homicidal fantasies or alternative romantic partners) to anxiety (produced by the threat of electric shock).

A scene from an ethically controversial experiment. In Milgram's research on obedience to authority, subjects were led to believe that they were delivering electric shocks to a man (shown here) who said that he had a heart condition. The research raised questions about exposing subjects to psychological discomfort.

In perhaps the most controversial study in social psychology, Stanley Milgram (1963) led participants to think that they were delivering painful electric shocks to an older man who had a heart condition. Part way through the experiment, the older man completely stopped responding, yet the experimenter insisted that subjects continue to deliver higher and higher levels of shock. Subjects in this study showed extreme levels of anxiety, including "profuse sweating, trembling, and stuttering." Although this study was the subject of a rousing ethical controversy, Milgram (1964) defended it by pointing out that no participant showed evidence of lasting harm. In fact, 74% thought that they had learned something important. A year later, one subject wrote: "This experiment has strengthened my belief that man should avoid harm to his fellow man even at the risk of violating authority" (Milgram, 1964, 850). Milgram argued that researchers study controversial topics in the sincere hope that it "will lead to human betterment, not only because enlightenment is more dignified than ignorance, but because new knowledge is pregnant with human consequences."

Ethical Safeguards in Social Psychological Research   Social psychological research holds the promise of potential benefits—as any knowledge about love, prejudice, or homicidal violence could be used to better society. Yet the benefits must be weighed against the costs. How much discomfort for the participant is acceptable?

Fortunately, there are safeguards against abuses of scientific inquiry. For one, the American Psychological Association (APA) has a set of ethical guidelines for research. According to these guidelines, participants in psychological studies are told they are free to withdraw before consenting to any potentially injurious procedures, and they are debriefed after the research is completed. **Debriefing** involves discussing procedures and hypotheses with the participants, addressing any negative reactions they had, and alleviating any problems before they leave. The APA guidelines also encourage psychologists to ask about costs and benefits: Does the research have the potential to produce useful knowledge that might justify temporary discomforts? For instance, Milgram argued that his study of obedience gave us insights into the horrible events in Nazi Germany.

As another ethical safeguard, any institution applying for federal research funding (as do most colleges and universities) is required to have an institutional review board that evaluates the potential costs and benefits of research. Members of this board have no stake in the studies under consideration. They commonly ask researchers to revise manipulations, consent forms, or debriefing procedures. Using these safeguards, psychologists hope to optimize the trade-off between subject discomfort and potential knowledge.

Debriefing A discussion of procedures, hypotheses, and participant reactions at the completion of the study.

QUIZ

QUICK

1. What is the difference between a descriptive and an experimental method?

2. What is (a) naturalistic observation, (b) case study, (c) archive, (d) survey, (e) psychological test, (f) laboratory experiment, (g) field experiment?

3. What are the strengths and weakness of each method described in this section?

4. What is a correlation, and why is it difficult to infer causality from one?

5. What are some ethical risks that social psychologists face?

Social Psychology's Bridges with Other Areas of Knowledge

As we have noted, social psychology is in many ways the ultimate bridging discipline. Social psychologists share many theories, methods, and research findings with researchers in other disciplines. Thus, you can make better sense of social psychology if you understand how it fits with other areas of knowledge.

Social Psychology and Other Areas of Psychology

Social psychology has direct bridges to all the other areas of psychology. Consider two central areas of experimental psychology—*cognitive psychology* (the study of mental processes) and *behavioral neuroscience* (the study of how biochemistry and neural structures relate to behavior). Social psychologists are increasingly studying how other people affect our physiological processes such as blood pressure, heart rate, and eye-blink responses (e.g., Amodio, Harmon-Jones, & Devine, 2003; Fritz, Nagurney, & Hegelson, 2003; Mendes et al., 2003). A new subdiscipline emerging from this work is called *social neuroscience* (the study of how social behavior is linked to events in the brain and other branches of the nervous system) (e.g., Berntson & Cacioppo, 2000; Dickerson, Gruenewald, & Kemeny, 2004; Lieberman, 2007). For example, one recent study used magnetic resonance imagining (MRI) to study brain-wave activity in white college students while they were exposed to faces of black men. Negative feelings toward black males were linked to activity in the amygdala (an area linked to emotional evaluation) when students were shown black strangers, but not when they were shown familiar and positively regarded blacks (such as Martin Luther King Jr., Will Smith, and Denzel Washington) (Phelps et al., 2000). Another facet of social neuroscience involves studying brain-damaged patients for clues about how the brain, cognition, and social behavior are interlinked (Stone et al., 2002). One particular form of brain damage leads to a disorder called prosopagnosia—the inability to recognize human faces (Rossion et al., 2003).

Social psychology also has close connections with *clinical psychology*—the study of behavioral dysfunction and treatment (e.g., Snyder & Forsyth, 1991; Snyder, Tennen, Affleck, & Cheavens, 2000). Understanding social relationships is essential if a psychologist wants to treat depression or loneliness, or hopes to teach people how to deal with everyday stress, for instance (Dandeneau, Baldwin, Baccus, Sakellaropoulo, & Pruessner, 2007; Fredrickson et al., 2003; Simpson et al., 2003). Furthermore, many behavioral disorders are defined by their devastating effects on a person's social life. Throughout this text we will include a special feature, "Bridging Function and Dysfunction," in which we will examine problems rooted in, or causing disruptions for, social relationships. In this feature, we will consider how the social world can affect the disordered individual, and how normal group processes can sometimes go awry, from obsessive love relationships to paranoid distrust of "outsiders."

Positive psychology. Balancing psychologists' traditional interest in clinical disorders and negative behaviors, positive psychologists study the virtuous side of human behavior. This photo shows Greg Mortenson meeting with village elders in Northern Pakistan to discuss the needs of the villagers.

Clinical psychology has traditionally focused on suffering, weakness, and disorder, in hopes of alleviating these problems (Seligman, Steen, Park, & Peterson, 2005). In contrast, some social psychologists have also become increasingly involved in research on *positive psychology*—the study of the factors leading to positive emotions, virtuous behaviors, and optimal performance in people and groups (e.g., Diener & Biswas-Diener, 2008; Gable & Haidt, 2005; Hogan & Kaiser, 2005). For example, several psychologists have examined the factors that cause some people to be happy with their social lives (e.g., Lyubomirsky, King, & Diener, 2005; Myers, 2000; Van Boven, 2005).

Many social psychologists have also been involved in the area of *health psychology*—the study of behavioral and psychological factors that affect illness and physical well-being. Our relationships with other people can have direct consequences for our health, providing buffers against stress when they are going well, and leading to health problems when they are going poorly (e.g., Stinson et al., 2008; Taylor et al., 2008). Social psychologists have also been applying knowledge about social influence to increase healthy behaviors, such as condom use among delinquent youth at risk for HIV (e.g., Bryan, Aiken, & West, 2004).

Researchers in the field of *developmental psychology* consider how lifetime experiences combine with predispositions and early biological influences to produce the adult's feelings, thoughts, and behaviors. Social relationships are central to development. For example, social development researchers study how infants become attached to their parents and how these early experiences affect relationships among adults (e.g., Del Giudice, 2009; Rom & Mikulincer, 2003; Sharpsteen & Kirkpatrick, 1997).

Personality psychology addresses differences between people, and also examines how individual psychological components add up to a whole person. Many important personality differences are intimately tied to social relationships (e.g., Biesanz, West, & Millevoi, 2007; Joireman, Anderson, & Strathman, 2003; Webster & Bryan, 2007). For example, two of the characteristics people use most often to describe one another—extraversion and agreeableness—are largely defined by social relationships (e.g., Aron & Aron, 1997; Graziano, Hair, & Finch, 1997).

Environmental psychology is the study of people's interactions with the physical and the social environment (e.g., Aarts & Dijksterhuis, 2003). Environmentally oriented social psychologists study many important societal issues, including why people destroy the physical environment or how they respond to heat spells, water shortages, and urban crowding (e.g., Campbell, Bush, Brunell, & Shelton, 2005; Monin & Norton, 2003; Schroeder, 1995b). These environmental issues will be a major focus of Chapter 13, which addresses global social dilemmas.

I N V E S T I G A T I O N

Think about your plans following college (or graduate school). In what ways will a better understanding of the principles and findings of social psychology be beneficial to you?

Social Psychology and Other Disciplines

Social psychology is intimately linked not only to other areas of psychology, but also to other domains of knowledge. One of the first textbooks in social psychology was written by a sociologist, and the connections with the field of sociology continue to this day. Social psychologists have traditionally focused more on the *individual's* thoughts, feelings, and behaviors, whereas sociologists focus on the level of the group. However, like sociologists, social psychologists often consider how variables such as social class and shared social norms affect behaviors such as prejudice and aggression (e.g., Jackson & Esses, 1997; Vandello & Cohen, 2003). Social psychologists have begun to consider how group processes may naturally emerge from individual thoughts and behaviors (Kerr & Tindale, 2004; Vallacher, Read, & Nowak, 2002).

Social psychology is likewise linked with anthropology, a field concerned with the links between human culture and human nature (e.g., Fiske, 2000; Henrich et al., 2006). Anthropologists study cultures around the world for hints about which human social arrangements are universal and which ones vary by culture. Social psychology is also linked to several areas of biology, including genetics and zoology (e.g., Campbell, 1999; Gangestad & Simpson, 2000). In recent years, social psychologists have begun to use the methods of neuroscience to examine how hormones and brain structures affect parenting, love relationships, and responses to social stress (e.g., Berntson & Cacioppo, 2000; Diamond, 2003; Lieberman, 2007).

In addition to the bridges linking social psychology with other basic scientific disciplines, the field is also connected to several applied sciences, including law, medicine, business, education, and political science (e.g., Caprara et al., 2003; Kay et al., 2008; McCann, 1997). Many of our interactions with other people take place in school and the workplace, and understanding social psychology can have practical payoffs in those settings. *Industrial/organizational psychology* integrates social psychology and business to understand social relationships in organizations (Pfeffer, 1998; Roberts et al., 2003; Van Vugt, Hogan, & Kaiser, 2008). In the political realm, many of the most pressing problems facing the world today—from environmental destruction to overpopulation to international conflict—are directly linked to social interactions. In our "Bridging Theory and Application" features, we discuss how social psychology can help us understand, and sometimes alleviate, practical problems in arenas ranging from the small classroom to the global ecosystem.

These connections highlight an important point: Although each course in the curriculum focuses on one area of knowledge, all of them are bridged together into a larger network. Your university education can be viewed as one long course designed to answer several big questions:

- What logical and methodological tools can we use to generate useful knowledge and to distinguish fact from fiction?
- What are the important ideas previous thinkers have had about human nature and our place in the universe?
- How are those important ideas connected to one another?

QUIZ

QUICK

1. What are three connections between social psychology and other subdisciplines of psychology? Make at least one connection with another course you are now taking, or have taken recently.

2. What are three connections between social psychology and other disciplines? Again, make at least one connection with another course you are now taking, or have taken in the past.

R E V I S I T I N G

The Mysteries of Social Life

At this chapter's opening, we discussed several mysteries, some specific and some more general. At the specific level, we asked about the forces responsible for Greg Mortenson's decision to dedicate his life to building schools in the remote villages of Pakistan, why that behavior triggered such intense prejudices, and what factors might be responsible for the cultural differences in marriage customs and the status of women in Pakistan and the United States. At the more general level, we asked about the factors that led to charitable behavior, prejudice, and other social behaviors.

In this first chapter, we have not yet delved into the evidence social psychologists have uncovered about charitable behavior, heroism, prejudice, or leadership. However, the theoretical and methodological principles discussed so far have started us on the search for more informed answers. To begin with, our understanding of the limitations of case studies informs us that we can only go so far in reconstructing the particular causes of Greg Mortenson's turn from a life of recreation and self-concern to one dedicated to charitable behavior. Perhaps it was the direct experience of observing his parents engaging in charitable behaviors in other countries, perhaps he inherited genetic tendencies toward high levels of empathy and generosity from those parents, or perhaps it was some combination of characteristics and critical experiences. Cases can inspire theoretical speculations, but hypotheses based on case studies ultimately need to be tested with more rigorous data from diverse and controlled methods. Going full circle, theoretical principles drawn from rigorous research can inspire new ways to think about particular cases in the real world.

Social psychology's theories and methods also provide a set of practical detective tools to address the more general questions raised by these particular cases. Theoretical perspectives such as the sociocultural and cognitive approaches give social psychologists clues about probable places to begin their investigations. Research methods such as surveys and experiments pro-vide tools that, like fingerprint kits for a detective, can help researchers see beyond the limitations of the unaided eye. In later chapters, we review how these different theories and methods have already yielded a wealth of information about the broader questions we raised in this beginning chapter. As we shall see, social psychologists have learned quite a bit about why and how people like, dislike, love, and hate one another and about the motivations behind charitable and heroic behaviors. We are also beginning to learn about how and why biological influences can influence our relationships with other people and about how human biology and human culture interact with one another in dynamic and interesting ways.

Not everyone who reads a social psychology text aspires to a career as a behavioral researcher. But all of us are profoundly affected in our thoughts, feelings, and behaviors by the actions of other people. An understanding of the basic principles of social psychology can give us a new set of lenses through which to view those human beings who affect us so profoundly. As we will see, people's everyday intuitions about social behavior are often slightly biased, and sometimes deeply wrong. Trying to be aware of people's deeper motivations and of our own cognitive biases can keep us from being blinded by the seemingly "obvious" and also help us to appreciate the complexity that lies beneath the surface.

An understanding of the root motivations of social behavior is important in everyday life, providing potential clues about how to get along with coworkers, lovers, neighbors, and members of different groups whose customs might otherwise seem strange to us. Beyond that, important decisions about education, criminal behavior, urban development, and race relations could be better made by well-informed citizens and leaders. Finally, studying social psychology and understanding how its findings and theories bridge with other areas of knowledge can provide satisfaction at a purely intellectual level. We are entering a century in which many of the mysteries of social life will be solved, and the educated mind will be best prepared to marvel at those discoveries.

Chapter Summary

What Is Social Psychology?

1. Social psychology is the scientific study of how people's thoughts, feelings, and behaviors are influenced by other people. Social psychologists aim to describe social behavior carefully and to explain its causes.

2. Theories help connect and organize existing observations and suggest fruitful paths for future research.

Major Theoretical Perspectives of Social Psychology

1. Researchers who adopt a sociocultural perspective consider how behavior is influenced by factors that operate in larger social groups, including social class, nationality, and cultural norms.

2. The evolutionary perspective focuses on social behaviors as evolved adaptations that helped our ancestors survive and reproduce.

3. The social learning perspective focuses on past learning experiences as determinants of a person's social behavior.

4. The social cognitive perspective focuses on the mental processes involved in paying attention to, interpreting, and remembering social experiences.

Basic Principles of Social Behavior

1. Social behavior is goal oriented. People enter social situations with short-term immediate goals, and these are linked to broader long-term goals and ultimately to more fundamental motives (such as establishing social ties, understanding ourselves and others, gaining and maintaining status, defending ourselves and those we value, and attracting and retaining mates).

2. Social behavior represents a continual interaction between features within the person and events in the situation. People and situations choose, respond to, and alter one another.

How Psychologists Study Social Behavior

1. Descriptive methods (including naturalistic observations, case studies, archival studies, surveys, and psychological tests) involve recording behaviors, thoughts, and feelings in their natural state. These methods can uncover correlations, but they do not pin down causes.

2. Experimental methods search for causal processes by systematically manipulating some aspect of the situation (called the independent variable). Experiments allow conclusions about cause and effect but are more artificial than many descriptive methods.

3. Ethical issues for researchers include invasion of privacy and potential harm to subjects. These potential dangers must be weighed against the benefits of possibly useful knowledge. Professional guidelines and institutional review boards help keep this balance.

Social Psychology's Bridges with Other Areas of Knowledge

1. Social psychology is closely connected to other sub-disciplines of psychology, including developmental, personality, clinical, cognitive, and physiological psychology.

2. Social psychology also connects to other disciplines, including basic research sciences like biology and sociology, as well as applied fields like organizational behavior and education.

Key Terms

Adaptation, 8

Archival method, 21

Case study, 20

Confound, 25

Correlation, 23

Correlation coefficient, 23

Culture, 7

Debriefing, 29

Demand characteristic, 25

Dependent variable, 24

Descriptive method, 19

Evolutionary perspective, 8

Experiment, 24

Experimental method, 19

External validity, 25

Field experimentation, 25

Generalizability, 20

Hypothesis, 17

Independent variable, 24

Internal validity, 25

Natural selection, 8

Naturalistic observation, 19

Observer bias, 20

Person, 16

Psychological test, 22

Random assignment, 24

Reliability, 22

Representative sample, 21

Situation, 16

Social cognitive perspective, 11

Social desirability bias, 21

Social learning perspective, 10

Social norm, 7

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Sociocultural perspective, 7

Survey method, 21

Theory, 5

Validity, 22