SOCIAL PSYCHOLOGY

FIFTH EDITION

SOCIAL PSYCHOLOGY

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Social Psychology, 5th Edition, Kenneth S. Bordens and Irwin A. Horowitz

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by Amber Garcia

Preface

When we set out to write the first edition of *Social Psychology*, our goal was to provide teachers and students with a book that covered the important research and theoretical areas in social psychology in a concise fashion. Through the next four editions, and in this most current edition, our goal has not changed. In this new edition of the book, we continue to present the field of social psychology in a clear, concise way with an emphasis on the science of the field. We have also continued our tradition of showing how research and theory in social psychology can help students understand events that affect their lives. We have drawn parallels between what social psychology has to offer and events that have occurred in the past and current events. We hope that students will come away from their reading of this book and their course in social psychology with a better understanding of their immediate social world and the wider world around them.

Social psychology is a diverse field, and any attempt to present a totally comprehensive overview of all of its content area would be difficult to execute in a single volume or course. Instead, we take the approach of presenting students with information concerning three questions:

1. What is social psychology?
2. What do we know about social psychological phenomena?
3. How do we know what we know about social psychological phenomena?

This fifth edition of *Social Psychology* maintains the basic structure of the fourth. Chapters 1–11 cover the core topics in social psychology. Each of these chapters has been updated to include citations to new research, and many new topics are explored. Chapter 12, newly added to the fourth edition, focuses on how social psychology applies to the law, to business, and to health.

Social psychology is important, interesting, relevant to the current world, and exciting. This is truly the golden age of social psychology, with many bright, energetic people doing so much interesting work. We hope to communicate to this generation of social psychology students the excitement that we felt as budding social psychologists when we first learned about Milgram's obedience research or Darley and Latané's bystander intervention research. Intrigued by the results of such studies, we began to wonder how they could be applied to real-life situations that confront each of us daily. In this edition, we communicate the excitement of the field so that new students will be as intrigued with social psychological research and theory as we are.

Most social psychology texts approach the field from the perspective of research and theory, using examples from everyday life as illustrations of social psychological phenomena. This approach often leaves students without a full appreciation of the applications of social psychology. By applications, we mean not only the usual applied social psychology topics that are interesting in their own right, but also the theory and research of social psychology that can be used to understand the complexities of cultural, historical, and current events. Social psychology can help us understand how we, as individuals, fit in with the wider social environment. Students will come away from this text with a sense that they are truly social creatures, subject to the influence of the social and physical environment.

Changes to the Fifth Edition

Key pedagogical elements from previous editions, such as the chapter-opening vignettes, opening questions, running glossary, focused chapter summaries, and lists of key terms keyed to the text pages, have been retained. For the fifth edition, we have added a new pedagogical feature. Each chapter includes several "Study Breaks," which include a list of key questions to answer on material just read. These study breaks allow students to review what they just read and provide a break in the text's narrative. We have also added several pictures to each chapter to liven up the presentation and reinforce key points made in the text. We have also largely replaced the term "homosexual" with the term "same-sex orientation" because of the pejorative meaning attached to the term "homosexual".

Some major changes to the chapters include the following:

Chapter 1

Chapter 1 remains largely unchanged from the fourth edition. The discussion of the interaction between the situation and personality has been updated to include more information on this topic.

Chapter 2

The original opening vignette has been replaced with a new one focusing on the life of tennis star Serena Williams. A number of topics have been updated to include new information and research. For example, new information has been added to the section on sexual self-schemas, social stigma and self-esteem, emotions and self-esteem, self-handicapping and performance, and the spotlight effect.

Chapter 3

A number of sections have been updated with new research. For example, new information on a dual-systems model of conscious and nonconscious information processing has been added to the section on nonconscious processing. Information discussing thin-slice impressions has been added to the section on the importance of first impressions. New information has been added on the relationship between optimism and recovery from trauma to include a discussion of this relationship with war veterans. New research is discussed on the impact of winning the lottery on happiness.

Chapter 4

New information has been added to the section on the different forms of prejudice, focusing on the consequences of being labeled as a racist. We added a new section reviewing the issues of stereotype accuracy and malleability. This section includes information relating to the controversial issue of stereotype accuracy. New information has been added to clarify the relationship between discrimination and prejudice, showing how discrimination can exist in the absence of underlying prejudice. The section on political ideology has been updated to include new research on the search for prejudice on the left side of the political spectrum. New information has been added to the section on the social roots of prejudice concerning the persistence of prejudice and racial differences in how controversial issues are perceived. Information was also added on how a doctor's diagnosis can be affected by subtle prejudices. New research is discussed on how prejudices are expressed in different social contexts.

Chapter 5

The material on the effects of violent media on attitudes has been deleted from Chapter 5 and reorganized within Chapter 10 (Aggression). The section on the role of social networks in the formation of attitudes has been expanded to include a discussion on the role of social media. The largest change to Chapter 5 is the addition of new sections on ideology. The existing section on Naïve Realism has been reorganized to include a discussion of ideology. Included in this new section are discussions of the definition of ideology, political polarization, ideology as motivated social cognition, and the relationship between ideology and behavior.

Chapter 6

The section on communicator credibility has been expanded to include material on communicator certainty and efficacy. The discussion of cognitive dissonance theory has been updated to include an expanded treatment of the arousal of negative affect and dissonance and the idea of vicarious dissonance.

Chapter 7

The section on the role of norms in conformity has been expanded to include information on culture and norms. The section on how social influence brings about conformity has been updated to include information on how the make-up of a majority affects conformity. A new section is now included on different forms of conformity. In the section on historical and cultural factors in conformity, new research has been added concerning regional differences in the U.S. and conformity. The discussion on minority influence has been updated to include the roles of convergent and divergent thinking. New material has been added to the section on evil and obedience, covering Zimbardo's Lucifer Effect. A reference to a new study supporting and expanding on Milgram's findings has been added to the section on obedience over culture, situation, and time.

Chapter 8

The idea of the mere presence of others has been clarified in the section on the role of arousal in social facilitation and inhibition. The section on the power of groups to punish now opens with a short vignette of the experience of Cadet James Pelosi, who was ostracized at West Point. New research has been added concerning the relationship between gender and leadership showing how leader gender interacts with group composition to affect group performance. The section on race and group performance has been updated with new research on the topic.

Chapter 9

New information has been added to the section on affiliation and intimacy on implicit and explicit affiliation systems. The section on culture and loneliness has been expanded. Information on the relationship between intimacy, passion and commitment, and relationship satisfaction has been added. Research supporting the role of proximity in initial relationship formation has been added to the beginning of the section on the proximity effect to support the importance of proximity. New material has been added to the end of the section on similarity and attraction, highlighting the differences between laboratory findings and real-life relationships concerning the strength of the similarity effect. The section on dating scripts has been updated to include a discussion of the relationship between dating scripts and gender-role stereotypes. New material has also been added to the sections on accommodation processes, forgiveness, and love in the lab. We have also

added a discussion of cross-sex and cross-orientation friendships in the section on friendships.

Chapter 10

The definition of relational aggression has been clarified. New material on bullying has been added to the end of the section on defining aggression. New information on appetitive aggression has been added to the section on gender and aggression. A reference to a study on how gang territories evolve has been added to the section on ethology and aggression. New material has been added to the section on alcohol and aggression showing how alcohol can enhance a person's prejudices and interracial aggression. A study has been added showing how alcohol affects the amygdala and the processing of emotional information. New material has been added to the section on displaced aggression, discussing triggered displaced aggression. New material has been added clarifying the relationship between perceived injustice and aggression. Reference to a study on factors that mediate the relationship between child abuse and aggression has been added. New material has been added showing how culture mediates the relationship between threatened family honor and aggression. New material has also been added on the relationship between watching reality TV and aggression. The material excised from Chapter 5 on violent video games and attitudes is now included in the section on the effects of playing violent video games and aggression. Research on the relationship between avatar gender in a video game and aggression has been clarified. New references have been added showing how losing a video game relates to aggression and how young men incorporate pornographic behaviors into their own sexual behaviors. Information on how school interventions can help reduce aggression has been added as well.

Chapter 11

The section on why people help has been expanded to include research on one's motivation for helping and the duration of helping. A new short section on pathological altruism has been added to the empathy-altruism section. New information has been added to the section on the biological roots of altruism covering the role of sexual selection in altruism. A new example of the difficulties in recognizing an emergency has been added to reinforce this point. References to studies showing how the presence of bystanders to an emergency alters brain functioning, how bystanders can have a positive effect on helping, how bystanders respond to rape, and roles assumed by bystanders have been added. Research on the role of time pressure on the race-helping relationship has also been added. New material has been added to the section on heroism showing how heroes and nonheroes differ with respect to fast and slow thinking. New material has also been added on the role of culture on help seeking.

Chapter 12

The section on weapon focus has been expanded to include research showing that who holds a weapon matters. Material has been added to the section on eyewitness memory to explore the idea that an eyewitness must recall binding factors as well as specific details involved in a crime and the effects of post-memory warnings on eyewitnesses memory. The section on the confidence-accuracy issue has been updated to include new research on this issue. New material has been added concerning just what eyewitnesses know about the factors affecting eyewitness identification and memory. The section on social influence in the jury room has been expanded to include information on informational social influence and gender differences in using emotional information. The section on intergroup bias in court has been updated to include research on the generality of the bias and how the bias affects how other cues are used. References to research on how sleep deprivation affects false confessions and how false confessions affect alibi witnesses have been added to the section on confessions. The discussion of employee recruitment has been expanded to include information on how job seeker experience affects how job advertisements are perceived. New material is included on how the gender of a supervisor affects expectations and perceptions of job performance appraisals and how culture relates to the impact of worker motivation. New information on coping self-efficacy and managing trauma has been added to the section on self-efficacy beliefs. New material on negative mood regulation expectancies has been added to the section on positive mood and coping with stress. The material on the application of the theory of planned behavior to healthy behavior has been updated.

Online and in Print

Student Options: Print and Online Versions

This fifth edition of *Social Psychology* is available in multiple versions: online, in PDF, and in print as either a paperback or loose-leaf text. The content of each version is identical.

The most affordable version is the online book, with upgrade options including the online version bundled with a print version. What's nice about the print version is that it offers you the freedom of being unplugged—away from your computer. The people at Academic Media Solutions recognize that it's difficult to read from a screen at length and that most of us read much faster from a piece of paper. The print options are particularly useful when you have extended print passages to read.

The online edition allows you to take full advantage of embedded digital features, including search and notes. Use the search feature to locate and jump to discussions anywhere in the book. Use the notes feature to add personal comments or annotations. You can move out of the book to follow Web links. You can navigate within and between

chapters using a clickable table of contents. These features allow you to work at your own pace and in your own style as you read and surf your way through the material. (See "Harnessing the Online Version" for more tips on working with the online version.)

Harnessing the Online Version

The online version of *Social Psychology,* 5e, offers the following features to facilitate learning and to make using the book an easy, enjoyable experience:

- *Easy-to-navigate/clickable table of contents*—You can surf through the book quickly by clicking on chapter headings, or first- or second-level section headings. And the Table of Contents can be accessed from anywhere in the book.

- *Key terms search*—Type in a term, and a search engine will return every instance of that term in the book; then jump directly to the selection of your choice with one click.

- *Notes and highlighting*—The online version includes study apps such as notes and highlighting. Each of these apps can be found in the tools icon embedded in the Academic Media Solutions/Textbook Media's online eBook reading platform (http://www.academicmediasolutions.com).

- *Upgrades*—The online version includes the ability to purchase additional study apps and functionality that enhance the learning experience.

Instructor Supplements

In addition to its student-friendly features and pedagogy, the variety of student formats available, and the uniquely affordable pricing options that are designed to provide students with a flexibility that fits any budget and/or learning style, *Social Psychology,* 5e, comes with the following teaching and learning aids:

- *Test Item File*—An extensive set of multiple-choice, short answer, and essay questions for every chapter for creating original quizzes and exams.

- *Instructor's Manual*—An enhanced version of the book offering assistance in preparing lectures, identifying learning objectives, developing essay exams and assignments, and constructing course syllabi.

- *PowerPoint Presentations*—Key points in each chapter are illustrated in a set of PowerPoint files designed to assist with instruction.

- *Online Video Labs*—A collection of high-quality video segments, organized by chapter and accessed via the web, which illustrate key topics and issues. Instructors

are provided with suggested answers for each worksheet (for questions not based on student opinion).

Student Supplements and Upgrades (Additional Purchase Required)

- *Lecture Guide*—This printable lecture guide is designed for student use and is available as an in-class resource or study tool. Note: Instructors can request the PowerPoint version of these slides to use as developed or to customize.

- *StudyUpGrade (Interactive Online Study Guide)*—Students can turbo-charge their online version of *Social Psychology,* 5e, with a unique study tool designed to "up your grade." StudyUpGrade is a software package that layers self-scoring quizzes and flash cards into the online version. This inexpensive upgrade helps you improve your grades through the use of interactive content that's built into each chapter. Features include self-scoring multiple-choice quizzes, key concept reviews with fill-in-the-blank prompts, and e-flash cards comprised of key term definitions. For more on this helpful study tool, check out the flash demo at the Academic Media Solutions or Textbook Media websites.

- *Study Guide*—A printable version of the online study guide is available via downloadable PDF chapters for easy self-printing and review.

- *Online Video Labs*—A collection of high-quality, dynamic, and sometimes humorous video segments (contemporary and classic) produced by a variety of media, academic, and entertainment sources, accessed via the web. Organized by chapter, the video segments illustrate key topics/issues discussed in the chapters. Each video segment is accompanied by a student worksheet that consists of a series of discussion questions that help students connect the themes presented in the video segment with key topics discussed in the specific chapter.

Acknowledgments

About the Authors

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Understanding Social Behavior

Few people are capable of expressing with equanimity opinions which differ from the prejudices of their social environment. Most people are even incapable of forming such opinions.

—Albert Einstein

Source: wavebreakmedia/Shutterstock.

On a cold winter morning, Friday, December 14, 2012, in Newtown, CT, students and teachers began their school day at Sandy Hook Elementary School as they had any other day. The mood at the school was very high. The night before, the fourth-grade concert had been held to great success. Staff and teachers at Sandy Hook Elementary were looking forward to ending the school week on a high note. After students and teachers arrived for school, the doors to the school were locked, as was required by the school's security protocol. Several faculty members attended a meeting before classes were to start. What happened next signaled that this day and Sandy Hook would be like no other day. The meeting was interrupted by the sounds of gunfire coming from somewhere in the school. A gunman[1] had shot his way through the glass front door of the school and began systematically shooting teachers and school staff. The school's principal, Dawn Hochstrung, and the school's psychologist, Mary Sherlach, were among the first school officials to confront the gunman. Reports say that Dawn Hochstrung lunged at the gunman and was shot dead, as was Mary Sherlach. The vice principal of the school, Natalie Green, was also shot and wounded. Ms. Green

Key Questions

As you read this chapter, find the answers to the following questions:

1. What is social psychology?
2. How do social psychologists explain social behavior?
3. How does social psychology relate to other disciplines that study social behavior?
4. How do social psychologists approach the problem of explaining social behavior?
5. What is experimental research, and how is it used?
6. What is correlational research?
7. What is the correlation coefficient, and what does it tell you?
8. Where is social psychological research conducted?
9. What is the role of theory in social psychology?
10. What can we learn from social psychological research?
11. What ethical standards must social psychologists follow when conducting research?

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[1]We have chosen not to use the name of the gunman to deprive him of any fame or notoriety. The interested reader can find his name easily via an Internet search.
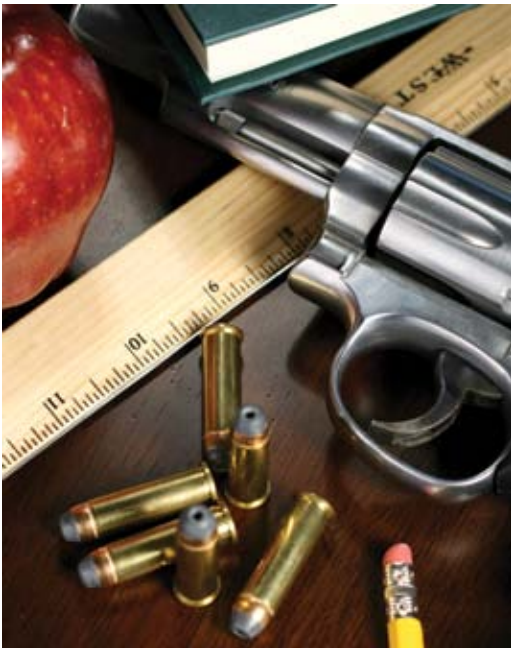
Whenever there is a mass shooting, such as at the Sandy Hook Elementary School, people ask "Why," a question we also address in this text.

Source: Michael-John Wolfe/Shutterstock.

staggered back into the school office and dialed 911to report the shooting. Some teachers rushed into the hallway to confront the gunman; they too were shot dead.

After shooting school personnel, the gunman entered the school and headed for classrooms that were full of elementary schoolchildren to shoot them as well. Because someone in the school office had turned on the PA system, teachers in the school were aware of what was going on. Teachers locked their doors and herded their students to places of safety as best they could. Having heard the shots, first-grade teacher Kaitlin Roig hid her 15 students in a bathroom and barricaded her classroom door with a bookcase. Another first-grade teacher, Victoria Soto, did much the same thing to protect her students. When the gunman entered Soto's classroom, she told him that her students had been taken to the gymnasium. Unfortunately, some of her students panicked and ran from their hiding places. The gunman began shooting the fleeing students. Ms. Soto positioned herself between the gunman and her students. She was shot and killed along with many of her students. Soto's body was found on top of several of her slain students.

The shooting at Sandy Hook Elementary took between 4 and 6 minutes. During that time twenty children and six adults were shot and killed. Also killed was the gunman's mother, who was shot four times in the head while she slept before the gunman made his way to the school.

Social Psychology and the Understanding of Social Behavior

The events that occurred at Sandy Hook Elementary School in general, and the gunman's and Victoria Soto's actions in particular, raise many questions about why things happened the way they did. In the days following the shooting, many questions were asked about the motives of the gunman, the actions of the administrators and teachers who tried to save lives, and Americans' attitudes towards guns. We wonder how a young man can enter a school and shoot innocent adults and children. We ponder the question of whether he was evil or was driven to his action by circumstance. We also marvel at the behavior of people like Victoria Soto. Why did she sacrifice her life to save her students? As was the case with the gunman, we ask whether she had special characteristics that impelled her to the ultimate act of altruism or whether she reacted to the situation. It causes us to question whether we ourselves would have the courage to do such a thing.

As human beings, we are inherently curious. When something like the Sandy Hook shooting takes place, we inevitably ask questions about why such things happen. We want an explanation for such events to satisfy our curiosity and to restore order to our world. Most of the time the first explanation we come up with is a "commonsense" explanation based on our experiences and our views of life and the world around us. So, we are likely to label the gunman as "evil," "sick," or "twisted." Similarly, we are likely to conclude that Victoria Soto was "heroic," "a special person," or "brave," allowing her to sacrifice her own life to save others. However, as is often the case, such simple commonsense explanations often fall short and do not give us final answers about why people behave the way they do. This is why we turn to science to help us better understand and explain events such as the Sandy Hook Elementary School shooting.

One science that can help us make sense out of the things that happen to us and around us is *psychology*, which is the study of behavior and the motives and cognitions that underlie that behavior. By studying "abnormal psychology," "personality psychology," and other areas

of psychology, we can begin to piece together rational explanations for events such as Sandy Hook. One branch of psychology can give us a unique perspective on behavior and perhaps help us best understand events that occur to us and around us: social psychology. **Social psychology** is the scientific study of how individuals think and feel about, interact with, and influence one another, individually and in groups. It is the branch of psychology that studies social behavior—the thinking and behavior of individuals as they relate to other human beings.

Social psychology provides tools to help you understand things that happen in your personal life. It can help you make sense of your day-to-day interactions—your friendships, love relationships, interactions at work, and performance at school. It can give you insight, for example, into why your most recent romantic relationship did not succeed, and why you find yourself attracted to one person in your afternoon math class but not to another. It can also help you understand why you may behave aggressively when someone cuts ahead of you in a cafeteria line, or why you get annoyed when someone sits right next to you in a theater when there are plenty of other empty seats. Social psychology can also help you understand why *other* people act the way they do. For example, social psychology can help us understand the forces that led to the Sandy Hook shooting and Victoria Soto's heroism.

Your life also is touched by events beyond your immediate, day-to-day affairs—events that occur in the community and the nation. Although these events are more distant, you may still feel strongly about them and find a link between them and your personal life. If your friend's father were very sick, for example, you might want to share with him knowledge about a man whose determination kept him alive for 6 years. Perhaps the story would encourage him to keep on with his life. If a terrorist attack happened in your hometown, you would experience directly the consequences of people driven to acts of murder by a radical ideology. You probably would hear many people decrying terrorism and talking about ways to deal with such acts.

In one form or another, all the events at Sandy Hook represent recurring themes in human history. Violence and aggression date back thousands of years. As soon as humans began to claim ownership of territory, they began to fight with each other. Humans have always been both aggressive and altruistic toward one another. Human beings have always had to find ways to live with each other. We have always functioned together in groups; had love relationships; tried to persuade others of our point of view; followed or rebelled against authority; and sought ways to resolve conflicts, whether through negotiation or through coercion. We help each other, and we hurt each other. We display prejudice and discrimination; we even have tried to kill entire populations. History is a tapestry of the best and the worst that human beings can do. Studying social psychology will give you the knowledge and tools to help you better understand this human tapestry. It will also help to explain why many tragic or uplifting events occur.

It's important to note, however, that social psychologists do not simply wonder and speculate about social behavior. Instead, they use scientific methods involving carefully designed and executed research studies to help explain complex, uncertain social issues. Social psychology is first and foremost a science. Through theory, research, and thoughtful application of concepts and principles to real-life situations, social psychologists provide insights into everyday events, both past and present, as well as those monumental events that are the stuff of history.

More than any other branch of psychology, social psychology offers a broad perspective on human behavior. Rather than focusing on the personal histories of individuals (as would a personality psychologist), or on how individuals respond to their environment (as would a strict behaviorist), it looks at how people interact with and relate to each other *in social contexts*. It is within these social contexts that a wide range of behaviors and events fall.

A Model for Understanding Social Behavior

Social psychologists are interested in the forces that operate on individuals and cause them to engage in specific examples of social behavior. But social behavior is typically complex and has many contributing causes. Consequently, explaining social behavior is a difficult task. To simplify this task, we can assign the multiple causes of social behavior to one of two broad categories: the situation and the individual. According to a formula first proposed

by Kurt Lewin (1936), one of the founders of social psychology, social behavior is a function of the interaction of the situation and the individual's characteristics, or

$$\text{Behavior} = f \text{ (social situation} \times \text{individual characteristics)}$$

Lewin's model of social behavior was inspired by his observation that the individual's perception of a situation is influenced by the tasks he or she has to accomplish. Lewin was a soldier in the German army during World War I. He noticed that as he came nearer to the battlefield, his view of the world changed. Where he once might have seen beautiful flowers and beckoning forests, he now saw boulders to hide behind and gullies from which he could ambush the enemy. Lewin came to believe that a person's perception of the world is influenced by what he or she has to do in that situation. He termed the combination of individual needs and situational factors the *psychological field* in which the individual lives (Pratkanis & Aronson, 1992).

According to this view, individuals with different needs and tasks would come to see the same event in dissimilar ways (Pratkanis & Aronson, 1992). Although Lewin looked at the individual's needs and tasks, he emphasized the importance of social context in producing the forces that control the individual's actions. Lewin was aware that we often fail to take situational factors into account when we try to explain why people behave as they do (Ross & Nisbett, 1991). For example, there are undoubtedly other young men with similar backgrounds and characteristics as the Sandy Hook gunman. However, those individuals will probably never pick up a gun and slaughter innocent children in a school. Within the school itself, many teachers and other adults responded to the situation in ways that were different from how Victoria Soto reacted. Each person reacted differently to the situation and took different actions in response to the gunman.

Research supports the idea that one's personal characteristics interact with the nature of the social context to influence behavior. In one study, for example, individuals with high scores on a measure of extraversion used more gestures to communicate information to others than those with lower scores on this personality dimension did. However, individuals low in extraversion use more gestures to communicate when audience members can see them than if audience members cannot see them. This difference was smaller for individuals high in extraversion (Hostetter & Potthoff, 2012). Thus, personality (extraversion) interacted with the social situation (audience visibility) to affect behavior.

Thus far we have seen that the situation and individual characteristics are central to the understanding of social behavior in a general way. How do social psychologists define *situation* and *individual characteristics*? Let's take a closer look.

The Social Situation

The *social situation* comprises all influences on behavior that are external to the individual. A situational factor might be any aspect of the physical and/or social environment (the presence of other people, real or imagined) that influences behavior. Different individuals will react differently to the social situation. Some teachers or administrators at Sandy Hook, for example, tried to confront the gunman directly in an attempt to disarm him. Others tried to do things to help save children. For example, one school employee turned on the school's PA system, which alerted teachers to what was happening, allowing them to take action that saved many children's lives.

Sometimes the situation works on us in subtle ways. We may modify our behavior even if there is no pressure on us to do so. We may imagine or believe that we are expected to act a certain way in a certain situation, and those beliefs can be as powerful as the situation itself. For example, let's say that you are in a restaurant with a group of friends. You are trying to decide what to order. You are leaning toward the sautéed buffalo, but the stewed rabbit sounds good too. When the waiter comes to the table, you order last, intending to try the buffalo. However, each of your friends orders the rabbit. When your turn comes, you also order the rabbit. You modified your behavior based on your friends' actions, because you didn't want to appear different. You felt and responded to social pressure of your own making!

Situational or social determinants of behavior exist on several levels simultaneously. Sometimes the social environment leads to temporary changes in behavior, as

was the case in the restaurant. Ordering the rabbit may be specific to that one situation; you may never order rabbit again. In other cases, the social environment is a more pervasive influence and may lead to relatively permanent, enduring patterns of behaviors. The culture within which a person lives exerts a long-lasting influence over a wide range of behaviors. Culture influences the foods we like, how we relate to members of the other sex, the amount of personal space we require (the area immediately surrounding us that we claim and defend), what we plan and expect to accomplish in life, and a host of other behaviors. It may also influence one's decision concerning shooting innocent children in a school.

Individual Characteristics

Individual characteristics include sex, age, race or ethnicity, personality characteristics, attitudes, self-concept, ways of thinking, and so on. In short, individual characteristics consist of anything internal to the person that might influence behavior. Physical traits are individual characteristics that are relatively enduring and for the most part known to others. Personality characteristics also tend to be enduring, but they are not necessarily obvious to others. Other internal characteristics, such as attitudes, opinions, self-concept, and so on, can change over time. People often have some choice about how much of these areas of themselves they reveal to others.

Let's consider Victoria Soto again. Did she possess some special personality characteristic that impelled her to use her body to shield her students? Was she higher in what social psychologists call *dispositional empathy* (which we will discuss in Chapter 11) than other people? Would everyone with her level of dispositional empathy act the same way? Others in the school reacted differently from Soto. How do their personal characteristics differ from Soto's? These are all questions relating to individual characteristics that affect behavior within a situation.

Another important individual characteristic that is somewhat different from personality characteristics is the particular way each individual perceives and thinks about his or her social world. **Social cognition** refers to a general process we use to make sense out of social events, which may or may not include other people. For example, seeing the events at Sandy Hook on the news, you probably began to interpret those events, attempting to determine a reason for the gunman's behavior. Eventually, you probably began to make inferences about the motives of the individuals involved and to form impressions of them. Social psychologists call this process **social perception**. For example, thinking about Victoria, who gave her life to save others, may lead you to an inference that she was a highly empathic, caring person and was not simply doing her job as a teacher at the school. Once you infer these characteristics and form an impression that she was a caring, compassionate person, you then settle on these internal characteristics as the primary motivation for her behavior.

Social cognition and social perception are central to our interpretation of situations. How we interpret social situations depends, in part, on our individual characteristics. For example, how would you respond if you discovered that your significant other was cheating on you? Most would say that they would be angry and feel betrayed. This is undoubtedly the case. However, how individuals respond to such a situation depends on who is involved. A common finding is that men are more upset by sexual infidelity, while women are more upset by emotional infidelity (Miller & Maner, 2009). So, how a person perceives infidelity is related to his or her gender. However, it gets more complicated when we consider another individual difference factor. Miller and Maner also found that the gender difference is more pronounced for individuals who are prone to chronic jealousy. So, the degree to which a man or woman is upset by sexual or emotional infidelity, respectively, depends on another individual characteristic. The bottom line is that every individual has a slightly different view of the world because everyone has unique personal traits and a unique history of life experiences. Each of us actively constructs our own view of our social world, based on interpretations of social information (which we discuss in detail in Chapter 3).

Before we look at how Lewin's model has been expanded, we must make an important point about how individuals perceive the relative effects of the social situation

social cognition The general process we use to make sense out of social events, which may or may not include other people.

social perception The social processes by which we come to comprehend the behavior, words, and actions of other people.

and individual characteristics on behavior. Although one of the major lessons of social psychology (which we explore throughout this text) is that the social situation exerts a powerful effect on social behavior, individuals may minimize or deny this effect. We tend to see ourselves as individualists or free thinkers who will not go along with the crowd. For example, Spanos, Vartanian, Herman, and Polivy (2015) investigated the degree to which participants were willing to admit that the social situation affected food intake. They found that participants who were more attuned to the social environment were more likely to acknowledge that the social situation affected food intake, compared to those who were less attuned. Interestingly, denial that the social situation affects food intake is not related to the degree to which the situation actually affects food intake (Spanos et al., 2015). The late social psychologist Stanley Milgram issued a challenge to those who deny that their behavior is affected by the social environment. He challenged students who fancied themselves to be free thinkers to go somewhere crowded (e.g., a food court at a mall on a busy Saturday), stand on a chair, and sing their favorite song at the top of their lungs. If you are, in fact, free from the effects of others, you should be more than willing to do this. In reality, very few students are willing to sing at the mall!

The social situation exerts a powerful effect on behavior. The late social psychologist Stanley Milgram once issued the challenge that if you believe that you are not affected by others, go to a crowded place (like a mall food court), stand up on a chair, and loudly sing your favorite song. Would you?

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Expanding Lewin's Model

Lewin's model tells us that both the social situation (physical setting, the presence of other people, real or imagined) and individual characteristics (physical traits, personality traits, attitudes and habitual ways of thinking, perceptual and cognitive processes, needs and tasks) influence social behavior. Lewin's model, however, does not specify how situational factors and individual characteristics fit together into a broad, general model of social behavior. We need to expand on Lewin's original model to gain a better understanding of the forces that shape social behavior. An expansion of Lewin's original model is shown in Figure 1.1.
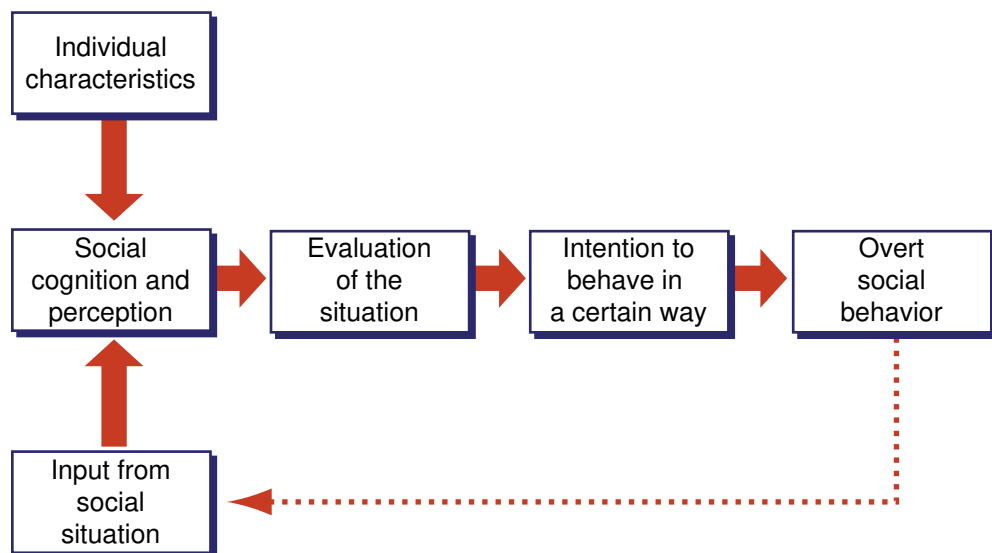
FIGURE 1.1

An expanded model of social behavior. How we act in a given situation depends on input from the situation and individual characteristics that are mediated by the processes of social cognition and perception and the formation of an intention to behave in a certain way.

As shown in this model, input from the social situation and individual characteristics do not directly influence social behavior. Instead, they both contribute to how we process information via mechanisms of social cognition and social perception. How that information is processed yields a particular evaluation of the situation. For example, in the wake of the Sandy Hook tragedy, controversy swirls around how to best prevent mass shootings. Some want to ban certain firearms and high-capacity magazines. Others want to increase security at schools and place more emphasis on mental health services. Even those who favor more gun control laws cannot agree on what shape those laws should take. Some people may favor banning so-called "assault rifles" and high-capacity magazines. Others may be more in favor of tightening up background check laws to make it more difficult for a mentally ill person to obtain a gun. According to Figure 1.1, our evaluation of the social situation does not translate immediately into overt social behavior. Instead, based on our evaluation of the situation, we form a behavioral intention. For example, one family of a Sandy Hook victim may decide to advocate for gun bans. Another family might form an intention to direct their energies into raising money to help the children who survived the shooting. In these cases, the same event yields different intentions. Thus, a behavioral intention is the immediate, proximate cause for social behavior.

It is important to realize that just because we form a behavioral intention does not mean we will act on that intention. For example, a person can form the intention of advocating for gun bans but never follow through, thinking that perhaps attempting to pass gun ban laws will be futile in the current political atmosphere.

This view of social behavior implies that it is a dynamic process. Our monitoring of the social situation does not end with an evaluation of the situation, or the formation of an intention, or social behavior. Instead, we are constantly monitoring the social situation (our own behavior and that of others) and may modify our assessment of it on a moment-to-moment basis. Thus, we fine-tune our behavioral intentions up to the point that we engage in social behavior. So, even though the various processes underlying social behavior are presented in Figure 1.1 in a sequence of discrete boxes, they are really quite fluid and involve constant updating of our evaluation of the situation.

One final aspect of this model needs to be addressed. Notice that in Figure 1.1 there is a dotted arrow going from social behavior to the social situation. In any social situation in which we are directly involved, our own behavior influences the social environment and probably will cause changes in the behavior of others. For example, imagine that you are talking to someone you have just met. Based on the first thing she says, you determine that she is not very friendly. Consequently, you become defensive (you fold your arms, lean away from her) and respond to her in a cold way. She picks up on your behavior and becomes colder herself. This cycle continues until one of you breaks off the conversation. How might this situation have played out if you had interpreted her initial behaviors as nervousness and responded to her in a positive way? You may have made a new friend. Thus, your own interpretations and behaviors had a profound effect on the situation.

Study Break

This section defined *social psychology* and introduced you to the basic model for understanding social behavior. Before you begin the next section, answer the following questions:

1. What is the definition of social psychology, and what does each element of the definition mean?
2. What is Kurt Lewin's model for explaining social behavior? Define each of the crucial components of the model.
3. How have social psychologists expanded upon Lewin's model?
4. How can your social behavior affect the social situation, requiring a re-evaluation of the situation? Give an example.

Social Psychology and Related Fields

We have seen that social psychology is a field of study that seeks to understand and explain social behavior—how individuals think and act in relation to other people. Yet many other disciplines are also concerned with the thoughts and actions of human beings, both individually and in groups. In what ways does social psychology differ from its two parent disciplines, sociology and psychology? And how is it similar to and different from other fields of study, such as biology, anthropology, and history?

To see how these fields differ in their approaches, let's consider a single question: Why do groups of people, including nations, display hostility toward one another? Although social psychologists are interested in this social problem, they have no unique claim to it (nor to others). Biologists, psychologists, anthropologists, sociologists, historians, and others all have explanations for the never-ending cycle of human violence. Let's consider first those fields that look for the causes of violent behavior within the individual and then move on to fields that focus increasingly on factors in the environment.

Many biologists say the answer to the puzzle of human violence resides not in our social situations, organizations, or personalities but rather in our genetic structure. For example, scientists have identified a tiny genetic defect that appears to predispose some men toward violence. Scientists studied a large Dutch family with a history of violent and erratic behavior among many, although not all, of the males. They found that those males who were prone to violence had an enzyme deficiency due to a mutation of a gene carried by the X chromosome (Brunner, Nelon, Breakefield, Ropers, & van Oost, 1993). Because men have only one X chromosome, they were the only ones who manifested the defect. Women may be carriers of the deficiency, but they are protected from expressing it by their second X chromosome with its backup copy of the gene. Geneticists do not argue that genetic defects are the sole cause of violence, but they do say that these factors play a definite role in determining who is violent.

Another biologically oriented view of this question comes from developmental psychologists (who study the development of human beings across the lifespan). They suggest that human beings may have an innate fear of strangers. They point out that at about 4 or 5 months, infants begin to react with fear to novel or unusual stimuli, such as the faces of strangers (Hebb & Thompson, 1968). Between 6 and 18 months, infants may experience intense *stranger anxiety*. These psychologists, as well as some biologists, argue that fear of strangers may be part of our genetic heritage. Early humans who possessed this trait may have been more likely to survive than those who didn't, and they passed the trait down to us. On a group or societal level, this innate mistrust of strangers might be elaborated into hostility, aggression, or

Although social psychology is not the only science to study group behavior, social psychologists focus on small groups, such as a jury.
Source: bikeriderlondon/Shutterstock.

even warfare. Other psychologists, however, are not convinced that fear of the novel is inborn (Hebb & Thompson, 1968).

Along similar lines, anthropologists (who study the physical and cultural development of the human species) have documented that some tribal societies view strangers with suspicion and may even attempt to kill them. Some anthropologists argue that hostility to strangers may have benefited early human groups by helping them unite against threats from the outside.

Other scientists emphasize the psychological makeup of individuals as a way of explaining behavior. Personality psychologists suggest that aggressiveness (or any other behavioral trait) is a characteristic of the individual. The person carries the trait from situation to situation, expressing it in any number of different circumstances (Derlega, Winstead, & Jones, 1991). Personality psychologists would argue that some internal characteristic drove Victoria Soto to behave altruistically at Sandy Hook, just as some other personality traits affected the behavior of the gunman.

One researcher studied the aggressive behavior of adolescent boys in Sweden over 3 years (Olweus, 1984). He found that boys who were aggressive (started fights, were bullies) in the sixth grade were also physically aggressive in the ninth grade. Personality researchers take this as evidence that individual factors are an important determinant of aggression. Over the course of the 3 years, the boys had different teachers, were in different buildings, and had a variety of classmates. Yet their behavior remained consistently aggressive, despite the change in their social situation (Derlega et al., 1991).

Social psychologists study the individual in the social situation. They are concerned with determining what characteristics of a situation increase or decrease the potential for violence. In looking at the question of hostility between groups, social psychologists focus on the forces both in individuals and in situations that lead to this outcome.

Whereas psychology (including social psychology) focuses on the role of the individual, other fields look for causes of behavior in more impersonal and general causes outside the individual. For example, sociologists are concerned primarily, although not exclusively, with larger groups and systems in society. A sociologist interested in violence might study the development of gangs. Interviews with gang members, observation of gang activity, or even participation in a gang as a participant, if possible, would be potential methods of study.

Although sociology and social psychology are related, there are important differences between them. The sociologist asks what it is about the structure of society that promotes violence; the social psychologist, in contrast, looks at the individual's particular social situation as the potential cause of violence. The social psychologist is interested primarily in the behavior of individuals or of small groups, such as a jury. Sociology may be empirical in the sense that it attempts to gather quantitative information. A sociologist might compare rates of violent behavior in two societies and then try to determine how those societies differ. Social psychology is much more an experimental, laboratory-based science.

Historians take an even broader view of intergroup hostility than sociologists. They are primarily concerned with the interplay of large forces such as economic, political, and technological trends. Historians have shown, for example, that one nation can express power against other nations only if it has sufficient economic resources to sustain armed forces and if it has developed an adequate technological base to support them (Kennedy, 1987; O'Connell, 1989). One historian documented the importance of a single technological advance—the invention of stirrups—in accelerating violence between groups in the early Middle Ages (McNeill, 1982). Before stirrups were invented, knights on horseback were not very effective fighters. But once they were able to steady themselves in the saddle, they became capable of delivering a powerful blow with a lance at full gallop. The use of stirrups quickly spread throughout Europe and led to the rise of cavalry as an instrument of military power.

History and sociology focus on how social forces and social organization influence human behavior. These fields tend to take a *top-down perspective*; the major unit of analysis is the group or the institution, whether a nation, a corporation, or a neighborhood organization. Psychology, with its emphasis on individual behavior and the individual's point of view, offers a *bottom-up perspective*. Social psychology offers a distinct perspective on social behavior. Social psychologists look at how social forces affect the individual's thinking and behavior. Although the field takes a bottom-up

perspective, focusing on the individual as the unit of analysis, behavior is always examined in social situations. Social psychology, therefore, tries to take into account individual factors, such as personality, as well as social and historical forces that have shaped human behavior.

As indicated earlier, social psychology is a science. The use of scientific methods is the primary contribution of social psychology to the understanding of complex, uncertain social behaviors such as intergroup hostility.

Research in Social Psychology

On January 27, 2013 hundreds of patrons were enjoying themselves in the Kiss nightclub in Santa Maria, Brazil. The popular country band Gurizada Fandangueira was just about to perform their sixth song of the night. The band's guitarist Rodrigo Martins noticed embers falling from the club's foam ceiling. The ceiling was on fire, and the fire was spreading quickly. Once patrons noticed the rapidly spreading fire, they began to rush for the exit. In the ensuing panic, patrons surged toward the only exit. Several patrons burst through a restroom door, believing it was an exit. At least 30 patrons died in the restroom, their bodies piled on top of another. The scene within the club rapidly degenerated into a mass panic that one survivor described as a scene out of hell. In the rush to the only exit, a person fell, then another and then another. Soon, the exit was blocked and hundreds of patrons continued to surge toward the exit. When the dust cleared, 233 patrons lay dead, most crushed to death in the panic.

Even if you only read about this in the newspaper, you probably would wonder how it could happen and try to come up with an explanation. Could it be possible that the night-club was filled with selfish, aggressive people who would do anything to survive? Could it be that Brazilians are more prone to panic than others? That does not seem likely since similar panics have happened in other countries as well.

When we devise explanations for events like the one in Brazil, based on our prior knowledge and experiences, our attitudes and biases, and the limited information the newspaper provides, we don't know if they are accurate or not. Such *commonsense explanations*—simplistic explanations for social behavior that are based on what we believe to be true of the world (Bordens & Abbott, 2014)—serve us well in our day-to-day lives, providing easy ways to explain complex events. People would be hopelessly bogged down in trying to understand events if they didn't devise these explanations and move on to the next concern in their lives. Unfortunately, commonsense explanations are usually inadequate; that is, there is no evidence or proof that they pinpoint the real causes of events.

The aim of social psychology is to provide valid, reliable explanations for events such as the one in Santa Maria, Brazil. Rather than relying on conjecture, rumor, and simplistic reasoning, social psychologists approach the problem of explaining complex social behavior in a systematic, scientific way. Like other scientists, social psychologists seek to develop *scientific explanations* for social behavior. These explanations are based on careful scientific observations and/or experimentation, rather than on casual observations that underlie commonsense explanations. To arrive at these scientific explanations, social psychologists rely on the **scientific method**, which typically involves the four steps shown in Figure 1.2. The scientific method is not the only way to acquire knowledge. However, it is the only acceptable method for developing scientific explanations. As shown in Figure 1.2, the first step in the scientific method is to identify a phenomenon to study. This can come from observation of everyday behavior, reading research literature, or your own previous research. Next, a testable research **hypothesis** must be formed. A hypothesis is a tentative statement about the relationship between variables. The third step is to design a research study to test your hypothesis. Finally, the study is actually carried out and the data analyzed. Only after applying this method to a problem and conducting careful research will a social psychologist be satisfied with an explanation.

Throughout this book, we refer to and describe research that social psychologists have conducted to test their ideas, to gain information about events, and to discover

scientific method A method of developing scientific explanations involving four steps: identifying a phenomenon to study, developing a testable research hypothesis, designing a research study, and carrying out the research study.

hypothesis A tentative and testable statement about the relationship between variables

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┌─────────────────────────────────────┐
│      Carry out the research study     │
└─────────────────────────────────────┘
                  ▲
┌─────────────────────────────────────┐
│        Design a research study        │
└─────────────────────────────────────┘
                  ▲
┌─────────────────────────────────────┐
│      Develop a testable hypothesis    │
└─────────────────────────────────────┘
                  ▲
┌─────────────────────────────────────┐
│      Identify a phenomenon to study   │
└─────────────────────────────────────┘
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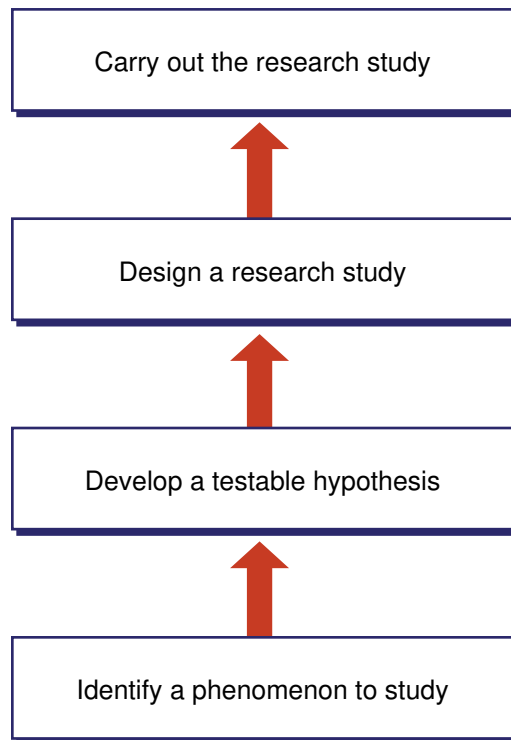
FIGURE 1.2

The scientific method used in social psychology begins with the identification of a problem to study and then moves to the formation of testable hypotheses. Next, a research study is designed and carried out.

the causes of social behavior. We turn now to some of the basic principles of research, including the major research methods, the role of theory in research, the settings for social psychological research, and the importance of ethical conduct in research involving human participants.

The principal aim of the science of social psychology is to uncover scientific explanations for social behavior. A scientific explanation is an interpretation of the causes of social behavior that is based on objective observation and logic and is subject to empirical testing (Bordens & Abbott, 2005). To this end, social psychologists use a wide variety of techniques to study social behavior. Generally, they favor two research strategies in their quest for scientific knowledge: *experimental research* and *correlational research.* Let's consider the characteristics of each of these methods, along with their advantages and disadvantages.

Study Break

This section showed how social psychology relates to other fields that also study social behavior and how social psychologists apply the scientific method to study social behavior. Before you begin the next section, answer the following questions:

1. How does social psychology differ from other disciplines that study social behavior? Give examples.
2. What are *commonsense explanations,* and how do they form?
3. How does a scientific explanation differ from a commonsense explanation, and why do social psychologists prefer scientific explanations?
4. What are the four steps involved in the scientific method, and how is the scientific method used to develop scientific explanations?

Experimental Research

One goal of research in social psychology is to understand the causes of social behavior. The researcher usually has an idea he or she wants to test about how a particular factor affects an event or a behavior—that is, whether a particular factor *causes* a particular behavior. To establish a causal relationship between factors, researchers have to use the research method known as the experiment. Because **experimental research** is the only kind of study that can establish causality, it is the method most social psychologists prefer. An experiment has three essential features: manipulating a variable, ensuring that groups comprising the experiment are equivalent at the beginning of the experiment, and exercising control over extraneous variables.

Manipulating Variables

In an experiment, a researcher manipulates, or changes the value or nature of, a variable. For example, Sturmer, Snyder, and Omoto (2005) conducted an experiment to determine if individuals would be more likely to help a member of their own group (in-group) compared to a member of another group (out-group). Heterosexual students were randomly assigned to one of two conditions. In the first condition, participants were led to believe that they were communicating with a male heterosexual student (in-group condition) who indicated that he just found out that his new female dating partner had contracted hepatitis. In the second condition, participants were led to believe that they were communicating with a male same-sex orientation student (out-group condition) who indicated that he just found out his new male dating partner had contracted hepatitis. The results showed that empathy was a significant predictor of intentions to help in the in-group condition, but not in the out-group condition.

In this experiment, Sturmer et al. (2005) manipulated the type of information given to participants (communicating with either an in-group or out-group member). This variable that the researcher manipulates is called the **independent variable**. The researcher wants to determine whether changes in the value of the independent variable cause changes in the participant's behavior. To this end, the researcher obtains some measure of behavior. For example, Sturmer et al. measured the participants' willingness to help the other student. This second variable is called the **dependent variable**: It is the measure the researcher assesses to determine the influence of the independent variable on the participant's behavior. The essence of experimental research is to manipulate an independent variable (or two or even more independent variables) and look for related changes in the value of the dependent variable.

The Equivalence of Groups

The second essential characteristic of an experiment is that there are at least two groups involved who are comparable at the outset of the experiment. In the simplest type of experiment, one group of participants receives a treatment (for example, they are told that their communication partner is same-sex orientation). The participants who receive the experimental treatment comprise the **experimental group**. To know for sure that an experimental treatment (the independent variable) is causing a particular effect, you have to compare the behavior of participants in the experimental group with the behavior of participants who do not receive the treatment (they are told nothing about the sexual orientation of their partner). The participants who do *not* receive the experimental treatment comprise the **control group**. A simple example of this strategy is an experiment testing the effects of a drug on aggressive behavior. Participants in the experimental group would receive a dose of an active drug (e.g., norepinephrine), whereas participants in the control group would not receive the drug. The researcher then compares the behavior of the participants in the experimental and control groups. In essence, the control group provides a baseline of behavior in the absence of the treatment against which the behavior of the treated participants is compared.

In the real world of research, the distinction between the experimental and control groups may not be this obvious. For example, in the Sturmer et al. (2005) experiment on in-group versus out-group helping, there is no true control group in the true sense of the

experimental research
Research involving manipulating a variable suspected of influencing behavior to see how that change affects behavior; results show causal relationships among variables.

independent variable
The variable that the researcher manipulates in an experiment.

dependent variable
The measure the researcher assesses to determine the influence of the independent variable on the participants' behavior.

experimental group A group comprised of participants who receive the experimental treatment in an experiment.

control group A group in an experiment comprised of participants who do not receive the experimental treatment.

concept. Instead, participants in both groups received a "treatment" (i.e., in-group or out-group information). Most experiments you will encounter will follow this model. In order to establish a clear cause-and-effect relationship between the independent and dependent variables in an experiment, the participants in the groups must have the same characteristics at the outset of the experiment. For example, in an experiment on norepinephrine and aggression, you would not want to assign individuals with bad tempers to the 15-mg experimental group. If you did this and found that norepinephrine produces the highest levels of aggression, one could argue that the heightened aggression was due to the fact that all of the participants in that group were hotheads.

The best way to ensure that two or more groups will be comparable at the outset of an experiment is **random assignment** of individuals to groups, which means that each participant has an equal chance of being assigned to the experimental or control group. Researchers can then be fairly certain that participants with similar characteristics or backgrounds are distributed among the groups. If the two or more groups in an experiment are comparable at the outset, the experiment is said to have *internal validity*, and it can legitimately demonstrate a causal relationship.

Researchers are also concerned about another kind of validity, known as *external validity*, or generality. When researchers study how experimental treatments affect groups of participants, they want to be able to generalize their results to larger populations. To do so, they have to be reasonably sure that the participants in their experiments are representative (typical) of the population to which they wish to generalize their results. For example, if the participants of a study were all male science majors at a small religious college, the researchers could not legitimately generalize the results to females or mixed populations, to younger or older people, or to music majors. If the researchers have gotten a representative sample of their population of interest, then they can legitimately generalize the results to that population, and the study is said to have external validity.

Controlling Extraneous Variables

The goal of any experiment is to show a clear, unambiguous causal relationship between the independent and dependent variables. In order to show such a relationship, the researcher must ensure that no other variables influence the value of the dependent variable. The researcher must tightly control any **extraneous variable** that might influence the value of the dependent variable. An extraneous variable is any variable not controlled by the researcher that could affect the results. For example, if the temperature in the room where an experiment is run fluctuates widely, it could influence participants' behavior. When it is hot, participants may get irritable and impatient. When it is cold, participants may become sluggish and uninterested in the task at hand.

As just described, extraneous variables affect the outcome of an experiment by adding a random influence on behavior. In short, extraneous variables make it more difficult to establish a causal connection between your independent and dependent variables. In some cases, an extraneous variable can exert a systematic effect on the outcome of an experiment. This happens when the extraneous variable varies systematically with the independent variable. The result is that a **confounding variable** exists in the experiment. For example, let's say you are running an experiment on the relationship between frustration and aggression. Participants in the experimental group perform a puzzle for which there is no solution (frustration group), whereas participants in the control group do a puzzle that is solvable (no frustration group). As it happens, on the days when you run the experimental group, the room you are using is hot and humid, whereas on the days when you run the control group, the temperature and humidity are normal. Let's say you find that participants in the experimental group show higher levels of aggression than those in the control group. You want to attribute the difference in aggression between your two groups to the frustration levels. However, it may be that the higher levels of aggression recorded in the experimental group are due to the high temperature and humidity and not the frustrating task.

In the real world of research, confounding is seldom as obvious and blatant as in our example. More often, confounding results because a researcher is careless when

random assignment A method of assigning participants to groups in an experiment that involves each participant's having an equal chance of being in the experimental or control group.

extraneous variable Any variable not controlled by the researcher that could affect the results of a study.

confounding variable An extraneous variable in an experiment that varies systematically with the independent variable, making it difficult or impossible to establish a causal connection between the independent and dependent variables.

designing an experiment. Confounding variables often creep into experiments because independent variables are not clearly defined or executed. The presence of confounding variables in an experiment renders the results useless. The confounding variable provides an alternative explanation for any results that emerge. Because of this, a clear causal connection between the independent and dependent variables cannot be established. Consequently, it is essential that a researcher identify potential sources of confounding and take steps to avoid them. The time to do this is during the design phase of an experiment. Careful attention to detail when designing an experiment can go a long way toward achieving an experiment that is free from confounding variables.

Factorial Experiments

An important aspect of real-world research is that experiments are usually more complex than the simple experimental group/control group design we discussed previously. In fact, a vast majority of research in social psychology has two or more independent variables. A design with two or more independent variables is a **factorial experiment**.

factorial experiment
An experimental design in which two or more independent variables are manipulated.

As an example of a simple factorial experiment, consider one conducted by Patricia Oswald (2002) that investigated the effects of two independent variables on willingness to help. Oswald had participants watch a videotape of a person presented as an older adult (Michelle), who was discussing some of her thoughts and emotions about returning to college. The first independent variable was whether participants were instructed to focus on Michelle's thoughts (cognitions) or emotions (affect) while watching her on the videotape. The second independent variable was the type of affect (positive or negative) and cognitions (positive or negative) Michelle displayed on the videotape. Participants filled out several measures after watching the videotape, including how much time they would be willing to devote to helping the student shown on the tape. Before we get to Oswald's results, let's analyze the benefits of doing a factorial experiment.

The principal benefit of doing a factorial experiment as compared to separate one-factor (i.e., one independent variable each) experiments is that you obtain more information from the factorial experiment. For example, we can determine the independent effect of each independent variable on the dependent variable. In Oswald's experiment we determine the effect of participant focus (the focus on either Michelle's affect or cognition) on willingness to help. This is called a *main effect* of one independent variable on the dependent variable. We could also determine, independently, the main effect of the second independent variable (positive or negative cognition or affect) on the dependent variable.

interaction When the effect of one independent variable in a factorial experiment changes over levels of a second, indicating a complex relationship between independent variables.

The main advantage of the factorial experiment lies in the third piece of information you can determine: the interaction between independent variables. An **interaction** exists if the effect of one independent variable (e.g., focus of attention) changes over levels of a second (e.g., type of affect displayed). The presence of an interaction indicates a complex relationship between independent variables. In other words, an interaction shows that there is no simple effect of either independent variable on the dependent variable. For this reason, most social psychological experiments are designed to discover interactions between independent variables.

Let's go back to Oswald's experiment to see what she found. First, Oswald found a statistically significant main effect of focus of attention on willingness to help. Participants who focused on Michelle's affect volunteered more time than those who focused on Michelle's cognitions. If this were all that Oswald found, we would be content with the conclusion that focus of attention determines helping. However, Oswald also found a statistically significant interaction between focus of attention and the type of affect (positive or negative) Michelle displayed. This interaction is shown in Figure 1.3. As you can see, focus of attention had a significant effect when Michelle displayed positive emotion, but not when she displayed negative emotion. In the light of this interaction, would you still be confident in the broad conclusion that focus of attention affects helping? Probably not, because whether focus of attention affects helping depends upon the type of emotion displayed.
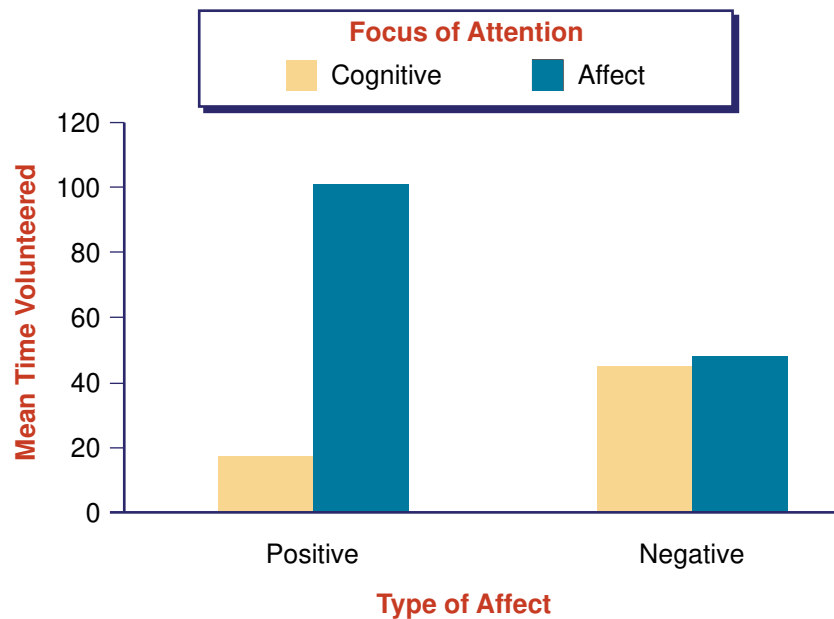
FIGURE 1.3

The interaction between type of affect and focus of attention.
Based on data from Oswald (2002).

Evaluating Experiments

Most of the research studies described in this book are experimental studies. When evaluating these experiments, ask yourself these questions:

- What was the independent variable, and how was it manipulated?

- What were the experimental and control groups?

- What was the dependent variable?

- What methods were employed to test the hypothesis, and were the methods sound?

- Were there any confounding variables that could provide an alternative explanation for the results?

- What was found? That is, what changes in the dependent variable were observed as a function of manipulation of the independent variable?

- What was the nature of the sample used? Was the sample representative of the general population, or was it limited with respect to demographics, such as age, gender, culture, or some other set of characteristics?

Study Break

This section introduced you to experimental research. Because experimental research helps social psychologists to discover the causes of social behavior, it is the most widely used research method in social psychology. Before you begin the next section, answer the following questions:

1. What makes up the most basic experiment, and why is a control group needed?

2. How do social psychologists ensure that groups in an experiment are equivalent before an experiment begins? Why is this important?

3. What are extraneous and confounding variables, and why are steps taken to control them?

4. What is a factorial experiment? Give an example. What is an interaction, and why do social psychologists focus on interactions?

Correlational Research

correlational research
Research that measures two or more dependent variables and looks for a relationship between them; causal relationships among variables cannot be established.

positive correlation
The direction of a correlation in which the values of two variables increase or decrease in the same direction.

negative correlation
The direction of a correlation in which the value of one variable increases whereas the value of a second decreases.

correlation coefficient
A statistical technique used to determine the direction and strength of a relationship between two variables.

Although most research in social psychology is experimental, some research is correlational. In **correlational research**, researchers do not manipulate an independent variable. Instead, they measure two or more dependent variables and look for a relationship between them. If changes in one variable are associated with changes in another, the two variables are said to be correlated. When the values of two variables change in the same direction, increasing or decreasing in value, there is a **positive correlation** between them. For example, if you find that crime increases along with increases in temperature, a positive correlation exists. When the values change in opposite directions, one increasing and the other decreasing, there is a **negative correlation** between the variables. For example, if you find that less help is given as the number of bystanders to an emergency increases, a negative correlation exists. When one variable does not change systematically with the other, they are uncorrelated.

Even if correlations are found, however, a causal relationship cannot be inferred. For example, height and weight are correlated with each other—the greater one is, the greater the other tends to be—but increases in one do not cause increases in the other. Changes in both are caused by other factors, such as growth hormone and diet. Correlational research indicates whether changes in one variable are related to changes in another, but it does not indicate *why* the changes are related. Cause and effect can be demonstrated only by experiments.

In correlational studies, researchers are interested in both the direction of the relationship between the variables (whether it is positive or negative) and the degree, or strength, of the relationship. They measure these two factors with a special statistical test known as the **correlation coefficient** (symbolized as *r*). The size of the correlation coefficient, which can range from –1 through 0 to +1, shows the degree of the relationship. A value of *r* that approaches –1 to +1 indicates a stronger relationship than a value closer to 0.

In Figure 1.4, the five graphs illustrate correlations of varying strengths and directions. Figure 1.4A shows a 0 correlation: Points are scattered at random within the graph. Figures 1.4B and 1.4C show positive correlations of different strengths. As the correlation gets stronger, the points start to line up with each other (Figure 1.4B). In a perfect positive correlation (*r* = +1), all the points line up along a straight line (Figure 1.4C). Notice that in a positive correlation, the points line up along a line that slopes in an upward direction, beginning at the lower left of the graph and ending at the upper right.

In a negative correlation (shown in Figures 1.4D and 1.4E), the same rules concerning strength apply that held for the positive correlation. Figure 1.4E shows a perfect negative correlation (–1).

An excellent example of a correlational study is one conducted by Del Barrio, Aluja, and Garcia (2004). Del Barrio et al. investigated the relationship between personality characteristics and an individual's capacity to feel empathy for someone in need. Del Barrio et al. administered a measure of empathy and a personality inventory measuring the "Big Five" personality dimensions (energy, friendliness, conscientiousness, emotional stability, and openness) to Spanish adolescents. Del Barrio et al. found that "friendliness" correlated most strongly with empathy for both boys and girls. High scores on the "friendliness" dimension related to higher empathy scores. They also found that "energy," "conscientiousness," and "openness" all positively correlated with empathy for girls and boys, although not as strongly as "friendliness." "Emotional stability" did not significantly correlate with empathy.

Based on this brief summary, you can see that six variables were measured: five personality dimensions and empathy. However, notice that Del Barrio and her colleagues did not manipulate any of the variables. Therefore, there were no independent variables.

Although correlational research does not demonstrate causal relationships, it does play an important role in science. Correlational research is used in situations where it is not possible to manipulate variables. Any study of individual characteristics (age, sex, race, and so on) is correlational. After all, you cannot manipulate someone's age or sex. Correlational research is also used when it would be unethical to manipulate variables. For example, if you were interested in how alcohol consumption affects the human fetus, it
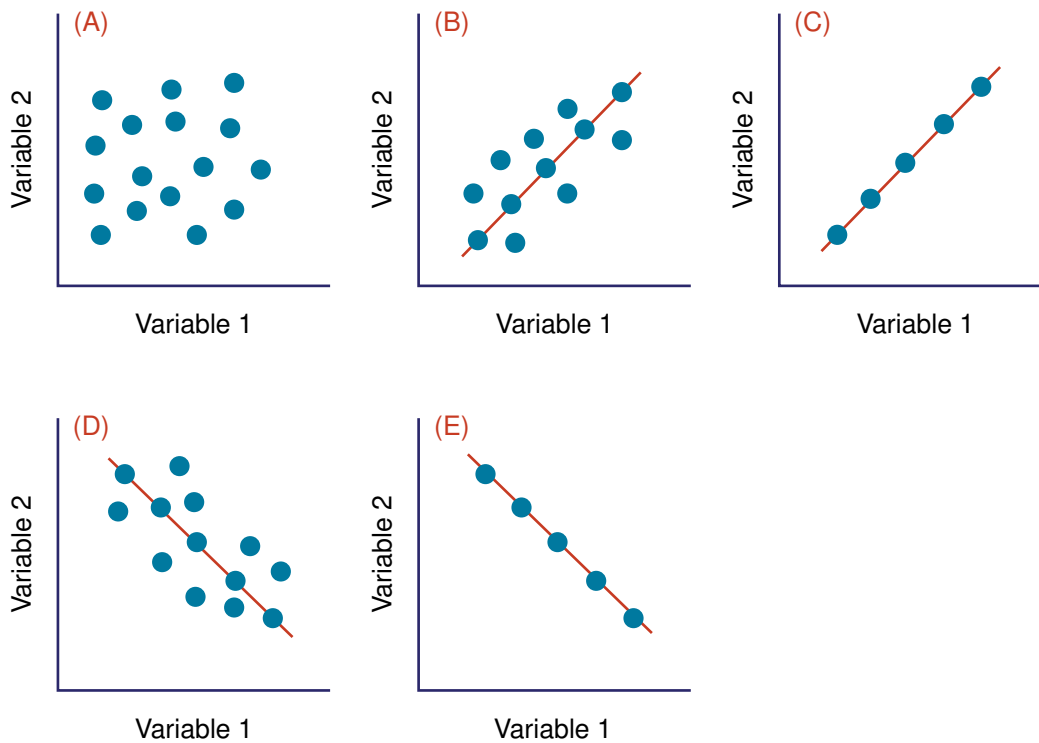
FIGURE 1.4

Scatterplots showing correlations of different directions and strength: (a) correlation of 0 indicated by dots randomly arrayed; (b) strong positive correlation; (c) perfect positive correlation (+1) indicated by the dots lined up perfectly, sloping from bottom left to upper right; (d) strong negative correlation; (e) perfect negative correlation indicated by the dots lined up perfectly, sloping from upper left to lower right.

would not be ethical to expose pregnant women to various dosages of alcohol and see what happens. Instead, you could measure alcohol consumption and the rate of birth defects and look for a correlation between those two variables. Finally, correlational research is useful when you want to study variables as they occur naturally in the real world.

Settings for Social Psychological Research

Social psychological research is done in one of two settings: the laboratory or the field. *Laboratory research* is conducted in a controlled environment created by the researcher; participants come into this artificial environment to participate in the research. *Field research* is conducted in the participant's natural environment; the researcher goes to the participant, in effect taking the study on the road. Observations are made in the participant's natural environment; sometimes, independent variables are even manipulated in this environment.

Laboratory Research

Most research in social psychology is conducted in the laboratory. This allows the researcher to exercise tight control over extraneous (unwanted) variables that might affect results. For example, the researcher can maintain constant lighting, temperature, humidity, and noise level within a laboratory environment. This tight control over the environment and over extraneous variables allows the researcher to be reasonably confident that the experiment has *internal validity*—that is, that any variation observed in the dependent variable was caused by manipulation of the independent variable. However, that tight control also has a cost: The researcher loses some ability to apply the results beyond the tightly controlled laboratory setting (*external validity*). Research conducted in highly controlled laboratories may not generalize very well to real-life social behavior, or even to other laboratory studies.

Field Research

field study A descriptive research strategy in which the researcher makes unobtrusive observations of the participants without making direct contact or interfering in any way.

Field research comes in three varieties: the field study, the field survey, and the field experiment. In a **field study**, the researcher makes unobtrusive observations of the participants without making direct contact or interfering in any way. The researcher simply watches from afar. In its pure form, the participants should be unaware that they are being observed, because the very act of being observed tends to change the participants' behavior. The researcher avoids contaminating the research situation by introducing any changes in the participants' natural environment.

Jane Goodall's original research on chimpanzee behavior was a field study. Goodall investigated social behavior among chimpanzees by observing groups of chimps from a distance, initially not interacting with them. However, as Goodall became more accepted by the chimps, she began to interact with them, even to the point of feeding them. Can we be sure that Goodall's later observations are characteristic of chimp behavior in the wild? Probably not, because she altered the chimps' environment by interacting with them.

field survey A descriptive research strategy in which the researcher directly approaches participants and asks them questions.

In the **field survey**, the researcher directly approaches participants and asks them questions. For example, he or she might stop people in a shopping mall and collect information on which make of car they plan to buy next. The ubiquitous political polls we see all the time, especially during election years, are examples of field surveys.

Field studies and surveys allow us to describe and catalogue behavior. Political polls, for example, may help us discover which candidate is in the lead, whether a proposition is likely to pass, or how voters feel about important campaign issues. However, they cannot tell us what causes the differences observed among voters, because we would need to conduct an experiment to study causes. Fortunately, we can conduct experiments in the field.

The field experiment is probably the most noteworthy and useful field technique for social psychologists. In a **field experiment**, the researcher manipulates independent variables and collects measures of the dependent variables (the participant's behavior). In this sense, a field experiment is like a laboratory experiment. The main difference is that in the field experiment, the researcher manipulates independent variables under naturally occurring conditions. The principal advantage of the field experiment is that it has greater external validity—that is, the results can be generalized beyond the study more legitimately than can the results of a laboratory experiment.

field experiment A research setting in which the researcher manipulates one or more independent variables and measures behavior in the participant's natural environment.

Hendren and Blank (2009) conducted a field experiment to investigate the effect of sexual orientation on helping. In this experiment, a confederate of the experimenter (a confederate is someone working for the experimenter) approached a participant in a parking garage and asked for money for a parking meter. The confederate was wearing either a T-shirt with the words "Gay Pride" printed on it or a blank T-shirt. Hendren and Blank also manipulated the gender of the person making the request: Sometimes, the confederate was male; at other

Although most research in social psychology is conducted in a laboratory setting, field research is conducted in an individual's natural environment, such as on a city street.
Source: blvdone/Shutterstock.

times, the confederate was female. Hendren and Blank found that more participants were willing to help the confederate perceived to be heterosexual (wearing the blank T-shirt) than the confederate perceived to be same-sex orientation (wearing the "Gay Pride" T-shirt).

Field experiments have advantages and disadvantages. One advantage is that because the experiment is conducted in the participant's natural environment, it is realistic and has a high degree of external validity. Often, participants do not know that they are in an experiment until it is over. For example, Hendren and Blank (2009) did not tell participants that they were taking part in an experiment when the confederate approached them. Consequently, the results have more generality than would the same experiment conducted in a laboratory where participants know that that they are in an experiment.

A disadvantage of the field experiment is that you cannot control extraneous variables as effectively as in the laboratory. Thus, internal validity may be compromised. For example, Hendren and Blank had no control over such factors as the amount of traffic in the parking lot or the presence of other people. Consequently, the internal validity of the experiment— the legitimacy of the causal relationship discovered—may suffer. The field experiment also poses some ethical problems, one of which is obtaining informed consent. Hendren and Blank did not tell potential participants that they were being recruited for an experiment. Obtaining informed consent prior to participation is a requirement for ethical research practice (although exceptions can be made). Should experimenters doing research like Hendren and Blank be obligated to inform people that they are participants in an experiment before participation? We discuss the ethics of research in more detail in a later section of this chapter.

Study Break

In contrast to experimental research (in which an independent variable is manipulated), correlational research involves measuring two (or more) dependent variables and exploring an association between them. Correlational research cannot be used to establish causal relationships among variables. This section also introduced you to different settings for social psychological research. Before you begin the next section, answer the following questions:

1. What is the difference between a positive correlation and a negative correlation? Give an example of each.
2. What is the correlation coefficient, and what information do you obtain from it?
3. Why are participant characteristics (such as age, gender, and personality) considered correlational variables, and how does that limit what you can say about them?
4. How does field research differ from laboratory research? What are the different types of field research? Describe each.

The Role of Theory in Social Psychological Research

On many occasions throughout this book, we refer to social psychological theories. A **theory** is a set of interrelated statements or propositions about the causes of a particular phenomenon. Theories help social psychologists organize research results, make predictions about how certain variables influence social behavior, and give direction to future research. In these ways, social psychological theories play an important role in helping us understand complex social behaviors.

There are a few important points to keep in mind as you read about these theories. First, a theory is not the final word on the causes of a social behavior. Theories are developed, revised, and sometimes abandoned according to how well they fit with research results. Rather than tell us how things are in an absolute sense, theories help us understand social behavior by providing a particular perspective. Consider attribution theories—theories about how people decide what caused others (and themselves) to act in certain ways in certain situations. Attribution theories do not tell us exactly how people assign or attribute causality. Instead, they suggest rules and make predictions about how people make such inferences in a variety of circumstances. These predictions are then tested with research.

theory A set of interrelated propositions concerning the causes for a social behavior that helps organize research results, make predictions about the influence of certain variables, and give direction to future social research.

The second important point about social psychological theories is that often, more than one theory can apply to a particular social behavior. For example, social psychologists have devised several attribution theories to help us understand how we make decisions about the causes for behaviors. Each theory helps provide a piece of the puzzle of social behavior. However, no single theory may be able to account for all aspects of a social behavior. One theory helps us understand how we infer the internal motivations of another individual; a second theory examines how we make sense of the social situation in which that individual's behavior took place.

Theory and the Research Process

basic research Research that has the principal aim of empirically testing a theory or a model.

applied research Research that has a principal aim to address a real-world problem.

Theories in social psychology are usually tested by research, and much research is guided by theory. Research designed to test a particular theory or model is referred to as **basic research**. In contrast, research designed to address a real-world problem is called **applied research**. The distinction between these two categories is not rigid, however. The results of basic research can often be applied to real-world problems, and the results of applied research may affect the validity of a theory.

For example, research on how stress affects memory may be primarily basic research, but the findings of this research apply to a real-world problem: the ability of an eyewitness to recall a violent crime accurately. Similarly, research on how jurors process evidence in complex trials (e.g., Horowitz & Bordens, 1990) has implications for predictions made by various theories of how people think and make decisions in a variety of situations. Both types of research have their place in social psychology.

Theory and Application

Application of basic theoretical ideas may take many forms. Consider, for example, the idea that it is healthy for individuals to confront and deal directly with psychological traumas from the past. Although various clinical theories have made this assumption, evidence in support of it was sparse.

In one study, social psychologist Jamie Pennebaker (1989) measured the effects of disclosure on mind and body. The research showed that when the participants confronted past traumas, either by writing or talking about them, their immunological functioning improved and their skin conductance rates were lowered. This latter measure reflects a reduction in autonomic nervous system activity, indicating a lessening of psychological tension. In other words, people were "letting go" as they fully revealed their feelings about these past traumas. Those who had trouble revealing important thoughts about the event—who could not let go of the trauma—showed heightened skin conductance rates. Pennebaker's work shows that the act of confiding in someone protects the body from the internal stress caused by repressing these unvoiced traumas. Thus, this is an example of basic research that had clear applications for real-life situations.

What Do We Learn from Research in Social Psychology?

Two criticisms are commonly made of social psychological research. One is that social psychologists study what we already know, the "intuitively obvious." The other is that because exceptions to research results can nearly always be found, many results must be wrong. Let's consider the merits of each of these points.

Do Social Psychologists Study the Obvious?

hindsight bias Also known as the "I-knew-it-all-along" phenomenon; shows that with the benefit of hindsight, everything looks obvious.

William McGuire, a prominent social psychologist, once suggested that social psychologists may appear to study "bubba psychology"—things we learned on our grandmother's knee. That is, social psychologists study what is already obvious and predictable based on common sense. Although it may seem this way, it is not the case. The results of research seem obvious only when you already know what they are. This is called **hindsight bias**, or the "I-knew-it-all-along" phenomenon (Slovic & Fischoff, 1977; Wood, 1978). With the benefit of hindsight, everything looks obvious. For example, after the terrorist attacks on September 11, 2001, some commentators asked why President Bush or the CIA did not "connect the dots" and see the attacks coming. Unfortunately, those dots were not so

clear in the months and years leading up to the attacks. In hindsight, the signs seemed to point to an attack, but before the incident, things were not so clear. In fact, the 9/11 Commission pointed out that hindsight can bias our perceptions of events:

> Commenting on Pearl Harbor, Roberta Wohlstetter found it "much easier after the event to sort the relevant from the irrelevant signals. After the event, of course, a signal is always crystal clear; we can now see what disaster it was signaling since the disaster has occurred. But before the event it is obscure and pregnant with conflicting meanings." As time passes, more documents become available, and the bare facts of what happened become still clearer. Yet the picture of how those things happened becomes harder to reimagine, as that past world, with its preoccupations and uncertainty, recedes and the remaining memories of it become colored by what happened and what was written about it later. (9/11 Commission Report, 2004)

The hindsight bias is when we see events that have already occurred as being obvious and predictable. For example, some believed that President George Bush should have "connected the dots" and predicted the terrorist attacks on September 11, 2001.
Source: Frontpage/Shutterstock.

Although the results of some research may seem obvious, studies show that when individuals are given descriptions of research without results, they can predict the outcome of the research no better than chance (Slovic & Fischoff, 1977). In other words, the results were not so obvious when they were not already known!

Do Exceptions Mean Research Results Are Wrong?

When the findings of social psychological research are described, someone often points to a case that is an exception to the finding. Suppose a particular study shows that a person is less likely to get help when there are several bystanders present than when there is only one. You probably can think of a situation in which you were helped with many bystanders around. Does this mean that the research is wrong or that it doesn't apply to you?

To answer this question, you must remember that in a social psychological experiment, groups of participants are exposed to various levels of the independent variable. In an experiment on the relationship between the number of bystanders and the likelihood of receiving help, for example, one group of participants is given an opportunity to help a person in need with no other bystanders present. A second group of participants gets the same opportunity but with three bystanders present. Let's say that our results in this hypothetical experiment look like those shown in Table 1.1. Seven out of 10 participants in the no-bystander condition helped (70%), whereas only 2 out of 10 helped in the three-bystander condition (20%). Thus, we would conclude that you are more likely to get help when there are no other bystanders present than if there are three bystanders.

Notice, however, that we do not say that you will never receive help when three bystanders are present. In fact, two participants helped in that condition. Nor do we say that you always receive help when there are no bystanders present. In fact, in three instances no help was rendered.

The moral to the story is that the results of experiments in social psychology represent differences between groups of participants, not differences between specific individuals. Based on the results of social psychological research, we can say that *on the average*, groups differ. Within those groups, there are nearly always participants who do not behave as most of the participants behaved. We can acknowledge that exceptions to research findings usually exist, but this does not mean that the results reported are wrong.

Ethics and Social Psychological Research

Unlike research in chemistry and physics, which does not involve living organisms, research in social psychology uses living organisms, both animal and human. Because

TABLE 1.1 Results from a Hypothetical Study of Helping Behavior

Participant Number	No Bystanders	Three Bystanders
1	No help	No help
2	No help	No help
3	Help	No help
4	Help	Help
5	No help	Help
6	Help	No help
7	Help	No help
8	Help	No help
9	Help	No help
10	Help	No help

social psychology studies living organisms, researchers must consider research ethics. They have to concern themselves with the treatment of their research participants and with the potential long-range effects of the research on the participants' well-being. In every study conducted in social psychology, researchers must place the welfare of the research participants among their top priorities.

Questions about ethics have been raised about some of the most famous research ever done in social psychology. For example, you may be familiar with the experiments on obedience conducted by Stanley Milgram (1963; described in detail in Chapter 7). In these experiments, participants were asked to administer painful electric shocks to an individual who was doing poorly on a learning task. Although no shocks were actually delivered, participants believed they were inflicting intense pain on an increasingly unwilling victim. Following the experiment, participants reported experiencing guilt and lowered self-esteem as well as anger toward the researchers. The question raised by this and other experiments with human participants is how far researchers can and should go to gain knowledge.

Research conducted by social psychologists is governed by an ethical code of conduct developed by the American Psychological Association (APA). The main principles of the APA (2002) code are summarized in Table 1.2. Notice that the code mandates that participation in psychological research is voluntary. This means that participants cannot be compelled to participate in research. Researchers must also obtain **informed consent** from the participants, which means that they must inform them of the nature of the study, the requirements for participation, and any risks or benefits associated with participating in the study. Subjects must also be told they have the right to decline or withdraw from participation with no penalty.

Additionally, the APA code restricts the use of deception in research. Deception occurs when researchers tell their participants they are studying one thing but actually are studying another. Deception can be used only if no other viable alternative exists. When researchers use deception, they must tell participants about the deception (and the reasons for it) as soon as possible after participation.

Following ethical codes of conduct protects subjects from harm. In this sense, ethical codes help the research process. However, sometimes ethical research practice conflicts with the requirements of science. For example, in a field experiment on helping, it may not be possible (or desirable) to obtain consent from participants before they participate in the study. When such conflicts occur, the researcher must weigh the potential risks to the participants against the benefits to be gained.

informed consent An ethical research requirement that participants must be informed of the nature of the study, the requirements for participation, any risks or benefits associated with participating in the study, and the right to decline or withdraw from participation with no penalty

TABLE 1.2 Summary of the 2002 APA Ethical Principles That Apply to Human Research Participants

1. Research proposals submitted to Institutional Review Boards shall contain accurate information. Upon approval researchers shall conduct their research within the approved protocol.

2. When informed consent is required, informed consent shall include: (1) the purpose of the research, expected duration, and procedures; (2) their right to decline to participate and to withdraw from the research once participation has begun; (3) the foreseeable consequences of declining or withdrawing; (4) reasonably foreseeable factors that may be expected to influence their willingness to participate such as potential risks, discomfort, or adverse effects; (5) any prospective research benefits; (6) limits of confidentiality; (7) incentives for participation; and (8) whom to contact for questions about the research and research participants' rights. They provide opportunity for the prospective participants to ask questions and receive answers.

3. When intervention research is conducted that includes experimental treatments, participants shall be informed at the outset of the research of (1) the experimental nature of the treatment; (2) the services that will or will not be available to the control group(s) if appropriate; (3) the means by which assignment to treatment and control groups will be made; (4) available treatment alternatives if an individual does not wish to participate in the research or wishes to withdraw once a study has begun; and (5) compensation for or monetary costs of participating including, if appropriate, whether reimbursement from the participant or a third-party payer will be sought.

4. Informed consent shall be obtained when voices or images are recorded as data unless (1) the research consists solely of naturalistic observations in public places, and it is not anticipated that the recording will be used in a manner that could cause personal identification or harm, or (2) the research design includes deception, and consent for the use of the recording is obtained during debriefing.

5. When psychologists conduct research with clients/patients, students, or subordinates as participants, psychologists take steps to protect the prospective participants from adverse consequences of declining or withdrawing from participation. When research participation is a course requirement or an opportunity for extra credit, the prospective participant is given the choice of equitable alternative activities.

6. Informed consent may be dispensed with only (1) where research would not reasonably be assumed to create distress or harm and involves (a) the study of normal educational practices, curricula, or classroom management methods conducted in educational settings; (b) only anonymous questionnaires, naturalistic observations, or archival research for which disclosure of responses would not place participants at risk of criminal or civil liability or damage their financial standing, employability, or reputation, and confidentiality is protected; or (c) the study of factors related to job or organization effectiveness conducted in organizational settings for which there is no risk to participants' employability, and confidentiality is protected or (2) where otherwise permitted by law or federal or institutional regulations.

7. Psychologists make reasonable efforts to avoid offering excessive or inappropriate financial or other inducements for research participation when such inducements are likely to coerce participation. When offering professional services as an inducement for research participation, psychologists clarify the nature of the services, as well as the risks, obligations, and limitations.

8. Deception in research shall be used only if they have determined that the use of deceptive techniques is justified by the study's significant prospective scientific, educational, or applied value and that effective nondeceptive alternative procedures are not feasible. Deception is not used if the research is reasonably expected to cause physical pain or severe emotional distress. Psychologists explain any deception that is an integral feature of the design and conduct of an experiment to participants as early as is feasible, preferably at the conclusion of their participation, but no later than at the conclusion of the data collection, and permit participants to withdraw their data.

9. Participants shall be offered a prompt opportunity to obtain appropriate information about the nature, results, and conclusions of the research, and they take reasonable steps to correct any misconceptions that participants may have of which the psychologists are aware. If scientific or humane values justify delaying or withholding this information, psychologists take reasonable measures to reduce the risk of harm. When psychologists become aware that research procedures have harmed a participant, they take reasonable steps to minimize the harm.

This section introduced you to various topics related to social psychological research, including the role of theory in research, making sense of social psychological research, and ethics in research. Before you read the Chapter Review, answer the following questions:

1. What is a scientific theory, and how does it relate to research done in social psychology?
2. What is the hindsight bias, and how can it influence how a person interprets social psychological research?
3. What do exceptions to social psychological research findings say about the implications of research results?
4. What are the basic ethical principles that apply to social psychological research, and why is it important to follow them?

Sandy Hook Revisited

How can we explain the behavior of the gunman and Victoria Soto at Sandy Hook? Social psychologists would begin by pointing to the two factors that contribute to social behavior: individual characteristics and the social situation. Was there something about Soto's personality, attitudes, or other characteristics that predisposed her to act altruistically? Or was it the social environment that was more important? Social psychologists focus on the latter. At her memorial service Soto was described as a person who often put her students' needs above her own. She has been characterized as a helping and caring person. Of course, many people share those characteristics. Yet, not all of them would do what Soto did. Her unique way of responding to the situation led her to do what she did. Social psychology is not the only discipline that would be interested in explaining Victoria Soto's and the gunman's behavior. Biologists studying ethology would look at Soto's behavior in the light of what altruism does to help a species survive. Sociologists might point to poverty and lack of education contributing to aggressive acts. Each discipline has its own way of collecting information about issues of interest. Social psychology would face the daunting task of explaining Soto's behavior (and the behavior of the gunman) by conducting carefully designed research. Through the scientific method, one could isolate the variables that contribute to aggressive acts and altruistic acts such as those that occurred at Sandy Hook Elementary School on December 14, 2012.

Chapter Review

1. What is social psychology?

   Social psychology is the scientific study of how we think and feel about, interact with, and influence each other. It is the branch of psychology that focuses on social behavior—specifically, how we relate to other people in our social world. Social psychology can help us understand everyday things that happen to us, as well as past and present cultural and historical events.

2. How do social psychologists explain social behavior?

   An early model of social behavior proposed by Kurt Lewin suggested that social behavior is caused by two factors: individual characteristics and the social situation. This simple model has since been expanded to better explain the forces that shape social behavior. According to modern views of social behavior, input from the social situation works in conjunction with individual characteristics to influence social behavior through the operation of social cognition (the general process of thinking about social events) and social perception (how we perceive other people). Based on our processing of social information, we evaluate the social situation and form an intention to behave in a certain way. This behavioral intention may or may not be translated into social behavior. We engage in social behavior based on our constant changing evaluation of the situation. Once we behave in a certain way, it may have an effect on the social situation, which in turn will affect future social behavior.

3. **How does social psychology relate to other disciplines that study social behavior?**

   There are many scientific disciplines that study social behavior. Biologists, developmental psychologists, anthropologists, personality psychologists, historians, and sociologists all have an interest in social behavior. Although social psychology has common interests with these disciplines, unlike biology and personality psychology, social psychology focuses on the social situation as the principal cause of social behavior. Whereas sociology and history focus on the broader situation, social psychology takes a narrower view, looking at the individual in the social situation rather than the larger group or society. In other words, history and sociology take a top-down approach to explaining social behavior, making a group or institution the focus of analysis. Social psychology takes a bottom-up approach, focusing on how individual behavior is influenced by the situation.

4. **How do social psychologists approach the problem of explaining social behavior?**

   Unlike the layperson who forms commonsense explanations for social behavior based on limited information, social psychologists rely on the scientific method to formulate scientific explanations—tentative explanations based on observation and logic that are open to empirical testing. The scientific method involves identifying a phenomenon to study, developing a testable research hypothesis, designing a research study, and carrying out the research study. Only after applying this method to a problem and conducting careful research will a social psychologist be satisfied with an explanation.

5. **What is experimental research, and how is it used?**

   Experimental research is used to uncover causal relationships between variables. Its main features are (1) the manipulation of an independent variable and the observation of the effects of this manipulation on a dependent variable, (2) the use of two or more initially comparable groups, and (3) exercising control over extraneous and confounding variables. Every experiment includes at least one independent variable with at least two levels. In the simplest experiment, one group of participants (the experimental group) is exposed to an experimental treatment, and a second group (the control group) is not. Researchers then compare the behavior of participants in the experimental group with the behavior of participants in the control group. Independent variables can be manipulated by varying their quantity or quality. Researchers use random assignment to ensure that the groups in an experiment are comparable before applying any treatment to them.

   The basic experiment can be expanded by adding additional levels of an independent variable or by adding a second or third independent variable. Experiments that include more than one independent variable are known as factorial experiments.

6. **What is correlational research?**

   In correlational research, researchers measure two or more dependent variables and look for a relationship between them. When two variables both change in the same direction, increasing or decreasing in value, they are positively correlated. When they change in opposite directions, one increasing and the other decreasing, they are negatively correlated. When one variable does not change systematically with the other, they are uncorrelated. Even if a correlation is found, a causal relationship cannot be inferred.

7. **What is the correlation coefficient, and what does it tell you?**

   Researchers evaluate correlational relationships between variables with a statistic called the correlation coefficient (symbolized as r). The sign of r (positive or negative) indicates the direction of the relationship between variables; the size of r (ranging from -1 through 0 to $+1$) indicates the strength of the relationship between variables.

8. **Where is social psychological research conducted?**

   Social psychologists conduct research either in the laboratory or in the field. In laboratory research, researchers create an artificial environment in which they can control extraneous variables. This tight control allows the researchers to be reasonably confident that any variation observed in the dependent variable was caused by manipulation of the independent variable. However, results obtained this way may not generalize well beyond the laboratory setting.

   There are several kinds of field research. In the field study, the researcher observes participants but does not interact with them. In the field survey, the researcher has direct contact with participants and interacts with them. Both of these techniques allow the researcher to describe behavior, but causes cannot be uncovered. In the field experiment, the researcher manipulates an independent variable in the participant's natural environment. The field experiment increases the generality of the research findings. However, extraneous variables may cloud the causal relationship between the independent and dependent variables.

9. **What is the role of theory in social psychology?**

   A theory is a set of interrelated statements or propositions about the causes of a phenomenon that helps organize research results, makes predictions about how certain variables influence social behavior, and gives direction to future research. A theory is not the final word on the causes of a social behavior. Theories are developed, revised, and sometimes abandoned according to how well they fit with research results. Theories do not tell us how things are in an absolute sense. Instead, they help us understand social behavior by providing a particular perspective. Often, more than one theory can apply to a particular social behavior.

Sometimes, one theory provides a better explanation of one aspect of a particular social behavior, and another theory provides a better explanation of another aspect of that same behavior. Some research, called basic research, is designed to test predictions made by theories. Applied research is conducted to study a real-world phenomenon (e.g., jury decisions). Basic and applied research are not necessarily mutually exclusive. Some basic research has applied implications, and some applied research has theoretical implications.

10. What can we learn from social psychological research?

Two common criticisms of social psychological research are that social psychologists study things that are intuitively obvious and that because exceptions to research results can nearly always be found, many results must be wrong. However, these two criticisms are not valid. The findings of social psychological research may *appear* to be intuitively obvious in hindsight (the hindsight bias), but individuals cannot predict how an experiment will come out if they don't already know the results. Furthermore, exceptions to a research finding do not invalidate that finding. Social psychologists study groups of individuals. Within a group, variation in behavior will occur. Social psychologists look at average differences between groups.

11. What ethical standards must social psychologists follow when conducting research?

Social psychologists are concerned with the ethics of research—how participants are treated within a study and how they are affected in the long term by participating. Social psychologists adhere to the code of research ethics established by the American Psychological Association. Ethical treatment of participants involves several key aspects, including informing participants about the nature of a study and requirements for participation prior to participation (informed consent), protecting participants from short-term and long-term harm, and ensuring anonymity.

Key Terms

Applied research (p. 20)
Basic research (p. 20)
Cofounding variable (p. 13)
Control group (p. 12)
Correlation coefficient (p. 16)
Correlational research (p. 16)
Dependent variable (p. 12)
Experimental group (p. 12)
Experimental research (p. 12)

Extraneous variable (p. 13)
Factorial experiment (p. 14)
Field experiment (p. 18)
Field study (p. 18)
Field survey (p. 18)
Hindsight bias (p. 20)
Hypothesis (p. 10)
Independent variable (p. 12)
Informed consent (p. 22)

Interaction (p. 14)
Negative correlation (p. 16)
Positive correlation (p. 16)
Random assignment (p. 13)
Scientific method (p. 10)
Social cognition (p. 5)
Social perception (p. 5)
Social psychology (p. 3)
Theory (p. 19)

The Social Self

Though I am not naturally honest, I am so sometimes by chance.

—William Shakespeare

Source: Shai_Halud/Shutterstock.

Key Questions

As you read this chapter, find the answers to the following questions:

1. What is the self?
2. How do we know the self?
3. What is distinctiveness theory?
4. What is autobiographical memory?
5. How do religion, groups, and culture relate to the self?
6. How is the self organized through schemas?
7. What is self-esteem?
8. How do we evaluate the self?
9. What is self-evaluation maintenance (SEM) theory?
10. How does self-esteem relate to coping with disaster and stigma?
11. What is so good about high self-esteem?
12. What are implicit and explicit self-esteem?
13. What is self-regulation, and how does it relate to behavior?
14. What are the self-serving bias and self-verification?
15. What is meant by self-awareness?
16. How do we present the self to others?
17. What is self-monitoring?
18. What is self-handicapping?

Serena Williams is probably the greatest female tennis player ever to set foot on a tennis court. By age 34, Williams had won 36 major professional tennis titles, including 21 in singles, 13 in women's doubles, and 2 in mixed doubles. She is one of only three professional tennis players (male or female) to have won all four major tournaments in a row *twice* in her career. At the time of this writing, she is one major title short of tying the "open era" record of 22 major singles titles. To top it off, Williams also has won three Olympic medals, including one gold. In addition to being a dominant tennis professional, Williams is an actress, businesswoman, and philanthropist.

The road to her success has not always been easy. Williams was born in Saginaw, Michigan, on September 26, 1981, the youngest of five sisters. At a young age, she and her family moved to Compton, California, a city located outside of Los Angeles. Life in Compton was difficult for the Williams family. Their neighborhood could be characterized as "rough," and Serena and her sisters often heard gunshots and saw violence all around them. Serena shared a bedroom with her four sisters. Despite the rough surroundings, Serena's parents provided a warm, loving home. They homeschooled Serena and her sisters and encouraged them to excel. Her father, Richard, always dreamed of his daughters becoming tennis stars, even before they were born. He purchased books, videotapes, and

instructional materials on tennis for them. Eventually, he (along with Serena's mother, Oracene) became Serena's tennis coach.

It was in Compton that Williams first picked up a tennis racquet at the age of three. Serena took to the game quickly and showed her talent early. She competed in her first tournament at age four-and-a-half. She, along with her older sister Venus, became quite the sensation on the junior tennis circuit in southern California. Over the course of the next 5 years, Serena won 46 of the 49 tournaments in which she competed. Serena and Venus rose to the number-one positions in their respective age groups. As the sisters' skills developed, word got around, and they started to receive endorsement offers and invitations to the best tennis camps in the country. Eventually, Richard Williams pulled his daughters off the junior tennis circuit and accepted an invitation from Rick Macci (a teaching tennis professional) to attend his tennis academy in Florida. The family packed up and moved to Florida.

In 1995, at age 14 and still in high school, Serena became a professional tennis player. Unfortunately, the Women's Tennis Association (WTA) would not recognize someone of Serena's young age. So Serena played her first professional tournament in Quebec, Canada. Serena lost to Lindsay Davenport in the semifinals. However, she did beat Monica Seles, who was ranked fourth that year, in an earlier match. By 1999, Serena was the fourth-ranked women's player in the world and won two grand-slam events with her sister Venus (doubles titles). The following year, she suffered from injuries that set her career back somewhat. She fought through these injuries, and many others in the years to come, to capture numerous titles, including the 36 major titles and the number-one ranking in women's tennis.

On the court, Serena is a fierce, often merciless competitor. She has been known to drop multiple "f-bombs" during a match. She has gotten into arguments with officials. At a U.S. Open, she threatened a judge over a foot-fault call, resulting in an $82,500 fine. Her drive to win exceeds that of most. She has played injured and sick and still won. For example, after her third match during the 2015 French Open, Serena came down with the flu and had a 101-degree fever. She could not take medication because she was afraid that she would fail a drug screening. She could hardly move and almost withdrew. She did play and won the match, defeating her opponent 6–0 in the final set. Off the court, Serena is much different. Her friends and family variously report that she is warm, funny, loyal, and curious. She showed great empathy and concern for a friend when her husband was killed in an accident.

The darkest day in Serena's tennis career came in 2001 at the Indian Wells Tournament in California. Both she and Venus were playing in the singles matches, and as fate had it, they ended up scheduled to face each other in the semifinal match. Tennis fans greatly anticipated the showdown between the two sisters, and emotions were running high. Unfortunately, Venus had injured her knee in an earlier match and had to withdraw from the match. Rumors began to circulate

Tennis has had a significant impact on the development of Serena Williams's sense of self.

Source: Chromatika Multimedia snc/Shutterstock.

that the "fix was in" and that Venus withdrew to help Serena. When Venus and her father came into the arena, the crowd booed. Nobody told Serena about the booing, and when she entered the arena, the crowd booed even louder. Serena had no idea why they were booing. All through the match, they cheered each time that Serena made a mistake and booed when she scored points. Richard, Venus, and Serena all reported hearing racial slurs as well (although this was not independently verified). This treatment devastated Serena, and she vowed never to return to Indian Wells, a promise she kept for the next 14 years, despite threats of fines and loss of ranking points.

Over the next several years, Serena had a number of experiences that eventually led to her return to Indian Wells. In 2006, she visited Africa and saw much suffering and injustice. She saw a film about the life of Nelson Mandela, which also inspired her. In 2014, the high-profile cases involving African Americans being shot by white police officers had a profound effect on Serena. These and other experiences forced Serena to face the notion of injustice and how to confront it. She felt that she had to return to Indian Wells and make a statement about injustice and racism. So, against her family's advice, she returned to Indian Wells and played in the tournament. Before the match, Serena was nervous and concerned about being booed again. However, her reception was much different this time. She entered the arena to cheers and great applause. She went on to win the tournament, much to the delight of the crowd.

In Serena Williams's life, we can see the interplay of the various parts of the self: The personal self—her personal strength, determination, and personality—and that part of the self influenced by her relationships with family, friends, and competitors. We also see the impact of a variety of events on Serena. Her early experience at age 19 at Indian Wells and her subsequent experiences with racism and injustice all helped shape her sense of self.

Self-Concept

How do we develop a coherent sense of who we are? The chapter-opening vignette describing Serena Williams suggests that our personal experiences, interactions with others, and cultural forces all play some role in our definition of self. Who am I? The answer to this question is the driving force in our lives. If you were asked to define yourself, you most likely would use sentences containing the words *I, me, mine,* and *myself* (Cooley, 1902; Schweder, Much, Mahapatra, & Park, 1997).

The *self* may be thought of as a structure that contains the organized and stable contents of one's personal experiences (Schlenker, 1987). In this sense, the self is an object, something inside us that we may evaluate and contemplate. The self is "me," the sum of what I am. A significant part of what we call the *self* is knowledge. All the ideas, thoughts, and information that we have about ourselves—about who we are, what characteristics we have, what our personal histories have made us, and what we may yet become—make up our **self-concept**.

self-concept All the ideas, thoughts, and information we have about ourselves.

Self-Knowledge: How Do You Know Thyself?

We use several sources of social information to forge our self-concept. One comes from our view of how other people react to us. These **reflected appraisals** shape our self-concept (Cooley, 1902; Jones & Gerard, 1967). Reflected appraisals have implications for self-concept as well as actual performance. For example, Bouchey and Harter (2005) report that reflected appraisals of adults (e.g., parents and teachers) regarding a student's

reflected appraisal A source of social information involving our view of how other people react to us.

performance in math and science related significantly to that student's beliefs about his or her competence and performance in these subjects. The more positive the adult reflected appraisal, the better was the student's performance. Interestingly, positive reflected appraisals from peers were not as strongly related to a student's perceived competence and performance as adult reflected appraisals.

A second source of social information regarding our self-concept is how we compare ourselves to other people (Festinger, 1954). Self-knowledge comes from the **social comparison process** by which we compare our reactions, abilities, and attributes to others (Festinger, 1954). We do this because we need accurate information so that we may succeed. We need to know if we are good athletes or students or race car drivers so that we can make rational choices. Social comparison is a control device because it makes our world more predictable.

Social comparison can lead to either positive or negative views of the self, depending on who serves as the comparison group. For example, within a school environment, a student who is placed in a high-achieving class may develop a negative academic self-concept, especially if that student questions his or her academic competence (Trautwein, Lüdtke, Marsh, & Nagy, 2009). In this case, a social comparison is made with peers that the student perceives to be of higher competence than the self, leading to a negative self-appraisal.

A third source of information comes from the self-knowledge gained by observing our behavior. Daryl Bem (1967) suggested that people really do not know why they do things, so they simply observe their behavior and assume that their motives are consistent with their behavior. Someone who rebels against authority may simply observe his or her behavior and conclude, "Well, I must be a rebel." Therefore, we obtain knowledge of our self simply by observing ourselves behave and then inferring that our private beliefs must coincide with our public actions.

Another method of knowing the self is through **introspection**, the act of examining our thoughts and feelings. Introspection is a method we all use to understand ourselves, but evidence suggests that we may get a somewhat biased picture of our internal state. Thinking about our attitudes and the reasons we hold them can sometimes be disruptive and confusing (Wilson, Dunn, Kraft, & Lisle, 1989). More generally, the process of introspection—of looking into our mind, rather than just behaving—can have this effect. For example, if you are forced to think about why you like your romantic partner, you might find it disconcerting if you are not able to think of any good reasons why you are in this relationship. This doesn't mean that you don't have reasons, but they may not be accessible or easy to retrieve. Much depends on the strength of the relationship. If the relationship is not strong, thinking about the relationship could be disruptive because you might not think up many positive reasons in support of the relationship. If it is pretty strong, then reasoning might further strengthen it. The stronger our attitude or belief, the more likely that thinking about it will increase the consistency between the belief and our behavior (Fazio, 1986).

Personal Attributes and Self-Concept

Now that we know some of the methods for forming and gaining access to our self-concept, let's see what is inside. What kind of information and feelings are contained in the self? First of all, the self-concept contains ideas and beliefs about **personal attributes**. A person may think of herself as female, American, young, smart, compassionate, the daughter of a single mother, a good basketball player, reasonably attractive, hot-tempered, artistic, patient, and a movie fan. All of these attributes and many more go into her self-concept.

Researchers investigated the self-concepts of American schoolchildren by asking them the following kinds of questions (McGuire & McGuire, 1988, p. 99):

- Tell us about yourself.

- Tell us what you are not.

- Tell us about school.

- Tell us about your family.

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social comparison process A source of social knowledge involving how we compare our reactions, abilities, and attributes to others.

introspection The act of examining our thoughts and feelings to understand ourselves, which may yield a somewhat biased picture of our internal state.

personal attributes An aspect of the self-concept involving the attributes we believe we have.

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These open-ended probes revealed that children and adolescents often defined themselves by characteristics that were unique or distinctive. Participants who possessed a distinctive characteristic were much more likely to mention that attribute than were those who were less distinctive on that dimension (McGuire & McGuire, 1988).

According to **distinctiveness theory**, people think of themselves in terms of those attributes or dimensions that make them different, that are distinctive, rather than in terms of attributes they have in common with others. People, for example, who are taller or shorter than others, or wear glasses, or are left-handed are likely to incorporate that characteristic into their self-concept.

People usually are aware of the attributes they have in common with other individuals. A male going to an all-male high school is aware that he is male. But being male may not be a defining part of his self-concept because everybody around him has that same characteristic. He will define himself by attributes that make him different from other males, such as being a debater or a football player. Being male may certainly be important in another social context, however, such as when taking part in a debate about changing gender roles.

People who belong to nondominant or minority groups are more likely to include their gender, ethnicity, or other identity in their self-concept than are those in dominant, majority groups (e.g., white male). Among the schoolchildren in the study (McGuire & McGuire, 1988), boys who lived in households that were predominantly female mentioned their gender more often, as did girls who lived in households that were predominately male.

Of course, not all knowledge about the self is conscious simultaneously. At any given time, we tend to be aware of only parts of our overall self-concept. This *working self-concept* varies, depending on the nature of the social situation and how we feel at that moment (Markus & Kunda, 1986). So when we are depressed, our working self-concept would likely include all those thoughts about ourselves that have to do with failure or negative traits. In addition, we tend to unconsciously synchronize our self-concepts with the nature of the social situation. This may lead to an increased sense of well-being and belongingness (Kawakami et al., 2012).

Although the self-concept is relatively stable, the notion of a working self-concept suggests that the self can vary from one situation to another. As the late Ziva Kunda (1999) pointed out, if you are shy but are asked to give examples of when you were very outgoing, at least momentarily you might feel less shy than usual. Working self-concept is also affected by affiliation with groups. When a group with which we closely identify is made salient, we are likely to identify characteristics associated with the group as being characteristics of the individual self (Sim, Goyle, McKedy, Eidelman, & Correll, 2014). However, Sim et al. report that these group-based characteristics do not replace characteristics that individuals normally say describe them. Instead, they appear to exist alongside those more stable individual characteristics. However, the ease with which the self may change may depend on how self-knowledge is organized and how important the behavior is.

Study Break

This section defined self-concept. It also discussed how information related to self-concept is acquired. Before you begin the next section, answer the following questions:

1. What is the definition of self-concept?
2. How do reflected appraisals, social comparison, and introspection help define self-concept?
3. What are personal attributes, and how do they relate to self-concept?
4. What is distinctiveness theory, and why is it important in understanding self-concept?

The Self and Memory

In addition to personal attributes, the self-concept contains memories, the basis for knowledge about oneself. The self is concerned with maintaining positive self-feelings, thoughts, and evaluations. One way it does this is by influencing memory. Anthony Greenwald (1980) suggested that the self acts as a kind of unconscious monitor that enables people to avoid disquieting or distressing information. The self demands that we preserve what we have, especially that which makes us feel good about ourselves.

According to Greenwald (1980), the self employs biases that work somewhat like the mind-control techniques used in totalitarian countries. In such countries, the government controls information and interpretations of events so that the leadership is never threatened. Similarly, we try to control the thoughts and memories we have about ourselves. The self is totalitarian in the sense that it records our good behaviors and ignores our unsavory ones, or at least rationalizes them away. The self is a personal historian, observing and recording information about the self—especially the information that makes us look good. Like a totalitarian government, Greenwald claims, the self tends to see itself as the origin of all positive things and to deny that it has ever done anything bad.

Is it true, as Greenwald predicted, that the self is a kind of filter that makes us feel good by gathering self-serving information and discarding information that discomfits us? The study of **autobiographical memory**—memory for information relating to self—shows that the self does indeed play a powerful role in the recall of events (Woike, Gerskovich, Piorkowski, & Polo, 1999). The self is an especially powerful memory system because events and attributes stored in the self have many associations (Greenwald & Banaji, 1989). Events in autobiographical memory are stored in an organized manner and on at least two levels: general events and broad lifetime periods (Grysman & Hudson, 2011). The general events level includes events that have occurred in your life (e.g., going to college, meeting your future spouse), whereas lifetime periods refer to important times in your life (e.g., childhood, early adulthood). Events in autobiographical memory are embedded within lifetime periods. So, for example, if you and your future spouse attended a lot of movies when you dated in college, these events would be embedded within the lifetime period of your college years. Generally, autobiographical memories at higher levels of organization have fewer details than those at lower levels (Grysman & Hudson, 2011). So, for example, your memories for events (like going to the movies) will have more detail than those associated with more general lifetime periods. Grysman and Hudson also report that when we start thinking about autobiographical events, we tend to make more connections to the meaning of those events than we do to the specifics of who, where, and when.

Most people take only about 2 seconds to answer questions about their traits (Klein, Loftus, & Plog, 1992). This is because we have a kind of summary knowledge of our self-traits, especially the most obvious ones. Such a handy summary makes it harder to access memories that conflict with our positive self-concept, however. As noted earlier, memories that match a person's self-concept are recalled more easily than those that clash with that concept (Neimeyer & Rareshide, 1991). If you perceive yourself as an honest person, you will have trouble digging up memories in which you have behaved dishonestly.

A research study of social memory of everyday life among college students bore out these findings (Skowronski, Betz, Thompson, & Shannon, 1991). Participants were asked to keep two diaries: In one, they recorded events that occurred in their lives, and in the other, they recorded events that occurred in the life of a close relative or friend, someone they saw on a daily basis. The students had to ask the consent of the other person, and they recorded the events discreetly. Participants made entries in the diaries for self and other for roughly 10 weeks, the length of the academic quarter. At the end of the quarter, the participants took a memory test on the events recorded in the two diaries. They were presented with the recorded events from the diaries in a random order and were asked to indicate how well they remembered the event, the date it occurred, and whether it was a unique episode.

autobiographical memory Memory for information relating to the self that plays a powerful role in recall of events.

Important events in your life, such as graduating from college, are organized in the "general events" section of your autobiographical memory.
Source: michaeljung/ Shutterstock.

The researchers found that participants recalled recent events more quickly than earlier ones, with faster retrieval of the oldest episodes than of those in the middle. They also found that pleasant events were recalled better than unpleasant ones and that extreme events—both pleasant and unpleasant—were recalled better than neutral episodes. Pleasant events that especially fit the person's self-concept were most easily recalled. The self, then, monitors our experiences, processing information in ways that make us look good to ourselves. We interpret, organize, and remember interactions and events in self-serving ways, recalling primarily pleasant, self-relevant events that fit our self-concept. Obviously, this built-in bias influences the manner in which we understand our social world and how we interact with other people. Without realizing it, we are continually constructing a view of the world that is skewed in our favor.

Emotions and Autobiographical Memories

Some of you may be thinking as you read this, "These findings don't square with what happens to me when I think about my past." It is true that you don't always retrieve memories that are positive or pleasant, or that bolster good feelings. Indeed, sometimes the precise opposite is true. McFarland and Buehler (1998) examined how negative moods affect autobiographical memory. Generally, the memories you may recall seem to fit the mood that you are in. The explanation for this mood-congruence recall is that our mood makes it more likely that we will find memories of events that fit that mood: positive mood, positive recall; negative mood, negative recall. People who experience lots of negative moods can enter into a self-defeating cycle wherein their negative moods prime or key negative memories that in turn make them even more sad or depressed.

Why do some people in negative moods perpetuate that mood and others make themselves feel better? It appears that the approach to how we retrieve these memories is the key (Lyubomirsky, Caldwell, & Nolen-Hoeksema, 1998). If you adopt a focused *reflective* attitude, which means that you may admit that you failed at this task, you explore the nature of why you feel bad and work to regulate that mood. This is in contrast to people who *ruminate* over their moods. That is, they focus neurotically and passively on negative events and feelings (McFarland & Buehler, 1998).

Of course, over our lifetimes our experiences may very well alter, sometimes dramatically, our sense of ourselves. If this change is significant, we may look back and wonder if we are in fact the same person we once were. William James (1890), the renowned 19th-century psychologist and philosopher, observed that the self was both a "knower" ("I") and an object ("me"). For college students, the transition from high