SAMPLE CHAPTER

PSYCHOLOGY

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ISBN-13: 9780205412433
ISBN-10: 0205412432

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The pages of this Sample Chapter may have slight variations in final published form.

PEARSON Allyn and Bacon PEARSON Longman
ALLYN & BACON/LONGMAN
www.ablongman.com

13 Social Psychology
How Others Affect Us

◀ Which do you see, a toy soldier or thousands of small toy soldiers?

PREVIEW

Think

First, think about these questions. Then, as you read, think again. . . .

- How good are we at judging the causes of others' behavior?
- What causes mass hysteria over rumors about things like Martian landings?
- Were the Nazis particularly evil, or would we have done the same thing in their boots?
- How do cults persuade people to become fanatics?
- How can a woman be stabbed to death in plain view of many people without anyone coming to her aid?
- Does how we act reflect what we believe, or is it the other way around?
- What's the best way to persuade others to do something for us?
- Are stereotypes always a bad thing?

Ruling Out Rival Hypotheses

On October 30, 1938—a few hours before Halloween—much of the United States temporarily lost its grip on reality. That night, 6 million Americans tuned in to a popular radio show hosted by 23-year-old Hollywood sensation Orson Welles. The program featured an adaptation of H. G. Wells's science fiction classic *The War of the Worlds,* which vividly describes the invasion of Earth by a race of enormous Martians. (In 2005, Steven Spielberg made this book into a movie starring Tom Cruise.) To make *The War of the Worlds* more entertaining—and to play a good-natured pre-Halloween trick on his listeners—Welles presented the story in the form of a phony news broadcast. Anyone listening carefully to the program would have known that it was a clever hoax, as Welles informed his audience no fewer than four times that the show was merely an adaptation of a science fiction story.

As the broadcast unfolded over the next hour, a newscaster periodically interrupted live orchestral music with increasingly alarming news bulletins that first reported a series of explosions on the surface of Mars and later the landing of a mysterious metal capsule on a farm in Grover's Mill, New Jersey, some 50 miles from New York City. Against the backdrop of screaming witnesses, a terrified reporter described a large alien with tentacles emerging from a hatch in the capsule. By the program's end, the newscaster informed listeners that an army of giant Martians was launching a full-scale invasion of New York City.

The War of the Worlds triggered a mass panic (Bartholomew, 1998). Hundreds of frightened listeners fled into the streets, while others hid in their basements. Still others called the police or loaded their guns. Some even wrapped their heads in towels in preparation for a Martian chemical attack (Cantril, 1947). Although most listeners didn't panic, at least tens of thousands did (Brainbridge, 1987). Surprisingly, many listeners apparently never bothered to consider alternative explanations for the program or to seek out evidence that could have falsified claims of a massive alien invasion. Had they tuned their radios to a different station, they would have heard no coverage of this presumably momentous event in human history. That surely would have tipped them off that Welles's program was a huge practical joke. Instead, many listeners fell prey to confirmation bias (see Chapter 1), focusing on only one hypothesis—that the news bulletins were real—at the expense of all others.

In addition to alarming listeners, the show caused many to misinterpret familiar stimuli as unfamiliar. For example, some residents of Grover's Mill panicked at the sight of a tall water tower that they'd surely passed hundreds of times. In their intense fright, they mistook it for a space ship and shot it to smithereens. Our shared beliefs about reality can affect our interpretation of it.

Welles had pulled off the most successful Halloween prank of all time. How did he do it? One thing's for certain: Welles had never taken an introductory psychology course, so he didn't rely on scientific research. Yet he understood the power of social influence, although even he was caught off guard by just how potent it was.

What Is Social Psychology?

Social psychology helps us to understand not only why *The War of the Worlds* hoax succeeded, but why many forms of social influence are so powerful. **Social psychology** is the study of how people influence others' behavior, beliefs, and attitudes—for both good and bad (Lewin, 1951). Social psychology helps us to understand not only why we sometimes act helpfully and even heroically in the presence of others, but also why we occasionally show our worst sides, caving in to group pressure or standing by idly while others suffer. It also helps us to understand why we're prone to blindly accept irrational, even pseudoscientific, beliefs.

social psychology
study of how people influence others' behavior, beliefs, and attitudes

In this chapter, we'll begin by examining the social animals we call human beings (Aronson, 1998) and discuss how and why we often underestimate the impact of social influence on others' behavior. We'll move on to examine two especially potent social influences: conformity and obedience, and then address the question of why we help people at some times and harm them at others. Then, we'll discuss our attitudes and how social pressure shapes them. We'll end by exploring the troubling question of how prejudice toward others arises and, more optimistically, how we can combat it.

HUMANS AS A SOCIAL SPECIES

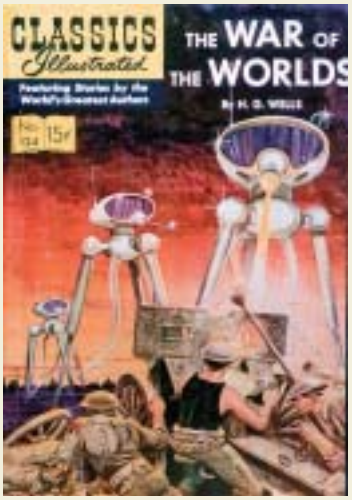
Social psychology is important for one reason: We humans are a highly social species. Most evidence suggests that as early hominids in Africa hundreds of thousands of years ago, we evolved in relatively small and tight social groups (Barchas, 1986). Even as modern-day humans, most of us naturally gravitate to small groups. In forming cliques, or groups that include some people—in-group members—we by extension exclude others—out-group members.

Gravitating to Each Other—to a Point. Anthropologist Robin Dunbar (1993) has become famous for a number: 150. This number is the approximate size of most human social groups, from the hunter–gatherers of days of yore to today's scientists working a specialized research area (Gladwell, 2002). Research suggests that 150 is also close to the average number of people that each of us knows reasonably well. Dunbar argued that the size of our neocortex (see Chapter 3) relative to the rest of our brain places limits on how many people with whom we can closely associate with. For animals with smaller neocortices relative to the rest of their brains, such as chimpanzees and dolphins, the number of relations may be smaller (Dunbar, 1993; Marino, 2005). Whether or not 150 is the universal "magic number," Dunbar is probably right that our highly social brains are predisposed to forming intimate interpersonal networks that are large—but only so large.

The Need to Belong: Why We Form Groups. When we're deprived of social contact for a considerable length of time, we usually become lonely. According to Roy Baumeister and Mark Leary's (1995) *need to belong theory*, we humans have a biologically based need for interpersonal connections. We seek out social bonds when we can and suffer negative psychological and physical consequences when we can't. Stanley Schacter (1959) discovered the power of this social need in a small pilot study. He asked five male volunteers to live alone in separate rooms for an extended time period. All five were miserable. One bailed out after only 20 minutes, and three lasted only 2 days. The lone holdout, who reported feeling extremely anxious, made it to 8 days.

More systematic research shows that the threat of social isolation can lead us to behave in self-destructive ways and even impair our mental functioning. In a series of experiments, Jean Twenge and her colleagues asked undergraduates to complete a personality measure and gave them bogus feedback based on their test results: they told participants either that "You're the type who will end up alone later in life" or "You're likely to be accident prone later in life." Students who received feedback that they'd be isolated toward the end of their lives were significantly more likely than other students to engage in unhealthy behaviors, like eating a fattening snack or procrastinating on an assignment (Twenge, Catanese, & Baumeister, 2002). The same negative feedback is so upsetting that it even impairs students' performance on IQ tests (Baumeister, Twenge, & Nuss, 2002).

Brain imaging research goes a step further, shedding light on the commonplace observation that being cut off from social contact "hurts," literally and figuratively. Kip Williams and his coworkers placed participants in an fMRI scanner while they played a computerized ball tossing game with other "participants," who didn't actually exist. In a "virtual" version of the popular television show *Survivor*, the researchers rigged the game so that all participants were eventually excluded. Upon experiencing the sting of social rejection, participants displayed pronounced activation in a region of the cingulate cortex (see Chapter 3) that also becomes active during physical pain. So that "ouch" we feel after being thrown out of a group may bear more than a coincidental



Orson Welles created mass panic in 1938 when he persuaded tens of thousands of Americans of the existence of a widespread Martian invasion. Although residents of Grover's Mill, New Jersey, had surely passed by this water tower (top) many times, their panic led them to mistake it for an alien rocket ship (see poster from *The War of the Worlds* on bottom). Social factors can shape how we interpret reality.

In the 2000 film *Cast Away*, actor Tom Hanks (portraying a Federal Express worker stranded on a remote desert island) strikes up an unusual companionship with a volleyball. According to Baumeister and Leary's need to belong theory, our social motives are powerful—so powerful that when deprived of interpersonal contact, we find a way to recreate it.

similarity to the ouch we feel after stubbing our toe (Eisenberger, Lieberman, & Williams, 2003).

Group cohesion and at least some degree of conformity are necessary for military units to function effectively.

How We Came to Be This Way: Evolution and Social Behavior. Because we'll soon be examining many unhealthy forms of social influence, such as how unquestioning acceptance of authority figures can lead us to do foolish things, we might be tempted to conclude that almost all social influence is negative. That would be a serious mistake. Virtually all of the social influence processes we'll discuss are adaptive under most circumstances and help to regulate cultural practices. From the perspective of an evolutionary approach to social behavior, many social influence processes have been naturally selected, because they've generally served us well over the course of evolution (Buss & Kendrick, 1998). Even if we're skeptical of the view that evolution helps to explain much of social behavior, we can still accept a core premise: social influence processes serve us well most of the time, but they can occasionally backfire on us if we're not careful.

An evolutionary perspective on social behavior leads us to one critical conclusion: *Conformity, obedience, and many other forms of social influence become maladaptive only when they're blind or unquestioning.* From this standpoint, irrational group behavior—like the disastrous obedience of thousands of German citizens during the Nazi regime of the 1930s and 1940s and the massive genocide in Rwanda in the 1990s—are by-products of adaptive processes that have gone wildly wrong. There's nothing wrong with looking to a persuasive leader for guidance, as long as we don't stop asking questions. Once we accept social influence without evaluating it critically, however, we place ourselves at the mercy of powerful others.

Social Facilitation: From Bicyclists to Cockroaches. Because we're social creatures, being surrounded by others can make us perform better. Research shows that the mere presence of others can enhance our performance in certain situations, a phenomenon that Robert Zajonc called **social facilitation.** In the world's first social psychological study, Norman Triplett (1897) found that bicycle racers obtained faster speeds (32.6 miles per hour on average) when racing along with other bicyclists than when racing against only the clock (24 miles per hour on average). Zajonc (1965) found that social facilitation applies to birds, fish, and even insects. In what's surely one of the most creative studies in the history of psychology, Zajonc and two colleagues randomly assigned cockroaches to two conditions: one in which they ran a maze alone and in another in which they ran a maze while being observed by an audience of fellow cockroaches from a "spectator box." Compared with the lone cockroaches, cockroaches in the second condition ran the maze significantly faster and committed fewer errors (Zajonc, Heingartner, & Herman, 1969).

Yet the impact of others on our behavior isn't always positive (Bond & Titus, 1983). Social facilitation occurs only on tasks we find easy, whereas *social disruption*—a worsening of behavior in the presence of others—occurs on tasks we find difficult. You've probably discovered this principle if you've ever "choked" in the company of others while singing a difficult song or telling a lengthy joke with a complicated punch line. One team of five researchers watched people playing pool (Michaels, Blommel, Brocato, Linkous, & Rowe, 1982). The experienced pool players did better in the presence of others, but the inexperienced pool players did worse. The effects of social influence can be either positive or negative depending on the situation.

THE GREAT LESSON OF SOCIAL PSYCHOLOGY

When we try to figure out why other people—or indeed, we ourselves—did something, we're forming **attributions,** or assigning causes to behavior. We make attributions every day. Some attributions are internal (inside the person), such as when we conclude that Joe Smith robbed a bank because he's impulsive. Other attributions are external (outside the person), such as when we conclude that Bill Jones robbed a bank because his family was broke. We can explain a great deal of our everyday behavior by situational factors, like peer pressure, that are external to us.

social facilitation
enhancement of performance brought about by the presence of others

attribution
process of assigning causes to behavior

fundamental attribution error
tendency to overestimate the impact of dispositional influences on *other* people's behavior

The Fundamental Attribution Error. When we read about the frenzied behavior of some Americans during *The War of the Worlds,* we shake our heads in amazement and pat ourselves on the back with the confident reassurance that we'd never have behaved this way. Yet if the field of social psychology imparts one lesson that we should take with us for the rest of our lives (Myers, 1993), it's the **fundamental attribution error.** Coined by Lee Ross (1977), this term refers to the tendency to overestimate the impact of *dispositional influences* on others' behavior. By dispositional influences, we mean enduring characteristics, such as personality traits, attitudes, and intelligence. Because of this error, we attribute too much of people's behavior to who they are.

Because of the fundamental attribution error, we also tend to underestimate the impact of situational influences on others' behavior, so we also attribute too little of their behavior to what's going on around them. We may assume incorrectly that a boss in a failing company who fired several of his loyal employees to save money must be callous, when in fact he was under enormous pressure to rescue his company—and spare the jobs of hundreds of other loyal employees. Similarly, we may assume that we'd never have panicked during *The War of the Worlds* hoax, even though we might well have. Incidentally, the fundamental attribution error applies only to explaining *other* people's behavior; when explaining the causes of our *own* behavior, we typically invoke situational influences (Jones & Nisbett, 1972).

Evidence for the Fundamental Attribution Error. Edward E. Jones and Victor Harris (1967) conducted the first study to demonstrate the fundamental attribution error. They asked undergraduates to serve as "debaters" in a discussion of U.S. attitudes toward Cuba and its controversial leader, Fidel Castro. In full view of the other debaters, they randomly assigned students to read aloud debate speeches that adopted either a pro-Castro or an anti-Castro position.

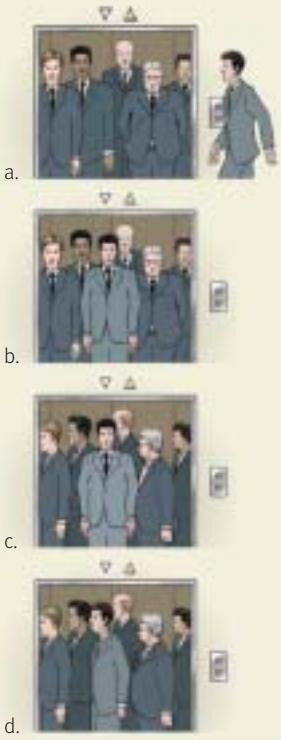
After hearing these speeches, the researchers asked the other debaters to evaluate each debater's *true* attitudes toward Castro. That is, putting aside the speech he or she read, what do you think each debater *really* believes about Castro? Students fell prey to the fundamental attribution error; they inferred that what debaters said reflected their true position regarding Castro *even though they knew that the assignment to conditions was entirely random* (**Figure 13.1**). They forgot to take the situation—namely, the random assignment of subjects to the experimental condition—into account when evaluating debaters' attitudes (Ross, Anabile, & Steinmetz, 1977).

THINK ABOUT IT

How might the fundamental attribution error lead us to place excessive blame on poor people for their life circumstances?

The Fundamental Attribution Error: Cultural Influences. Interestingly, the fundamental attribution error is associated with cultural factors. Although almost everyone is prone to this error, Japanese and Chinese people seem to be less so (Nisbett, 2003). That may be because they're more likely than those in Western cultures to perceive behaviors in context (see Prologue). As a result, they may be more prone to seeing others' behavior as a complex mix of both dispositional and situational influences.

For example, after reading newspaper descriptions of mass murderers, Chinese subjects are considerably less likely to invoke dispositional explanations for their behavior ("He must be an evil person") and more likely to invoke situational explanations ("He must have been under terrible stress in his life"). In contrast, U.S. subjects tend to show the opposite pattern (Morris & Peng, 1994). This cultural difference even extends to inanimate objects. When shown a circle moving in various directions, Chinese students are more likely to say that the circle's movement is due to situational or external factors ("Something is pushing on the circle") than to dispositional or internal factors ("The circle wants to move to the right"). We again find the opposite pattern among U.S. students (Nisbett, 2003).



The 1960s television show "Candid Camera," which placed ordinary people in absurd situations, illustrates the *fundamental attribution error* (Maas & Toivanen, 1978). Viewers laugh at people's often silly reactions, underestimating how likely most of us are to fall victim to situational influences—in this case, group pressure. In one classic episode (shown here), an unsuspecting person enters an elevator filled with "Candid Camera" staff (a and b). Suddenly and for no reason, all of the staff turn to the right (c). Sure enough, the bewildered person turns to the right also (d).

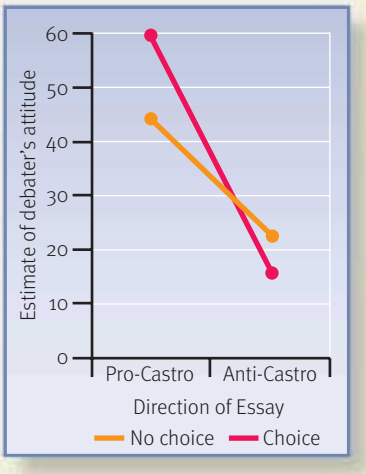


Figure 13.1 Subjects' Performance in Jones & Harris (1967) Castro Study Subjects inferred that debaters' pro-Castro positions reflected their actual attitudes even though debaters couldn't choose which position to adopt—an example of the fundamental attribution error. (Source: Jones & Harris, 1967.)

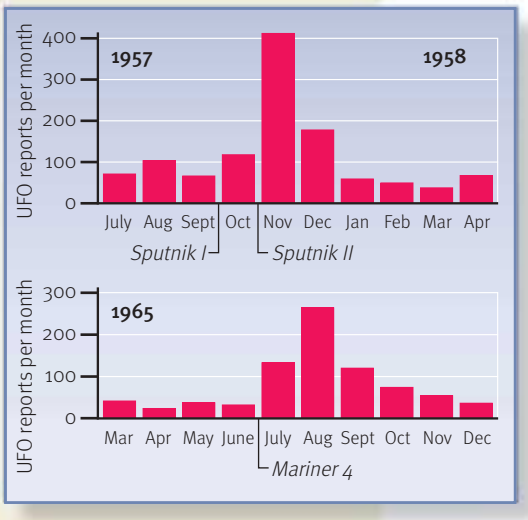


Figure 13.2 Graph of UFO Sightings In the 1950s and 1960s, the number of UFO sightings shot up dramatically following the launches of *Sputnik I* and *II* (the Russian satellites that were the first objects launched into space) and following the U.S. launch of the space probe *Mariner 4*. Although these data don't permit definite cause-and-effect conclusions, they're consistent with the possibility that UFO sightings are of social origin. (Source: Baker & Nickell, 1992).

The flying saucer craze is arguably one of the most widespread cases of collective delusions in world history. Like all photographs of supposed flying saucers, the reality of this one has never been verified (it looks suspiciously like a big hat to us).

social comparison theory theory that we seek to evaluate our beliefs, attitudes, and abilities by comparing our reactions with others'

Occam's Razor

mass hysteria outbreak of irrational behavior that is spread by social contagion

Extraordinary Claims

SOCIAL COMPARISON: PERSON SEE, PERSON DO

The War of the Worlds' hoax was successful for one reason: we're inherently social creatures. When a situation is unclear, we look to others for guidance about what to believe and how to act. According to Leon Festinger's (1954) **social comparison theory,** we evaluate our beliefs, abilities, and reactions by comparing them with those of others. Doing so helps us to understand ourselves and our social worlds better. For example, if you want to find out whether you're a good psychology student, it's only natural to compare your exam performance with that of your classmates.

Yet we can take social comparison too far. Although we can often learn valuable information from others' reactions, it's another thing to base our actions solely on their behavior. After all, what if other people are behaving unreasonably? *The War of the Worlds* might seem like an isolated case of human irrationality, but that's far from the truth. *The War of the Worlds* is merely one example of a broad class of events called *mass hysteria*.

Mass Hysteria: Irrationality at a Group Level. **Mass hysteria** is a contagious outbreak of irrational behavior that spreads much like a flu epidemic. Because we tend to engage in social comparison when a situation is ambiguous, most of us are prone to mass hysteria under the right circumstances. In some cases, episodes of mass hysteria can lead to *collective delusions*, in which many people simultaneously come to be convinced of bizarre things that are false. Consider three dramatic examples of mass hysteria and collective delusions (**Figure 13.2**):

- The date of June 24, 1947, probably means nothing to you. Yet this day witnessed the beginning of what's arguably one of the most prolonged collective delusions in world history. On that day, pilot Kenneth Arnold spotted nine mysterious shiny objects while flying over the ocean near Mount Rainier in Washington State. Interestingly, Arnold told reporters that these objects were shaped like *sausages*. Nevertheless, he also made the offhand observation that they'd "skipped over the water like saucers."

  Within days, the phrase "flying saucers" appeared in over 150 newspapers across the United States (Bartholomew & Goode, 2000). Even more interestingly, within only a few years thousands of people were claiming to see saucer-shaped objects in the sky. Had the newspapers been more accurate in their coverage of Arnold's words, we might today be hearing unidentified flying object (UFO) reports of flying sausages rather than flying saucers. But once the media introduced the term "flying saucers," the now familiar circular shape of UFOs took hold in the American consciousness and never let go.
- In the spring of 1954, the city of Seattle, Washington, experienced an epidemic of "windshield pitting." Thousands of residents noticed tiny indentations, or pits, in their car windshields that they suspected were the result of a secret nuclear test performed by the federal government. Their concerns spun so out of control that Seattle's mayor eventually sought emergency help from President Eisenhower (Bartholomew & Goode, 2000). Although the residents of Seattle hadn't realized it, the windshield pits had been there all along, as they are on most cars. The windshield-pitting epidemic offers another illustration of how shared societal beliefs can influence our interpretations of reality, making the familiar seem unfamiliar. When confronted with two explanations for the pitting—a secret nuclear explosion or the impact of dirt particles hitting the windshield—Seattle residents would have been better off picking the simpler one.
- In the 1970s and 1980s, thousands of farmers in the United States and Canada believed that an epidemic of "cattle mutilations" was taking place, as they were coming upon corpses of cows that had been mysteriously picked clean (Stewart, 1977). Many witnesses took these "mutilations" as the work of aliens, but there was a far more mundane explanation. Studies demonstrated that any dead cow left out for a period of days—which can happen when a herd is set to pasture—is soon devoured by carnivores who leave nothing but a bloodless carcass. Cattle mutilation proponents had forgotten a basic principle: extraordinary claims require extraordinary evidence.

Urban Legends. One of the simplest demonstrations of the power of social influence comes from the study of *urban legends:* false stories repeated so many times that people believe them to be true (Brunvand, 1999). How many of the urban legends in **Figure 13.3** have you heard?

Each of the false stories in Figure 13.3 is too bizarre to be true, yet people consistently believe them, and far more. Urban legends are convincing in part because they fit our preconceptions (Gilovich, 1991). Urban legends also make good stories because they tug on our emotions, especially negative ones (Rosnow, 1980). Research shows that the most popular urban legends contain a heavy dose of material relevant to the emotion of disgust, probably because they arouse our perverse sense of curiosity. As a result, they often spread like wildfire. It's probably not coincidental that many feature rats and other animals that we don't exactly find appealing (Heath, Bell, & Sternberg, 2001).

ASSESS YOUR KNOWLEDGE: SELF-TEST 1

(1) From the standpoint of an evolutionary approach to social behavior, conformity and obedience are inherently maladaptive. (True/False)
(2) The presence of other people always enhances our performance. (True/False)
(3) The fundamental attribution error reminds us that we tend to attribute others' behavior primarily to their personality traits and attitudes. (True/False)
(4) We're especially likely to engage in social comparison when a situation is clear-cut. (True/False)

Answers: (1) F (p. 4); (2) F (p. 4); (3) T (p. 5); (4) F (p. 6)

Social Influence: Conformity and Obedience

Think of an organization or group to which you've belonged, like a club, school committee, fraternity, or sorority. Have you ever just gone along with one of the group's ideas even though you knew that it was bad, perhaps even unethical? If you have, don't feel ashamed, because you're in good company. **Conformity** refers to the tendency of people to alter their behavior as a result of group pressure (Kiesler & Kiesler, 1969). We all conform to social pressure from time to time. Yet as we'll see, we occasionally take this tendency too far.

CONFORMITY: THE ASCH PARADIGM

Solomon Asch conducted the classic study of conformity in the 1950s. Asch's (1955) research design was as straightforward as it was elegant. In some social psychological studies, such as Asch's, participants are lured in by a cover story that doesn't reveal the study's true goal. Often, other "participants" in the study are actually *confederates*, or undercover agents of the researcher. But the actual subjects are unaware of that.

In this chapter, we'll ask you to imagine yourself as a subject in several classic social psychological studies. Let's begin with Asch's.

The Setup: Asch invites subjects to participate in a "study of perceptual judgments" that asks eight subjects—including you—to compare a standard line with three comparison lines: 1, 2, and 3. Unbeknownst to you, the other "subjects" are actually Asch's confederates. A researcher explains that your job is to say out loud which of three comparison lines matches the standard line. The researcher starts with a person across the table, so you're always the fifth to be called.

A woman heated her poodle in a microwave oven in a well-meaning attempt to dry it off following a rainstorm. It exploded.

While still alive, Walt Disney arranged to have his body frozen after his death so that it could be unfrozen at a future date when advanced technology will permit him to live again.

Outside her home, a woman found a small stray animal that she identified as a Chihuahua. She cared for the pet for several weeks and eventually brought it to a veterinarian, who informed her that her cute little "dog" was actually a rat.

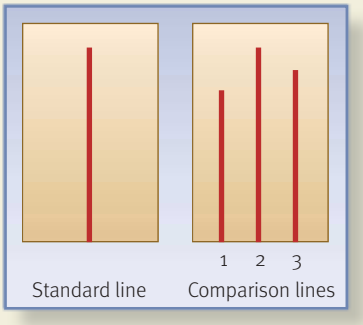
Many gang members drive around late at night without their car lights on, and then shoot people who flash their lights at them.

A woman on a transAtlantic flight was trapped in the bathroom for over two hours after flushing the toilet created a vacuum, binding her to the seat.

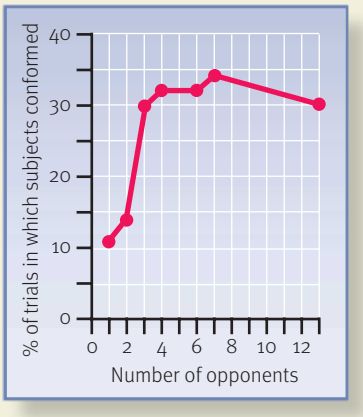
Figure 13.3 Urban Legend?
Some popular urban legends: all are widely known, yet all are false. Incidentally, if you ever want to find out whether a remarkable rumor from the Internet or media is true, check the high-quality web site www.snopes.com, which continually tracks the accuracy of urban legends.

conformity
tendency of people to alter their behavior as a result of group pressure

Figure 13.4 Asch's Experiments
a. Here we see the lone actual subject (middle), barely believing his eyes, straining to look at the stimulus cards (below) after the confederates gave the wrong answer. This subject was one of only 25 percent of Asch's subjects who stuck to his guns and gave the correct answer in all 12 trials. After the study, he insisted, "I have to call them as I see them."



b. Which of the "comparison lines" is the same length as the "standard line"? If several other participants said it was line #3, would you go along with them?



c. In Asch's studies, conformity increased as the size of the majority increased—but only up to about five or six subjects.

The Study: On the first trial (figure not shown) you listen intently as the first few subjects call out their answers. Subject 1: "1." Subject 2: "1." Subject 3: "1." Subject 4: "1." As Subject 5, you simply follow, and say "1." The three subjects following you give the same answer: 1. "This study is going to be a breeze," you say to yourself.

The second trial displays a similar problem, just as easy to answer, in which the correct answer is clearly "2" (see Figure 13.4b). Again, you listen while the subjects call out their answers. Subject 1: "3." Subject 2: "3." Subject 3: "3." Subject 4: "3."

You can hardly believe your eyes. It seems obvious that "2" is the correct answer, but everyone is calling "3." What on earth is going on? Are your eyes deceiving you? Or did you perhaps misunderstand the instructions? What are you going to do?

The Results: If you're like 75 percent of subjects in the original Asch study, you'd conform to the incorrect norm on at least one of twelve trials. Across all twelve trials in the Asch study, subjects conformed to the wrong answer 37 percent of the time. Some subjects conformed even when the comparison line differed from the standard line by more than 6 inches! Understandably, subjects reported being confused and even distressed because they experienced a sharp conflict between their perceptions and what they believed to be others' perceptions.

Parametric Studies: Dissecting Social Influences on Conformity. Using **parametric studies,** Asch (1955) and later researchers pinpointed social factors that influenced the level of conformity. Parametric studies manipulate the *independent variable* in various ways to determine its effects on the *dependent variable*, in this case, conformity. Researchers concluded that conformity was influenced by the following independent variables:

- **Unanimity:** If all confederates gave the wrong answer, the subject was more likely to conform. However, if one confederate gave the correct response, the level of conformity dropped by three-fourths.
- **Difference in the wrong answer:** Knowing that someone else in the group differed from the majority—even if that person held a different view from the subject—the subject is less likely to conform.
- **Size:** The size of the majority made a difference, but only up to about five or six subjects. People were no more likely to conform in a group of ten subjects than in a group of five subjects (see Figure 13.4c).

THINK ABOUT IT

In his studies of conformity, Asch found a slight tendency for individuals to conform *less* when the group of confederates was very large (see Figure 13.4c). Why might this effect have occurred?

Ruling Out Rival Hypotheses

Asch also tried to rule out alternative hypotheses for his findings. To determine whether group norms affected subjects' *perceptions* of the lines, he replicated his original study but asked subjects to write, rather than call out, their responses. In this condition, subjects' answers were right more than 99 percent of the time.

Imaging Studies: Probing Further Influences. Nevertheless, new brain imaging technology raises the possibility that social pressure can sometimes influence perception. Gregory Berns and his colleagues (Berns et al., 2005) placed subjects in an fMRI scanner (see Chapter 3) and showed them two figures. They asked subjects to determine whether the figures were the same or different. To do so, subjects had to mentally rotate one or both of them. The researchers led the subjects into thinking that four other subjects were making

parametric studies
studies in which an experimenter systematically manipulates the independent variable to observe its effects on the dependent variable

the same judgments along with them; in fact, these judgments were preprogrammed into a computer.

On some trials, the other "participants" gave unanimously correct answers; on others, they gave unanimously incorrect answers. Like Asch, Berns and his collaborators found high levels of conformity; subjects went along with others' wrong answers 41 percent of the time. Their conforming behavior was associated with activity in the amygdala, which triggers anxiety in response to danger cues (see Chapter 3). This finding suggests that conformity may come with a price tag of negative emotions, particularly anxiety. Berns and his colleagues also found that conformity was associated with activity in the parietal and occipital lobes, the areas of the brain responsible for visual perception. This finding suggests that social pressure can sometimes affect how we perceive reality, although activity in these brain areas may have instead reflected the subjects' tendency to doubt and then recheck their initial perceptions.

Conformity: The Autokinetic Effect. Paralleling Asch's results on conformity are findings demonstrating that group judgments tend to converge gradually around a common norm. We can demonstrate this phenomenon using a curious perceptual illusion called the *autokinetic effect*. Picture yourself a subject seated in a pitch-dark room. You can see nothing, not even your hand a few inches in front of your face. Then, you see a tiny light projected on the wall about 15 feet in front of you. The light is stationary, although you don't realize that. After a few moments, the light seems to dance randomly across the wall.

This autokinetic effect results from tiny movements of the eye muscles that trick your brain into thinking that the dot is in motion. To correct for movements of your eye muscles, your brain constantly alters the perceived position of the external world. Against an entirely dark background, your brain is fooled into perceiving the external world as moving. Incidentally, the autokinetic effect appears to be a frequent cause of UFO reports. In virtually complete darkness, many people mistakenly perceive stars in the sky as moving, and misinterpret them as extraterrestrial vehicles (Hines, 2003).

In your role as a subject, your job is to estimate the amount of movement of the motionless dot by calling out your answer. When Muzafer Sherif (1936) first conducted studies on the autokinetic effect, he found that subjects often gave wildly different responses. Initial estimates of the amount of movement of the dot ranged from 2 inches to 80 feet!

In a second session, Sherif invited two other subjects into the room, and asked them to call out estimates of the light's movement along with the original subject. Across several sessions spread out over a few days, Sherif (1936) found that each subject's estimate converged progressively around a shared norm. This shared norm was influenced substantially by other subjects' answers. So if your initial estimate was 8 inches and other subjects estimated 20 inches, your eventual estimate might be 14 inches; if your initial estimate was 8 inches and other subjects estimated 2 inches, your eventual estimate might be 5 inches. In turn, other subjects' estimates will converge gradually toward yours (Sherif & Sherif, 1969). Even in later sessions with the other subject again absent, subjects clung firmly to the shared norm.

Conformity: Individual, Cultural, and Gender Differences. People's responses to social pressure are associated with individual and cultural differences. People with low self-esteem are especially prone to conformity (Hardy, 1957). Asians are also more likely to conform than Americans (Bond & Smith, 1996), probably because, as discussed in Chapter 10, many Asian cultures are more collectivist than American culture (Oyserman, Coon, & Kemmelmeier, 2002). This greater collectivism probably leads many Asians to be more concerned about group opinion than Americans. In addition, people in individualistic cultures, like the United States, generally prefer to stand out from the crowd, whereas people in collectivist cultures prefer to blend in. In one study, researchers presented American and Asian subjects with a bunch of orange and green pens that had a majority of one color and a minority of the other. Americans tended to pick the minority-colored pens, whereas Asians tended to pick the majority-colored pens (Kim & Markus, 1999).

fictoid

Myth: There's no adequate scientific explanation for most UFO reports.

Reality: Most UFO reports can be accounted for by misinterpretations of ordinary phenomena. Among the most frequent events mistaken for UFOs are lenticular cloud formations (which resemble saucers), the planet Venus (which can be extremely bright on clear nights), bright meteors streaking through Earth's atmosphere, airplanes, satellites, weather balloons, and even swarms of insects. Only about 2 percent of UFOs remain truly unidentified (Carroll, 2003; Hines, 2003).

Ruling Out Rival Hypotheses

Many early studies suggested that women are more likely to conform than men (Eagly & Carli, 1981). Nevertheless, this sex difference may have had an alternative explanation: the experimenters were all male. When later studies were conducted by female experimenters, the sex difference in conformity typically vanished (Feldman-Summers, Montano, Kasprzyk, & Wagner, 1980; Javornisky, 1979).

DEINDIVIDUATION: LOSING OUR TYPICAL IDENTITIES

One process that can make us more vulnerable to conformity is **deindividuation:** the tendency of people to engage in atypical behavior when stripped of their usual identities (Festinger, Pepitone, & Newcomb, 1952). Several factors contribute to deindividuation, but the most prominent are a feeling of anonymity and a lack of individual responsibility (Dipboye, 1977; Postmes & Spears, 1998). When we're deindividuated, we become more vulnerable to social influences, including the impact of social roles.

Every day, we play multiple social roles: student or teacher, son or daughter, sister or brother, roommate, athlete, social-club member and employee, to name but a few. What happens when we temporarily lose our typical social identities and are forced to adopt different identities?

Stanford Prison Study: Chaos in Palo Alto. Philip Zimbardo and his colleagues first approached this question over three decades ago (Haney, Banks, & Zimbardo, 1973). Zimbardo knew about the dehumanizing conditions in many prisons, and he wondered whether they stemmed from peoples' personalities, or from the roles they're required to adopt. The roles of prisoner and guard, which are inherently antagonistic, may carry such powerful expectations that they generate self-fulfilling prophecies. What would happen if ordinary people played the roles of prisoner and guard? Would they begin to assume the identities assigned to them?


Male college students needed for psychological study of prison life. $15 per day for 1-2 weeks beginning Aug. 14. For further information & application come to Room 219, Jordan Hall, Stanford U.

Figure 13.5 Newspaper Ad for Zimbardo's Prison Study
A facsimile of the newspaper advertisement for Zimbardo's Stanford Prison Study, 1972.

The Setup: Zimbardo and his colleagues advertised for volunteers for a 2-week "psychological study of prison life" (see **Figure 13.5**). Using a coin toss, he randomly assigned twenty four male undergraduates, prescreened for normal adjustment using personality tests, to be either prisoners or guards.

The Study: Zimbardo transformed the basement of the Stanford psychology department in Palo Alto, California, into a simulated prison, complete with jail cells. To add to the realism, actual Palo Alto police officers arrested the would-be prisoners at their homes and transported them to the simulated prison. The prisoners and guards were forced to dress in clothes befitting their assigned roles. Zimbardo, who acted as the prison "superintendent," instructed guards to refer to prisoners only by numbers, not by names.

The Results: The first day passed without incident, but soon something went horribly wrong. Guards began to treat prisoners cruelly and subject them to harsh punishments. Guards forced prisoners to perform humiliating lineups, do push-ups, sing, strip naked, and clean filthy toilets with their bare hands. In some cases, they even placed bags over prisoners' heads.

By day two, the prisoners mounted a rebellion, which the guards quickly quashed. Things went steadily downhill from there. The guards became increasingly sadistic, using fire extinguishers on the prisoners and forcing them to simulate sodomy. Soon, many prisoners began to display signs of emotional disturbance, including depression, hopelessness, and anger. Zimbardo released two prisoners from the study because they appeared to be on the verge of a psychological breakdown. One prisoner went on a hunger strike in protest.

At day six, Zimbardo—after some prodding from one of his former graduate students, Christina Maslach—ended the study 8 days early. Although the prisoners were relieved at the news, some guards were disappointed (Haney et al., 1973). Perhaps Zimbardo was right; once prisoners and guards had been assigned roles that deemphasized their individuality, they adopted their designated roles more easily than anyone might have imagined.

deindividuation
tendency of people to engage in uncharacteristic behavior when they are stripped of their usual identities

Nevertheless, Zimbardo's study wasn't carefully controlled: in many respects, it was more of a demonstration than an experiment. In particular, his prisoners and guards may have experienced demand characteristics (Chapter 2) to behave in accord with their

assigned roles. For example, they may have assumed that the investigators wanted them to play the parts of prisoners and guards, and they obliged. Moreover, at least one attempt to replicate the Stanford prison study was unsuccessful, suggesting that the effects of deindividuation may not be inevitable (Reicher & Haslan, 2006).

Stanford Prison Experiment (1973)

Abu Ghraib (2004)

To some observers, some of the behaviors documented at Abu Ghraib prison in Iraq (photos at right) are eerily similar to those of Zimbardo's prison study (photos at left). Were the same processes of deindividuation at work?

Psychologist Phil Zimbardo, shown at home with masks on his wall. Zimbardo is fond of masks, as research suggests that they can produce deindividuation.

The Real World: Chaos in Abu Ghraib. The Stanford prison study wasn't an isolated event (Zimbardo, 2007). In 2004 the world witnessed disturbingly similar images in the now-infamous Iraqi prison of Abu Ghraib. There, we saw guards—this time, actual U.S. soldiers—placing bags over Iraqi prisoners' heads, leading them around with dog leashes, pointing mockingly at their exposed genitals, and arranging them in human pyramids for their amusement. These similarities weren't lost on Zimbardo (2004, 2007), who maintained that the Abu Ghraib fiasco was a product of situational forces. According to Zimbardo, the dehumanization of prisoners and prison guards made it likely they'd lose themselves in the social roles to which their superiors assigned them.

That said, the overwhelming majority of U.S. prison guards during the Iraqi War didn't engage in abuse, so the reasons for such abuse don't lie entirely in the situation. As research using Asch's paradigm reminds us, individual differences in personality play a key role in conformity. Indeed, several guards who perpetrated the Abu Ghraib abuses had a history of irresponsible behavior (Saletan, 2004).

Furthermore, deindividuation doesn't necessarily make us behave badly; it makes us more likely to conform to whatever norms are present in the situation (Postmes & Spears, 1998). Some researchers have found that a loss of identity actually makes people more likely to engage in prosocial, or helping, behavior when others are helping out (Johnson &

Downing, 1979). For good or bad, deindividuation makes us behave more like a member of the group and less like an individual.

THINK ABOUT IT

One researcher found that African tribes that wear masks and face paint engage in more violence than tribes that don't (Watson, 1973). How could we explain this finding in terms of deindividuation?

Crowds *sometimes* engage in irrational, even violent, behavior. But research suggests that crowds aren't necessarily more violent than individuals.

Crowds: Mob Psychology in Action. Deindividuation helps explain why crowd behavior is so unpredictable: the actions of people in crowds depend largely on whether others are acting prosocially or antisocially (against others). A myth that's endured for centuries is that crowds are always more aggressive than individuals. In the late nineteenth century, sociologist Gustav Le Bon argued that crowds are a recipe for irrational and even destructive behavior (Le Bon, 1895). According to Le Bon, people in crowds are more anonymous and therefore more likely to act on their impulses than individuals.

In some cases, crowds do become aggressive. On July 1, 2000, eight fans were crushed to death as they attempted to rush the stage during a Pearl Jam concert in Copenhagen, Denmark. The following year, on April 11, forty-three people were killed in Johannesburg, South Africa, as a large group of fans attempted to stampede into a packed soccer stadium.

Yet in other cases, crowds are less aggressive than individuals (de Waal, 1989; de Waal, Aurelli, & Judge, 2000), perhaps because deindividuation can make people either more or less aggressive, depending on prevailing social norms. Moreover, people in crowds typically limit their social interactions to minimize conflict (Baum, 1987). For example, people on crowded buses and elevators generally avoid staring at one another, instead preferring to stare at the road or the floor. This behavior is probably adaptive, because people are less likely to say or do something that could offend others.

Groupthink in action.
(Source: www.Cartoonbank.com.)

GROUPTHINK

Closely related to conformity is a phenomenon that Irving Janis (1972) termed **groupthink:** an emphasis on group unanimity at the expense of critical thinking. Groups sometimes become so intent on ensuring that everyone agrees with everyone else that they give up their capacity to evaluate issues objectively.

Groupthink in the Real World. Janis arrived at the concept of groupthink after studying the reasoning processes that contributed to one of the most notorious fiascos in American history: the 1961 invasion of the Bay of Pigs in Cuba. Following lengthy discussions with cabinet members, President John F. Kennedy recruited 1,400 Cuban immigrants to invade Cuba and overthrow its dictator, Fidel Castro. But Castro found out about the invasion in advance. As a result, the invaders were massively outnumbered and outgunned, and they lacked adequate air backup from American forces. Almost immediately after landing at the Bay of Pigs, nearly all the invaders were captured, and some were killed. It was an enormous humiliation for the United States, and Kennedy apologized for it on national television.

The members of Kennedy's cabinet weren't dumb; to the contrary, they were an uncommonly brilliant group of politicians and diplomats. Yet their actions were astonishingly foolish. After the failed invasion, Kennedy asked, "How could I have been so stupid?" (Dallek, 2003). Janis had a simple answer: Kennedy and his cabinet fell prey to groupthink. They became convinced that their plan was a good one because they all agreed to it and they failed to ask themselves the tough questions that could have averted the disaster.

The Bay of Pigs invasion wasn't the last time that groupthink led intelligent people to make catastrophic decisions. In 1986, the space shuttle *Challenger* exploded, killing the seven astronauts aboard a mere 73 seconds after takeoff. Project managers of the *Chal-*

groupthink
emphasis on group unanimity at the expense of critical thinking and sound decision making

lenger agreed to launch it after a series of bitterly cold days in January, despite warnings from NASA engineers that the shuttle might explode because rubber rings on the rocket booster could fail in freezing temperatures.

Table 13.1 depicts some of the characteristics or "symptoms" identified by Janis (1972) that render groups vulnerable to groupthink. Not all psychologists accept Janis's description of groupthink. For one thing, groupthink doesn't always lead to bad decisions, just overconfident ones (Tyson, 1987). Moreover, seeking group consensus isn't always a bad idea, although doing so before all of the evidence is available is (Longley & Pruitt, 1980).

Table 13.1 Symptoms of Groupthink.

Symptom	Example
An illusion of the group's invulnerability	"We can't possibly fail!"
An illusion of the group's unanimity	"Obviously, we all agree."
An unquestioned belief in the group's moral correctness	"We know we're on the right side."
Conformity pressure—pressure on group members to go along with everyone else	"Don't rock the boat!"
Stereotyping of the out-group—a caricaturing of the enemy	"They're all morons."
Self-censorship—the tendency of group members to keep their mouths shut even when they have doubts (see cartoon on previous page)	"I suspect the group leader's idea is stupid, but I'd better not say anything."
Mindguards—self-appointed individuals whose job it is to stifle disagreement	"Oh, you think you know better than the rest of us?"

NASA groupthink may have contributed to the destruction of the space shuttle *Columbia* (crew shown here) in February 2003, which like the 1986 *Challenger* disaster, killed its crew of seven astronauts (shown here). As in 1986, project managers ignored warnings about potential dangers—in this case, the hazards posed by debris hitting the tiles on the shuttle's wings during liftoff—resulting in the disintegration of the shuttle upon reentry into the atmosphere (Ferraris & Carveth, 2003).

Treatments for Groupthink. As a psychological condition, groupthink is often treatable. Janis (1972) noted that the best way to avoid groupthink is to encourage active dissent within an organization. He recommended that all groups appoint a "devil's advocate"—a person whose role is to voice doubts about the wisdom of the group's decisions. In addition, he suggested having independent experts on hand to evaluate whether the group's decisions make sense. Finally, it can be useful to hold a follow-up meeting to evaluate whether the decision reached in the first meeting still seems reasonable.

Group Polarization: Going to Extremes. Related to groupthink is **group polarization,** which occurs when group discussion strengthens the dominant position held by individual group members (Isenberg, 1986; Myers & Lamm, 1976). In one study, a group of students who were slightly unprejudiced became even less prejudiced after discussing racial issues, whereas a group that was slightly prejudiced became *more* prejudiced after discussing racial issues (Myers & Bishop, 1970). Contrary to what our intuitions tell us, talking things over with others isn't always a good idea. Group polarization can be helpful if it leads to efficient decisions when there's no time to waste. Yet in other cases, it can be destructive, as when juries rush to unanimous decisions before they've considered all the evidence (Myers & Kaplan, 1976).

Cults and Brainwashing. In extreme forms, groupthink can lead to **cults:** groups of individuals who exhibit intense and unquestioning devotion to a single cause. In many cases, they're devoted to one charismatic individual.

Cults can occasionally have disastrous consequences. Consider Heaven's Gate, a southern California–based group founded by Marshall Applewhite, a former psychiatric patient, in 1975. Heaven's Gate members believed that Applewhite was a reincarnated version of Jesus Christ. Applewhite, they were convinced, would take them to a starship in their afterlives. In 1997, a major comet approached Earth, and several false reports circulated in the media that a spaceship was tailing it. The Heaven's Gate members apparently believed this was their calling. Virtually all of the cult members—thirty-nine of them—committed suicide by drinking a poisoned cocktail.

Cult membership involves following the cult's practices without question. Rev. Sun Yung Moon of the Unification Church has united thousands of total strangers in mass wedding ceremonies. The couples are determined by pairing photos of prospective brides and grooms. They meet for the first time during the week leading up to the wedding day, often on the day of the ceremony itself.

group polarization
tendency of group discussion to strengthen the dominant positions held by individual group members

cults
groups of individuals who exhibit intense and unquestioning devotion to a single cause

Cult members, as in the case of the Heaven's Gate cult headed by Marshall Applewhite, have been known to commit suicide en masse at the behest of their leader.

fictoid

Myth: Poverty and poor education are key causes of terrorism, including suicide bombings.

Reality: Most suicide bombers in the Middle East, including the September 11 hijackers and many Al Qaida members, are relatively well off and well educated (Sageman, 2004).

The 2004 remake of the film *The Manchurian Candidate* portrayed a previously normal individual who was "programmed" to engage in violence by brainwashing. Many Hollywood films present brainwashing in a sensationalized and largely inaccurate fashion.

inoculation effect
approach to convincing people to change their minds about something by first introducing reasons why the perspective might be correct and then debunking it

obedience
adherence to instructions from those of higher authority

Because cults are secretive and difficult to study, psychologists know relatively little about them. But evidence suggests that cults promote groupthink in four major ways (Lalich, 2004): having a persuasive leader who fosters loyalty; disconnecting group members from the outside world; discouraging questioning of the group's or leader's assumptions; and establishing training practices that gradually indoctrinate members (Galanter, 1980).

Cults: Common Misconceptions. Misconceptions about cults abound. One is that cult members are usually emotionally disturbed. Studies show that most cult members are psychologically normal (Aronoff, Lynn, & Malinowski, 2000; Lalich, 2004), although many cult *leaders* probably suffer from serious mental illness. This erroneous belief probably stems from the fundamental attribution error: in trying to explain why people join cults, we overestimate the role of personality traits and underestimate the role of social influences.

Many people hold the same beliefs about suicide bombers, like the September 11 terrorists or those who detonated bus and subway bombs in London on July 7, 2005. Preliminary research on suicide bombers suggests that most are not mentally disordered (Gordon, 2002; Sageman, 2004), although some appear to possess a distinctive profile of traits, such as rigidity of thinking, reluctance to question authority, and a tendency to attribute blame to others (Lester, Yang, & Lindsay, 2004).

A second misconception is that all cult members are *brainwashed,* or transformed by group leaders into unthinking zombies. Journalists introduced the concept of brainwashing during the Korean War in the early 1950s (Hunter, 1951) to describe the influence tactics used by Chinese Communists to persuade American soldiers that communism was superior to democracy. Although some psychologists have argued that many cults use brainwashing techniques (Singer, 1979), there's considerable scientific controversy about the existence of brainwashing. For one thing, there's not much evidence that brainwashing permanently alters victims' beliefs. Most American soldiers supposedly brainwashed by Communists didn't change their minds; they merely spoke and acted as though they'd been converted to communism to avoid punishment (Melton, 1999). Moreover, there's not much evidence that brainwashing is a unique means of changing people's behavior. Instead, the persuasive techniques of brainwashing probably aren't all that different from those used by effective political leaders and salespeople (Zimbardo, 1997). We'll have more to say about these techniques later in the chapter.

Resisting Cult Influence: Inoculation. How can we best resist the indoctrination that leads to cults? Here, the social psychological research is clear, although counterintuitive: first expose people to information consistent with cult beliefs, and then debunk it. In his work on the **inoculation effect,** William McGuire (1964) demonstrated that the best way of immunizing people against an undesirable belief is to gently introduce them to reasons why this belief seems to be correct, and then refute those reasons. This approach works much like a vaccine, which inoculates people against a virus by presenting them with a small dose of it, thereby activating the body's defenses (McGuire, 1964; McGuire & Papageorgis, 1961).

OBEDIENCE: THE PSYCHOLOGY OF FOLLOWING ORDERS

In the case of conformity, we go along to get along. The transmission is "horizontal"—the group influence originates from our peers. In the case of **obedience,** we take our marching orders from people who are above us in the hierarchy of authority, such as a teacher, parent, or boss. Here the transmission is "vertical"—the group influence springs not from our peers, but from our leaders (Loevinger, 1987). Many groups, such as cults, acquire their influence from a potent combination of both conformity and obedience.

Obedience: A Double-Edged Sword. Obedience is a necessary, even essential, ingredient in our daily lives. Without it, society couldn't run smoothly. You're reading this book in part because your professor told you to, and you'll obey the traffic lights and stop signs

on your next trip to school or work (we hope!) because you know you're expected to. Yet like conformity, obedience can produce troubling consequences when people stop asking questions about *why* they're behaving as others want them to. As the British writer C. P. Snow wrote, "When you look at the dark and gloomy history of man, you will find that more hideous crimes have been committed in the name of obedience than have ever been committed in the name of rebellion." Let's look at one infamous example.

During the Vietnam War, United States Lieutenant William Calley commanded a platoon of a division named Charlie Company. In March 1968, Calley's platoon had encountered heavy arms fire for several weeks, and many soldiers had been killed or badly wounded. Understandably, the members of Charlie Company were on edge during the morning of March 16, as they entered the village of My Lai (pronounced "Me Lie"), which was suspected of being a hideout for North Vietnamese soldiers. Although the platoon located no enemy soldiers in My Lai, they found hundreds of unarmed civilians. In response to Calley's orders, the soldiers in Charlie Company began firing randomly at the villagers, none of whom had initiated combat. They bludgeoned several old men to death with the butts of their rifles and shot praying children and women in the head. Calley corralled a group of civilians, forced them to walk into a ditch, and mowed them down in a barrage of machine gun fire. When all was said and done, the American platoon had brutally slaughtered about 500 innocent Vietnamese ranging in age from 1 to 82 years.

Two sides of the coin of obedience: Lt. William Calley (left) was charged with murder by the Army for ordering his platoon to massacre unarmed civilians in the My Lai massacre in 1968. Calley was the only one in the platoon to be charged with a crime. Hugh Thompson (right), along with his fellow crew members, landed their helicopter between their fellow Army platoon and the civilians in the My Lai massacre in an effort to save the lives of the unarmed villagers. Thompson and crew were awarded the Soldier's Medal for bravery.

What did Lieutenant Calley have to say about all of this? Read carefully: "I was ordered to go in there and destroy the enemy. That was my job that day. That was the mission I was given. I did not sit down and think in terms of men, women, and children. They were all classified the same" (Calley, 1971). That is, Calley insisted that he was merely taking orders from his superiors and bore no direct responsibility for the massacre. In turn, the soldiers in Calley's platoon claimed they were merely taking orders from Calley. Calley was convicted in 1971 of murder and sentenced to life in military prison, but President Richard Nixon commuted his sentence.

Lost in much of the horror of My Lai was the heroism displayed by several American soldiers. In the midst of the massacre, Officer Hugh Thompson Jr. landed his U.S. Army helicopter between Calley's troops and the innocent villagers. Risking their lives, Thompson and his two crewmen ordered the troops to stop shooting. They evacuated the village, saving scores of innocent lives.

The My Lai massacre may seem inexplicable to us. Yet it's only one instance of the perils of unthinking obedience. How can we make sense of this behavior?

Stanley Milgram: Sources of Destructive Obedience. Stanley Milgram was a graduate student of Solomon Asch's who wanted to understand the principles underlying irrational group behavior. The child of Jewish parents who grew up during World War II, Milgram became preoccupied with the profoundly troubling question of how the Holocaust could have occurred. The prevailing wisdom in the late 1940s and 1950s was that the Holocaust was primarily the product of twisted minds that had perpetuated dastardly deeds. Yet Milgram suspected that the truth was far subtler. He agreed that the actions of the Germans during the Holocaust were grossly unethical, of course, but he came to believe that the underlying psychological processes that give rise to destructive obedience are surprisingly commonplace. Milgram was fond of the writings of German author Hannah Arendt, who regarded the Holocaust as an example of "the banality of evil." According to Arendt, most of the world's wickedness originates not from a handful of cold-blooded villains, but from large numbers of perfectly normal citizens who follow orders blindly.

The Milgram Paradigm. In the early 1960s, Milgram began to tinker with a laboratory paradigm (a model experiment) that could provide a window into the causes of obedience

Four panels from Milgram's obedience experiment:

The shock generator.

The "learner," Mr. Wallace, being strapped to the shock plate by Mr. Williams and an assistant.

Mr. Williams delivering instructions to the "teacher," the actual subject.

The "teacher" breaking off the experiment after refusing to comply with Mr. Williams' orders.

(Blass, 2004). Although influenced by Asch's work, Milgram was more interested in obedience than in conformity, because he believed that unquestioning acceptance of authority figures is the crucial ingredient in explaining unjustified violence against innocent individuals. Milgram also believed that Asch's paradigm wasn't sufficiently engrossing to simulate the real-life power of dangerous social influence. After a few years of pilot testing, Milgram finally hit on the paradigm he wanted, not knowing that it would become one of the most influential in the history of psychology (Cialdini & Goldstein, 2004; Slater, 2004).

The Setup: You spot an advertisement in a local New Haven, Connecticut, newspaper, asking for volunteers for a study of memory. The ad notes that participants will be paid $4.50, which in the 1960s was a hefty chunk of change. You arrive at the laboratory at Yale University, where a tall and imposing man in a white lab coat, Mr. Williams, greets you. You also meet another friendly, middle-aged subject, Mr. Wallace, who unbeknownst to you is actually a confederate. The cover story is that you and Mr. Wallace will be participating in a study of the effects of "punishment on learning," with one of you being the teacher and the other the learner. You draw lots to see who'll play which role, and get the piece of paper that says "teacher" (the lots are rigged). From here on in, Mr. Williams refers to you as the "teacher" and to Mr. Wallace as the "learner."

As the teacher, Mr. Williams explains, you'll present Mr. Wallace with what psychologists call a *paired-associate task*. In this task, you'll read a long list of word pairs, like strong–arm and black–curtain. Then you'll present the learner with the first word in each pair (such as "strong") and ask him to select the second word ("arm") from a list of four alternative words. Now here's the surprise: To evaluate the effects of punishment on learning, you'll be delivering a series of painful electric shocks to the learner. With each wrong answer, you'll move up one step on a shock generator. The shocks range from 15 volts up to 450 volts and are accompanied by labels ranging from "Slight Shock" and "Moderate Shock," to "Danger: Severe Shock" and finally, and most ominously, "XXX."

The Study: You watch as Mr. Williams brings the learner into a room and straps his arm to a shock plate. The learner, Mr. Williams explains, will push a button corresponding to his answer to the first word in each pair. His answer will light up in an adjoining room where you sit. For a correct answer, you do nothing. But for an incorrect answer, you'll give the learner an electric shock, with the intensity increasing with each mistake. At this point, the learner mentions to Mr. Williams that he has "a slight heart condition" and asks anxiously how powerful the shocks will be. Mr. Williams responds curtly that although the shocks will be painful, they "will cause no permanent tissue damage."

You're led into the adjoining room and seated in front of the shock generator. Following Milgram's plan, the learner makes a few correct responses, but soon begins to make errors. If, at any time, you turn to Mr. Williams to ask if you should continue, he responds with a set of prearranged sentences that urge you to go on ("Please go on," "The experiment requires that you continue," "You have no other choice; you *must* go on"). Milgram standardized the verbal statements of the learner, which also unbeknownst to you, have been prerecorded on audiotape (Milgram, 1974). At 75 volts, the learner grunts "Ugh!" and by 330 volts, he frantically yells "Let me out of here!" repeatedly and complains of chest pain. From 345 volts onward, there's nothing—only silence. The learner stops responding to your items, and Mr. Williams instructs you to treat these nonresponses as incorrect answers and to keep administering increasingly intense shocks.

The Results: When Milgram first designed this study, he asked forty psychiatrists at Yale University to forecast the outcome. Their predictions? According to them, most subjects would break off at 150 volts and only .1% (that's 1 in 1,000), representing a "pathological fringe" (Milgram, 1974), would go all the way to 450 volts. Before reading on, you may want to ask yourself what you would have done had you been a subject in Milgram's study. Would you have delivered any shocks? If so, how far would you have gone? Would you have gone all the way to 450 volts?

In fact, in the original Milgram study, all subjects administered at least some shocks. Most went up to at least 150 volts, and a remarkable 62 percent of subjects displayed complete compliance, going all the way up 450 volts. This means that the Yale psychiatrists were off by a factor of several hundred.

These results were, well, shocking. Milgram himself was startled by them (Blass, 2004). Before Milgram's study, most psychologists assumed that the overwhelming majority of normal subjects would disobey what were obviously cruel and outrageous orders. But like the Yale psychiatrists, they committed the fundamental attribution error: they underestimated the impact of the situation on subjects' behaviors.

There were other surprises. Many subjects showed uncontrollable tics and fits of nervous laughter. Yet few appeared to be sadistic. Even those who complied to the bitter end seemed reluctant to deliver shocks, asking or even begging the experimenter to allow them to stop. Yet most subjects still followed Mr. Williams's orders despite these pleas, often assuming no responsibility for their actions. One subject's responses were illustrative; after the study was over he claimed, "I stopped, but he [the experimenter] made me go on" (Milgram, 1974).

The Milgram Paradigm: Themes and Variations. Like his mentor Solomon Asch, Milgram conducted a variety of parametric studies to pinpoint the situational factors that increased or decreased obedience and to rule out alternative explanations for his findings. These parametric studies provide an elegant demonstration of social psychological research at its best. In addition, they afford a powerful test of the replicability of Milgram's paradigm and its generalizability across different situations.

Ruling Out Rival Hypotheses

Replicability

We've summarized the major variations Milgram conducted on his original paradigm in **Table 13.2**. As we can see, the level of subjects' obedience varied substantially depending on the circumstances, including the amount of feedback and proximity from the learner to the teacher and the physical proximity and prestige of the experimenter. Although this table displays numerous variations, two key themes emerge. First, the

Table 13.2 The Milgram Paradigm: Themes and Variations.

Variation/Condition	Description	Percentage Who Complied to 450 Volts
Remote feedback condition (initial study)	No verbal feedback from the learner; teacher hears only the learner pounding the wall in protest after being shocked	65%
Voice feedback condition	Teacher hears the learner's screams of pain and complaints	62%
Proximity condition	Learner is in the same room as the teacher, so that teacher not only hears but observes the learner's agony	40%
Touch proximity condition	Teacher is required to hold the learner's hand on a shock plate; whenever the learner's hand flies off the shock plate, the teacher must jam it back down to ensure electrical contact	30%
Telephone condition	Experimenter gives instructions by telephone from a separate room (*Note:* some subjects "cheated" by giving less intense shocks than what the experimenter directed)	30%
Second experimenter condition	A second experimenter is present and begins disagreeing with the first experimenter about whether to carry on with the session.	0%
Less prestigious setting for study	Study is conducted (voice feedback condition is replicated) in a rundown office building in nearby Bridgeport, Connecticut, removing all affiliation with Yale University	48%
Ask teacher to direct a different subject to administer shock	Teacher is asked to give orders to another "subject" (actually a confederate), who then delivers the shocks. In this condition, teachers can reassure themselves, "I'm not actually giving any shocks; I'm just telling him to do it."	93%

In the "touch proximity" condition (see Table 13.2), subjects were forced to hold the "learner's" hand on a shock plate. Here the level of obedience plummeted. This condition illustrates the point that decreasing the psychological distance between teacher and learner leads to decreased obedience.

greater the "psychological distance" between teacher (the actual participant) and experimenter, the *less* the obedience. As the experimenter became more psychologically distant, as when he gave instructions by telephone, compliance plummeted. Second, the greater the psychological distance between teacher and learner, the *more* the obedience. Most striking was the level of compliance when Milgram increased the psychological distance between teacher and learner by having the teacher direct someone else to administer the shocks. Here the level of complete compliance shot up to 93 percent. Like Lieutenant Calley, whose defense during the My Lai massacre was that he was "just taking orders," subjects in this condition probably felt relieved of personal responsibility. Many Nazis, like Adolph Eichmann, offered similar excuses for their orders to kill thousands of Jews: they were just following instructions from their superiors (Aronson, 1998). When people do immoral things, they often look to pass the responsibility on to somebody else.

The Milgram Paradigm: Individual, Gender, and Cultural Differences. When evaluating Milgram's findings, it's only natural to focus on the sizable proportion of subjects who followed orders. Yet many of his subjects didn't go along with the experimenter's commands despite intense pressure to do so. Recall that at My Lai, some American soldiers disobeyed Calley's orders by ordering his soldiers to stop firing. Moreover, during the Holocaust thousands of European families risked their lives to offer safe haven to Jewish civilians in clear defiance of Nazi laws (Wilson, 1993). So despite powerful situational pressures, some people disobey authority figures who give unethical orders. Who are they?

Perhaps surprisingly, Milgram (1974) found that obedient and disobedient subjects were similar on most major personality variables. For example, he found no evidence that obedient subjects were more sadistic than disobedient subjects, suggesting that subjects didn't follow orders because they enjoyed doing so (Aronson, 1998).

Nevertheless, researchers have identified a few consistent predictors of obedience in Milgram's paradigm. Lawrence Kohlberg found that the level of moral development using his interview-based scheme (see Chapter 10) was negatively correlated with compliance; more morally advanced subjects were more willing to defy the experimenter (Kohlberg, 1965; Milgram, 1974). This finding suggests that especially moral people may sometimes be more willing to violate rules than less moral people, especially if they view them as unreasonable. Another researcher found that people with high levels of a personality trait called *authoritarianism* are more likely to comply with the experimenters' demands (Alms, 1972). People with high levels of authoritarianism see the world as a big hierarchy of power. For them, authority figures are to be respected, not questioned (Adorno, Frenkel-Brunswick, Levenson, & Sanford, 1950; Dillehay, 1978). It makes sense that authoritarian individuals would exhibit high levels of obedience in Milgram's paradigm, as they presumably viewed Mr. Williams as an authority figure whose orders they shouldn't question.

Milgram found no consistent sex differences in obedience; this finding has held up in later studies using his paradigm (Blass, 1999). Milgram's findings have also been replicated in different countries. The overall rates of obedience among Americans don't differ significantly from those of non-Americans (Blass, 2004), including people in Italy (Ancona & Pareyson, 1968), South Africa (Edwards, Franks, Friedgood, Lobban, & Mackay, 1969), Spain (Miranda, Caballero, Gomez, & Zamorano, 1981), Germany (Mantell, 1971), Australia (Kilham & Mann, 1974), and Jordan (Shanab & Yahya, 1977).

Milgram's Studies: Lessons. Psychologists have learned a great deal from Milgram's work. They've learned that the power of authority figures is greater than almost anyone had imagined. They've learned that obedience doesn't typically result from sadism; most of Milgram's subjects wanted to stop but kept going out of deference to authority. Milgram's research also reminds us of the potency of the fundamental attribution error: most people, even psychiatrists, underestimate situational influences on behavior (Bierbrauer, 1973).

Psychologists continue to debate whether Milgram's study offers an adequate model of what happened during the Holocaust and at My Lai. Milgram's critics correctly note that, in contrast to Milgram's subjects, some concentration camp guards actively enjoyed tor-

factoid

In a disturbing study, a research team told thirty-two undergraduates to deliver electric shocks to a small male dog (Larsen et al., 1974). Only two refused, and the average voltage level delivered was slightly over 100 volts. Male subjects administered significantly more intense shocks than did females. You'll be relieved to know, however, that the dog didn't actually receive shocks, although subjects believed he did.

Rosa Parks (1913–2005) became a role model for "civil disobedience" during the 1950s and 1960s when she refused to give up her seat on a bus to a White man as was required by law. Morality, for her, overrode law.

Replicability

turing innocent people (Cialdini & Goldstein, 2004). These critics further argue that destructive obedience on a grand scale probably requires not only an authority figure bearing an official stamp of approval, but also a core group of genuinely wicked people. They may well be right. These controversies aside, there's no doubt that Stanley Milgram has forever changed how we think about ourselves and others. He's made us more keenly aware of the fact that good people can do bad things and that rational people can behave irrationally (Aronson, 1998). By warning us of these perils, Milgram may have steered us on the path toward guarding against them.

ASSESS YOUR KNOWLEDGE: SELF-TEST 2

(1) Asch's studies demonstrated that several allies are required to counteract the effects of conformity on an individual. (True/False)
(2) Deindividuation can make people more likely to engage in prosocial, as well as antisocial, behavior. (True/False)
(3) Groups tend to make less extreme decisions than do individuals. (True/False)
(4) Obedience is by itself maladaptive and unhealthy. (True/False)

Answers: (1) F (p. 8); (2) T (p. 12); (3) F (p. 13); (4) F (p. 14)

Helping and Harming Others: Prosocial Behavior and Aggression

For centuries, philosophers have debated the question of whether human nature is good or bad. Yet the either-or fallacy (Chapter 1) reminds us that scientific truth rarely falls neatly into one of two extremes. Indeed, mounting evidence suggests that human nature is an amalgam of both socially constructive and destructive tendencies.

Primate researcher Frans de Waal (1982; 1996) argues that our two closest animal relatives, the bonobo (pygmy chimpanzee; see Chapter 11) and the chimpanzee, display the seeds of both prosocial and antisocial behavior. Because we share more than 98 percent of our DNA with both species, they offer a slightly fuzzy evolutionary window onto our own nature. Although these species overlap in their social behaviors, the bonobo is more of a model for **prosocial behavior**—that is, behavior intended to help others—and the chimpanzee is more of a model for antisocial behavior, including aggressive acts. Bonobos are veritable experts at reconciling after arguments, often making peace by making love—literally. They also engage in helping behaviors that we ordinarily associate with humans. De Waal described a remarkable event at the San Diego Zoo, where bonobo caretakers

This remarkable photo by primate researcher Frans de Waal shows a male chimpanzee (left) extending a hand of appeasement to another chimpanzee after a fight. Many psychologists have argued that our tendency toward prosocial behavior has deep roots in our primate heritage.

> were filling up the water moat. The juveniles of the [bonobo] group were playing in the empty moat, and the caretakers had not noticed. When they went to the kitchen to turn on the water, all of a sudden in front of the window they saw Kakowet, the old male of the group, and he was waving and screaming at them to draw their attention. [The caretakers] looked at the moat and saw the juveniles and then got them out of there, before the moat filled up. (p. 4)

Chimpanzees engage in prosocial behavior too, like making up after fights. Yet they're far more prone to aggression than are bonobos. In the 1970s, Jane Goodall (1990) stunned the scientific world by reporting that chimpanzees occasionally wage all-out wars against other chimpanzee groups, replete with brutal murders, infanticide, and cannibalism.

To which species are we more similar, the peace-loving bonobo or the belligerent chimpanzee? In reality, we're a bit of both. De Waal (2006) is fond of calling the human species "the bipolar ape," because our social behavior is a blend of that of our closest ape relatives.

Figure 13.6 The Murder of Kitty Genovese
Place in Kew Gardens, New York, where Kitty Genovese was murdered on March 13, 1964, at 3:20 A.M. She drove into the parking lot at the Kew Gardens train station and parked her car at spot **1**. Noticing a man in the lot, she became nervous and headed toward a police telephone box. The man caught her and attacked her with a knife at spot **2**. She managed to get away, but he attacked her again at spot **3** and again at spot **4**.

Deletha Word was another tragic victim of bystander nonintervention. After her death, loved ones gathered to mourn on the bridge where she was attacked.

pluralistic ignorance
error of assuming that no one in a group perceives things as we do

In this next section, we'll examine the psychological roots of prosocial and antisocial actions, with a particular emphasis on situational factors that contribute to both behaviors. We'll begin by examining why we fail to help in some situations, but why we do help in others. We'll then explore why we occasionally act aggressively toward fellow members of our species. As we've seen, Milgram's obedience research sheds light on the social influences that can lead us to harm others. But we'll soon discover that obedience to authority is only part of the story.

SAFETY IN NUMBERS OR DANGER IN NUMBERS? BYSTANDER NONINTERVENTION

You've probably heard the saying, "There's safety in numbers." Popular wisdom teaches us that when we find ourselves in danger, it's best to be in the company of others. Is that true? Let's look at two real-life examples.

Two Tragic Stories of Bystander Nonintervention.

- On March 13, 1964, at 3 A.M., 28-year-old Catherine (Kitty) Genovese was returning to her apartment in New York City, having just gotten off work. Suddenly, a man appeared and began stabbing her. He came and left no fewer than three times over a 35-minute time span. Kitty repeatedly screamed and pleaded for help as the lights from nearby apartments flipped on. Yet although at least a dozen—and perhaps more—of her 38 neighbors heard the events, none came to her aid. No one even bothered to call the police until 50 minutes later. By that time, Kitty Genovese was dead (see **Figure 13.6**).

- On the morning of August 19, 1995, 33-year-old Deletha Word was driving across a bridge in Detroit, Michigan, when she accidentally hit the fender of a car driven by Martell Welsh. Welsh and the two boys with him jumped out of their car, stripped Deletha down to her underwear and beat her repeatedly with a tire jack. At one point, Welsh even held Deletha up in the air and asked bystanders whether anyone "wanted a piece" of her. About forty people drove by in their cars, but none intervened or even called the police. In a desperate attempt to escape her attackers, Deletha jumped off the bridge into the river below. She drowned.

Causes of Bystander Nonintervention: Why We Don't Help. Like most anecdotes, these real-world stories are useful for illustrating concepts, but they don't allow for scientific generalizations. For years, many psychologists assumed that the nonresponsiveness of bystanders was due simply to a lack of caring. But psychologists John Darley and Bibb Latané suspected that the *bystander effect* was less a consequence of apathy than of "psychological paralysis." According to Darley and Latané (1968), bystanders in emergencies typically want to intervene, but often find themselves frozen, seemingly helpless to help. Darley and Latané also suspected that popular psychology was wrong—that there's actually danger rather than safety in numbers. Bucking conventional wisdom, they hypothesized that the presence of others makes people *less*, not more, likely to help in emergencies. Why?

Pluralistic Ignorance: It Must Just Be Me. Darley and Latané maintained that two major factors explain bystander nonintervention. The first is **pluralistic ignorance:** the error of assuming that no one in the group perceives things as we do. To intervene in an emergency, we first need to recognize that the situation is in fact an emergency. Imagine that on your way to class tomorrow you see a student in dirty clothing slumped across a bench. As you stroll by, thoughts whiz through your mind: Is he asleep? Is he drunk? Could he be seriously ill, even dead? Could my psychology professor be conducting a study to examine my responses to emergencies? Here's where pluralistic ignorance comes into play. We look around, notice that nobody else is responding, and assume—perhaps mistakenly—that the situation isn't an emergency. We assume we're the only one who thinks the situation might be an emergency. Reassured that the coast is clear and that there's nothing to worry about, we continue on our way to class.

So pluralistic ignorance is relevant when we're trying to figure out whether an ambiguous situation is really an emergency. But pluralistic ignorance doesn't fully explain the

behavior of bystanders in the Kitty Genovese or Deletha Word tragedies, because those situations were clearly emergencies. Even once we've recognized that the situation is an emergency, the presence of others still tends to inhibit helping.

Diffusion of Responsibility: Passing the Buck. A second step is required for us to intervene in an emergency. We need to feel a burden of responsibility for the consequences of *not* intervening. Here's the rub: the more people present at an emergency, *the less each person feels responsible for the negative consequences of not helping.* Darley and Latané called this phenomenon **diffusion of responsibility:** the presence of others makes each person feel less responsible for the outcome. If you don't assist someone who's having a heart attack and that person later dies, you can always say to yourself, "Well, that's a terrible tragedy, but it wasn't really *my* fault. After all, plenty of other people could have helped too."

So we can experience pluralistic ignorance, which prevents us from interpreting a situation as an emergency, *and* we can experience diffusion of responsibility, which discourages us from offering assistance in an emergency. From this perspective, it's actually surprising that any of us helps in emergencies, because the obstacles to intervening are considerable.

Studies of Bystander Nonintervention. To get at the psychological roots of the bystander effect in tragedies like the Kitty Genovese story, Darley, Latané, and their colleagues tested the effect of bystanders on subjects' willingness to (1) report that smoke was filling a room (Darley & Latané, 1968b); (2) react to what sounded like a woman falling off a ladder and injuring herself (Latané & Rodin, 1969); and (3) respond to what sounded like another student experiencing an epileptic seizure (Darley & Latané, 1968a). In all of these studies, participants were significantly more likely to seek or offer help when they were alone than in a group (see **Figure 13.7**).

Researchers have replicated these kinds of findings many times using slightly different designs. In an analysis of almost 50 studies of bystander intervention involving almost 6,000 participants, Latané and Nida (1981) found that participants were more likely to help when alone than in groups about 90 percent of the time. That's an impressive degree of replicability. Even *thinking* about being in a large group makes us less likely to help in an emergency (Garcia, Weaver, Moskowitz, & Darley, 2002).

Even when a situation appears to be an emergency, we still may not offer assistance. The social psychological principle of diffusion of responsibility helps to explain why.

Replicability

THINK ABOUT IT

Imagine you found yourself attacked by a mugger in the midst of a crowd of onlookers. Based on Darley and Latané's research on pluralistic ignorance and diffusion of responsibility, how could you maximize the chances you'd receive help?

SOCIAL LOAFING: WITH A LITTLE TOO MUCH HELP FROM MY FRIENDS

Have you ever been a member of a group that got virtually nothing accomplished? (All four authors of your textbook regularly attend meetings of university faculty, so we're particular experts on this topic.) If so, you may have been a victim of **social loafing,** the phenomenon in which people slack off in groups (Latané, Williams, & Harkins, 1979; North, Linley, & Hargreaves, 2000). As a consequence of social loafing, the whole is less than the sum of its parts.

Some psychologists believe that social loafing is a variant of bystander nonintervention. That's because social loafing appears to be due in part to diffusion of responsibility: people working in groups typically feel less personally responsible for the outcome of a project than they do when working alone. As a result, they don't invest as much effort.

Psychologists have demonstrated social loafing in numerous experiments. In one, a researcher placed blindfolds and headphones on six participants and asked them to clap or yell as loudly as possible. When participants thought they were making noises as part of a group, they were less loud than when they thought they were making noises alone

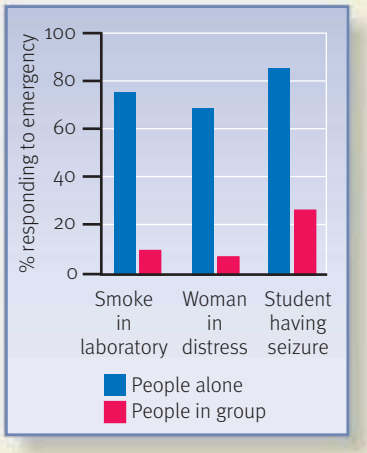


Figure 13.7 Bystander Intervention
Across three classic experiments of bystander intervention, the percentage of people helping when in groups was markedly lower than the percentage of people helping when alone.

diffusion of responsibility
reduction in feelings of personal responsibility in the presence of others

social loafing
phenomenon whereby individuals become less productive in groups

(Harkins, 1981). Cheerleaders also cheer less loudly when they believe they're part of a group than when they believe they're alone (Hardy & Latané, 1986). Investigators have also identified social loafing effects in studies of rope-pulling (the "tug-of-war" game), navigating mazes, identifying radar signals, and evaluating job candidates (Karau & Williams, 1995).

Two researchers even found suggestive evidence for social loafing in Beatles songs cowritten by John Lennon and Paul McCartney as opposed to those written by either singer alone (Jackson & Padgett, 1982). They found that an independent panel of listeners rated the cowritten songs to be lower in quality than the solely authored songs (for example, Paul McCartney himself penned the Beatles' most recorded song, "Yesterday"). Of course, because these data are merely correlational, they don't prove a direct causal connection between social loafing and lower song quality, although they point in this direction. What might be some other possible reasons for this correlation?

Correlation vs. Causation

One of the best antidotes to social loafing is to ensure that each person in the group is identifiable, for example, by guaranteeing that managers and bosses can evaluate each individual's performance. By doing so, we can help "diffuse" the diffusion of responsibility that often arises in groups.

Studies of social loafing demonstrate that in large groups, individuals often work (or in this case, cheer or pull) less hard than they do when alone.

Collaborative efforts are often less fruitful than individual efforts, as songs cowritten by John Lennon and Paul McCartney may demonstrate.

PsychoMythology

Is Brainstorming in Groups a Good Way to Generate Ideas?

Imagine that you've been hired by an advertising firm to cook up a new marketing campaign for Mrs. Yummy's Chicken Noodle Soup. The soup hasn't been selling well of late and your job is to come up with an advertising jingle that will instill in every American an uncontrollable urge to reach for the nearest cup of chicken noodle soup.

Although you initially plan to come up with possible slogans on your own, your boss walks into your cubicle and informs you that you'll be participating in a "group brainstorming" meeting later that afternoon in the executive suite. There, you and twelve other firm members will let your imaginations run wild, saying whatever comes to mind in the hopes of hitting on a winning chicken noodle soup advertising formula. Indeed, companies across the world regularly use group brainstorming as a means of generating novel ideas. They assume that several heads that generate a flurry of ideas are better than one. In a book titled *Applied Imagination*, which influenced many companies to adopt brainstorming, Osborn (1957) argued that "the average person can think up twice as many ideas when working with a group than when working alone" (p. 229).

Although the idea behind group brainstorming is intuitively appealing, it turns out to be wrong. Numerous studies demonstrate that group brainstorming is actually less effective than individual brainstorming (Brown & Paulus, 2002; Diehl & Stroebe, 1987). When brainstorming, groups tend to come up with fewer ideas, and often fewer good ones, than individuals (Paulus, 2004). Group brainstorming generally also results in ideas that are less creative than those generated by individual brainstorming. Making matters worse, groups often overestimate how successful they are at producing new ideas, which may help to explain brainstorming's popularity (Paulus, Larey, & Ortega, 1995).

There are at least two reasons why group brainstorming is less effective than individual brainstorming. One is that group members may be anxious about being evaluated by others, leading them to hold back potentially good ideas. The second is social loafing. When brainstorming in groups, people frequently engage in what's called "free riding": they sit back and let others do the hard work (Diehl & Stroebe, 1987). Whatever the reason, research suggests that when it comes to brainstorming, one brain may be better than two—or many more—at least when the brains can communicate with each other.

PROSOCIAL BEHAVIOR AND ALTRUISM

Even though there's usually danger rather than safety in numbers when it comes to others helping us, many of us do help in emergencies even when others are around (Fischer, Greitneyer, Pollozck, & Frey, 2006). In the Deletha Word tragedy, two men jumped into the water in an unsuccessful attempt to save her from drowning. Indeed, there's good evidence that many of us engage in **altruism,** that is, helping others for unselfish reasons (Batson, 1987; Davidio, Piliavin, Schroeder, & Penner, 2006; Penner, Davidio, Piliavin, & Schroeder, 2005).

Altruism: Helping Selflessly. Over the years, some scientists have argued that we help others entirely for egoistic (self-centered) reasons, like relieving our own distress or experiencing the joy of others we've helped (Hoffman, 1981). From this perspective, we help others only to make ourselves feel better. Yet in a series of experiments, Daniel Batson and his colleagues have shown that we sometimes engage in genuine altruism. That is, in some cases we help others in discomfort primarily because we feel empathic toward them (Batson et al., 1991; Batson & Shaw, 1991; Fischer et al., 2006). In some studies, they exposed participants to a female victim (actually a confederate) who was receiving painful electric shocks and gave them the option of either (a) taking her place and receiving the shocks themselves or (b) turning away and not watching her receive shocks. When participants were made to feel empathic toward the victim (for example, by being informed that their values and interests were similar to hers), they generally offered to take her place and receive shocks rather than turn away (Batson et al., 1981). So in some cases we seem to help not only to relieve our distress but to relieve the distress of others.

Along with empathy, a number of psychological variables increase the odds of helping. Let's look at some of the most crucial ones.

Psychological research suggests that we sometimes engage in genuine altruism, helping largely out of empathy.

Helping: Situational Influences. People are more likely to help in some situations than in others. They're more likely to help others when they can't easily escape the situation by running away, driving away, or as in the case of the Kitty Genovese murder, turning off their lights and drifting back to sleep. For example, individuals are more likely to help someone who collapses on a crowded subway than on the sidewalk. Characteristics of the victim also affect the likelihood of helping. In one study, bystanders helped a person with a cane 95 percent of the time, but helped an obviously drunk person only 50 percent of the time (Piliavin, Rodin, & Piliavin, 1969). Being in a good mood also makes us more likely to help (Isen, Clark, & Schwartz, 1976). So does exposure to role models who help others (Bryan & Test, 1967; Rushton & Campbell, 1977).

One striking study found that seminary students who were on their way to deliver a sermon on the Biblical story of the Good Samaritan (which describes the moral importance of assisting people who are injured) in another building across campus were significantly less likely to help someone in distress if they were in a rush than if they had time to spare (Darley & Batson, 1973). So much for the Good Samaritan!

There's a silver lining to the gray cloud of bystander nonintervention. Research suggests that exposure to research on bystander effects increases the chances of intervening in emergencies. This is an example of what Kenneth Gergen (1973) called an **enlightenment effect:** learning about psychological research can change real-world behavior for the better (Katsev & Brownstein, 1989). A group of investigators (Beaman, Barnes, Klentz, & McQuirk, 1978) presented the research literature on bystander intervention effects to one psychology class—containing much of the same information you've just read—but didn't present this literature to a very similar psychology class. Two weeks later, the students, accompanied by a confederate, came upon a person slumped over on a park bench. Compared with 25 percent of students who hadn't received the lecture on bystander intervention, 43 percent of students who'd received the lecture intervened to help. This study worked, probably because it imparted new knowledge about bystander intervention and perhaps also because it made people more aware of the importance of helping. So the very act of reading this chapter may have made you more likely to become a responsive bystander.

Helping: Individual and Gender Differences. Individual differences in personality can also influence the likelihood of helping. Participants who are less concerned about social approval and less traditional are more likely to go against the grain and intervene in

altruism
helping others for unselfish reasons

enlightenment effect
learning about psychological research can change real-world behavior for the better

Men are more likely to offer assistance to women, particularly to attractive women. An ulterior motive?

emergencies even when others are present (Latané & Darley, 1970). Extraverted people are also more prone to help others than introverted people (Krueger, Hicks, & McGue, 2001). In addition, people with lifesaving skills, such as trained medical workers, are more likely to offer assistance to others in emergencies than other people are, even when they're off duty (Huston, Ruggiero, Conner, & Geis, 1981). Some people may not help on certain occasions simply because they don't know what to do.

Most researchers have reported a slight tendency for men to help more than women (Eagly & Crowley, 1986). This difference isn't especially consistent across studies (Becker & Eagly, 2004), and it seems to be accounted for by the tendency of men to help more than women in situations involving physical or social risk. Moreover, men are especially likely to help women rather than other men, especially if the women are physically attractive (Eagly & Crowley, 1986). Perhaps men's helping behaviors aren't so altruistic after all!

AGGRESSION: WHY WE HURT OTHERS

Like our primate cousins, the chimpanzees, we occasionally engage in violent behavior toward others. And like them, we're a war-waging species; as we write this chapter, there are at least fifteen full-scale wars raging across the globe. Psychologists define **aggression** as behavior intended to harm others, either verbally or physically. To account for aggressive behavior on both large and small scales, we need to examine the role of situational factors, both short-term and long-term, and dispositional factors.

Replicability

Aggression: Situational Influences. Using both laboratory and naturalistic designs, psychologists have pinpointed a host of situational influences on human aggression. Next, we'll review some of the best-replicated findings.

- **Interpersonal Provocation:** Not surprisingly, we're especially likely to strike out aggressively against those who have provoked us, say, by insulting, threatening, or hitting us (Geen, 2001).
- **Frustration:** We're especially likely to behave aggressively when we're frustrated, that is, thwarted from reaching a goal (Anderson & Bushman, 2002; Berkowitz, 1989). In one study, a research assistant asked participants to perform a difficult paper-folding (origami) task at an unreasonably rapid pace, and either apologized for moving participants along too quickly or told them to pick up the pace ("I would like to hurry and get this over with"). Frustrated participants—those in the first condition—were later more likely to give the research assistant a low job-related evaluation (Dill & Anderson, 1995).
- **Media Influences:** As we learned in Chapter 6, an impressive body of laboratory and naturalistic evidence points to the conclusion that watching media violence increases the odds of violence through observational learning (Anderson et al., 2003; Bandura, 1973). Laboratory experiments show that playing violent video games also boosts the odds of real-world violence (Gentile & Anderson, 2006).
- **Aggressive Cues:** External cues associated with violence, such as guns and knives, can serve as discriminant stimuli (see Chapter 6) for aggression, making us more likely to act violently in response to provocation (Carlson, Marcus-Newhall, & Miller, 1990). Leonard Berkowitz and Anthony LePage (1967) found that the mere presence of a gun—as opposed to a badminton racket—on a table triggered more aggression in subjects who'd been provoked by mild electric shocks for supposed poor performance on a task.
- **Arousal:** When our autonomic nervous systems (see Chapter 3) are hyped up, we may mistakenly attribute this arousal to anger, leading us to act aggressively (Zillmann, 1988). Dolf Zillman and his colleagues found that participants who pedaled an exercise bicycle delivered more intense electric shocks to someone who'd annoyed them than did participants who sat still (Zillman, Katcher, & Milavsky, 1972).
- **Alcohol and Other Drugs:** Certain substances can disinhibit our brain's prefrontal cortex (see Chapter 3), lowering our inhibitions toward behaving violently (Kelly, Cherek, Stein-

aggression
behavior intended to harm others, either verbally or physically

berg, & Robinson, 1988). After being provoked with electric shocks by an "opponent" (who was actually fictitious) during a competitive game, participants tended to choose more intense electric shocks after consuming alcohol or benzodiazepines, such as Valium (see Chapter 16), than after consuming a placebo (Taylor, 1993). But alcohol is likely to trigger aggression only when the target of our aggression occupies the focus of our attention, as when someone is threatening us directly (Giancola and Corman, 2007).

- **Temperature:** Rates of violent crime in different regions of the United States mirror the average temperatures in these regions (Anderson, Bushman, & Groom, 1997). Because warm temperatures increase irritability, they may make people more likely to lose their tempers when provoked or frustrated (Anderson & Bushman, 2002). Nevertheless, because extremely warm temperatures are more common in the southern United States, in which violent crime rates are especially high (see the Cultural Differences section on page 13-26), investigators have had to rule out the rival hypothesis that this "heat effect" is due to geographical region. They've succeeded in doing so by demonstrating that even within the same geographical region, warmer temperatures are associated with higher rates of violence (Anderson & Anderson, 1996). See **Figure 13.8.**

Ruling Out Rival Hypotheses

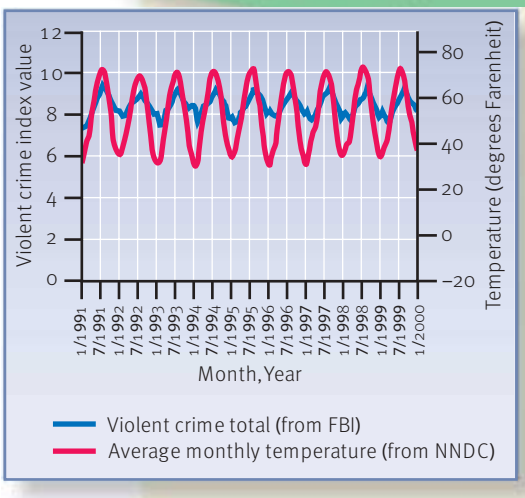


Figure 13.8 Monthly Violent Crime versus Average Temperature, 1991–1999
Research demonstrates that violent crime rates coincide with outdoor temperatures. How might we determine whether this correlation indicates a causal effect?

Aggression: Individual, Gender, and Cultural Differences. On a typical day in the United States, there are between 40 and 45 murders; that's one about every half hour. There are also about 230 reported rapes, or one about every 5 or 6 minutes (Federal Bureau of Investigation, 2005). These statistics paint a grim picture. Yet the substantial majority of people are generally law-abiding citizens, and only a tiny percentage ever engage in serious physical aggression toward others. Across a wide swath of societies that scientists have studied, only a small percentage of people—perhaps 5 or 6 percent—account for more than half of all crimes, including violent crimes (Wilson & Herrnstein, 1985). But why?

Personality Traits. When confronted with the same situation, like an insult, people differ in their tendencies to behave aggressively. Certain personality traits can combine to create a dangerous cocktail of aggression-proneness. People with high levels of negative emotions (such as irritability and mistrust), impulsivity, and a lack of closeness to others are especially prone to violence (Krueger et al., 1994).

Replicability

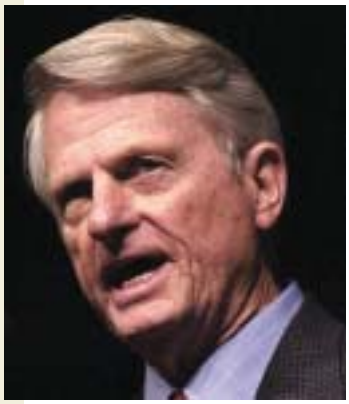
Sex Differences. One of the best replicated sex differences in humans, and across the animal kingdom for that matter, is the higher level of physical aggressiveness among males than females (Eagly & Steffen, 1986; Maccoby & Jacklin, 1980; Storch, Bagner, Geffken, & Baumeister, 2004). In conjunction with biological sex, age plays a role: the rates of crime, including violent crime, would drop by two-thirds if all males between the ages of 12 and 28 were magically placed into a state of temporary hibernation (Lykken, 1995).

The reasons for the sex difference in aggression are controversial, although some researchers have traced it to the higher levels of the hormone testosterone in males (Dabbs, 2001). One of the precious few exceptions to this sex difference is the spotted hyena (sometimes called the "laughing hyena"), in which females are more aggressive than males. This exception may prove the rule, because there's some evidence that the female spotted hyena has unusually high levels of a hormone closely related to testosterone (Glickman, Frank, Davidson, Smith, & Siiteri, 1987). Social factors almost surely play a role too, at least in humans: parents and teachers tend to pay more attention to boys when they engage in aggression and to girls when they engage in dependent behaviors, like clinginess (Serbin & O'Leary, 1975).

Yet the well-replicated male predominance in aggression may apply only to physical violence, not indirect aggression. Nicki Crick (1995) discovered that girls tend to be higher than boys in **relational aggression,** a form of indirect aggression marked by spreading rumors, gossiping, social exclusion, and nonverbal putdowns (like giving other girls "the silent treatment") for the purposes of social manipulation. Crick's findings dovetail with other results suggesting that females are more likely than males to

Research suggests although males tend to be more physically aggressive than females, girls are more likely than boys to engage in relational aggression, which includes gossiping and making fun of others behind their backs.

relational aggression
form of indirect aggression, prevalent in girls, involving spreading rumors, gossiping, and nonverbal putdowns for the purpose of social manipulation

In a heated television interview in 2004 with host Chris Matthews (left), former Georgia governor Zell Miller (right) stunned viewers by saying that he wished he could challenge Matthews to a duel. Yet social psychologists familiar with the "culture of honor" could not have been surprised, as Southern gentlemen of days past frequently settled challenges to their reputation in this manner.

express anger in subtle ways (Eagly & Steffen, 1985; Frieze et al., 1978). In contrast, boys tend to have much higher rates of bullying than girls (Olweus, 1993).

Cultural Differences. Culture may also shape aggression. For example, physical aggression and violent crime tend to be less prevalent among Asian individuals, such as Japanese and Chinese, than among Americans or Europeans (Wilson & Herrnstein, 1985; Zhang & Snowdon, 1999). Richard Nisbett, Dov Cohen, and their colleagues have also found that people from the southern regions of the United States are more likely than people from other regions of the country to adhere to a *culture of honor*, that is, a social norm of defending one's reputation in the face of perceived insults (Nisbett & Cohen, 1996). The culture of honor may help to explain why the rates of violence are higher in the South than in other parts of the United States. Interestingly, these rates are higher only for violence that arises in the context of disputes, not in robberies, burglaries, or other crimes (Cohen & Nisbett, 1994). The culture of honor even shows itself in the relatively safe confines of the laboratory. In three experiments, a male confederate bumped into a male college student in a narrow hallway, muttering a profanity about him before walking away. Students from southern states were more likely than students from other states to react with a boost in testosterone and to display aggressive behavior against another confederate (Cohen, Nisbett, Bowdle, & Schwarz, 1996).

ASSESS YOUR KNOWLEDGE: SELF-TEST 3

(1) Research suggests that the old saying that "there's safety in numbers" is wrong. (True/False)
(2) The primary reason for bystander nonintervention appears to be the apathy of onlookers. (True/False)
(3) Most people tend to work especially hard in groups. (True/False)
(4) People who have life-saving skills are more likely to help than those without. (True/False)
(5) Drinking can calm us down, lowering our risk for aggression. (True/False)
(6) The "culture of honor" may contribute to lower levels of violent crime in the U.S. South. (True/False)

Answers: (1) T (p. 20); (2) F (p. 20); (3) F (p. 21); (4) T (p. 24); (5) F (p. 25); (6) F (p. 26)

Attitudes and Persuasion: Changing Minds

First, answer the following question: Do you think that the death penalty is an effective deterrent against murder? Second, answer this question: How do you feel about the death penalty?

Now that you've gone through this exercise, you can grasp the difference between beliefs and attitudes. The first question assessed your *beliefs* about the death penalty, the second question your *attitudes* toward the death penalty. A **belief** is a conclusion regarding factual evidence; in contrast, an **attitude** is a belief that includes an emotional component. An attitude reflects how you feel about an issue or person. Attitudes are an important part of our social world, because they're shaped in significant ways by the people around us.

belief
conclusion regarding factual evidence

attitude
belief that includes an emotional component

ATTITUDES AND BEHAVIOR

A prevalent misconception is that attitudes are good predictors of behavior. For example, most people believe that how we feel about a political candidate predicts with a high level

of certainty whether we'll vote toward or against that candidate. It doesn't (Wicker, 1969). In part, this finding explains why even carefully conducted political polls are rarely foolproof: we don't always act on our stated preferences.

When Attitudes Don't Predict Behavior. In a study conducted over 70 years ago, Robert LaPiere asked 128 hotel and restaurant owners whether they'd be willing to serve guests who were Chinese, who at the time were widely discriminated against. Perhaps not surprisingly, over 90 percent of LaPiere's subjects said no. Yet when LaPiere had previously toured the country with a Chinese couple, 127 of 128 of the same owners had served them (LaPiere, 1934). Indeed, a meta-analysis (see Chapter 2) of 88 studies revealed that the average correlation between attitudes and behavior is about .38 (Kraus, 1995), which is only a moderate association. So although attitudes forecast behavior at better than chance levels, they're far from guaranteed predictors. This finding probably reflects the fact that our behaviors are the outcome of many factors, only one of which is our attitudes. For example, LaPiere's prejudiced subjects may not have been especially fond of the idea of serving Chinese guests. Yet when they met these guests in person, they may have found them more likable than they expected. Or when push came to shove, they may have been reluctant to pass up the chance for good business.

When Attitudes Do Predict Behavior. Occasionally, though, our attitudes predict our behaviors reasonably well. Attitudes that are highly *accessible*—which come to mind easily—tend to be strongly predictive of our behavior (Fazio, 1995). Imagine that we asked you two questions: (1) How do you feel about the idea of purchasing a new brand of yogurt that's been scientifically demonstrated to produce a 2 percent decrease in the levels of low-density cholesterol over a 5-year period? and (2) How do you feel about the idea of purchasing chocolate ice cream? If you're like most people, you'll find question 2 much easier to answer than question 1, because you've thought more about it. If so, your attitude toward chocolate ice cream is more likely to predict your purchasing behavior than is your attitude toward the new-fangled yogurt.

Attitudes also predict behavior well for a group of people known as low self-monitors (Krause, 1995). **Self-monitoring** is a trait that assesses the extent to which people's behaviors reflect their true feelings and attitudes (Snyder, 1974; Snyder & Gangestad, 1986). Low self-monitors tend to be straight shooters, whereas high self-monitors tend to be social chameleons. Not surprisingly, we can usually trust low self-monitors' actions to mirror their attitudes.

Still, the attitude–behavior correlation is, after all, just a correlation. The fact that attitudes are correlated with behaviors doesn't mean they cause them. Other explanations are possible; for example, our behaviors may sometimes cause our attitudes. Imagine that we start out with a negative attitude toward homeless persons. If a friend persuades us to volunteer to help the homeless for 3 hours a week and we end up enjoying this type of work, our attitudes toward homeless people may improve.

People's expressed voting preferences to pollsters don't always predict their actual voting behavior.

Correlation vs. Causation

ORIGINS OF ATTITUDES

Our attitudes stem from a variety of sources. Among them are our prior experience, our ability to relate to messengers who provide information, and our personalities.

Recognition. Our experiences shape our attitudes. The *recognition heuristic* makes us more likely to believe something we've heard many times (Arkes, 1993). Like most heuristics (mental shortcuts or rules of thumb; see Chapter 2), the recognition heuristic generally serves us well, because things we hear many times from many different people often *are* true. Moreover, this heuristic can help us to make snap judgments that are surprisingly accurate. To test this possibility, two researchers asked a group of students in Chicago and in Munich, Germany, the following question: *Which city has a larger population: San Diego, California, or San Antonio, Texas?* Unexpectedly, only 62 percent of American students got the correct answer (San Diego), whereas 100 percent of German students did (Goldstein & Gigerenzer, 1999). The German students didn't get it right more often than the Americans

self-monitoring
personality trait that assesses the extent to which people's behavior reflect their true feelings and attitudes

Endorsements from attractive celebrities, like Maria Sharapova, Brad Pitt, and Tiger Woods, can lead us to prefer some products over others for irrational reasons.

because they had more knowledge of U.S. cities; in fact, they got it right because they had *less* knowledge of U.S. cities. Most of the German students had never heard of San Antonio, so they simply relied on the recognition heuristic ("The city I've heard of probably has more people in it"). In contrast, the American students had heard of both cities and then tried to guess which one had a larger population. In this case, the recognition heuristic worked.

But when a story is persuasive or interesting, the recognition heuristic can get us into trouble. It can lead us to fall for stories that are too good to be true, like some urban legends, or to buy products that seem familiar just because we've heard their names repeated many times. Indeed, all good advertisers make use of this heuristic by cooking up catchy, easily repeated jingles. If we recall the *bandwagon fallacy* from Chapter 1, we'll remember that we shouldn't believe—or buy—something merely because most people do.

Characteristics of the Messenger. Our attitudes are shaped not only by the message, but by the messenger. Research demonstrates that we're more likely to swallow a persuasive message if famous or attractive people deliver it—whether or not they would logically know something about the product they're hawking. Fortunately, we can safeguard consumers against *maladaptive gullibility*—falling for messages delivered by phony authority figures—by teaching them to distinguish legitimate from illegitimate authorities (Cialdini & Sagarin, 2005).

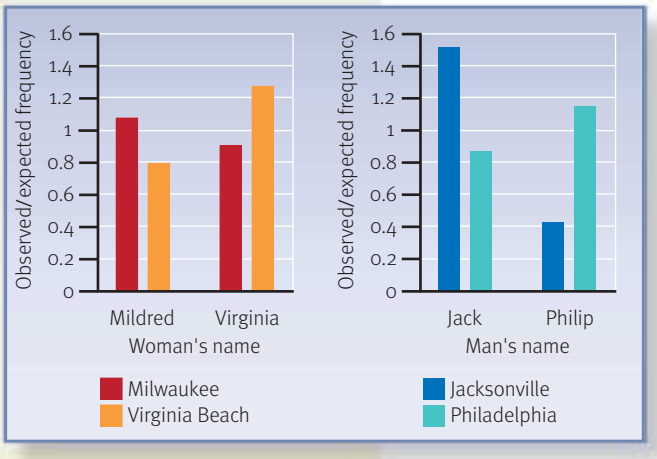


Figure 13.9 Graph Illustrating Implicit Egotism Effect
Research shows a statistical tendency for us to choose to live in cities and other geographical regions with names similar to ours.

Messages are also especially persuasive if the messenger seems similar to us. In one study, researchers asked students to read a description of the bizarre and not especially likable Russian mystic, Grigory Rasputin. Some students were randomly assigned a description of Rasputin that featured his birth date (December 16), whereas others were randomly assigned a description of Rasputin that featured the student's birth date. Students who believed they shared a birth date with Rasputin thought more positively of him than students who didn't (Finch & Cialdini, 1989).

Researchers have now reported this *implicit egotism* effect—the finding that we're more positively disposed toward people, places, or things that resemble us—across many domains (Pelham, Carvallo, & Jones, 2005). This effect appears to influence not only our attitudes but our life choices. In matters of love and friendship, we're more likely than chance would predict to select people whose names contain the first letters of our first or last names. All things being equal, Johns tend to be fond of Jessicas, Roberts of Ronalds, and so on. Nevertheless, most people are unaware of this *name-letter effect* (Nuttin, 1985). People even seem to gravitate to places that are similar to their names. One group of researchers found a higher than expected number of Louises living in Louisiana, Virginias in Virginia, Georgias in Georgia, and Florences in Florida (Pelham, Mirenberg, & Jones, 2002; see **Figure 13.9**). Moreover, the investigators ruled out an alternative explanation for this finding, namely, the possibility that parents tended to name their children after the state in which they were born, by determining that adults tend to move into states with names similar to their own.

Ruling Out Rival Hypotheses

Attitudes and Personality. Our attitudes are associated in important ways with our personality traits. Although we may persuade ourselves that our political attitudes derive from completely objective analyses of social issues, these attitudes are often affected by our personalities.

In an article that stirred up more than its share of controversy, one team of researchers (Jost, Glaser, & Sulloway, 2003) reported that across many studies, political conservatives tend to be more fearful, more sensitive to threat, and less tolerant of uncertainty than political liberals. They suggested that these personality traits are the "psychological glue"

that binds together conservatives' political attitudes toward the death penalty, abortion, gun control, school prayer, national defense, and a host of other seemingly unrelated issues. Nevertheless, some researchers criticized these authors for not considering an alternative hypothesis: namely, that these personality traits predict political extremism in general rather than right-wing conservatism specifically (Greenberg & Jonas, 2003). According to these critics, left-wing extremists are just as likely to be fearful, dogmatic, and the like, as right-wing extremists are. Because there are few studies of left-wing extremists, we don't know who's right.

Our personalities even relate to, and perhaps influence, our attitudes toward religion. The specific religion we adopt is largely a function of our religious exposure while growing up and is mostly independent of our personality traits. Nevertheless, our *religiosity*—that is, the depth of our religious convictions—is linked to certain personality traits. Adolescents with high levels of conscientiousness (see Chapter 14) are especially likely to become deeply religious adults (McCullough, Tsang, & Brion, 2003).

ATTITUDE CHANGE: WAIT, WAIT, I JUST CHANGED MY MIND

Many of us are surprised to discover that our attitudes on many topics, like the death penalty and abortion, change over the years. We tend to perceive ourselves as more consistent over time in our attitudes than we really are (Bem & McConnell, 1970; Goethals & Reckman, 1973; Ross, 1989), perhaps in part because we don't like to think of ourselves as weak-willed flip-floppers. Yet this point raises a question that psychologists have long struggled to answer: what makes us change our attitudes?

Cognitive Dissonance Theory. In the 1950s, Leon Festinger developed *cognitive dissonance theory,* an influential model of why our attitudes change. According to this theory, we alter our attitudes because we experience an unpleasant state of tension—**cognitive dissonance**—between two or more conflicting thoughts (cognitions). Because we dislike this state of tension, we're motivated to reduce or eliminate it. If we hold an attitude or belief (cognition A) that's inconsistent with another attitude or belief (cognition B), we can reduce the anxiety resulting from this inconsistency in three major ways: change cognition A, change cognition B, or introduce a new cognition, C, that resolves the inconsistency between A and B (see **Figure 13.10**).

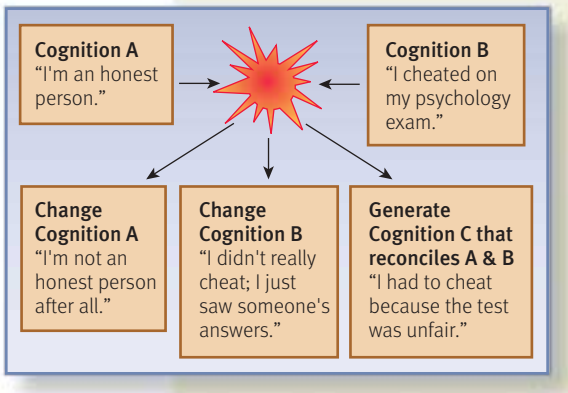


Figure 13.10 Cognitive Dissonance Theory
According to cognitive dissonance theory, we can reduce the conflicts between two cognitions (beliefs) in multiple ways—by changing the first cognition, changing the second cognition, or introducing a third cognition that resolves the conflict.

Let's move from As, Bs, and Cs to a real-world example. Imagine that you believe that your new friend, Sandy, is a nice person. You learn from another friend, Chris, that Sandy recently stole a wallet from a fellow classmate. According to Festinger, this news should produce cognitive dissonance, because it creates a conflict between cognition A (Sandy is a nice person) and cognition B (Sandy stole money from someone and therefore isn't such a nice person after all). To resolve this nagging sense of tension, you can change cognition A and decide that Sandy isn't really a nice person after all. Or you can change cognition B, perhaps by deciding that the news that Sandy stole money must be a false rumor spread by her enemies. Or you can instead introduce a new thought, cognition C, that resolves the discrepancy between cognitions A and B. For example, you could persuade yourself that Sandy is still a nice person but that she took her classmate's wallet because she was starving and in desperate need of a short-term infusion of cash ("I'm sure she'll return the wallet and all of the money in a day or two once she's grabbed something to eat," you reassure yourself).

Festinger and his colleagues (Festinger, Schacter, & Riecken, 1956) took advantage of a unique opportunity to test cognitive dissonance theory (see Chapter 2). They infiltrated a small Illinois cult called the Seekers, led by Mrs. Keech. Inspired by apparent interplanetary communications received by Mrs. Keech, cult members became convinced that the Earth would be annihilated in a gigantic flood on December 21, and that they'd all be rescued and transported by flying saucer to another planet. In anticipation of the

cognitive dissonance
unpleasant mental experience of tension resulting from two conflicting thoughts or beliefs

Falsifiability

grand finale to planet Earth, the cult members prayed repeatedly for their salvation. December 21 came, and the cult members waited . . . and waited . . . and waited. Nothing happened.

The researchers wanted to find out how cult members would react to this blatant disconfirmation of their prophecy. Common sense would dictate that this falsification would weaken their convictions. Yet as Festinger recognized, cognitive dissonance theory predicts the opposite. In this case, cognitive dissonance theory won and common sense lost: the failure of their prophecy strengthened cult members' beliefs. They resolved the cognitive dissonance created by the disconfirmation of their prophecy by persuading themselves that their prayers had saved the world. God, they concluded, was so impressed by their loyalty to Mrs. Keech that he'd decided to spare humanity from destruction.

THINK ABOUT IT

In what ways were the thinking processes of the Seekers and other cult members similar to those of many proponents of pseudoscience?

factoid

In one of the most creative demonstrations of cognitive dissonance theory, four researchers asked subjects to taste fried grasshoppers (Zimbardo, Weisenberg, Firestone, & Levy, 1965). They randomly assigned some subjects to receive this bizarre request from a friendly person, and others to receive it from an unfriendly person. Consistent with cognitive dissonance theory, the latter subjects reported liking the fried grasshoppers more than the former subjects did. Subjects who tasted the grasshoppers at the behest of the friendly person had a good external justification ("I did it to help out a nice person"), but the other subjects didn't. So the latter subjects resolved their dissonance by changing their attitudes—hmmm, those little critters were delicious.

Intriguing as it is, the evidence from Festinger and his cult Seekers is merely anecdotal. So Festinger, along with J. Merrill Carlsmith, conducted the first systematic test of cognitive dissonance theory in the late 1950s (Festinger & Carlsmith, 1959).

The Setup: You sign up for a 2-hour study of "Measures of Performance." At the lab, an experimenter provides you with instructions for some manual tasks—all mind-numbingly boring, like inserting twelve spools into a tray, emptying the tray, refilling the tray, and so on, for half an hour. Now here's the twist: the experimenter explains that a research assistant normally informs the next subject waiting in the hallway about the study and, to help recruit this subject, he says how interesting and enjoyable the study was. Unfortunately, the research assistant couldn't make it into the lab today. So, the experimenter wonders, would you be kind enough to substitute for him?

The Study: Festinger and Carlsmith randomly assigned some subjects to receive $1 to perform this favor and others to receive $20. Afterward, they asked subjects how much they enjoyed performing the tasks. Fom the perspective of learning theory, especially operant conditioning (Chapter 6), we might expect subjects paid $20 to say they enjoyed the task more. Yet cognitive dissonance theory makes a counterintuitive prediction: subjects paid $1 should say they enjoyed the task more. Why? Because all subjects should experience cognitive dissonance: they performed an incredibly boring task but told the next subject it was fun. Yet subjects given $20 had a good *external justification* for telling this little fib, namely, that the experimenter bribed them to do it. In contrast, subjects given $1 had almost no external justification. As a result, the only easy way to resolve their cognitive dissonance was to persuade themselves that they must have enjoyed the task after all. They deceive themselves.

The Results: The results supported this surprising prediction. Subjects given less money reported enjoying the task more, presumably because they needed to justify their lies to themselves. Their behaviors had changed their attitudes. Since Festinger and Carlsmith's study, hundreds of experiments have yielded results consistent with cognitive dissonance theory (Harmon-Jones & Mills, 1999).

Replicability

Alternatives to Cognitive Dissonance Theory. Cognitive dissonance theory is alive and well, although researchers continue to debate whether alternative processes account for attitude change. Some scholars contend that it's not dissonance itself that's responsible for shifting our attitudes, but rather threats to our self-concepts (Aronson, 1992; Wood, 2000). In Festinger and Carlsmith's (1959) study, perhaps what motivated subjects in the $1 condition to change their attitudes was a discrepancy between who they believed they were (a decent person) and what they did (lie to another subject). From this perspective, only certain conflicts between attitudes produce cognitive dissonance, namely, those that challenge our views of who we are.

There are at least two other alternative explanations for cognitive dissonance effects. The first, **self-perception theory,** proposes that we acquire our attitudes by observing our behaviors (Bem, 1967). According to this model, Festinger and Carlsmith's subjects in the $1 condition looked at their behavior and said to themselves, "I told the other subject that I liked the task, and I got paid only one lousy buck to do so. So I guess I must have really liked the task." The second, **impression management theory** (Goffman, 1959), proposes that we don't really change our attitudes in cognitive dissonance studies; we only tell the experimenters we have. We do so because we don't want to appear inconsistent (Tedeschi, Schlenker, & Bonoma, 1971). According to this model, Festinger and Carlsmith's subjects in the $1 condition didn't want to look like hypocrites. So they told the experimenter they enjoyed the task even though they didn't. As is often the case in psychology, there may be some truth to each of these explanations. Some subjects may exhibit attitude change because of cognitive dissonance, others because of self-perception, and still others because of impression management (Bem & Funder, 1978).

PERSUASION: HUMANS AS SALESPEOPLE

Whether or not we realize it, we encounter attempts at persuasion every day. If you're like the average student entering college, you've already watched 360,000 commercials; that number will reach a staggering 2 million by the time you turn 65. Each time you walk into a store or supermarket, you see hundreds of products that marketers have crafted carefully to make you more likely to purchase them.

Routes to Persuasion. According to *dual process models* of persuasion, there are two alternative pathways to persuading others (Petty & Cacioppo, 1986). One, the *central* route, leads us to evaluate the merits of persuasive arguments carefully and thoughtfully. The other, the *peripheral* route, leads us to respond to persuasive arguments on the basis of snap judgments. The danger of persuasive messages that travel through the peripheral route is that we can be easily fooled by superficial factors, such as how physically attractive, famous, or likable the communicator is or how many times we've heard the message (Hemsley & Doob, 1978; Hovland, Janis, & Kelly, 1953; Kenrick, Neuberg, & Cialdini, 2005).

Studies of the foot-in-the-door technique suggest that once a person agrees to place a small political sign in her yard, she'll be more likely to later agree to place an even larger sign in her yard.

Persuasion Techniques. Drawing on the research literature concerning attitudes and attitude change, psychologists have identified a host of effective techniques for persuading others. Many of these methods operate by means of the peripheral persuasion route, largely bypassing our critical thinking capacities. Interestingly, successful businesspeople have used many of these techniques for decades (Cialdini, 2001). Let's look at three of them.

- **Foot-in-the-door technique:** Following on the heels of cognitive dissonance theory (Freedman & Fraser, 1966; Gorassini & Olson, 1995), the **foot-in-the-door technique** suggests that we start with a small request before making a bigger one. If we want to get our classmate to volunteer 5 hours a week for the "Helping a Starving Psychologist" charity organization, we can first ask her to volunteer 1 hour a week. Once we've gotten her to agree to that request, we have our "foot in the door," because from the perspective of cognitive dissonance theory she'll feel a need to justify her initial commitment. As a consequence, she'll probably end up with a positive attitude toward the organization, making it easier to get her to volunteer even more of her time.
- **Door-in-the-face technique:** Alternatively, we can start with a large request, like asking for a $100 donation to our charity, before asking for a small one, like a $10 donation (Cialdini et al., 1975; O'Keefe & Hale, 2001). One reason the **door-in-the-face technique** works may be that the initial large request often induces guilt in recipients (O'Keefe & Figge, 1997). But if the initial request is so outrageous that it appears insincere or unreasonable, this method often backfires (Cialdini & Goldstein, 2004). Meta-analyses (see Chapter 2) suggest that the foot-in-the-door and door-in-the-face techniques work about equally well (Pascual & Guequen, 2005).
- **Low-ball technique:** In the **low-ball technique,** the seller of a product starts by quoting a price well below the actual sales price (Burger & Petty, 1981; Cialdini, 2001). Once the

self-perception theory
theory that we acquire our attitudes by observing our behaviors

impression management theory
theory that we don't really change our attitudes, but report that we have so that our behaviors appear consistent with our attitudes

foot-in-the-door technique
persuasive technique involving making a small request before making a bigger one

door-in-the-face technique
persuasive technique involving making an unreasonably large request before making the small request we're hoping to have granted

low-ball technique
persuasive technique in which the seller of a product starts by quoting a low sales price, and then mentions all of the "add-on" costs once the customer has agreed to purchase the product

In the low-ball technique, a used car salesperson will begin the deal by quoting a low base price and then mention all the extra features that cost more once the person has agreed to purchase the car.

buyer agrees to purchase the product, the seller mentions all of the desirable or necessary "add-ons" that come along with the product. By the time the deal is done, the buyer may end up paying twice as much as he'd initially agreed to pay. We can even use this technique to obtain favors from friends. In one study, a confederate asked strangers to look after his dog while he visited a friend in the hospital. In some cases, he first got the stranger to agree to the request, and only then told him he'd be gone for half an hour; in other cases, he told the stranger up front he'd be gone for half an hour. The first tactic worked better (Gueguen, Pascual, & Dagot, 2002).

The Marketing of Pseudoscience. Many proponents of pseudoscience make good use of persuasion tactics, although they may sometimes do so with the best of intentions. The appeal of these tactics helps to explain why so many intelligent people fall prey to pseudoscientific claims. To resist these tactics, we first must be able to recognize them. Anthony Pratkanis (1995) identified a variety of persuasion tactics to watch out for when evaluating unsubstantiated claims. **Table 13.3** lists eight of them; we should bear in mind that people can use most of these tactics to persuade us of a wide variety of claims of both the pseudoscientific and everyday variety. As we can see, several of these tactics make use of heuristics; that is, mental shortcuts (Chapter 2) that are appealing and seductive, but false.

Table 13.3 Pseudoscience Marketing Techniques.

Pseudoscience Tactic	Concept	Example	Problem
Creation of a "phantom" goal	Capitalize on desire to accomplish unrealistic objectives	"Master the complete works of Shakespeare while sleeping!"	Extreme claims are usually impossible to achieve
Vivid testimonials	Learning about someone else's personal experience	"Sandra Sadness was severely depressed for 5 years until she underwent rebirthing therapy!"	A single person's perspective is virtually worthless as scientific evidence but can be extremely persuasive (see Chapter 2)
Manufacturing source credibility	We're more likely to believe sources that we judge to be trustworthy or legitimate	"Dr. Jonathan Nobel from Princeton endorses this subliminal tape to build self-esteem."	Advertisers may present source in a deceptive fashion
Scarcity heuristic	Something that's rare must be especially valuable	"Call before midnight to get your copy of Dr. Genius's Improvement Program; it's going to sell out fast!"	Scarcity may be false or a result of low production because of low anticipated demand
Consensus heuristic	If most people believe that something works, it must work	"Thousands of psychologists use the Rorschach Inkblot Test, so it must be valid."	Common "knowledge" is often wrong (see Chapter 1)
The natural commonplace	A widely held belief that things that are natural are good	"Mrs. Candy Cure's new over-the-counter antianxiety medication is made from all-natural ingredients!"	*Natural* doesn't mean healthy—just look at poisonous mushrooms
The goddess-within commonplace	A widely held belief that we all possess a hidden mystical side that traditional Western science neglects or denies	"The Magical Mind ESP Enhancement program allows you to get in touch with your unrecognized psychic potential!"	Carefully controlled tests fail to support supernatural ability or potential (see Chapter 4)

ASSESS YOUR KNOWLEDGE: SELF-TEST 4

(1) People's attitudes often don't predict their behaviors especially well. (True/False)
(2) We're less likely to believe something we've heard many times. (True/False)
(3) The best way to change people's minds on an issue is to pay them a large sum of money for doing so. (True/False)
(4) Using the door-in-the-face technique, we begin with a small request before making a larger one. (True/False)

Answers: (1) T (p. 27); (2) F (p. 27); (3) F (p. 30); (4) T (p. 31)

Prejudice and Discrimination

The term **prejudice** means to prejudge—to arrive at a conclusion before we've evaluated all of the evidence. If we're prejudiced toward a specific class of persons, whether they be women, African Americans, Norwegians, or hair stylists, it means we've jumped to a premature conclusion about them.

THE NATURE OF PREJUDICE

It's safe to say that we all harbor at least some prejudices against certain groups of people (Aronson, 2000). Some have argued that a tendency toward prejudice is deeply rooted in the human species. From the standpoint of natural selection, organisms benefit from forging close alliances with insiders and mistrusting outsiders (Cottrell & Neuberg, 2005). This is part of a broader evolutionary principle called **adaptive conservatism** (Henderson, 1985; Mineka, 1992): better safe than sorry. Indeed, members of one race are more likely to show pronounced skin conductance responses (see Chapter 6) to fear-relevant stimuli—a snake and a spider—than to fear-irrelevant stimuli—a bird and a butterfly—that have been paired repeatedly with faces of a different race (Olsson, Ebert, Banaji, & Phelps, 2005). We quite easily, and perhaps quite naturally, associate people from other races with scary things.

Still, notice that we used the term "tendency" in the previous paragraph. Even if there's an evolutionary predisposition toward fearing or mistrusting outsiders, that doesn't mean that prejudice is inevitable. Two major biases are associated with our tendency to forge alliances with people like ourselves.

In-group bias, the tendency to favor individuals inside our group relative to members outside our group. If you've ever watched a sporting event, you've observed in-group bias: thousands of red-faced fans (the term "fan," incidentally, is short for "fanatic") cheering their home team wildly and booing the visiting team with equal gusto, even though most of these fans have no financial stake in the game's outcome. Yet the home team is their "tribe," and they'll happily spend several hours out of their day to cheer them on against their mortal enemy.

In-group bias may be reinforced by our tendency to "turn off" our compassion toward out-group members. In one study, researchers using functional magnetic resonance imaging (fMRI) imaged the brains of liberal college students while they pondered the description of someone similar to themselves, a liberal person, and then a person dissimilar from themselves, a Christian conservative. The medial prefrontal cortex, which tends to become active when we feel empathy toward others, became more active when subjects thought about the liberal person. But it became less active when they thought about the Christian conservative (Mitchell, Banaji, & Phelps, 2006).

The second bias is **out-group homogeneity,** the tendency to view all people outside of our group as highly similar (Park & Rothbart, 1982). Out-group homogeneity makes it easy for us to dismiss members of other groups in one fell swoop, because we can simply tell ourselves that they all share at least one undesirable characteristic. In this way, we don't need to bother getting to know them.

Demonizing the enemy is a frequent manifestation of in-group bias.

prejudice
drawing conclusions about a person, group of people, or situation prior to evaluating the evidence

adaptive conservatism
evolutionary principle that creates a predisposition toward distrusting anything or anyone unfamiliar or different

in-group bias
tendency to favor individuals within our group over those from outside our group

out-group homogeneity
tendency to view all individuals outside our group as highly similar

discrimination
negative behavior toward members of out-groups

DISCRIMINATION

Prejudice can also lead to discrimination, a term with which it's often confused. **Discrimination** is the act of treating members of out-groups differently from members of in-groups. *Whereas prejudice refers to negative attitudes toward others, discrimination refers to negative behaviors toward others.* We can be prejudiced against people without discriminating against them.

Consequences of Discrimination. Discrimination has significant real-world consequences. For example, far fewer women than men are members of major American

Most U.S. orchestras now use blind auditions as a safeguard against sex bias and discrimination.

orchestras. To investigate this issue, one research team examined how music judges evaluated female musicians during auditions. In some cases, judges could see the musicians; in others, the musicians played behind a screen. When judges were blind to the musicians' sex, women were 50 percent more likely to pass auditions (Goldin & Rouse, 2000). For this reason, most major American orchestras today use blind auditions (Gladwell, 2004).

In another study, investigators (Word, Zanna, & Cooper, 1974) observed Caucasian undergraduates as they interviewed both Caucasian and African American applicants (who were actually confederates of the experimenters) for a job. When interviewing African American applicants, interviewers sat farther away from the interviewee, made more speech errors, and ended the interview sooner.

These findings, which focused on interviewer behavior, didn't demonstrate whether the different treatment affected the applicants' behavior. So the researchers trained Caucasian interviewers to treat Caucasian job applicants in the same way they'd treated African American applicants. Independent evaluators who were blind to the behavior of the interviewers coded the behavior of applicants from videotaped interviews. The results were striking. The evaluators rated job applicants who received the "African American treatment" as significantly more nervous and less qualified for the job than job applicants who received the "Caucasian treatment." This study shows how subtle discriminatory behaviors can adversely affect the quality of interpersonal interactions. Discrimination can be subtle, yet powerful.

Creating Discrimination: Don't Try This at Home. It's remarkably easy to cook up discrimination. The recipe? Just create two groups that differ on any characteristic, no matter how trivial. Jonathan Swift's classic 1726 novel, *Gulliver's Travels*, featured two groups, the Little Endians and the Big Endians, who found themselves in brutal conflict over whether one should crack open eggs on the little end or the big end.

Jane Elliott's classic blue eyes–brown eyes demonstration highlighted the negative interpersonal effects of discrimination.

More than two centuries later, Henry Tajfel (1982) developed the *minimal intergroup paradigm*, a laboratory method for creating groups based on arbitrary differences. In one study, Tajfel and colleagues flashed groups of dots on a screen and asked subjects to estimate how many dots they saw. In reality, the researchers ignored subjects' answers, randomly classifying some as "dot overestimators" and others as "dot underestimators." They then gave subjects the opportunity to distribute money and resources to other subjects. People within each group allotted more goodies to people inside than outside their dot estimator group (Tajfel, Billig, Bundy, & Flament, 1971).

Iowa schoolteacher Jane Elliott created similarly random discrimination in her third-grade classroom in 1969. The day after civil rights leader Reverend Martin Luther King, Jr. was assassinated, she divided her class into favored and disfavored groups based solely on their eye color (Monteith & Winters, 2002). Informing her pupils that brown-eyed children are superior because of excess melanin in their eyes, Elliott deprived blue-eyed children of basic rights, such as second helpings at lunch or drinking from the water fountain. She also insulted blue-eyed children, calling them lazy, dumb, and dishonest. According to Elliott, the results were dramatic; most brown-eyed children quickly become arrogant and condescending, and most blue-eyed children became submissive and insecure.

Teachers across the United States used the now-famous Blue Eyes–Brown Eyes demonstration in the late 1960s and 1970s to teach students about the dangers of discrimination (the first author of your textbook was a subject in one of these demonstrations as an elementary school student in New York City). One follow-up study investigating the effects of this demonstration suggests that Caucasian students who go through it report less prejudice toward minorities than do Caucasian students in a control group (Stewart, La Duke, Bracht, Sweet, & Gamarel, 2003). Nevertheless, because students who underwent this demonstration may have felt demand characteristics to report less prejudice, additional studies are needed to rule out this alternative explanation.

Ruling Out Rival Hypotheses

stereotype
a belief, positive or negative, about the characteristics of members of a group that is applied generally to most members of the group

STEREOTYPES

Prejudice results in part from stereotyping. A **stereotype** is a belief—positive or negative—about a group's characteristics that we apply to most members of that group. Like many

mental shortcuts, stereotypes typically stem from adaptive psychological processes. As we learned in Chapter 2, we humans are *cognitive misers*—we strive to save mental energy by simplifying reality. By lumping enormous numbers of people who share a single characteristic, like skin color, nationality, or religion, into a single category, stereotypes help us to make sense of our often confusing social worlds (Macrae & Bodenhausen, 2000). In this regard, they're like other schemas (see Chapter 7) in that they help us to process information.

Yet stereotypes can mislead us when we paint them with too broad a brush, as when we assume that *all* members of a group share a given characteristic. They can also mislead us when we cling to them too rigidly and are unwilling to modify them in light of disconfirming evidence.

Once we've learned them, stereotypes come to us naturally. Research suggests that overcoming stereotypes takes hard mental work. The key difference between prejudiced and nonprejudiced people isn't that the former have stereotypes of minority groups and the latter don't, because both groups harbor such stereotypes. Instead, it's that prejudiced

NEW FRONTIERS

Implicit Measures of Prejudice

Surveys demonstrate that interracial prejudice has declined substantially in the United States over the past four to five decades (Schuman, Steeh, Bobo, & Kyrsan, 1997). Nevertheless, some scholars contend that much prejudice, particularly that of Caucasians toward African Americans, has merely "gone underground"—that is, become subtler (Fiske, 2002; Hackney, 2005; Sue et al., 2007). Some researchers refer to this newer form of prejudice as *modern racism,* and they assess it using questions concerning opposition to affirmative action, support for racial profiling, and other controversial political issues (Sears & Henry, 2003). Other researchers maintain that measures of "modern racism" don't necessarily capture racist attitudes, because opponents of affirmative action or proponents of racial profiling may merely be expressing legitimate conservative political values (Redding, 2004).

An alternative approach to studying subtle prejudice is to measure implicit (unconscious) prejudice (Fazio & Olson, 2003; Vanman, Paul, Ito, & Miller, 1997). **Implicit stereotypes** are those of which we're unaware, and **explicit stereotypes** are those of which we're aware. One implicit method is based on the technique of affective priming: quickly presenting subjects with an emotionally charged prime stimulus (typically a word or a face) to see whether it speeds up their response to an emotionally charged word (see Chapter 7). For example, Russell Fazio and his colleagues flashed either Caucasian or African American faces on a computer screen, followed by either positive words (such as "wonderful") or negative words (such as "annoying") words. They asked Caucasian subjects to press a button to indicate whether these words were positive or negative. These subjects responded more quickly to positive words preceded by Caucasian faces and to negative words preceded by African American faces (Fazio, Jackson, Dunton, & Williams, 1995). The researchers reasoned that these findings reflect implicit prejudice, because they demonstrate that many Caucasians associate Caucasian faces with good things and African American faces with bad things.

An implicit prejudice technique that's received even more attention in recent years is the Implicit Association Test (IAT) developed by Anthony Greenwald and Mahzarin Banaji. As shown in **Figure 13.11**, researchers might ask a participant completing the IAT to first press the left key on a computer keyboard if they see a photograph of either an African American *or* a positive word (like "joy") and to press the right key if they see a photograph of a Caucasian *or* a negative word (like "bad"). After performing this task

implicit and explicit stereotypes beliefs about the characteristics of an out-group about which we're either unaware (implicit) or aware (explicit)

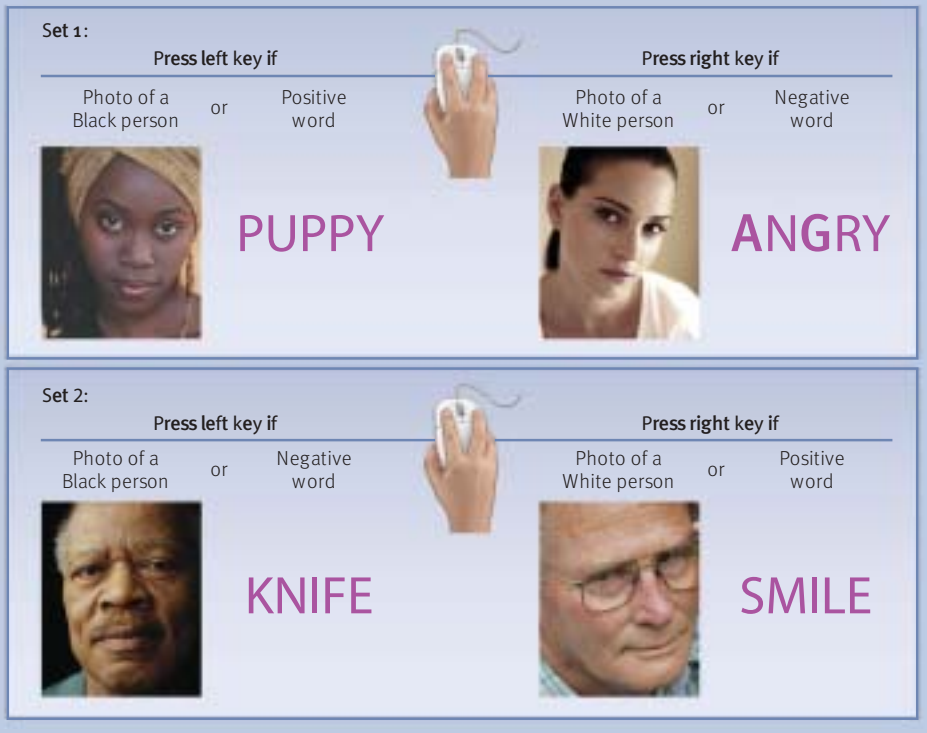


Figure 13.11 The Implicit Association Test
The Implicit Association Test (IAT) is the most widely researched measure of implicit or unconscious prejudice. This is a rendered example: many people (across races) associate negative words more readily with African American than Causasian faces. But does the test really measure unconscious prejudice, or does it measure something else?

for a number of trials, researchers ask participants to again press the left and right keys, but this time for the reverse pairing (that is, to press the left key for a photograph of either an African American or a negative word, and the right key for a photograph of either a Caucasian or a positive word) (Greenwald, McGhee, & Schwartz, 1998). The results of numerous studies demonstrate that most Caucasian participants respond more quickly to the reverse pairing, that is, when African American faces are paired with negative words and when Caucasian faces are paired with positive words (Banaji, 2001). Investigators have recently expanded the IAT to test a variety of forms of prejudice, including racism, sexism, homophobia, and ageism (prejudice against older individuals). Many authors argue that the results of the IAT reflect unconscious prejudice (Gladwell, 2004; Greenwald & Nosek, 2001). If you want to try out the IAT, check out the web site https://implicit.harvard.edu/implicit/demo.

Nevertheless, things may not be quite that simple. For one thing, the IAT rarely correlates significantly with explicit measures of prejudice, such as questionnaire measures of racist attitudes (Arkes & Tetlock, 2004). Proponents of the IAT argue that this absence of a correlation actually supports the IAT's validity, because the IAT supposedly measures unconscious rather than conscious racial attitudes. Yet this reasoning raises questions regarding the falsifiability of the IAT, because IAT proponents could presumably interpret either a positive or a zero correlation as evidence for the IAT's validity. Moreover, it's not clear whether the IAT measures prejudice as much as awareness of stereotypes. That is, unprejudiced persons may correctly perceive that much of mainstream American society links Muslims, for example, with many negative characteristics and Christians with many positive characteristics, yet they may personally reject these associations as biased (Arkes & Tetlock, 2004; Redding, 2004). The true meaning of scores on the IAT and other implicit prejudice measures remains controversial (Gawronski, LeBel, & Peters, 2007).

Falsifiability

people don't try hard to resist their stereotypes, but nonprejudiced people do (Devine, 1989; Devine, Monteith, Zuwerink, & Elliott, 1991).

Stereotypes: Are They Accurate? Many stereotypes contain a kernel of truth, and still others are largely accurate. Janet Swim (1994) compared laypersons' estimates of the magnitude of sex differences on various psychological traits, such as aggression, helpfulness, talkativeness, and conformity, with the actual magnitude of these differences found by researchers. In most cases, people's estimates of the size of these sex differences corresponded closely to their actual size. For example, most people believe that men are somewhat more likely than women to be physically aggressive, and research shows that they're right.

Nevertheless, some stereotypes are massive overgeneralizations. These stereotypes reflect the presence of *illusory correlation* (Chapter 2), because they indicate the perception of an erroneous association between a minority group and a given characteristic (Hamilton & Rose, 1980). For example, although most people believe that there's a powerful correlation between mental illness and violence, studies indicate that the risk of violence is markedly elevated only among a small subset of mentally ill individuals, particularly those with paranoid beliefs (Faenza, Glover, Hutchings, & Radack, 1999; Monahan, 1984; see Chapter 15). Similarly, surveys demonstrate that most Americans believe that lesbian women are at especially high risk for HIV infection, even though lesbian women actually have lower rates of HIV infection than heterosexuals of both sexes and homosexual men (Aronson, 1992).

Ultimate Attribution Error. Stereotypes can also result in what Thomas Pettigrew (1979) called the **ultimate attribution error:** the mistake of attributing the behavior of entire groups—like women, Christians, or African Americans—to their dispositions. Like the fundamental attribution error, after which it's named, this error leads us to underestimate the impact of situational factors on people's behavior. For example, Caucasian students are more likely to interpret a shove as intentionally aggressive, as opposed to accidental, when it originates from an African American than from another Caucasian (Duncan, 1976).

ROOTS OF PREJUDICE: A TANGLED WEB

The roots of prejudice are complex and multifaceted. Nevertheless, psychologists have honed in on several crucial factors that contribute to prejudice. We'll examine a few of them: scapegoating, the just-world hypothesis, conformity, and individual differences in psychological traits.

Scapegoat Hypothesis. According to the **scapegoat hypothesis,** prejudice arises from a need to blame other groups for our misfortunes. Between 1882 and 1930, for instance, the number of lynchings of African Americans in the U.S. South rose when the price of cotton went up (Tolnay & Beck, 1995). This finding suggests that some Caucasians may have blamed African Americans for the bad prices, although we don't know this for certain. For example, it's possible that higher cotton prices were associated with greater violence toward all members of society, not just African Americans. Nevertheless, there's more direct research support for the scapegoat hypothesis. In an experiment disguised as a study of learning, Caucasian students administered more intense electric shocks to an African American student than to a Caucasian student, but only when the African American student was unfriendly (Rogers & Prentice-Dunn, 1981). This finding is consistent with the possibility that frustration can produce aggression, which people then displace onto minority groups.

Just-World Hypothesis. Melvin Lerner's (1980) **just-world hypothesis** implies that many of us have a deep-seated need to perceive the world as fair—to believe that all things happen for a reason. Ironically, this need for a sense of fair play, especially if powerful, may lead to prejudice. That's because it can lead us to place blame on groups who are already in a one-down position. People with a strong belief in a just world are especially likely to believe that victims of serious illnesses, including cancer and AIDS, are responsible for

factoid

The term *scapegoat* originates from Biblical times, when rabbis engaged in an unusual practice for eliminating sin on the Jewish holy day of Yom Kippur. They brought forth two goats, one of which they sacrificed to God. The other goat lucked out. The rabbis grabbed the lucky goat's head while recounting all of the sins of the people, symbolically transferring these sins onto it. They then released the escaping goat—the *scapegoat*—into the woods, where it carried away the burden of society's moral errors.

Ruling Out Rival Hypotheses

ultimate attribution error
assumption that behaviors among individual members of a group are due to their internal dispositions

scapegoat hypothesis
claim that prejudice arises from a need to blame other groups for our misfortunes

just-world hypothesis
claim that our attributions and behaviors are shaped by a deep-seated assumption that the world is fair and all things happen for a reason

their plights (Hafer & Begue, 2005). Sociologists and psychologists have referred to this phenomenon as "blaming the victim" (Ryan, 1976).

Conformity. Some prejudiced attitudes and behaviors probably stem from conformity to social norms. A study conducted in South Africa half a century ago revealed that Caucasians with a high need for conformity were especially likely to be prejudiced against Blacks (Pettigrew, 1958). Such conformity may originate from a need for social approval. In a study of college fraternities and sororities, researchers found that established members of Greek organizations were about equally likely to express negative views of out-groups (other fraternities and sororities) regardless of whether their opinions were public or private. In contrast, new pledges to these organizations were more likely to express negative views of out-groups when their opinions were public (Noel, Wann, & Branscombe, 1995). Presumably, the pledges wanted to be liked by in-group members and went out of their way to voice their dislike of the "outsiders."

Individual Differences in Prejudice. Some people exhibit high levels of prejudice against a wide variety of out-groups. For example, people with authoritarian personality traits (which we discussed earlier), are prone to high levels of prejudice against many groups, including Native Americans and homosexuals (Altemeyer, 2004; Whitley & Lee, 2000). In addition, people with high levels of *extrinsic religiosity*, who view religion as a means to an end, such as obtaining friends or social support, tend to have high levels of prejudice (Batson & Ventis, 1982). In contrast, people with high levels of *intrinsic religiosity*—for whom religion is a deeply ingrained part of their belief system—tend to have equal or lower levels of prejudice than nonreligious people (Gorsuch, 1988; Pontón & Gorsuch, 1988).

COMBATING PREJUDICE: SOME REMEDIES

Having traversed some depressing ground—blind conformity, destructive obedience, bystander nonintervention, social loafing, and now prejudice—we're pleased to close our chapter with a piece of good news: we can overcome prejudice, at least to some extent. How?

Robbers Cave Study. We can find some clues in a study that Muzafer Sherif and his colleagues conducted in Robbers Cave, Oklahoma (so named because robbers once used these caves to hide from law enforcement authorities). Sherif split twenty-two well-adjusted fifth grade students into two groups, the Eagles and the Rattlers, and sent them packing to summer camp. After giving the boys within each group the chance to form strong bonds, Sherif introduced the groups to each other and engaged them in a 4-day sports and games tournament. When he did, pandemonium ensued. The Eagles and Rattlers displayed intense animosity toward one another, eventually manifesting in name-calling, food throwing, and fistfights.

In jigsaw classrooms, children cooperate on a multipart project, with each child assuming a small but essential role.

jigsaw classrooms
educational approach designed to minimize prejudice by requiring all children to make independent contributions to a shared project

Sherif next wanted to find out whether he could "cure" the prejudice he'd helped to create. His treatment was simple: engaging the groups in activities that required them to cooperate to achieve an overarching goal. For example, he rigged a series of mishaps, such as a breakdown of a truck carrying food supplies, that forced the Eagles and the Rattlers to work together. Sure enough, such cooperation toward a shared goal produced a dramatic decrease in hostility between the groups (Sherif, Harvey, White, Hood, & Sherif, 1961).

Jigsaw Classrooms. Elliott Aronson (Aronson, Blaney, Stephan, Sikes, & Snapp, 1978) incorporated the lessons of the Robbers Cave research into his educational work on **jigsaw classrooms,** in which teachers assign children separate tasks that all need to be fitted together to complete a project. A teacher might give each student in a class a different piece of history to investigate regarding the U.S. Civil War. One might present on Virginia's role,

another on New York's, another on Georgia's, and so on. The students then cooperate to assemble the pieces into an integrated lesson. Numerous studies reveal that jigsaw classrooms result in significant decreases in racial prejudice (Aronson, 2004; Slavin & Cooper, 1999).

The Robbers Cave study and Aronson's work on jigsaw classrooms underscore a lesson confirmed by many other social psychology studies: *increased contact between racial groups is rarely sufficient to reduce prejudice.* Indeed, during the early Civil Rights era in the United States, many attempts to reduce prejudice by means of desegregation backfired, resulting in increases in racial tension (Stephan, 1978). The advocates of these well-intended efforts assumed mistakenly that contact by itself could heal the deep wounds of prejudice. We now know that interventions are most likely to reduce prejudice only if they satisfy several conditions (see **Table 13.4**). These conditions lead to an optimistic conclusion: prejudice is neither inevitable nor irreversible.

Table 13.4 Ideal Conditions for Reducing Prejudice

- The groups should cooperate toward shared goals
- The contact between groups should be enjoyable
- The groups should be of roughly equal status
- Group members should disconfirm the other group's negative stereotypes
- Group members should have the potential to become friends

(Source: Kenrick et al., 2005; Pettigrew, 1998)

THINK ABOUT IT

In 2005, a library in Stockholm, Sweden, launched an innovative "borrow a person" policy in an effort to reduce prejudice. This policy allowed visitors to speak with a member of a stigmatized minority group—such as Muslims, gypsies, and homosexuals—for 45 minutes in the library café. Based on the research we've reviewed, will this program be successful in reducing prejudice? Why or why not?

ASSESS YOUR KNOWLEDGE: SELF-TEST 5

(1) Prejudice refers to negative behavior against out-group members. (True/False)
(2) By definition, all stereotypes are inaccurate. (True/False)
(3) Research demonstrates that nonprejudiced people lack stereotypes of other groups. (True/False)
(4) Cooperation toward shared goals is a key ingredient in reducing prejudice. (True/False)
(5) Research suggests that increased contact between groups is sufficient to reduce prejudice. (True/False)

Answers: (1) F (p. 33); (2) F (p. 35); (3) F (p. 35); (4) T (p. 38); (5) F (p. 39)

Think again...

The Complete Review System

THINK / ASSESS / STUDY / SUCCEED

What Is Social Psychology? (pp. 13-2–13-7)

STUDY the Learning Objectives

- ▶ **Identify the ways in which social situations influence the behaviors of individuals**
  - The need to belong theory proposes that humans have a biological need for interpersonal connections.
  - Social facilitation refers to the presence of others enhancing our performance in certain situations.
- ▶ **Explain how and why our attributions about the causes of others' behavior are accurate in some cases but biased in others**
  - Attributions refer to our efforts to explain behavior; some attributions are internal, others external.
  - The great lesson of social psychology is the fundamental attribution error—the tendency to overestimate the impact of dispositions on others' behavior.
- ▶ **Explain the power of our observations of others to influence our thoughts, beliefs, and decisions**
  - According to social comparison theory, we're motivated to evaluate our beliefs, attitudes, and reactions by comparing them with the beliefs, attitudes, and reactions of others.
  - Mass hysteria is an outbreak of irrational behavior spread by social contagion.

DO YOU KNOW THESE TERMS?

- ❑ **social psychology** (p. 13-2)
- ❑ **social facilitation** (p. 13-4)
- ❑ **attribution** (p. 13-4)
- ❑ **fundamental attribution error** (p. 13-4)
- ❑ **social comparison theory** (p. 13-6)
- ❑ **mass hysteria** (p. 13-6)

You are standing in a crowded elevator when suddenly all of the other riders turn to the right. How likely are you to follow suit? How uncomfortable would you be if you continued to face the doors? (p. 13-5)

How can you determine if this story is true or mere urban legend? (p. 13-7)

THINK about what You would do . . .

How important to you are your social bonds? How long could you last if isolated from human contact for an extended period of time? (p. 13-3)

SUCCEED with mypsychlab

Internal and External Attributions

Find out how accurate (or inaccurate) the attributions you assign to people can be. (p. 13-4)

ASSESS your knowledge

1. Social psychologists study how people influence others' _____, _____, and _____, for both good and bad. (p. 13-2)
2. The size of our neocortex relative to the rest of our brain (limits/doesn't limit) the number of people we can closely associate with. (p. 13-3)
3. The biologically-based need humans have for interpersonal connections is known as the _____ theory. (p. 13-3)
4. An improved performance in the presence of others, in certain situations, is explained by _____. (p. 13-4)
5. A worsened performance in the presence of others, in certain situations, is explained by _____. (p. 13-4)
6. Researchers have found that our performance in front of others in certain situations is determined by our level of _____ in that particular performance area. (p. 13-4)
7. We tend to form _____ in our desire to assign causes to other people's behavior. (p. 13-4)
8. The tendency to overestimate the impact of _____ on others' behavior is called the fundamental attribution error. (p. 13-5)
9. According to Festinger's _____ theory, when a situation is unclear, we look to others for guidance about what to believe and how to act. (p. 13-6)
10. Stories of people waking up after partying in a bathtub full of ice with their kidneys removed is an example of an _____. (p. 13-7)

STUDY the Learning Objectives

Social Influence (pp. 13-7–13-19)

- ▶ **Determine the factors that influence when we conform to the behaviors and beliefs of others**
  - Conformity refers to the tendency of people to change their behavior as a result of group pressure. Asch's conformity studies underscore the power of social pressure, although there are individual and cultural differences in conformity.
  - Deindividuation refers to the tendency of people to engage in atypical behavior when stripped of their usual identities. The Stanford prison study is a powerful demonstration of the effects of deindividuation on behavior.
- ▶ **Recognize the dangers of group decision**

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Conformity and Influence in Groups

Understand how that baggy pants phase you went through in high school influenced your style. (p. 13-7)

THINK about what You would do . . .

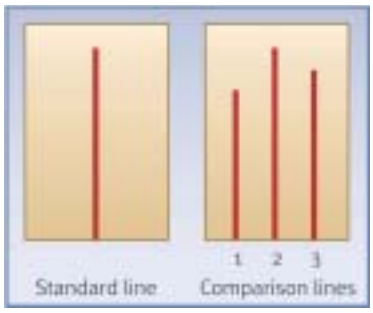
Leaving a championship basketball game your team has just won you find yourself caught up in a violent riot, how do you conduct yourself? (p. 13-10)

At what point in the Milgram study do you think you would have refused to comply with orders to shock the "learner" to the fullest extent? (p. 13-16)

SUCCEED with mypsychlab

Stanford Prison Experiment

Experience how easily a person can become over-powering or overpowered when assigned specific social roles. (p. 13-10)



Under what circumstances would you identify line 3 from this image as matching in length to the standard line shown? (p. 13-8)

ASSESS your knowledge

1. Changing your personal style, habits, or behavior in order to fit into a social or peer group is an example of _____. (p. 13-7)
2. Parametric studies manipulate the _____ variable in various ways to determine its effect on the _____ variable. (p. 13-8)
3. In the Asch experiment, if one confederate gave the correct response, the level of conformity (increased/decreased). (p. 13-8)
4. Conformity, as found by researcher Berns and his colleagues, is associated with activity in the _____ and _____ lobes of the brain. (p. 13-9)
5. People's responses to social pressure (are/are not) associated with individual and cultural differences. (p. 13-9)
6. People with (high/low) self esteem are especially prone to conformity. (p. 13-9)
7. Researchers like Phil Zimbardo found that the two prominent factors which contribute to deindividuation are _____ and _____. (p. 13-10)
8. The _____ research study results have been recently compared to the prison guard atrocities at Abu Ghraib in Iraq. (p. 13-11)
9. NASA's decision to launch the 1986 Challenger Shuttle despite warnings of potential problems from engineers was the result of _____. (p. 13-13)
10. Milgram's experiment testing the effects of "punishment on learning" was, in reality, an experiment designed to measure _____. (p. 13-16)

making and identify ways to avoid mistakes common in group decisions

- Groupthink is a preoccupation with group unanimity that impairs critical thinking. It can be cured by interventions that encourage dissent within the group.
- Group polarization refers to the tendency of group discussion to strengthen the dominant positions of individual group members.
- Cults are groups of individuals who exhibit extreme groupthink, marked by intense and unquestioning devotion to a single individual.

▶ **Identify the contexts that maximize or minimize obedience to authority**

- Milgram's classic work on authority demonstrates the power of destructive obedience to authority and helps to clarify the situational factors that both foster and impede obedience.

DO YOU KNOW THESE TERMS?

- ❑ **conformity** (p. 13-7)
- ❑ **parametric studies** (p. 13-8)
- ❑ **deindividuation** (p. 13-10)
- ❑ **groupthink** (p. 13-12)
- ❑ **group polarization** (p. 13-13)
- ❑ **cults** (p. 13-13)
- ❑ **inoculation effect** (p. 13-14)
- ❑ **obedience** (p. 13-14)

Helping and Harming Others (pp. 13-19–13-26)

THINK about what You would do . . .

Your professor collapses in front of a packed lecture hall of students; How do you personally react? (p. 13-25)

Assuming the bystander effect is at play in this photo, what steps could you take to improve your chances of getting someone to help if you were hurt or sick in public? (p. 13-21)

What phenomenon did primate researcher Frans de Waal capture in this photo of two chimpanzees? (p. 13-19)

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Bystander Effect

Find out just how you might react in a bystander intervention situation. (p. 13-20)

STUDY the Learning Objectives

▶ **Recognize why individuals may not help others in distress in group contexts**

- Although common wisdom suggests that there's "safety in numbers," psychological research suggests otherwise. Bystander nonintervention results from two major factors: pluralistic ignorance and diffusion of responsibility. The first affects whether we recognize ambiguous situations as emergencies, and the second affects how we respond once we've identified situations as emergencies.

▶ **Distinguish those aspects of a situation that increase or decrease the likelihood of helping**

- People are more likely to help when they're unable to escape from a situation, have adequate time to intervene, are in a good mood, and have been exposed to research on bystander intervention.

▶ **Describe the social and individual difference variables that contribute to human aggression**

- A variety of situational variables, including provocation, frustration, aggressive cues, media influences, arousal, and temperature, increase the likelihood of aggression.
- Men tend to be more physically aggressive than women, although girls are more relationally aggressive than

boys; the Southern "culture of honor" may help to explain why murder rates are higher in the southern United States.

DO YOU KNOW THESE TERMS?

- ❑ **pluralistic ignorance** (p. 13-20)
- ❑ **diffusion of responsibility** (p. 13-21)
- ❑ **social loafing** (p. 13-21)
- ❑ **altruism** (p. 13-23)
- ❑ **enlightenment effect** (p. 13-23)
- ❑ **aggression** (p. 13-24)
- ❑ **relational aggression** (p. 13-25)

ASSESS your knowledge

1. The presence of others makes people (less/more) likely to help someone in need. (p. 13-20)
2. Darley and Latane´ hypothesized the _____ which explains individual nonintervention in certain situations. (p. 13-20)
3. The two major factors in bystander nonintervention are _____ and _____. (p. 13-20)
4. When an individual believes that her perception of a situation is unique among a group of people, that individual could be falling prey to _____. (p. 13-20)
5. As the diffusion of responsibility occurs, each individual begins to feel (more/less) accountable for helping someone in need. (p. 13-21)
6. The phenomenon which shows greater test success after studying alone than studying within a group is known as _____. (p. 13-21)
7. Group brainstorming proves to be less effective than individual brainstorming because of two important factors: _____ and _____. (p. 13-22)
8. Prior exposure to psychological research (can/cannot) change an individual's real-world behavior for the better. (p. 13-23)
9. Aggressive behavior, both at the individual and group levels, is influenced by _____ and _____ factors. (p. 13-24)
10. Three personality traits which can combine to create a high level of aggression-proneness are _____, _____, and _____. (p. 13-25)

Attitudes and Persuasion (pp. 13-26–13-32)

STUDY the Learning Objectives

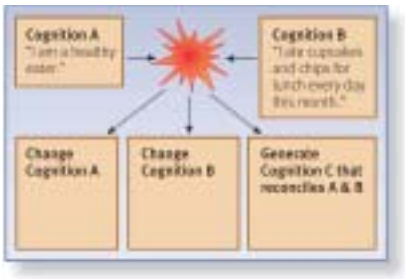
▶ **Describe how attitudes relate to behavior**
- Attitudes aren't typically good predictors of behavior, although attitudes predict behavior relatively well when they're highly accessible.

▶ **Evaluate theoretical accounts of how and when we alter our attitudes**
- According to cognitive dissonance theory, a discrepancy between two beliefs leads to an unpleasant state of tension that we're motivated to reduce. In some cases, we reduce this state by altering our attitudes.

▶ **Identify common and effective persuasion techniques and how they're exploited by pseudoscientists**
- According to dual process models of persuasion, there are two routes to persuasion: a central route that involves careful evaluation of arguments and a peripheral route that relies on superficial cues.
- Effective persuasion techniques include the foot-in-the-door technique, the door-in-the-face technique, and the low-ball technique.

DO YOU KNOW THESE TERMS?

- ❑ **belief** (p. 13-26)
- ❑ **attitude** (p. 13-26)
- ❑ **self-monitoring** (p. 13-27)
- ❑ **cognitive dissonance** (p. 13-29)
- ❑ **self-perception theory** (p. 13-31)
- ❑ **impression management theory** (p. 13-31)
- ❑ **foot-in-the-door technique** (p. 13-31)
- ❑ **door-in-the-face technique** (p. 13-31)
- ❑ **low-ball technique** (p. 13-31)



Using your knowledge of cognitive dissonance, complete the bottom set of boxes with statments geared toward resolving the stated conflict. (p. 13-29)

Match Up the Technique to the Definition

Foot-in-the-door technique	Making an unreasonably large request with the goal of getting someone to agree to a lesser request
Door-in-the-face technique	"Adding on" costs hidden until an agreement to buy item at lower cost is agreed to
Low-ball technique	Making a small request of someone followed by a bigger request (p. 13-31)

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Cognitive Dissonance and Attitude Change

Would a monetary reward change your attitude about a situation for the better or worse? (p. 13-26)

ASSESS your knowledge

1. The major distinction between a belief and an attitude is that an attitude involves an _____ component. (p. 13-26)
2. Attitudes are an (accurate/inaccurate) predictor of behavior. (p. 13-26)
3. LaPiere's research showed that people's stated attitudes (did/did not) accurately predict their situational behavior. (p. 13-27)
4. Someone who is a (low/high) self-monitor is likely to adapt well among many different social situations. (p. 13-27)
5. The _____, which makes us more likely to believe something we've heard many times, generally reflects accurate information. (p. 13-27)
6. An individual's (beliefs/attitudes) are affected by both the message and messenger in any given situation. (p. 13-28)
7. Changing one's attitude(s) as the result of an unpleasant state of tension between two of more conflicting thoughts is called _____. (p. 13-29)
8. Cognitive dissonance can be resolved by reducing the anxiety from cognitive inconsistencies in three ways — _____, _____, or _____. (p. 13-30)
9. Once a friend has agreed to help you select paint colors for your dorm room, asking her to help you actually paint the room is an example of the persuasive technique _____. (p. 13-31)
10. The persuasive technique _____ is often practiced by retail stores when they advertise a limited offer price on an item only to exclude mentioning that there are several separately priced items highly desired or essential to making the item purchase complete until you agree to buy the original item. (p. 13-31)

Prejudice and Discrimination (pp. 13-33–13-39)

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Prejudice

What would you do or say in the presence of a taxi driver's racist rant? (p. 13-33)

What did one school teacher's use of eye color demonstrate about how discrimination occurs? (p. 13-34)

THINK about what You would do . . .

In your psychology class today, anyone wearing jeans is considered more important than those people wearing dress pants. How do you think this scenario will play out and how will you react to your new position as a jeans wearer? (p. 13-34)

List 5 Ideal Conditions for Reducing Prejudice (p. 13-34)

1 _____
2 _____
3 _____
4 _____
5 _____

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Unconscious Stereotyping

Uncover your own unconscious stereotypes about people. (p. 13-34)

ASSESS your knowledge

1. Concluding that all Americans are loud, materialistic, and arrogant without ever having spent time with any is an example of _____. (p. 13-33)
2. The two major biases associated with our tendency to forge alliances with people like ourselves are _____ and _____. (p. 13-33)
3. Our tendency to view all people outside of our group as highly similar is known as (in-group bias/out-group homogeneity). (p. 13-33)
4. Believing—without first hand knowledge—that teens with nose piercings who frequent the local mall are troublemakers is a form of _____, and refusing to serve them in your mall restaurant is a form of _____. (p. 13-33)
5. A belief that all cheerleaders are ditzy, flirty, and interested only in dating is a _____. (p. 13-34)
6. The Implicit Association Test (IAT) is a technique to measure _____. (p. 13-35)
7. An individual's position that our behaviors and attributions are based on an assumption that all things happen for a reason supports the _____ hypothesis. (p. 13-37)
8. Sherif's Robbers Cave study, which initially separated two groups of competing 5th graders, used activities requiring _____ across groups to overcome developed prejudices. (p. 13-38)
9. In Aronson's _____, students are assigned separate tasks that will need to be fitted back together with other students' work to complete the project. (p. 13-38)
10. One condition for reducing prejudice is to (encourage/discourage) group members (from/into) being friends. (p. 13-39)

STUDY the Learning Objectives

▶ **Distinguish prejudice and stereotypes as beliefs from discrimination as a behavior**
- Prejudice is coming to a conclusion before we've evaluated all the evidence. Prejudice is accompanied by several other biases, including in-group bias and out-group homogeneity.
- Discrimination is the act of treating out-group members differently from in-group members.
- Stereotypes are beliefs about a group's characteristics that we apply to most members of that group. They can be either positive or negative.

▶ **Identify theoretical explanations of the causes of prejudice**
- There's evidence for various social explanations of prejudice, including scapegoating, belief in a just world, and conformity.

▶ **Identify ways to combat prejudice**
- Prejudice can be overcome. One of the most effective means of combating prejudice is to make members of different groups work together toward achieving shared overarching goals.

DO YOU KNOW THESE TERMS?

- ❑ **prejudice** (p. 13-33)
- ❑ **adaptive conservatism** (p. 13-33)
- ❑ **in-group bias** (p. 13-33)
- ❑ **out-group homogeneity** (p. 13-33)
- ❑ **discrimination** (p. 13-33)
- ❑ **stereotype** (p. 13-34)
- ❑ **implicit and explicit stereotypes** (p. 13-35)
- ❑ **ultimate attribution error** (p. 13-37)
- ❑ **scapegoat hypothesis** (p. 13-37)
- ❑ **just-world hypothesis** (p. 13-37)
- ❑ **jigsaw classrooms** (p. 13-38)

Remember these questions from the beginning of the chapter? Think Again and ask yourself if you would answer them differently based on what you now know about social psychology. (For more detailed explanations, see MyPsychLab.)

- ▶ How good are we at judging the causes of others' behavior? (p. 13-4)
- ▶ What causes mass hysteria over rumors about things like Martian landings? (p. 13-6)
- ▶ Were the Nazis particularly evil, or would we have done the same thing in their boots? (p. 13-7)
- ▶ How do cults persuade people to become fanatics? (p. 13-13)
- ▶ How can a woman be stabbed to death in plain view of many people without anyone coming to her aid? (p. 13-20)
- ▶ Does how we act reflect what we believe, or is it the other way around? (p. 13-26)
- ▶ What's the best way to persuade others to do something for us? (p. 13-31)
- ▶ Are stereotypes always a bad thing? (p. 13-34)

THINKING Scientifically

Correlation vs. Causation pp. 13-22, 27

Falsifiability pp. 13-30. 36

Extraordinary Claims p. 13-6

Occam's Rules p. 13-6

Replicability pp. 13-11, 17, 18, 21, 24, 25

Ruling Out Rival Hypotheses pp. 13-2, 8, 9, 10, 17, 25, 28, 29, 34, 37